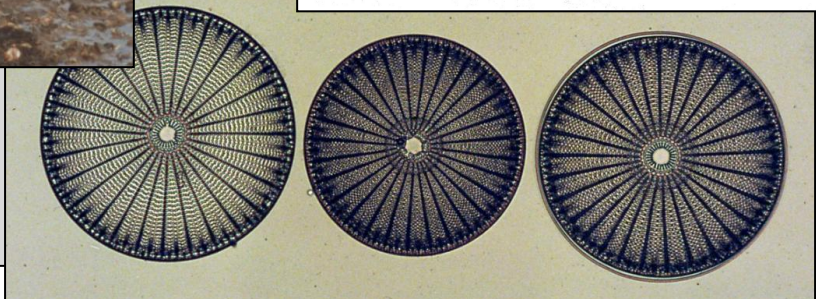
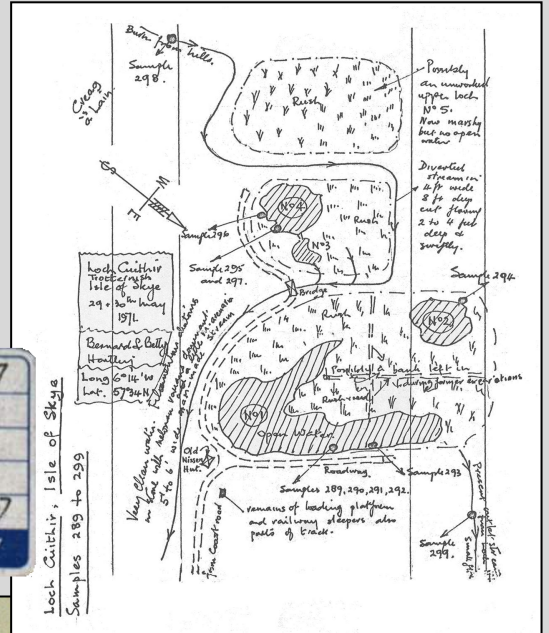


The Bernard Hartley Sample and Strewn Slide Collection Index



9th Sept., 1987
2440
(Hyrax)
December, 1987
B. HARTLEY



Bernard Hartley

Transcribed and Collated by Steve Gill

Introduction

The following document details the sample and strewn slide collection of the late Bernard Hartley.

This listing has been transcribed from a typescript copy of the A4 original.

The listing is not only important in enumerating an important collection of material and slides but is also rich in fine detail relating to those samples, often describing exact locations, collectors, cleaners and occasionally featuring extra maps and extracts pertaining to the samples.

I have also included R.I. Firth's index card (7.5cm x 5cm) from his sample record where this matches B. Hartley's entry. These index cards sometimes provide further information relating to the sample and always include Firth's own index reference/s.

It is obvious from this listing (and R.I. Firth's index) that samples were widely shared amongst the diatomists of the day, with rare samples from important collections being amongst these. This co-operation was truly altruistic and was done to further the study and not for any personal aggrandisement.

For those with slides of these samples the index is particularly useful in that more information is present per entry than can conveniently be put onto a slide label.

What became clear fairly early on in my study of the slides, samples and indexes was that though there were many thousands of references these were oft times duplicated between the various diatomists and could be condensed into a manageable listing. For this reason I chose the largest index (about 3,000 samples) I had at my disposal – Bernard Hartley's – into which I incorporated the duplicates referenced elsewhere in my collection of sample/slide indexes. It should also be borne in mind that the indexes, slides and samples have suffered transcription errors as the samples passed from collector to collector. Thus, a number of different, sometimes obscure, spellings of placenames are encountered. [All other mis-spellings are probably mine – for which I apologise in advance.]

Though many samples and slides found their way to the British Museum much material, or at least portions thereof, became incorporated into other 'private' collections and this material has been passed down to serious diatomists generation by generation. The quantities involved get successively smaller as samples are split.

This listing should also prove a useful addition to 'An Atlas of British Diatoms' arranged by B. Hartley based on illustrations by H.G. Barber and J.R. Carter, edited by P.A. Sims. One of the criticisms of the Atlas is that it contains no written descriptions and no sample locations. Whilst the former is beyond the scope of this listing the latter, to some small degree, can be addressed. Where a specie name is recorded in the listing and that identity attributed to a British (or Eire) locality the Atlas Plate No. is recorded (multiple plate numbers refer to each of the specie entries [if found]).

The listing should also prove useful to those setting out to collect material as the various descriptions of source material (e.g. 'brown bubbling scum' and 'Brown and white gelatinous film on wet shale laminated face') will assist in identifying what to collect that will have some potential.

I have also included some of Bernard's micrographs and location slides.

Klaus-Dieter Kemp has most of the sample material and where this is the case he can prepare a strew slide for interested parties for a standard fee (please contact him to ascertain costs, postage etc.). I have included his references where the sample has been incorporated into his own collection plus other references for the same location, but please note that the original B. Hartley reference should be used when contacting Klaus.

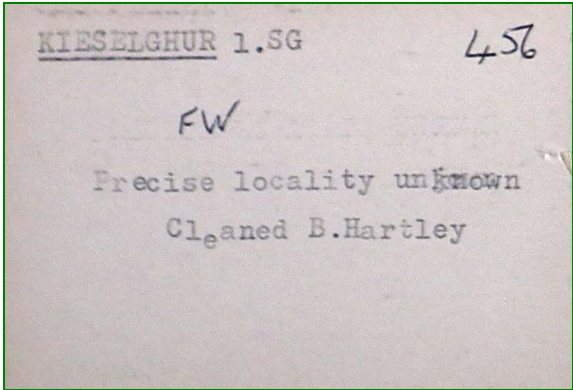
Steve Gill

June 2014

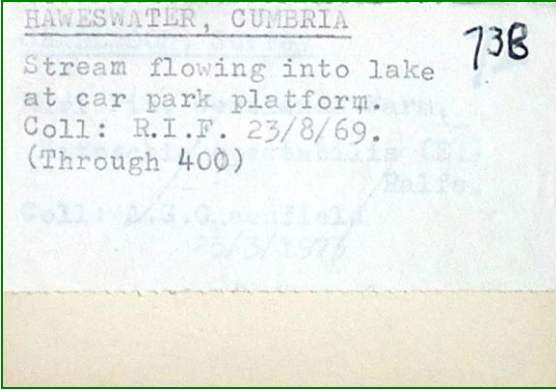
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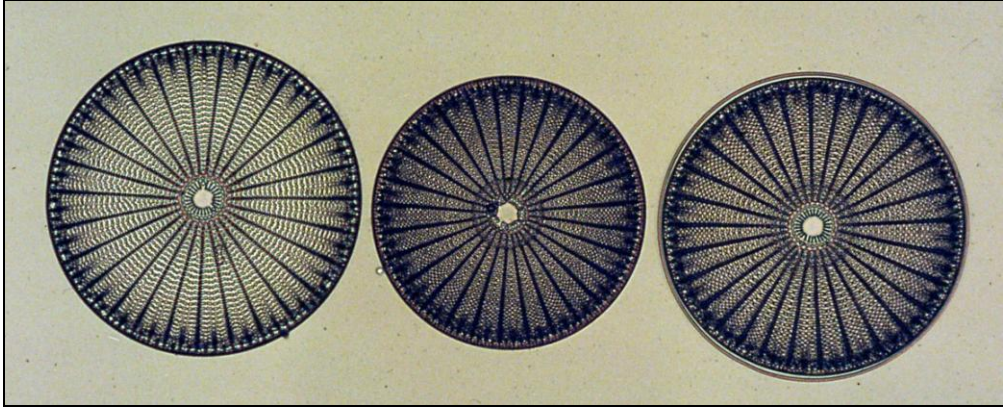
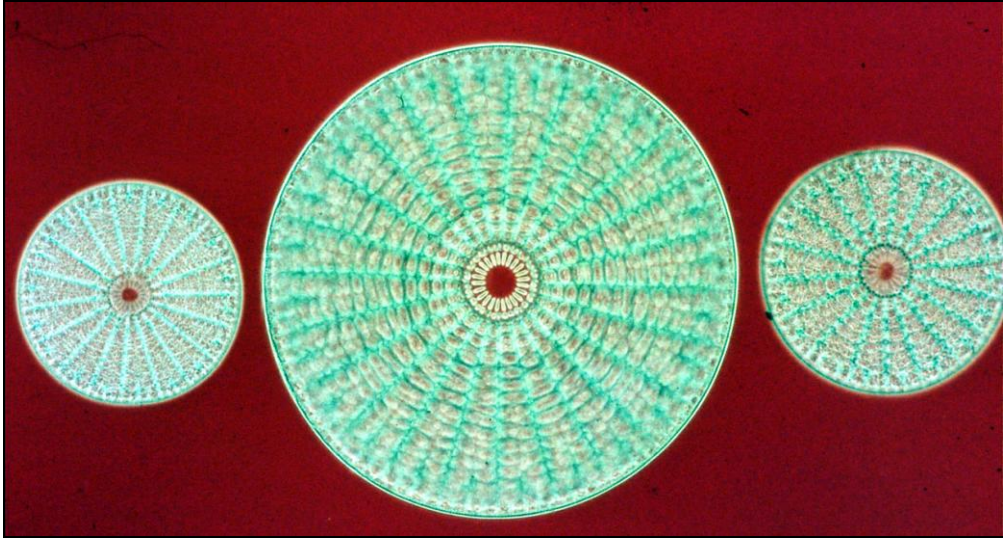
Entry No.	Particulars
1	Jackson's North End, Oamaru, New Zealand. Early Tertiary. Samples cleaned by B. Hartley and R.I. Firth combined. Good specimens on 50 and 100 mesh
2	Palos Verdes, California, United States of America Sokol sample No. 3. Sample No. 2 cleaned by R.I. Firth 30/?/69. Sample No. 1 cleaned by B. Hartley, April, 1969. [Klaus-Dieter Kemp reference: 059G – SOKOL B Cleaned 15 December 41 - Palos Verde, California United States of America]
3	Forrester's Hill (11—12ft.), Oamaru, New Zealand. Collected by L.D. Coombes A.R.I.B.A., of Dunedin who died about 1959. Marked 'This has proved to be good 29/?/47. Cleaned by B. Hartley. 18 th April 1969.
4	Forrester's Hill, Oamaru, New Zealand (60 feet east of main outcrop) Said to be good. Cleaned by B.Hartley April 1969. Sample 4a caustic by R.I. Firth. May 1969.
5	Dunkirk, Maryland, United States of America Two miles south on bank of River Patuxent. Ex. Col. W.D. Fleming, Edgewood Arsenal, Maryland. R.I. Firth says 'Gold and diamonds' Cleaned B.Hartley. 18 th April, 1969. [Klaus-Dieter Kemp reference: 326B - Dunkirk, Patuxent Maryland U.S.A. - <i>Actinoptychus heliopeneta</i>]
6	Oamaru, New Zealand. Received April 1960. 'Good' Locality unknown.
7	Bain's Lower, Oamaru, New Zealand. Ex L.D. Coombes. April, 1969 from R.I. Firth Slide No. 7A of similar material held by William Marshall of Clitheroe. [Klaus-Dieter Kemp reference: 778B - L.D.Coombes - Bains Lower, Oamaru N.Z. - Coarse]
8	Allan's Farm (?Allen's), Oamaru, New Zealand 'Left bottom' Collected 24 th April 1936 by L.D. Coombes A.R.I.B.A.
9	Papakaio, Oamaru, New Zealand Opposite main outcrop. Generally specimens from this locality are larger than those from Bains material. (See also samples 10 and 45) April 1969.
10	Papakaio, Oamaru, New Zealand 'Top'. Reed. April 1969. [Klaus-Dieter Kemp reference: 784 B - Cleaned K.D.Kemp - Upper Papakaio, New Zealand [Klaus-Dieter Kemp reference: 439 B - Cleaned K.D.Kemp - Upper Papakaio, New Zealand (F.M)]
11	Moreno shale, California, United States of America Cretaceous. Ex J. Smith Received April 1969. [Klaus-Dieter Kemp reference: 945B - J.Smith - Moreno Shale No4, California U.S.A.]
12	Moreno diatomite from Bottom Gulch 'S.W.¼ to N.E¼' San Joaquin Valley, California, United States of America
13	Santa Monica, California, United States of America Very similar to Palos Verdes See also sample No. 27. [Klaus-Dieter Kemp reference: 677B - Santa Monica, California U.S.A. - F.M] [Klaus-Dieter Kemp reference: 285B - Santa Monica, California U.S.A. - <i>Coscinodiscus</i> , <i>Actinoptychus</i> , <i>Triceratium</i> , <i>Gephyria</i> .] [Klaus-Dieter Kemp reference: 073B - Santa Monica, California U.S.A. F.M] [Klaus-Dieter Kemp reference: 221B - Santa Monica, California U.S.A. F.M]
14	Richmond, Virginia, United States of America 25 feet from top of Schokoe hill. Collected by C.S. Peticolas 1876 October. Cleaned B.Hartley 22 nd August 1969.
15	Simbirsk, U.S.S.R. a) Cleaned by R.I.Firth 24 th February 1969 b) Cleaned by R.I.Firth 24 th February 1969 but received later by B.Hartley c) Cleaned by R.I.Firth 24 th February 1969 March 1970. [Klaus-Dieter Kemp reference: 363R - R.I. Firth - Simbirsk, Russia]
16	Division Hill, Oamaru, New Zealand Small quantity of 'Top', 'Middle' and 'Bottom' combined. From L. Catalani. [Klaus-Dieter Kemp reference: 756B - Division Hill, Oamaru (Bottom Deposit N.Z.) [Klaus-Dieter Kemp reference: 757B - Division Hill, Oamaru N.Z.] [Klaus-Dieter Kemp reference: 758B - Division Hill, Oamaru N.Z. - Good]

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Entry No.	Particulars
17	Oamaru, New Zealand from L. Catalani. Small sample mixed from Table Top, Mavor's, Taylor's Lime works and Cormack's sidings.
18	New Ferry, Co. Antrim, Northern Ireland. Recent fossil F/W. Reed. from R.I.Firth 18 th August 1969, already broken down. Difficult to clean out contents of all <i>Pinnularias</i> etc. See also sample No. 40.
19	New Ferry, Co. Antrim, N. Ireland. F/W diatoms collected June 1965. Received from R.I.Firth as diatomaceous earth.
20	Toomebridge, Co. Londonderry, N.Ireland. F.W. fossil material collected in 1965 by R.I.Firth Difficult in cleaning contents.
21	Hakodate, Japan. (Also spelt Hakadate) Labelled ' Gregory, Bottley & Co., Geologist, Old Church Street, Chelsea SW3' Sample 21 cleaned in acid by B.Hartley, and in Caustic by R.I.Firth Sample 21a all cleaning processes by B.Hartley
22	Akita, Japan
23 (B)	Isle of Lewis. 18 th August 1969.
24	Auckland Province, New Zealand. 18 th August 1969 (Sample No. 1) See also No. 34
25	Auckland Province, New Zealand. 18 th August 1969 (Sample No. 2)
26	"Kieselguhr" diatomite from Diatomite Co. Ltd. Of Gore Street, Manchester. 26a --- No. 1. SG 26b --- No. 3. SG (B) 26c --- New Kentmere
27	Santa Monica, California, United States of America Cleaned by B. Hartley. See also No. 13. Similar to Palos Verdes
28	Palos Verdes, California, United States of America "Sample S.E." See also No. 46
29	Klamath Falls, Oregon, United States of America Sample 1.
30	Klamath Falls, Oregon, United States of America Sample 2. (missing)
31	Kieselguhr "No. 1. SG" --- as No. 26a. Cleaned 29 th March 1970. Looks very much like Toomebridge or other Bann Valley material. Ex. Sydney Chaffers with R. I. Firth 
32	Kieselguhr "No. 3sg" --- as No. 26b. Cleaned 29 th March 1970 Ex. Sydney Chaffers with R. I. Firth
33	Kieselguhr "New Kentmere" as No. 26c. Cleaned 29 th March 1970 Ex. Sydney Chaffers with R. I. Firth

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Entry No.	Particulars
34	Gordon Road deposit, Auckland, New Zealand. Collected by D. Jamieson on 10 th January 1967 or 6 th February 1967 and passed via Frank Hobbs, Dick Gosden and R.I. Firth to B. Hartley in September 1969. (See also samples 24 and 25) (See QMJ. Vol.31 p.271 and Vol.32. pp.24, 82 and 141.)
35	Small beck entering head of Haweswater (?) National Grid Reference NY-470-120 <i>Didymosphenia geminata</i> and other F/W species. Received 23 rd August 1969  <i>R.I. Firth index card</i> [Atlas Plate No.76]
37	Cardingmill Valley, Long Mynd, Church Stretton, Shropshire 27 th October 1969. Brown film scraped from stones in stream.
38	Benzean Burn, one mile down from Spittel of Shee. Collected by Geo. West about 1915 and cleaned by B. Hartley 31 st October 1969
39	Crosemere, Shropshire. National Grid Reference SJ-425-305. Collected 4 th August 1969 F/W scrapings from buoy.
40	New Ferry, County Antrim, Northern Ireland (Originally sample 18) Cleaned in acids by B.Hartley, in caustic by R.I. Firth in August 1969
41	Jewel, Maryland, United States of America Light with a little sand. Cleaned by R.I. Firth in 1947
42	Duxbury's Reef, Bolinas Bay, California, United States of America Cleaned R.I. Firth 1950. [Klaus-Dieter Kemp reference: 215R – B. Hartley 42 – Bolinas Bay, Duxbury Reef, Cal. United States of America – <i>Odontella edwardsii</i>] [Klaus-Dieter Kemp reference: 067G - B. Hartley 42 - Bolinas Bay, Duxbury Reef California U.S.A. - <i>Isthmia nervosa</i>]
43	Cherryfield, Maine, United States of America per R.I. Firth 43a --- 'heavy' --- Settled in 5 mins 43b --- 'Medium' --- Settled in 5-15 mins 43c --- 'Light' --- Settled in 15-30 mins See also sample 128
44	<i>Coscinodiscus</i> --- pure. Probably from California, United States of America Cleaned by R.I. Firth
45	Papakaio, Oamaru, New Zealand. Cleaned by R.I. Firth, April/May 1969. See also samples 9 and 10
46	Palos Verdes, California, United States of America "Ex. WAS – 'C'" Cleaned R.I. Firth 27 th March 1969. See also sample 28

Entry No.	Particulars
47	<p><i>Arachnoidiscus ehrenbergii</i> --- pure. Cleaned R.I. Firth from Puget Sound.</p>  <p style="text-align: center;"><i>Arachnoidiscus ehrenbergii</i></p> <p>[Klaus-Dieter Kemp reference: 210R - J.F.B - Puget Sound - <i>Arachnoidiscus ehrenbergii</i>]</p>
48	<p><i>Arachnoidiscus ornatus (japonicas)</i> --- pure, 'large' from California, United States of America Cleaned by R.I. Firth</p>  <p style="text-align: center;"><i>Arachnoidiscus ornatus</i></p>
49	<p><i>Arachnoidiscus ornatus (japonicas)</i> --- pure, 'medium' from California, United States of America Also cleaned by R.I. Firth</p>



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Entry No.	Particulars
50	<p>Cape Agulhas, South Africa. Collected and cleaned by E.J. Steer in 1937. He later returned to Capetown. Cleaning finished by B. Hartley</p> <div> <p>AGULHAS, Cape South Africa Recent Marine Ex E.J. Steer 100-</p> <p style="text-align: right;">17 100+ → 283 286-7 → 289</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div> <p>953 Cape Agulhas S.A. (Ex R.I. Firth). Good variety diatoms include <i>Arachnoidiscus</i> (Washed 40-400)</p> <p>Poor</p> </div> <p style="text-align: center;"><i>L.N. Bramley (Cleaned Diatoms) Book 2</i></p> <p>[Klaus-Dieter Kemp reference: 874R - R.I. Firth 761 - Cape Argulas, S.Africa - <i>Climacosphenia</i>, <i>Arachnoidiscus</i>, <i>Biddulphia</i>] [Klaus-Dieter Kemp reference: 016G - R.I. Firth 287 - Cape L'Agulhas, Coll. E.J. Steer South Africa - <i>Arachnoidiscus</i>, <i>Climacosphenia</i>]</p>
51	<p>Howroyd Clough, Inchfield Moor, near Todmorden. Above Gorpely Reservoir. National Grid Reference SD-905-228. This sample received from R.I. Firth on 11th January 1970, and 51b 'heavy' on 16th January 1970. See also samples 59, 60, 112 to 117</p>
52	<p>Baja, California, United States of America. 16 miles West of San Felipe. California Academy of Science loc. No. 399904 (see also sample 928)</p>
53	<p>Port Dickson, Malaya 53/1a & b 'Sample No. 1' – Seaweed and sponge 53/2a & b 'Sample No. 2' – Seaweed and sponge 53/3a & b 'Sample No. 3' – Seaweed and sponge See also samples No. 475, 522, 523 and 524</p>
54	<p>Pevensy Sluice, Sussex Collected by R.I. Firth on 7th April 1947. Contains <i>Pleurosigma angulatum</i>. See also sample F25 [Atlas Plate No.245]</p>
55	<p>Easthope, near Wenlock Edge, Shropshire. National Grid Reference SO-570-960 Collected 24th January 1970. Thin brown slime on broken drain pipe in bed of fast flowing shallow stream</p>

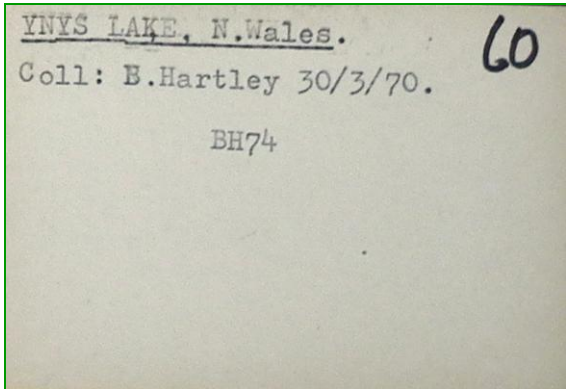
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Entry No.	Particulars																																						
56 (B)	<p>Burton Mill Pond, West Sussex. Scrapings from concrete weir, collected by R.I Firth 18th February 1970</p> <div style="border: 1px solid black; padding: 5px;"> <p>BURTON POND, W.SUSSEX (1</p> <table border="0"> <tr><td>Coll: 30/3/56</td><td>432-3</td></tr> <tr><td>11/8/76</td><td>91</td></tr> <tr><td>21/6/72 (Overflow)</td><td>163</td></tr> <tr><td>27/3/55</td><td>621-2</td></tr> <tr><td>18/2/70</td><td>623</td></tr> <tr><td>1/4/70</td><td>624</td></tr> <tr><td>19/2/71</td><td>625</td></tr> <tr><td>(Others in mahogany cabinet)</td><td>658</td></tr> <tr><td></td><td>660</td></tr> <tr><td>26/2/81</td><td>722-3</td></tr> </table> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid black; padding: 5px;"> <p>BURTON POND, SUSSEX (Ctd.) (3</p> <table border="0"> <tr><td>Coll: 1/4/70</td><td>734/13</td></tr> <tr><td>-do-</td><td>14</td></tr> <tr><td>21/11/70 Spillway base (iron)</td><td>15</td></tr> <tr><td>1/4/70</td><td>16</td></tr> <tr><td>-do-</td><td>17</td></tr> <tr><td>21/11/70 Spillway</td><td>18</td></tr> <tr><td>-do- -do-</td><td>19</td></tr> <tr><td>19/2/71</td><td>20</td></tr> <tr><td>19/2/71</td><td>21</td></tr> </table> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 081G – B. Hartley 56 – Burton Pond, West Sussex]</p>	Coll: 30/3/56	432-3	11/8/76	91	21/6/72 (Overflow)	163	27/3/55	621-2	18/2/70	623	1/4/70	624	19/2/71	625	(Others in mahogany cabinet)	658		660	26/2/81	722-3	Coll: 1/4/70	734/13	-do-	14	21/11/70 Spillway base (iron)	15	1/4/70	16	-do-	17	21/11/70 Spillway	18	-do- -do-	19	19/2/71	20	19/2/71	21
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57	<p>Top of core from Loch Cam. Cleaned by A.G. Greenfield for J.R.Carter. Slide by A.G. Greenfield in 1974</p>																																						
58	<p>Phytoplankton from Lowestoft Marine Biological Association Laboratory Received from Luigi Pastori in May 1975. <i>Thalassiosira hyalina</i> (Grun.) Gran. [Atlas Plate No.285]</p>																																						

Entry No.	Particulars
59	<p>Howroyd Clough. National Grid Reference SD-905-228. Near Todmorden. Collected 28th February 1970. Wet rocks on south side of feeder stream (20 yards below waterfall, and upstream of Gorpley reservoir) on Infield Moor on the Lancashire/Yorkshire Pennine borderland. Brown and white gelatinous film on wet shale laminated face. Water pH 7.4 (See also samples 51, 60, 112, 113 and 114)</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>TODMORDEN, HOWROYD CLOUGH 431 Collected B.Hartley 5/4/70 Samples 112 & 113 BH59 See JQMc Nov. 1971 Page 108 Gorpley Reservoir Caretaker's house (Spring near) 415-416 Other samples in mahogany cabinet</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>HOWROYD CLOUGH, TODMORDEN 431 Collected B.Hartley 5/4/70 Samples 112 & 113. BH59 See JQMC Nov. 1971 Page 108. Remainder of samples in mahogany cabinet (Gorpley Reservoir Caretaker's House 415 & 416)</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 101R – B. Hartley 59 – Howroyd Clough - >600] [Klaus-Dieter Kemp reference: 102R – B. Hartley 59 – Howroyd Clough - <600]</p>
60	<p>Howroyd Clough As sample 59 but squeezing from moss, <i>Cratoneuron cummutatum</i> (originally thought to be <i>Brachythesium</i>) which was dripping wet on the rock face. Collected 28th February 1970. Traces of iron and manganese noted later. [Klaus-Dieter Kemp reference: 118R – B. Hartley 60 – Howroyd Clough, Yorks]</p>
61	<p>Small tributary of Afon Artro on south bank, 1½ miles East of Llanbedr at Pen y Bont. Brown film scraped from flat stone just damp with thin flow of water. National Grid Reference SH-607-280.</p>
62	<p>Small tributary of Afon Artro on south bank, 1½ miles East of Llanbedr at Pen y Bont, as sample 61, but squeeze from moss and filamentous algae in faster flowing small waterfall of the same rivulet, 22nd March 1970</p>
63	<p>Ynys Lake, near Harlech, Merioneth, Wales. National Grid Reference SH-601-354. On land side of sea bank near where swans nest. Brackish. 23rd March 1970. Possibly label wrongly changed with sample 69.</p>
64	<p>Ynys Lake, as 63, also 23rd March 1970 Filamentous dark green and brown algae hanging in masses attached to decayed reed stems in the outlet dyke. <i>Tabellaria, Navicula, Synedra, etc.</i></p>
65	<p>Pensarn Harbour, near Llanbedr, Merioneth. National Grid Reference SH-578-279. Brown film and mud scraped from tyre embedded in the mud at the bed of the main river stream in the harbour. 25/?/1970. <i>Pleurosigma angulatum etc.</i> [Atlas Plate No.245]</p>

Entry No.	Particulars
66	<p>Afon Artro near Coed Crafnant. 26th March 1970. National Grid Reference SH-617-289. Leathery brown covering to stones in mid-stream flow.</p>
67	<p>Shepherds Crook Bridge over tributary to right bank of Afon Artro, on way to Roman steps. National Grid Reference SH-630-313. Filamentous coarse algae on stones in swift flow of stream. 26th March 1970</p>  <p style="text-align: center;"><i>Bridge over Afon Artro</i></p>
68	<p>Shepherds Crook Bridge over tributary to right bank of Afon Artro, on way to Roman steps. (as 67) Soft bright green algal film on largish stones in splash zone just above stream surface. 26th March 1970</p>
69	<p>'Bathing Pool' at confluence of Afon Artro on the way to Roman steps. National Grid Reference SH-63-313. Brown film or slightly filamentous film on all the stones submerged in the fast flowing stream. 26th March 1970.</p>  <p style="text-align: center;"><i>Pool nr. Dolwreddiog Afon Artro</i></p>

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Entry No.	Particulars
70	Llyn Cwm Bychan, above Llanbedr, Merioneth. National Grid Reference 23/641-314. Brown filamentous algae and slime from submerged stones. 26 th March 1970. After H ₂ SO ₄ , Iron Oxide formed which was later removed in HCl.
71	Landanwg Beach, Merioneth. 29 th March 1970. National Grid Reference SH-568-288. Various thin green and brown ribbon-like marine algae and a little coarse red-brown algae from beach opposite 'Red Ridge', between High & Low water mark.
72	Landanwg Beach, Merioneth. National Grid Reference SH-568-288. 29 th March 1970. (as 71) but on bladder-wrack from beach opposite 'Red Ridge' 29 th March 1970. Boiled in water for 15 mins.
73	Stream near Talsarnau/Ynys. West of A496 near 'Glyn Cymarch', the home of Lord Harlech. 30 th March 1970. Brown growth on upper face of corrugated iron sheet submerged 2 to 3 inches in river bed (Swiftly flowing).
74	Ynys Lake, 'Ty gwyn'. 30 th March 1970. Red brown filamentous floating blanket (bubbling) blown to the N.W. margin of this brackish lake. See also samples 63, 64, 248 and 262.
	 <p><i>R.I. Firth index card</i></p>
75	Spring at side of stream entering Afon Elan, below Pont an Elan upstream of Graig-yr-Allt reservoir, Radnorshire. 6 inch diameter jelly like mass of pure bright green algae. 26 th April 1970
76	Spring at side of stream entering Afon Elan, below Pont an Elan upstream of Graig-yr-Allt reservoir, Radnorshire. (as 75) but dark filamentous algae clinging in masses to decayed rush stems in tributary stream flowing from moorland. 26 th April 1970
77	Location on the same moor as 76, but squeezing from sphagnum in boggy land adjoining Afron Elan, near bridge below Pont an Elan. 26 th April 1970
78	Afon Ystwyth near bridge at head of Blaen-y-Cwm. 26 th April 1970. Green filamentous algae from boulders in fast flowing stream.
79	Wet rock face at roadside near dam at Graig-yr-Allt-goch reservoir. 26 th April 1970. Brown film from wet rockface.
80	River Stour, above Halesowen, West Midlands. Station No. 1. Collected by B. Hussey 24 th April 1970
81	River Stour, Station No. 3. Collected by B. Hussey 24 th April 1970
82	River Stour, Station No. 4. Collected by B. Hussey 24 th April 1970
83	Stream falling towards Rayader, alongside mountain road to Aberystwyth. Squeeze from sphagnum moss. 26 th April 1970

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Entry No.	Particulars
84	<p>Flume Gulley, Oamaru, New Zealand Doig's PP3 Top (Pale yellow brown, camel colour) All ten (84-93) of these samples were collected from Flume Gulley, Papakaio, near Oamaru, New Zealand by Mr. Arthur J. Doig of 59 Sligo Terrace, Dunedin, New Zealand They were passed to Frank Hobbs and then via R.I. Firth to B. Hartley or cleaning. Classification according to paper published in J.Q.M.C. Vol.30 pp.289-295 (detailing strata levels). All reacted to HCl and sample 87 reacted violently. All produced a bright yellow fluid.</p>
85	<p>Flume Gulley, Oamaru, New Zealand Doig's PP3 Bottom (Pale yellow brown, camel colour) All ten (84-93) of these samples were collected from Flume Gulley, Papakaio, near Oamaru, New Zealand by Mr. Arthur J. Doig of 59 Sligo Terrace, Dunedin, New Zealand They were passed to Frank Hobbs and then via R.I. Firth to B. Hartley or cleaning. Classification according to paper published in J.Q.M.C. Vol.30 pp.289-295 (detailing strata levels). All reacted to HCl and sample 87 reacted violently. All produced a bright yellow fluid.</p>
86	<p>Flume Gulley, Oamaru, New Zealand Doig's PP6 Top (Bright brown towards dull orange colour) All ten (84-93) of these samples were collected from Flume Gulley, Papakaio, near Oamaru, New Zealand by Mr. Arthur J. Doig of 59 Sligo Terrace, Dunedin, New Zealand They were passed to Frank Hobbs and then via R.I. Firth to B. Hartley or cleaning. Classification according to paper published in J.Q.M.C. Vol.30 pp.289-295 (detailing strata levels). All reacted to HCl and sample 87 reacted violently. All produced a bright yellow fluid.</p>
87	<p>Flume Gulley, Oamaru, New Zealand Doig's PP6 Bottom All ten (84-93) of these samples were collected from Flume Gulley, Papakaio, near Oamaru, New Zealand by Mr. Arthur J. Doig of 59 Sligo Terrace, Dunedin, New Zealand They were passed to Frank Hobbs and then via R.I. Firth to B. Hartley or cleaning. Classification according to paper published in J.Q.M.C. Vol.30 pp.289-295 (detailing strata levels). All reacted to HCl and sample 87 reacted violently. All produced a bright yellow fluid.</p>
88	<p>Flume Gulley, Oamaru, New Zealand Doig's PP8 All ten (84-93) of these samples were collected from Flume Gulley, Papakaio, near Oamaru, New Zealand by Mr. Arthur J. Doig of 59 Sligo Terrace, Dunedin, New Zealand They were passed to Frank Hobbs and then via R.I. Firth to B. Hartley or cleaning. Classification according to paper published in J.Q.M.C. Vol.30 pp.289-295 (detailing strata levels). All reacted to HCl and sample 87 reacted violently. All produced a bright yellow fluid.</p>
89	<p>Flume Gulley, Oamaru, New Zealand Doig's PP10 All ten (84-93) of these samples were collected from Flume Gulley, Papakaio, near Oamaru, New Zealand by Mr. Arthur J. Doig of 59 Sligo Terrace, Dunedin, New Zealand They were passed to Frank Hobbs and then via R.I. Firth to B. Hartley or cleaning. Classification according to paper published in J.Q.M.C. Vol.30 pp.289-295 (detailing strata levels). All reacted to HCl and sample 87 reacted violently. All produced a bright yellow fluid.</p>
90	<p>Flume Gulley, Oamaru, New Zealand Doig's PP12N All ten (84-93) of these samples were collected from Flume Gulley, Papakaio, near Oamaru, New Zealand by Mr. Arthur J. Doig of 59 Sligo Terrace, Dunedin, New Zealand They were passed to Frank Hobbs and then via R.I. Firth to B. Hartley or cleaning. Classification according to paper published in J.Q.M.C. Vol.30 pp.289-295 (detailing strata levels). All reacted to HCl and sample 87 reacted violently. All produced a bright yellow fluid.</p>

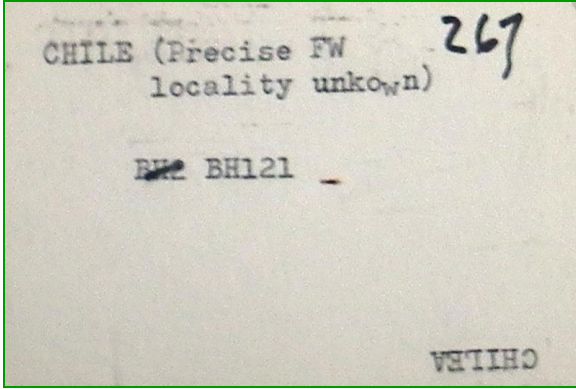
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Entry No.	Particulars
91	Flume Gulley, Oamaru, New Zealand Doig's PP12S All ten (84-93) of these samples were collected from Flume Gulley, Papakaio, near Oamaru, New Zealand by Mr. Arthur J. Dog of 59 Sligo Terrace, Dunedin, New Zealand They were passed to Frank Hobbs and then via R.I. Firth to B. Hartley or cleaning. Classification according to paper published in J.Q.M.C. Vol.30 pp.289-295 (detailing strata levels). All reacted to HCl and sample 87 reacted violently. All produced a bright yellow fluid.
92	Flume Gulley, Oamaru, New Zealand Doig's PP15S All ten (84-93) of these samples were collected from Flume Gulley, Papakaio, near Oamaru, New Zealand by Mr. Arthur J. Doig of 59 Sligo Terrace, Dunedin, New Zealand They were passed to Frank Hobbs and then via R.I. Firth to B. Hartley or cleaning. Classification according to paper published in J.Q.M.C. Vol.30 pp.289-295 (detailing strata levels). All reacted to HCl and sample 87 reacted violently. All produced a bright yellow fluid.
93	Flume Gulley, Oamaru, New Zealand Doig's PP17S All ten (84-93) of these samples were collected from Flume Gulley, Papakaio, near Oamaru, New Zealand by Mr. Arthur J. Doig of 59 Sligo Terrace, Dunedin, New Zealand They were passed to Frank Hobbs and then via R.I. Firth to B. Hartley or cleaning. Classification according to paper published in J.Q.M.C. Vol.30 pp.289-295 (detailing strata levels). All reacted to HCl and sample 87 reacted violently. All produced a bright yellow fluid.
94	Centre of Bournemouth. Algae and weed in bed of river in gardens near pavilion. 3 rd May 1970. National Grid Reference SZ-085-910. Very few diatoms, not retained.
95	Centre of Bournemouth. Squeezing from filamentous algae on river bed and surface. Collected 3 rd May 1970. Sample not retained. A few <i>Cymbella</i> , <i>Pinnularia</i> only.
96	Little Norton Mill pond at Norton-sub-Hamden below Ham Hill, Somerset. National Grid Reference ST-460-560. Brown scum and algae. 4 th May 1970.
97	Little Norton Mill pond at Norton-sub-Hamden below Ham Hill, Somerset. National Grid Reference ST-460-560. (as 96) but squeezing from mass of floating green and brown algae. 4 th May 1970
98	Martins Bay, Barbados. May 1970. Grey black gritty mud or sediment with some white particles. Reacts strongly to HCl and at his stage smells of sulphur.
99	North Martins Bay, Barbados. May 1970. Cream coloured 1½ ins. size light 'Diatomaceous' rock, similar in appearance to Oamaru material. Reacts to HCl very strongly.
100	Joe's River, (Forest), Barbados. Colour as 99, but ¼ in. down grains. Strong reaction to HCl.
101	Joe's River, (Bed), Barbados. Coarse sepa coloured sand 1/32 ins. size. After H ₂ SO ₄ on diluting with H ₂ O a pink liquid formed. Later an orange brown precipitate was deposite but this dissolved on further dilution with H ₂ O.
102	Cattle Wash, Barbados. May 1970. Fine Light prawn powder and one soft rounded pebble. May 1970
103	Belle Plains (River Bed), Barbados. Fine to coarse Grey-brown sand with some cohesive material. May 1970. No reaction to HCl. Note: the above Barbados samples were collected by Dr. Thomas Llewelyn Davies, Queen Elizabeth Hospital, Barbados, in May 1970 and forwarded to B. Hartley.
104	Wordsley Brook, Dudley, Worcestershire. National Grid Reference SO-900-871 8 th May 1970 South of Bryce Road, Brierley Hill. Brown gelatinous film on bricks and stones.

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Entry No.	Particulars
105	River Wye, Ashford on the Water, Derbyshire. National Grid Reference SK-200-700 9 th May 1970 Squeezings from coarse algae on riverside wall and on bed of backwater.
106a	Phytoplankton from the North Sea. Per Lowestoft Marine Laboratory via Luigi Pastori. <i>Rhizosolenia</i> , <i>Chaetoceros</i> , <i>Biddulphia</i> , etc. This sample was inserted in May 1975
107	Sample not retained
108	Wordsley Brook, near Watery Lane, Dudley. National Grid Reference SO-901-872. 12 th May 1970 Brown gelatinous mass on stones.
109	Wordsley Brook. Upstream of R.T.B's steel works, Brierley Hill. National Grid Reference SO-909-875. Very thin film on bricks and stones, becoming thicker downstream. pH. 6.
110	Wordsley Brook, Dudley. 10 th May 1970. 150 yards downstream of R.T.B's steel works discharge pipe. Thick film on stones and bricks.
111	Upper Swell, near Stow in the Wold, Cotswolds. National Grid Reference SP-180-270 Squeezing from floating brown scum and <i>Spirogyra</i> on the mill pond. Also squeeze from brown algae on overflow sill and race. 17 th May 1970
112	Howroyd Clough, Inchfield Moor, Todmorden. National Grid Reference 34-905-228 5 th April 1970 See also 59, 60, 113, 114 Wet rocks above south bank of stream. [Klaus-Dieter Kemp reference: 120R – B. Hartley 120 – Howroyd Clough, Yorkshire – Brown film on wet rocks]
113	Howroyd Clough, Inchfield Moor, Todmorden. National Grid Reference 34-905-228 5 th April 1970 (as 112) but mostly white or grey gelatinous film. [Klaus-Dieter Kemp reference: 119R – B. Hartley 113 – Howroyd Clough, Yorks]
114	Howroyd Clough, Inchfield Moor, Todmorden. National Grid Reference 34-905-228 5 th April 1970 (as 112) but mostly green algal surface film.
115	Howroyd Clough, Inchfield Moor, Todmorden. National Grid Reference 34-905-228 5 th April 1970 (as 112) but squeezing from moss on wet rock face above stream. Turned pink/light purple whilst fuming in H ₂ SO ₄ . Possibly manganese present. See also 60.
116	Howroyd Clough, but from moss in main stream waterfall just above wet rocks site. 5 th April 1970
117	Howroyd Clough. Squeezing from algae in the spring water discharge from the water supply which feeds the waterman's bungalow. 5 th Aril 1970. Passed to R.I. Firth for cleaning.
118	Dry white powder of unknown locality – possibly Sottish. Received from R.I. Firth. 15 th May 1970
119	Virgin Valley, Humboldt County, Nevada, United States of America Fossil F/W. Pale creamy/white soft rock received from R.I. Firth 15 th May 1970. Reacts to HCl.
120	Mexican 'No. 1'. Fossil F/W/ 'Look interesting' Very fine pure white powder. No reaction to HCl.

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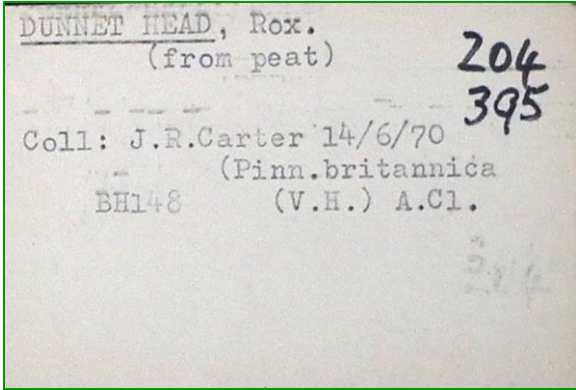
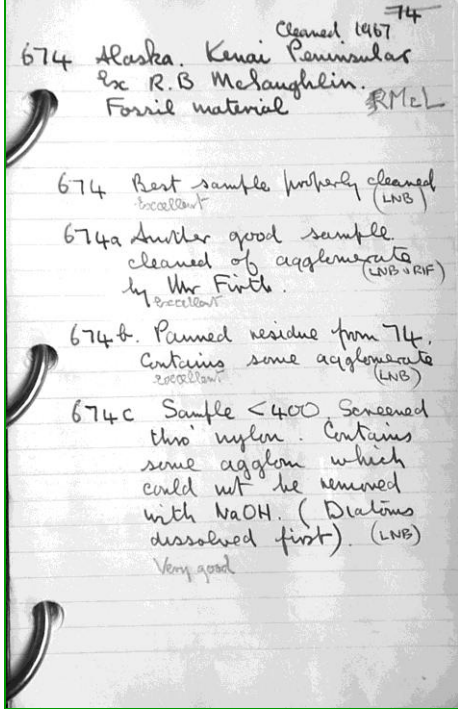
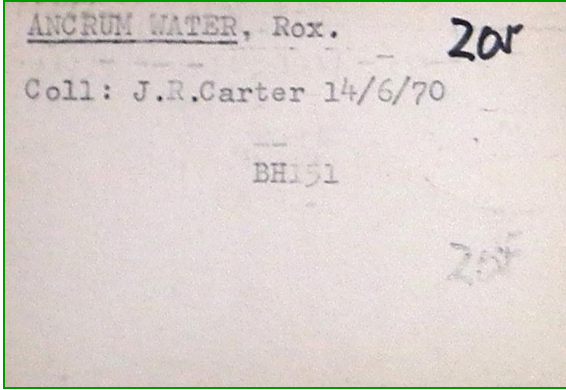
Entry No.	Particulars
121	<p>Chile, South America. Fossil F/W. 'Very pure'. Medium to fine white powder.</p>  <p style="text-align: center;"><i>R.I. Firth index card</i></p>
122	<p>Washington, United States of America Fossil F/W. 'Very pure'. Two packets. Cleaned by A. G. Greenfield. March 1975, also 123</p>
123	<p>Utah, United States of America Fossil F/W. (2 packets.) Medium to fine white powder. No reaction to HCl.</p>
124	<p>St. Joseph's, Missouri, United States of America Fossil F/W. Minute quantity (Now exhausted)</p>
125	<p>McAlister Lake, Washington, United States of America Fossil F/W. Minute quantity (Now exhausted)</p>

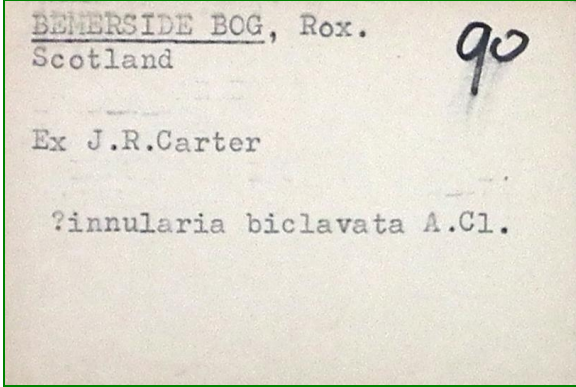
Entry No.	Particulars
126	<p>Lake Miltona, Minnesota, United States of America Fossil F/W. Minute quantity (Now exhausted)</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p style="text-align: center;">LAKE MILTONA, 128 Minnisota, USA Epithemia</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p style="text-align: center;">LAKE MILTON 115 Minesota, USA Cocconeis ? Ex QMC</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 646B - J.A.Long M14 - Miltona, Minn. U.S.A.]</p>
127	<p><i>Isthmia</i>, <i>Hyalodiscus</i> and <i>Coscinodiscus</i> from unknown locality. Minute quantity (Now exhausted)</p>
128	<p>Cherryfield, Maine, United States of America Fossil F/W 1969 sample of earth. See also sample No. 43</p>
129	<p>Fishbourne Mill Pond, Chichester 1st April 1970 Scrapings from culvert wall of stream. R.I. Firth's sample 'No. 3'</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p style="text-align: center;">FISHBOURNE MILL POND, 525 CHICHESTER. Coll: R.I.F. 3 Sep. 1966. - do - 7 Feb. 1953 542 - do - of 7/9/66 - <i>Annella</i> 544-6</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 896R - R.I. Firth 525 - Fishbourne, Mill pond]</p>
130	<p>Fishbourne Mill Pond, Chichester 1st April 1970 From the stream which formerly flowed past the Roman Palace. R.I. Firth's sample 'No. 2'</p>

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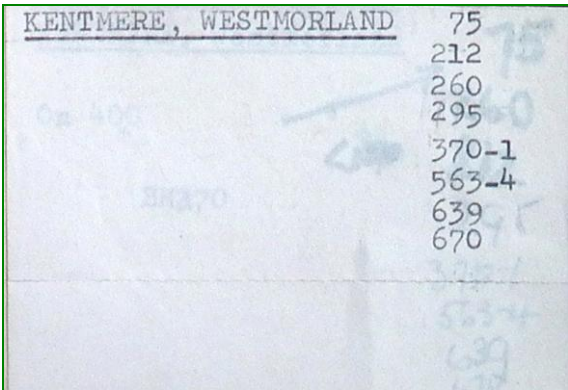
Entry No.	Particulars
131	Fishbourne Mill Pond, Chichester 1 st April 1970 From a point where the water enters the former millrace. R.I. Firth's sample 'No. 1'
132 (B)	Burton Mill Pond, West Sussex 1 st April 1970 Sample 132 cleaned May 1970 using Potassium Chlorate Sample 132a cleaned October 1970 using Nitric acid finally.
133	Mill Pond, Sutton on Forest, 5 miles north of York. National Grid Reference SE-580-645 23 rd May 1970 Near David's home. Squeezing from algae either floating or attached to millrace.
134	Hornsea Mere, Yorkshire National Grid Reference TA-195-470 29 th May 1970 Dry brown scum and black ooze and grit blown into the reedy margin. Much organic matter. 134a. Marginal damp scum 134b. Dry scum and black ooze.
135	Bridlington Harbour, Yorkshire. 26 th June 1970. Scrapings of green and dead brown filamentous algae from steel piles on harbour landing jetty.
136	River Esk, Westerdale, Yorks. Cleveland Hills, North Riding National Grid Reference NZ-653-055 29 th May 1970 Brown film on twigs impounded at a dam opposite Stokesly rugby football ground.
137	River Esk, Westerdale, Yorks. Cleveland Hills, North Riding National Grid Reference NZ-653-055 29 th May 1970 (as 136) but brown film 1/8 in. thick, honeycombed with air bubbles in sunshine. Scraped from stones in the margin of the River Esk.
138	River Esk, Westerdale, Yorks. Cleveland Hills, North Riding National Grid Reference NZ-653-055 29 th May 1970 (as 137) but downstream of a ford and disused bridge. Possibly a polluted discharge from (a) the road drainage above, and/or (b) the Y.H.A. hostel a little above the road and river. Dripping rocks covered 4' wide x 30' high with a grey film faintly speckled brown, overlying 1/2 ins. thick black smelly jelly like layer.
139	River Rye, in Ryedale, upstream of Rievaulx, North Riding. National Grid Reference SE-559-881 Scrapings from stones in River bed May 1970
140	River Rye, in Ryedale, upstream of Rievaulx, North Riding. National Grid Reference SE-559-881 (as 139) but a dirtier sample May 1970
141	River Nidd, Nidderdale, Yorkshire. National Grid Reference SD-117-710 Just upstream of the bridge at Ramsgill. Brown gelatinous film on boulders in sunshine.

Entry No.	Particulars
142	<p>Yarrow and Ettrick wayside spring, Roxburgh, Scotland. 14th June 1970 White jelly. <i>Didymosphenia geminata</i>, etc.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>YARROW & ETTRICK 206 Wayside spring between the above two places. Coll: J.R.Carter 14/6/70 BH142</p> </div> <p style="text-align: center;">R.I. Firth index card</p> <p>[Atlas Plate No.76]</p>
143	<p>Foot of burn entering River Ale, Roxburgh 14th June 1970 <i>Didymosphenia geminata</i> etc.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>RIVER ALE, ROXBURGH 428 SHIRE (Foot of burn meeting river) Collected: J.R.Carter 14/6/70 BH143</p> </div> <p style="text-align: center;">R.I. Firth index card</p> <p>[Atlas Plate No.76]</p>
144	<p>Upper Witmuir, Roxburgh 14th June 1970 Brown floating organic matter</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>UPPER WITMUIR, Rox. 203 Coll: J.R.Carter 14/6/70 BH144 Brown floating organic matter.</p> </div> <p style="text-align: center;">R.I. Firth index card</p>
145	<p>Wooden trough at roadside between Malham and Stainforth, Yorks. Circa 12th June 1970. Grey white jelly and dark brown organic deposit.</p>
146	<p>Riddell Bog, Roxburgh 14th June 1970 Dark brown organic deposit</p>
147	<p>Stream between Stainforth and Malham, Yorkshire Gelatinous matter attached to rocks in stream. White and orange coloured leathery concave lobes.</p>

Entry No.	Particulars
148	<p>Dunnet Head, at the extreme northern tip of Scotland 14th June 1970 Dark brown organic peat deposit.</p>  <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.208] [Klaus-Dieter Kemp reference: 010G - R.I. Firth 398 - Dunnet Head, Scotland]</p>
149	<p>Linton Bog, Morebattle, Roxburgh Dark brown organic deposit</p>
150	<p>Kenai Peninsula, Alaska – per. R.B. McLaughlin Cleaned by L.N. Bramley and R.I. Firth in 1969/70</p> <ul style="list-style-type: none"> a) Large and good. b) medium and OK. c) unclean.  <p style="text-align: right;"><i>L. N. Bramley (Cleaned Diatoms) Book 2</i></p>
151	<p>Ancrum Pump (water supply), Roxburgh Greenish brown debris Samples 151, 152, 153 were received from R.I. Firth after his visit to J.R. Carter in June 1970.</p>  <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 223R – J. Carter – Acrum Pump, Rox.]</p>

Entry No.	Particulars
152	<p>Bemerside Bog, Roxburgh</p>  <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.204]</p>
153	Everit Moss, Roxburgh
154	<p>Affpuddle, Dorset. National Grid Reference SY-800-840 30th June 1970 Brown film on sandy loam surface of watercress beds. The beds had recently been cut of all growth and were ready for replanting or re-seeding.</p>
155	<p>River Avon, Salisbury At the river side adjoining car park. 2nd July 1970 A sample of filamentous algae and squeezing from <i>Cladophora</i>.</p>
155a	<p>River Avon, Salisbury At the river side adjoining car park. 2nd July 1970 (as 155) but a sample of filamentous algae on the river surface.</p>
156	<p>Tributary of River Avon west of Trowbridge 3rd July 1970 Digesting organic matter including algae and gasses floating in 4 ins. diameter patches. This scum was taken from an area where it had been impeded by plant growth.</p>
157	<p>Linton, Roxburgh 14th June 1970 Brown floating organic matter. Very few F/W diatoms mostly small. (See also 149)</p>
158	<p>Burn Ale, Roxburgh 14th June 1970 See also sample 143</p>
159	<p>Allerly Pump, Jedburgh, Roxburgh – per J.R. Carter via R.I. Firth. <i>Diploneis ovalis</i> [Atlas Plate No.85]</p>
160	<p>Joe's River, Barbados June 1970 Cleaned by R.I. Firth in December 1943 [Klaus-Dieter Kemp reference: 021B - Joe's River, Barbados] [Klaus-Dieter Kemp reference: 172R - Joe's River, Barbados] [Klaus-Dieter Kemp reference: 173R - Joe's River, Barbados] [Klaus-Dieter Kemp reference: 879B - R.I. Firth - Joe's River, Barbados] [Klaus-Dieter Kemp reference: 805B - S.Chaffer - Joe's River, Barbados - Cleaned K.D.K 10/1/89] [Klaus-Dieter Kemp reference: 862B - Adams - Joes River, Barbados Roadside - Fine] [Klaus-Dieter Kemp reference: 870B - Adams - Joes River, Barbados Roadside] [Klaus-Dieter Kemp reference: 863B - F.Adams - Joe's River, Barbados Roadside]</p>
161	<p>Ancrum Pump, Roxburgh Small F/W sample – per J.R. Carter His sample No. 3050. [Klaus-Dieter Kemp reference: 223R – J. Carter – Acrum Pump, Rox.] [Klaus-Dieter Kemp reference: 224 R - K-D. Kemp - Ancrum pump, Rox.] [Klaus-Dieter Kemp reference: 206 R - K-D. Kemp - Ancrum pumps, Rox. (Fine)]</p>

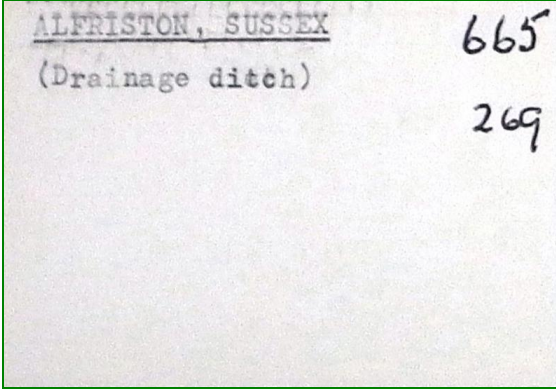
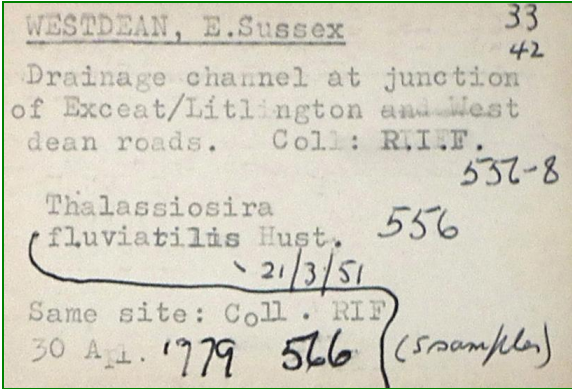
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Entry No.	Particulars
162	Guano Received July 1970 from R.I. Firth Including feather and pinkish brown lumps of powder. 2cc. only. Source unknown.
163	Kamischev, Russia. "2me envol" June 1935 M. Cheneviere "V. poor" Pinkish brown powder ex R.I. Firth 15 th July 1970
164	Newcastle, Barbados Ex. R.I. Firth 15 th July 1970 Two small pieces of medium to hard creamy rock. Vigorous reaction to HCl [Klaus-Dieter Kemp reference: 078B - Newcastle, Barbados] [Klaus-Dieter Kemp reference: 225B - Newcastle, Barbados] [Klaus-Dieter Kemp reference: 263B - Newcastle, Barbados] [Klaus-Dieter Kemp reference: 996R - R.I. Firth 787 - Newcastle, Barbados - <i>Coscinodiscus excavatus</i> , <i>Biddulphia</i>]
165	Cormack's Creek, Oamaru, New Zealand Ex. L.D. Coombs via R.I. Firth A good quantity of soft to medium creamy rock
166	Kentmere, Westmorland Ex. R.I. Firth. Received 15 th July 1970 Grey brown earth or soft rock.  <i>R.I. Firth index card</i>
167	Ashes Hollow, near Church Stretton, Shropshire (Long Mynd) 27 th July 1970 Squeeze from moss in small waterfall.
167a	Ashes Hollow, near Church Stretton, Shropshire (Long Mynd) 27 th July 1970 (as 167) but strings of <i>Melosira</i> , initially retained in a 150 mesh sieve.
168	Headwater of Ashes Hollow stream, Long Mynd, Shropshire. 28 th July 1970 Squeezings from moss in rivulet. Note:- On adjoining wet bank there was Sundew, Bog Asphodel and Butterwort.
168a	Headwater of Ashes Hollow stream, Long Mynd, Shropshire. 28 th July 1970 (as 168) but chains of <i>Melosira</i> retained on the 150 mesh.
169	Alaska Ex R.B. McLaughlin. Collected 10 th October 1960 Exact source not stated. Said to be better than Kenai. Obtained from R.I. Firth. Grey brown rock powder. No reaction to HCl. See als sample 150.
170	Amboin, New Hebrides Islands, Pacific Ocean. 16.0°S, 166.30°E. Near Fiji. Received ex. R.I. Firth July 1970 Coral and sponge and littoral plant and algae debris. Reacts to HCl.

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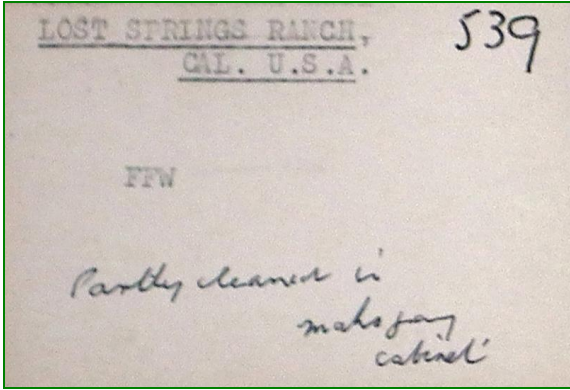
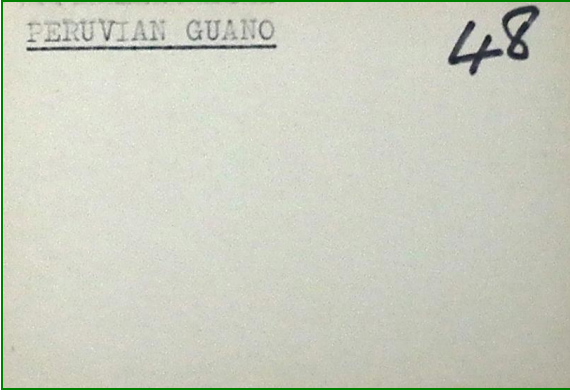
Entry No.	Particulars
171	River Ouze near Thetford Woods, Santon Downham, Norfolk. 29 th August 1970. Squeezings from coarse algae on surface and at side of very clean river.
171a	River Ouze near Thetford Woods, Santon Downham, Norfolk. 29 th August 1970. As 171) but sample of the algae.
172	Sidewaters adjoining the River Wensum at Sweetbriar roadbridge, Norwich. 30 th August 1970 Various live organisms swept from <i>Elodea Canadensis</i> .
173	River Wensum, Norwich 30 th August 1970 Algae and squeezing.
174	Salthouse, North Norfolk 30 th August 1970 Algae from ditch on saltmarsh. It is possible that this is partly mixed with sample 178.
175	Cley, North Norfolk 1 st September 1970 Squeezings from algae, cress and hornwort in roadside ditch.
176	<i>Pleurosigma angulatum</i> 'Pure' from mud surface, in the shade of the boats, exposed between tides in a main gutter at Morston, North Norfolk. See also sample F23 collected 1 st September 1970. [Atlas Plate No.245]
177	Morston, North Norfolk. Collected 1 st September 1970 Algae from saltmarsh exposed at low tide.
178	Morston, North Norfolk. Collected 1 st September 1970 Squeezing from brown filamentous bubbling algae in long pool or gutter above low water mark. Possibly mixed with sample 174.
178a	Morston, North Norfolk. Collected 1 st September 1970 (as 178) but brown algae from same site.
179	Morston, North Norfolk 2 nd September 1970 Floating brown scum and mud from the bottom of a pool (Small) on the saltmarshes. <i>Pleurosigma angulatum</i> and also (?) <i>Pleurosigma formosum</i> . [Atlas Plate No.245 & 246]
180	Poole Harbour, Dorset 1970 Ex. N.I. Hendey via R.I. Firth (see also F24) <i>Pleurosigma angulatum</i> [Atlas Plate No.245]
181	Cley and Salthouse, North Norfolk 1 st September 1970 Brown floating algae on roadside ditch.
182	Belstead House, near Ipswich 4 th September 1970 Well near laboratory. Heavier material squeezed from duckweed and hornwort.
183	Belstead House, near Ipswich. Upstream of sewage effluent plant discharge pipe from Belstead House. Floating material on still side-water.
184	Belstead House, near Ipswich. Upstream of sewage effluent plant discharge pipe from Belstead House. (as 183) but slime and mud scraped from stones on bed of brook.
185	Belstead House, near Ipswich. Upstream of sewage effluent plant discharge pipe from Belstead House. (as 183) but dark brown slime scraped from tree branches.

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Entry No.	Particulars
186	Belstead House, near Ipswich. Upstream of sewage effluent plant discharge pipe from Belstead House. (as 183) but moist brown film on muddy bank of stream above water level but under a large oak tree.
187	Ditches near Lewes, Sussex April/May 1970 Ex. R.I. Firth
188	The Winterbourne, Lewes, Sussex 21 st May 1970 <i>Melosira varians</i> . Pure. [Atlas Plate No.129]
189	Near Alfriston, Sussex 9 th April 1970 Drainage channel, a few yards below junction of road to West Dean and the road from Exceat to Litlington. Ex. R.I. Firth  <p style="text-align: center;"><i>R.I. Firth index card</i></p>
189a	Near Alfriston, Sussex A few yards below junction of road to West Dean and the road from Exceat to Litlington. Collected by R.I. Firth on 27 th February 1955. (as 189) but from the ditch on the opposite side of the road.  <p style="text-align: center;"><i>R.I. Firth index card</i></p> [Atlas Plate No.286]
189b	Near Alfriston, Sussex A few yards below junction of road to West Dean and the road from Exceat to Litlington. Collected by R.I. Firth on 27 th February 1955. (as 189a) but material cleaned by R.I. Firth and sent to B. Hartley on 22 nd September 1970.
190	Near Bridge north of Alfriston Ditch at west side of stream. Ex. R.I. Firth 20 th May 1970
191	Southease, near Newhaven, Sussex Sample containing small snails. Collected by R.I. Firth 20 th January 1968 and passed to B. Hartley in 1970.
192	Cherryfield, Maine, United States of America Fossil F/W/ Ex. R.I. Firth September 1970 Treated with H2SO4 only by R. I. Firth. Needs a little caustic.

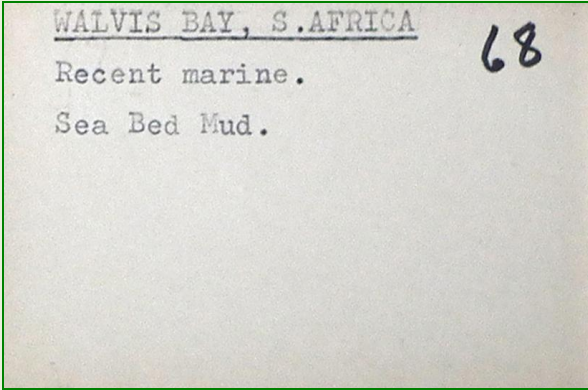
Entry No.	Particulars
193	<p>Jedburgh, Roxburgh Old roadside well. J. R. Carter No. 12826 <i>Diploneis elliptica</i> Received from R.I. Firth 22nd September 1970</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: right;">646</p> <p><u>JEDBURGH, Roxburghshire</u> (Old roadside well on outskirts of town). Ex J.R.Carter 12826 <u>DIPLONEIS ELLIPTICA</u></p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.81]</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: right;">646</p> <p><u>DIPLONEIS ELLIPTICA</u> Jedburgh (Ex JRC.)</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
194	<p>Leighton Moss, Lancashire 4th October 1970 Organic and other film on decaying rush leaves at the margin of the lake.</p>
195	<p>Lake Myvatn, Iceland Just outside the Arctic circle. Received from C.N. Walter 28th September 1970 Cleaned November 1970 195A HCl + H₂SO₄ + Potassium Chlorate 195B HCl + H₂SO₄ + nitric With reference to Lake Myvatn in Northern Iceland – C. N. Walter learnt from an ornithological friend who had been to Iceland in 1965, that “for nature conservancy” the Icelanders had decided to deepen Lake Myvatn by excavating diatomaceous earth from its bed. A company was formed with the intention of excavating some 24,000 tons/year. C. N. Walter contacted this company who sent him this sample of diatomaceous earth. E has not visited the site, but has only seen this uncleaned F/W material. Later in 1972 B. Hartley met Mrs. Trethewey of Dudley who had recently been to Iceland. She said that ‘Lake Myvatn’ means ‘Midge Lake’. She also said that the only diatomite Company which she saw, was further up the hills about a mile from the lake, close to the hot springs and sulphur discharges.</p>
196	<p>Lake beds of Nevada (Pliocene) United States of America Collected by V.L. Vanderhoof in 1931. Contains <i>Isthmia</i>. Esmeralda is 4 miles east of Bell prings, Tonopah, Nevada. [Klaus-Dieter Kemp reference: 803B - Esmeralda formation, Nevada #51 U.S.A. - Fossil]</p>
197	<p>Emett, Idaho, United States of America Ex. R.I. Firth April 1970</p>
198	<p>Pitt River, Oregon Fossil F/W. Ex. R.I. Firth April 1970</p>

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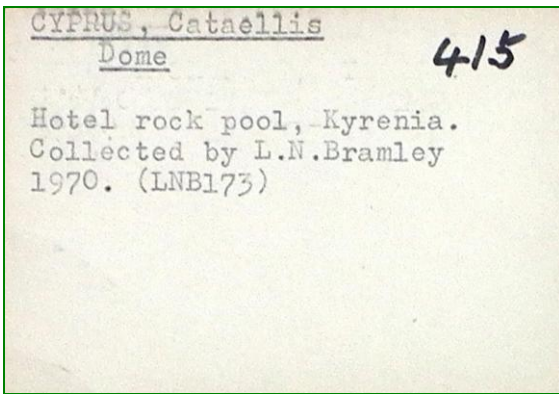
Entry No.	Particulars
199	<p>Lost Springs Ranch, Lake County, Oregon Fossil F/W Ex. R.I. Firth April 1970</p>  <p style="text-align: center;"><i>R.I. Firth index card</i></p>
200	<p>Guano from Peru Ex. R.I. Firth Washed several times in boiling water.</p>  <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 332B - Dr.Holt - Peruvian Guano] [Klaus-Dieter Kemp reference: 162R - Peruvian Guano] [Klaus-Dieter Kemp reference: 431B - Peruvian Guano] [Klaus-Dieter Kemp reference: 971B - R.I. Firth 48 - Peruvian Guano] [Klaus-Dieter Kemp reference: 090B - Tempere - Peruvian Guano]</p>
201	<p>Unknown F/W white powder, possibly from Australia Ex. R.I. Firth Good <i>Eunotias</i>.</p>
202	<p>Mohave Desert, about 80 miles from Los Angeles White lightweight diatomaceous rock which is mined for commercial purposes. Probably the bed of the former Pacific Ocean. Received from R.I. Firth November 1970</p>
203	<p>Brazilian fossil F/W earth, S. America Received from R.I. Firth April 1970</p>
204	<p>Newcastle, Barbados Very good diatom content. Ex. R. I. Firth November 1970</p>
205	<p>Unknown source, possibly Toomebridge, N. Ireland Ex. R.I. Firth November 1970</p>
206	<p>Florida F/W sample Ex. R.I. Firth April 1970, for cleaning See also sample 234 [Klaus-Dieter Kemp reference: 899B - R.I. Firth 516 - Florida, U.S.A.] [Klaus-Dieter Kemp reference: 901B - R.I. Firth 517 - Florida, U.S.A.]</p>

Entry No.	Particulars
207	<p>Bend, Oregon Ex. R.I. Firth April 1970 for cleaning</p> <div style="border: 1px solid green; padding: 5px;"> <p>BEND, OREGON, U.S.A. 504 Staphanodiscus sp. 214</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px;"> <p>STEPHANODISCUS SP. 214 BEND, OREGON 504 Miyaki-ka, John 540 214</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 894R - R.I. Firth 504 - Bend, Oregon U.S.A.]</p>
208	<p>Carlin, Nevada Ex. R.I. Firth April 1970 for cleaning</p> <div style="border: 1px solid green; padding: 5px;"> <p>CARLIN, NEVADA, USA. 524 FTW. Melosira sp.</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px;"> <p>MELOSIRA sp. 515 Barraba, N.S.W., Australia FF Carlin, Nevada, USA 524</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
209	<p>Chile F/W sample Ex. R.I. Firth April 1970 for cleaning</p>
210	<p>Mexico F/W sample Ex. R.I. Firth April 1970 for cleaning</p>

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Entry No.	Particulars
211	Keene, New Hampshire, United States of America Ex. R.I. Firth April 1970 for cleaning Fossil F/W similar to Cherryfield
Samples 212 to 234 were received from R.I. Firth for cleaning by B. Hartley at various times in 1970	
212	Cooma, New South Wales, Australia
213	Nairobi, Kenya Fossil F/W
214	Springfields Estate, Barbados "Upper 1882" by G. W. Giffen
215	Blaxton near Doncaster Mud including <i>Amphipleura pellucida</i> [Atlas Plate No.12]
216	Beaver Dam, Alaska
217	Belast, Victoria, Australia
218	Clonfill Lough, Offaly, Ireland
219	Score Horan, Waternish, Skye (1" sheet 80)
220	Ngongotaka, presumably New Zealand Per L.D. Coombes
221	Loch Cuithir, Isle of Skye
222	Bungo, Kuso-gun, Higa-shihanda-murs, Japan
223	Gali (? Gabi) Rantu (? Ranku) district, Pahang, Malay Diatomaceous volcanic ash
224	Unknown. Looks like dry cocoa, later like mahogany. Slight reaction to HCl.
225	Ongarato Valley, New Zealand
226	Mourne Mountains, N. Ireland
227	Aberdeen, Scotland (Large <i>Pinnularias</i>)
228	Walvis Bay, S.W. Africa Dried mud from sea bed.  <i>R.I. Firth index card</i>
229	Fossil earth, Nevada. Between Carson and Virginia City
230	Unknown locality Cream coloured. Reacts violently with HCl.
231	Kieselguhr. (Waste settlings) Including black tarry material which was difficult to digest.
232	East Oregon Fossil earth.
233	Mexico Freshwater Per R.I. Firth April 1970 (see also 210)
234	Florida Very good Freshwater (see also 206)

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Entry No.	Particulars
235	Burton Park Pond, Petworth, Sussex Collected by B. Hartley 21 st November 1970 Scrapings from overflow sill and bottom of overflow race. R.I. Firth says this is contaminated with Australian sample. <i>Eunotia exigua</i> , <i>Achnanthes inflata</i> [Atlas Plate No.95 & 4]
236	Burton Park Pond overflow race. Grit, mud and iron oxide from still water in side channel at the bottom of the race. Collected by B. Hartley 21 st November 1970
237	Unknown per R.I. Firth November 1970 Medium dirty cream soft rock (possibly contaminated with Sample 231)
238	Diatomite Company 'Crude not ground' Very soft light brown rock. When in H2SO4 turned dark brown and required a lot of Nitric acid. Boiled like molten glass or caramel toffee.
239	Diatomite, Carlin, Nevada A medium hard very white rock. Bumped very much with HCl and later in H2SO4.
240	Toomebridge, Co. Londonderry, N. Ireland Part of a large sample of pale brown cream coloured rock.
241	Arizona, United States of America Cream coloured rock. Bumped during H2SO4.
242	Catsell, Dome Hotel, Kyrenia, Cyprus. Rock pool. ISO ret. 300 mesh. Per Dr. Bradley via R.I. Firth 
243	California Academy of Sciences Location 2235 15 miles south of Clermont, Florida. Per. R.I. Firth April 1970 Sample from Diatomite Products Co. Received through G.M. Pontan, Florida Geological Survey, July 12 th 1930. See paper by Dr. G.D. Hanna 'Florida peat diatom WWW'
244	California Academy of Sciences Location 2257 Peat bog diatomite, 1½ miles N.E. of Milton, Santa Rosa Co., Florida. Received from G. E. Pantan Florida Geologist 12 July 1930 See also Dr. G.D. Hanna's paper on Florida peat diatoms.
245	Burton Pond, Petworth, Sussex Weir scrapings. Collected by R.I. Firth 5 th August 1970
246	Burton Pond, Petworth, Sussex Floating material. Collected by R.I. Firth 5 th August 1970

Entry No.	Particulars
247	<p>"Dolgellau earth" from British Museum. Minute quantity from Dickie collection. Apparently damaged previously by heating. R.I. Firth tried to clean it by removing organic matter in suspension.</p> <div> </div> <p><i>R.I. Firth index card</i></p>
248	<p>Ynys Lake, Tygwn, near Harlech. National Grid Reference SH-601-354 (See also samples 63 & 64) Chocolate brown growth on flat stones and also on wooden box, just below the surface.</p> <div> </div> <p><i>R.I. Firth index card</i></p> <div> </div> <p><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 950R – R.I. Firth 55, B. Hartley 248 – Ynys Lake, N. Wales National Grid Reference Sh 601-354]</p>
249	<p>Toomebridge, N. Ireland. Broken down by freezing by R.I. Firth. Boiled by B. Hartley on H₂O for 20 minutes and decanted, then in HCl for 10 minutes, prior to H₂SO₄.</p>
250	<p>Burton Pond, West Sussex. Overflow sill. Collected 19th February 1971 (R.I. Firth with F. Hobbs) Enormous quantity flowing over the sill.</p>
250A	<p>Burton Pond, West Sussex. Overflow sill. Cleaned by R.I. Firth from sample 250.</p>
251	<p>Burton Pond. Base of overflow spillway. Standing pool with mud surface covered with iron oxide. Collected by R.I. Firth 19th February 1971</p>

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Entry No.	Particulars
252	Southease, Sussex Collected by R.I. Firth 13 th March 1971 Drainage channels, both sides of the road between hamlet and bridge where culvert under road unites them.
253	Lewes levels, Sussex Drainage ditch. Collected by R.I. Firth March 1971 (see also fluid mount)
254	Cheriton, Alreford, Hampshire Minute quantity on the side of an old glass phial. Collected by R.I. Firth 9 th May 1954
255	Town of Basalt, Nevada, United States of America Fossil pale cream soft rock.
256	<p>Salamatof, Kenai, Alaska. Sample No. 1. Fossil F/W cream greyish rock 50 feet thick and several hundred feet long. Collected by R.B. McLaughlin, 3539 Dunkirk Drive, Anchorage, Alaska 99502. Per. R.I. Firth. 30th March 1971. Sample No. 1. Broken down by R.I. Firth. Acid treatment by B. Hartley. Sample No. 2. Broken down and cleaned by B. Hartley. Sample No. 3. Broken down and cleaned by R.I. Firth. March 1971 See also R.B. McLaughlin's paper in Q.M.J.</p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
257	Nikiski, Alaska. A petroleum terminal 4 miles N. of Salamatof. Sample 2. R.B. McLaughlin says Nikiski is more prolific and variable.
257a	<p>Nikiski, Alaska. (as 257) broken down by R.I. Firth, but acid cleaned by B. Hartley and returned to R.I. Firth 25th May 1971.</p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 795R – McLaughlin – Nikiski, Alaska] [Klaus-Dieter Kemp reference: 948R - R.I. Firth 106 - Nikiski, Alaska Coarse] [Klaus-Dieter Kemp reference: 949R - R.I. Firth 164 - Nikiski, Alaska Fine]</p>
258	Stourbridge Canal, Overflow weir at Brockmoor, Dudley. Mainly <i>Synedra</i> attached to filamentous algae. Visible as a warm brown coating. Collected 30 th March 1971.

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Entry No.	Particulars
259	<p>The Winterbourne, Winterbourne Hollow, Sussex. Mainly <i>Melosira varians</i> and <i>Meridion circulare</i>. Per R.I. Firth 29th January 1971. [Atlas Plate No.129 & 127]</p>
260	<p>Ribble Head, Yorkshire Collected by W. Marshall circa 1965 <i>Didymosphenia geminata</i>. Received 4th April 1971 Compare with 205.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;"><u>RIBBLEHEAD</u> 358-9</p> <p style="text-align: center;">Coll: R.I.Firth 358 20/8/53</p> <p style="text-align: center;">Coll: W.Marshall 1965. Cleaned: B.Hartley - 319 1971 (BH260)</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.76] [Klaus-Dieter Kemp reference: 360B - K-D. Kemp - Ribble Head, Yorks (Fine, <i>Diymosphenia geminata</i>, <i>Gomphonema ventricosa</i>)] [Klaus-Dieter Kemp reference: 361B - K-D. Kemp - Ribble Head, Yorkshire (Coarse, <i>Didymosphenia geminata</i>)]</p>
261	<p>Llandanwg near Harlech, N. Wales Ditch near car park. Collected 13th April 1971. <i>Navicula</i>, <i>Fragilaria</i>, <i>Meridion</i>, etc. along with <i>Closterium</i>. All squeezed from filamentous algae.</p>
262	<p>Ynys Lake, Tygwyn, Nr. Harlech Squeeze from decaying brown filamentous algae. 13th April 1971</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;"><u>YNYS LAKE, N.WALES</u> 43</p> <p style="text-align: center;">Coll: B.Hartley 13/4/61</p> <p style="text-align: center;">Brackish</p> <p style="text-align: center;">BH262</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>

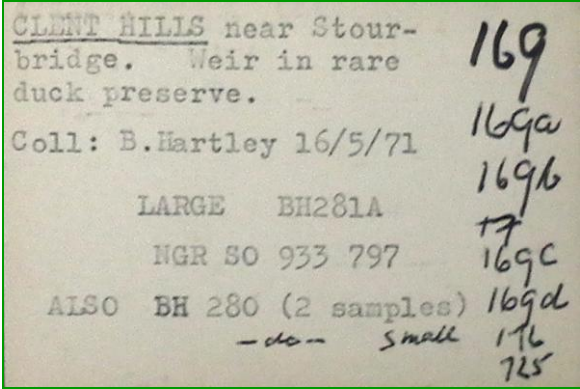
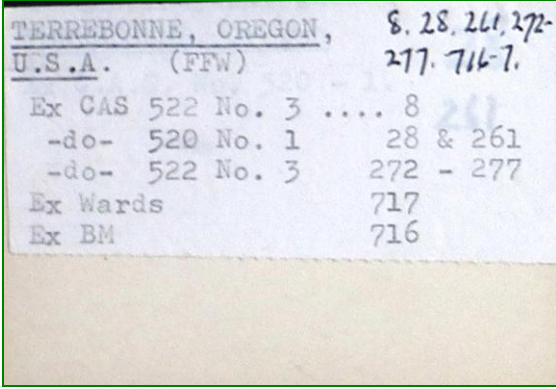
Entry No.	Particulars
263	<p>Paoha Island, Mono Lake, California, United States of America 34134A Cleaned R.I. Firth 17th April 1971 Collected in November 1959 by C. Chesterman, G. Cleaveland and G. Lester from S. part of North Island. Near top of exposed section. Cleaned R.I. Firth 1968 also.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>PAOHOA ISLAND, MONO 446 LAKE, CAL., USA. (South part of north half of island near top of exposed section. Coll: C.Chesterman, G.Cleaveland, C.Gester Nov. 1959. CAS34134A)</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>MONO LAKE, CAL., USA 446 Paohoa Island.</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 890R - R.I. Firth - Paoha Island, Mono Lake California U.S.A.]</p>
264	<p>Paoha Island, Mono Lake, California, United States of America Collected by H. Neal September 1946. California Academy of Science loc. 16477. Received as rock per R.I. Firth. 17th April 1971</p>
265	<p>Ribble Head, Yorkshire Junction B6479 and B6255. Collected 20th August 1953 by R.I. Firth. Received cleaned on 17th April 1971. Compare with 260.</p>
266	<p>Llyn Bychan, near Llanbedr, Merioneth. National Grid Reference SH-6450-3123 Minute part of core sample taken from 9-12 feet depth at end of lake margin; under peat layer and at level of glacial clay. Per. David Thomas, Inst. Geol. Sci., Leeds. Summer 1970. Received from R.I. Firth April 1971 for cleaning by B. Hartley.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>LLYN BYCHAN (near) 1658 Sub-fossil deposit taken 227 summer 1970 from core 9-12 under peat and/or glacial clay by David Thomas, Geol. Survey NGR SH23 6450 3123 368 372 591 Llyn bychan</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
267(B)	<p>Cherryfield, Maine, United States of America Retained 400 mesh. Cleaned R.I. Firth April 1971</p>

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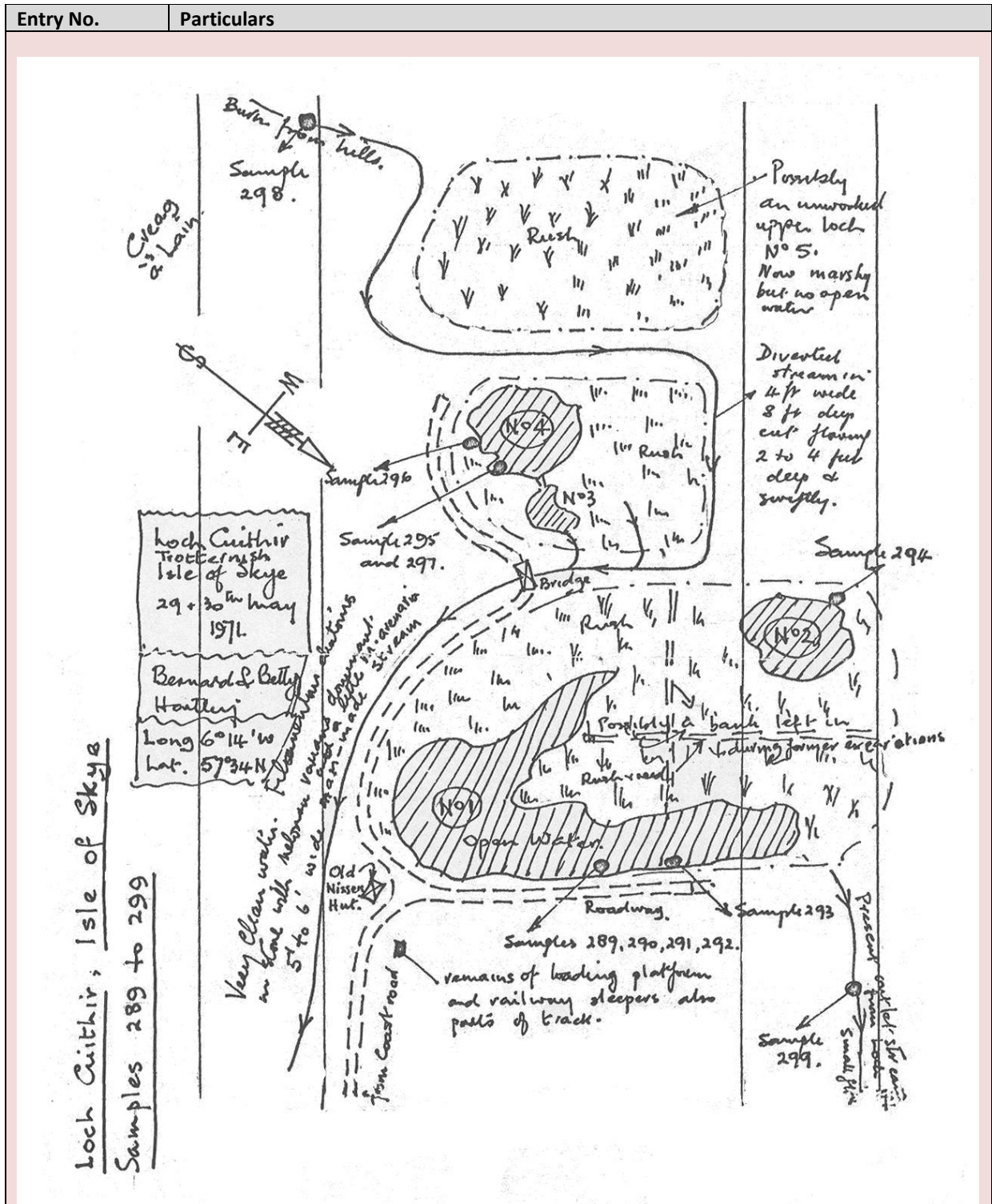
Entry No.	Particulars
268	<p>Llyn Mymbyr, near Capel Curig. N.G.R. SH-7020-5718 Sample No. 1. from 11-12 feet under the peat. Soft dark brown fibrous clay. Collected by D. Thomas 1970, Senior experimental officer, N. Wales unit, Inst. Geol. Sci., Ring Road, Halton, Leeds, LS15 8QT</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>LLYN MYMBYR - near 378-386 Capel Curig -sub-fossil deposit approx. 11-12' (under peat). Taken by David Thomas, Institute of Geological Science, Leeds, 1970. NGR Sh23 8709 3575</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
269	<p>Llyn Cwm Bychan, near Llanbedr, N. Wales. Sample No. 3. 9-12 feet under the peat. Small quantity of grey brown rock and powder. (see also 266)</p> <div style="border: 1px solid black; margin: 10px auto; width: 100%;">  </div> <p style="text-align: center;"><i>Cwm Bychann</i></p>
270	<p>Kentmere, near Kendal. (R.I. Firth says ex. D. Thomas) Bulk earth as processed by Case Asbestos. A lump of dark brown fibrous clay 'puddle' from the workings, now under water.</p>
271.	<p>Kentmere. Material partly and badly cleaned by a Q.M.C. member. Received by R.I. Firth April 1971 and recleaned by B. Hartley.</p>

Entry No.	Particulars
272	<p>Stream below Cader Idris car park for mountain climbers. Collected 8th May 1971 with R.I. Firth. <i>G. constrictus</i>, <i>D. geminata</i>, etc.</p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.76]</p>
273	<p>Llinau Cregennon --- above Arthog. Four miles west of Dolgellau, Wales. Grey white jelly collected from the outlet race by B. Hartley with R.I. Firth. 8th May 1971.</p>
274	<p>Llinau Cregennon --- as 273. Squeeze from algae and other plant life including strands of <i>Myriophyllum veticillatum</i> L. Collected 8th May 1971</p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>

Entry No.	Particulars
275	<p>Borth-y-gest near Porthmadog, N. Wales. Scrapings of thin brown film from small stones in stream bottom. Collected 10th May 1971 by B. Hartley, with M.E.H. and R.I. Firth.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>BORTH Y GEST, N. WALES 698 Film on stone on foreshore. BH275 Gathering from rocks → 768 by N S Barber Sep. 1970</p> </div> <p style="text-align: center; margin-top: 5px;"><i>R.I. Firth index card</i></p>
276	<p>Ditch between Harlech and Talsarnau, N. Wales. Collected 10th May 1971. Scrapings from algae, moss, and dirt on stones in bottom of stream.</p>
277	<p>Nant Col, E. of Llanbedr, Merioneth. Scrapings of moss, and algae from stones in stream bottom. Collected 11th May 1971</p>
278	<p>Llyn Bychan, near Llanbedr, Merioneth. Collected 11th May 1971 Filamentous 'bubbling' algae and some desmids on stones in shallow margins of the lake. (See also 269)</p>
279	<p>Landport Farm, Lewes, Sussex Diatoms in ditch Collected by R.I. Firth 1970 See also 599 and 375) <i>Surirella capronii</i> in portion retained on 400 mesh sieve. [Atlas Plate No.268]</p>
280	<p>Clent, Worcestershire National Grid Reference SO-933-797 Collected 16th May 1971 <i>S. capronii</i>, <i>C. solea</i>, etc. From uppermost private lake.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>CLENT HILLS near Stour- bridge. Weir in rare duck preserve. 169 Coll: B.Hartley 16/5/71 169a LARGE BH281A 169b NGR SO 933 797 17 ALSO BH 280 (2 samples) 169c - do - small 176 725</p> </div> <p style="text-align: center; margin-top: 5px;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.268 & 62] [Klaus-Dieter Kemp reference: 237R – B. Hartley 280 – Clent Hill, Worcestershire (Private Lake) – <i>Surirella capronii</i>] [Klaus-Dieter Kemp reference: 873R - R.I. Firth 725 - Clent Hills, Nr. Stourbridge - <i>Surirella capronii</i>] [Klaus-Dieter Kemp reference: 802R - R.I. Firth 71 - Clent, Worcs - H.S.Job.]</p>

Entry No.	Particulars
281	<p>Clent, Worcestershire National Grid Reference SO-933-797 Floating material at weir in small stream in duck garden. 16th May 1971</p>  <p style="text-align: center;"><i>R.I. Firth index card</i></p>
282	<p>Lovelock, Nevada, United States of America Fairly hard chalk-like rock. Per Mr. J. Fidiem, May 1971 Cleaned by B. Hartley, but 282a broken down by R.I. Firth.</p>
283	<p>Fulking, Sussex Collected in 1955 by R.I. Firth. Very fine <i>Amphipleura pellucida</i>. Received May 1971. (See also 333 A. <i>pellucida</i> from Hells Kettle) [Atlas Plate No.12]</p>
284	<p>Terrebonne, Oregon, United States of America Fossil F/W Per R.I. Firth May 1971</p>  <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 992B - R.I. Firth 28 - Terrebonne, Oregon U.S.A. - <i>Epithemia turgida</i>]</p>
285	<p>Doubtful source. Found in knapsack after visit to Wales. Bottle labelled Nat. Col., but see sample 277 already dealt with.</p>

Entry No.	Particulars
286	<p>Lompoc, Santa Barbara Co., California, United States of America Diatomaceous earth from John-Manville mine in the Xyne Grex 'fish strata'. Per R.I. Firth and J. F. Fidiam and the late G. Dallas-Hanna. "Marked January 11th 1971". Thinly laminated pale cream coloured rock. Check the Xyne Grex reference.</p> <div style="text-align: center;"> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 064B - Lompoc, California United States of America [Klaus-Dieter Kemp reference: 255B - Lompoc, California United States of America [Klaus-Dieter Kemp reference: 289B - Lompoc, California United States of America [Klaus-Dieter Kemp reference: 648B - Lompoc, California United States of America [Klaus-Dieter Kemp reference: 649B - Lompoc, California United States of America [Klaus-Dieter Kemp reference: 650B - Lompoc, California United States of America [Klaus-Dieter Kemp reference: 423B - J.A.Long L39 - Lompoc, California U.S.A. - F.M] [Klaus-Dieter Kemp reference: 532B - K.D. Kemp - Lompoc, California U.S.A. - Cleaned by K.D.K] [Klaus-Dieter Kemp reference: 543B - K.D. Kemp - Lompoc, California U.S.A.] [Klaus-Dieter Kemp reference: 544B - K.D. Kemp - Lompoc, California U.S.A.] [Klaus-Dieter Kemp reference: 945R - R.I. Firth 136 - Lompoc, California U.S.A.]</p>
287	<p>Santa Barbara, California, United States of America Per R. I. Firth and J. F. Fidiam. Marked "27th November 1970' Pliocene-pleistocene foraminiferal sandstone formation. It is a coarse, broken down gritty rock, chocolate brown in colour.</p>
288	<p>Near Loch Slapin, Isle of Skye. Squeeze from dripping moss in cascade from hillside, adjoining the road alongside the lake. Including a whitish brown film of jelly.</p>
289	<p>Loch Cuithir, Isle of Skye (Loch No.1) Collected 29th May 1971. Mainly brown 'clay' from the eastern end of the lake at the foot of a bank near the roadway. Little or no peat at this point. See plan and details below. Note: Betty was photographed at this point in a red beret.</p>
<p>LOCH CUIITHIR. The bed of the Loch is covered with a subfossil sediment in the form of a plastic clay-like deposit which is now either brown or grey or a mixture of the two with occasional grey nodules. Enquiries locally revealed that no one was very certain as to when the Loch Cuithir diatomite workings ceased. All seemed to remember that it was about ten years ago i.e. 1960-61, One lady said that it had only worked for about ten yeas and then 'flopped'. There was still evidence of some rail track and loading sidings. In fact I was able to collect diatomaceous earth from the remains of a stock-pile which had obviously been excavated from the loch. On a non-diatomaceous note I record that there were sandpiper in plenty on the adjoining moor and an unusually coloured dipper with a smokey blue tinge at the side of the breast. We stayed overnight in the motor caravan and the snipe continued 'drumming' overhead until late into the glorious evening. It was very memorable, up there above it all!!! Having heard previously of another Diatom deposit at Sartil in the Isle of Skye, inquiries were made at the hamlet of Sartil with the following result. The lady of the house said that their local diatomite workings had been in an old Loch below 'Dim Mor' "A light railway led down the road between Sartil and Digg" – pronounced 'Deeg'. She said that it was more than fifty years since it had been worked. I failed to locate the old railway, and in very heavy rainstorm decided not to walk over the moor to the loch on the mountain. Time was also pressing for a crossing booked on the scheduled boat over to Harris and Lewis.</p>	



290	Loch Cuithir, Isle of Skye Loch No. 1. Collected 29 th May 1971 Brown and grey material. Large <i>Surirellas</i> noted in grey material.
291	Loch Cuithir, Isle of Skye Loch No. 1. Collected 29 th May 1971 (as 290) but pure grey material only.
292	Loch Cuithir, Isle of Skye Loch No. 1. Collected 29 th May 1971 (as 290) but pure brown material only.

Entry No.	Particulars
293	<p>Loch Cuithir, Isle of Skye Loch No. 1. Collected 29th May 1971 (as 290) but mainly grey material from below the peat 2½ feet thick on the bankside at the shallow margin on the east side of Loch No. 1. A little further north than samples 289 and 292.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>LOCH CUITHIR, SKYE. 12 (Large) 50 -do- 82 Burn above Loch * 159 -do- (Large) 160 -do- (Light) *164 195+ Coll: B.Hartley 306-311 29th May 1971. * <i>Diatoma hiemale</i> (Roth) Heib.</p> </div> <p style="text-align: center; margin-top: 5px;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.75]</p>
294	<p>Loch Cuithir, Pool No. 2, which is really the west corner excavation of pool No. 1. Sample taken by Betty from the margin of the loch. (Just moist and warm grey coloured. A further sample taken later by B. Hartley just above present water level and under of 2 feet of peat.</p>
295	<p>Loch Cuithir, Loch No. 4. In water at Loch side, under 22 ins. thickness of peat bed. 295a taken by Betty. 295b taken later by B. Hartley from same location (see photograph)</p>
296	<p>Loch Cuithir. Grey diatomite in a small stockpile above the peat bed, and at the road terminus near Loch No. 4. It appeared to be the last works excavation stockpile.</p>
297	<p>Loch Cuithir, Loch No. 4. Greenish brown floating dark leathery scum on deep pool at lochside, near where samples 295a and b were taken. Sample also taken in CuNi acetate.</p>
298	<p>Burn above Loch Cuithir. Collected 29th May 1971 Brown gelatinous and filamentous coating on all stones in the 4 feet wide fast flowing stream or burn which discharges into L. Cuithir from the amphitheatre of hills surrounding the loch on three sides. Mainly <i>Diatoma hiemale</i> with some <i>Melosira arenaria</i>. (Also in CuNi acetate) [Atlas Plate No.75]</p>
299	<p>Outlet stream from Loch Cuithir. No. 1. Organic and other debris attached to stones in outlet bed. (Part in CuNi acetate)</p>
300	<p>River Coron, Uig, Isle of Skye 30th May 1971 Scrapings from stones just upstream of main roadbridge. Note: Two corncrakes were calling loudly from the meadow below. I had not previously heard them in England for 35 years.</p>
301	<p>Loch na Cuilc, Kirkibost, Bernera, Isle of Lewis 31st May 1971 Yellow brown sample from spoil heap. [Klaus-Dieter Kemp reference: 111R - B. Hartley - Loch Na Cuilc, Lewis Scotland (Yellow spoil heap)]</p>
302	<p>Loch na Cuilc, Kirkibost, Bernera, Isle of Lewis 31st May 1971 (as 301) but 4 inch diameter hole bored with hand trowel into boggy loch under 6 ins. of peat and sphagnum. Hole filled up with peaty water. Sample taken at 6-12 inches depth. Soft grey/yellow brown plasticine.</p>

Entry No.	Particulars														
303(B)	<p>Loch na Cuilc, Kirkibost, Bernera, Isle of Lewis 31st May 1971 (as 302) but soft grey plasticine taken from 12-18 inches depth. Samples 303 and 304 were washed lean to remove peaty water.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>LOCH NA CUILC, Isle of Lewis 182 Coll: B.Hartley BH303 (<i>Minerals</i>)</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>BH303 On 600</td><td>183</td></tr> <tr><td>BN303 Dregs</td><td>184</td></tr> <tr><td>BH303 Pass 600</td><td>185</td></tr> <tr><td>BH303 Large</td><td>190</td></tr> <tr><td></td><td>281</td></tr> <tr><td></td><td>293</td></tr> <tr><td></td><td>296</td></tr> </table> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>	BH303 On 600	183	BN303 Dregs	184	BH303 Pass 600	185	BH303 Large	190		281		293		296
BH303 On 600	183														
BN303 Dregs	184														
BH303 Pass 600	185														
BH303 Large	190														
	281														
	293														
	296														
304	<p>Loch na Cuilc, Kirkibost, Bernera, Isle of Lewis 31st May 1971 (as 302) but sample taken 18-25 inches deep.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>206 <u>569</u> <i>Isle of Skye. Loch-na-Cuilc</i> <i>Benera. (Hartley May 71)</i></p> </div> <p style="text-align: center;"><i>L. N. Bramley (Cleaned Diatoms) Book 2</i></p> <p>[Klaus-Dieter Kemp reference: 444R – B. Hartley 304 - Loch na Cuilc, Lewis, Scotland – Heavy] [Klaus-Dieter Kemp reference: 445R – B. Hartley 304 D - Loch na Cuilc, Lewis, Scotland – <i>Frustulia rhomboides</i>] [Klaus-Dieter Kemp reference: 479R – B. Hartley 304 D - Loch na Cuilc, Lewis, Scotland – Medium] [Klaus-Dieter Kemp reference: 446R – B. Hartley 304 D - Loch na Cuilc, Lewis, Scotland –]</p>														
305	<p>Valtos, Isle of Lewis 1st June 1971 Mainly bubbling filamentous algae from a tiny stream on the headland. Part in CuNi acetate.</p>														
306	<p>Small moorland pool on Isle of Lewis 1st June 1971 Floating filamentous algae amongst bog bean. Only in CuNi acetate.</p>														
307	<p>Kilbride Beach, South Uist, opposite Eriskay Sound. 8th June 1971 Brown colouration in, rather than on, a 7' x 4' patch of sandy beach exposed at low tide.</p>														
308	<p>West Kilbride, South Uist 9th June 1971 Algae on stones and the sandy bed of a small inland loch (possibly brackish occasionally). Art in CuNi acetate.</p>														
309	<p>West Kilbride, South Uist 9th June 1971 (as 308) but on stones in brackish outlet stream where it runs onto the sea shore.</p>														
310	<p>Peaty pool near Loch Ba on the Moor of Rannoch. 10th June 1971 A few large <i>Pinnularia</i> scraped from mud at the pool margin.</p>														
311	<p>Loch na Cuilc, Kirkibost, Bernera, Isle of Lewis. Sample received from J.R. Carter 15th June 1971</p>														

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Entry No.	Particulars
	<p>LOCH-NA-CUILC. (Samples 301, 302, 303, 304 and 311), Kirkibost, Bernera, Isle of Lewis, is situated at Croft No. 5, Kirkibost, which is owned by an elderly gentleman named Mr. Norman MacLennon. As croft owner, he has complete rights over the land, and it is said that he vetoed and stopped further work of excavating on his land for diatomite; even though the work was sponsored by the Highland Development Board under the direction of Mr. John Rollo. Mr Donald MacDonald of 11 Kirkibost, Bernera, nr. Stornoway, Isle of Lewis accompanied Betty and myself to the site and pointed out an area of about 6ft by 5ft, which had tentatively been excavated for diatomite. He also pointed out a small 3ft diameter x 6 inches high spoil heap of yellow-brown clay-like earth which had been excavated from the workings. It varied in shade and colour from grey through cream to a rusty red-oxide colour.</p> <p>The adjoining 18 inches wide x 12 inches deep man-made diversion stream was well covered with a peaty red-oxide coloured soft coating which contained very few diatoms in it. The Loch was bordered by a small rush or sedge which was in flower and looked very attractive. I gathered later from D. MacDonald that the Gaelic name for this plant was 'Cuilc'. On the adjoining hillside there were many orchids with spotted leaves. Some with pale purple flowers and others almost white. I believe that one is a particular Hebridean variety.</p> <p>Later we met Norman MacDonald who was a fine young man aged about 18. He said that his father had worked on digging the Loch na Cuilc and the hole was about 5 or 6 feet square and some 4 feet deep, so far as he could remember. He recalled that it was about 7 years ago – on 1964. "It was only on the go for a few months before Norman MacLennon stopped it".</p> <p>See also 313 below.</p>
312	<p>River Rother at Argos Hill, Mayfield, Sussex. Collected by B. Hartley with R.I. Firth 3rd May 1971 from floor of culverted stream ½ mile south of the mill. Includes <i>Cocconeis</i> attached like cockles on filamentous algae.</p>
313	<p>Loch-na-Cuilc from J. M. Rollo of the Scottish Highlands Development Board. 30th June 1971</p>
314	<p>Toomebridge, N. Ireland Per R.I. Firth and cleaned by him 15th December 1953. Retained on 600 mesh, re-screened by B. Hartley, July 1971. (See also 344 and 373) 314a returned by R.I. Firth and contains small quantity of <i>Stauroneis javanica</i>. (Cork and fluff removed by swirling and then re-sieved over 600 mesh) [Atlas Plate No.257]</p>
315	<p>Afon Cwm Minach, opposite Penmaenpool, near Dolgellau. Algae etc. on stones 6012 inches deep in river.</p>
316	<p>Marchlyn Bach is 1558' A.O.D. and N.W. of Mynydd Perfedd, 3 miles S. of Bethesda in Caernarfonshire. National Grid Reference 6080-6290 O.S. Sheet 107 of Snowdonia. Sample received 16th July 1971 from E. G. Williams of Chester. Collected by Dr. W. S. Lacey, University College of Wales, School of Plant Biology, Bangor. Collected September 1959. Sample 'D' when water level was 15 feet below normal.</p>
317	<p>Marchlyn Bach is 1558' A.O.D. and N.W. of Mynydd Perfedd, 3 miles S. of Bethesda in Caernarfonshire. National Grid Reference 6080-6290 O.S. Sheet 107 of Snowdonia. Sample received 16th July 1971 from E. G. Williams of Chester. Collected by Dr. W. S. Lacey, University College of Wales, School of Plant Biology, Bangor. Collected September 1959. Sample 'C'.</p>
318	<p>Marchlyn Bach is 1558' A.O.D. and N.W. of Mynydd Perfedd, 3 miles S. of Bethesda in Caernarfonshire. National Grid Reference 6080-6290 O.S. Sheet 107 of Snowdonia. Sample received 16th July 1971 from E. G. Williams of Chester. Collected by Dr. W. S. Lacey, University College of Wales, School of Plant Biology, Bangor. Collected September 1959. Sample 'B'</p>
319	<p>Sample 'A'</p>

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Entry No.	Particulars
	<p>Marchlyn Bach ↓ ----- 'D' – 2" silt ----- 'C' – 30" Iron stained diatomite 'B' → ----- 'A' - 28" Pure white diatomite ----- ↑ Brown clay with pebbles</p>
320	<p>Beddingham, Lewes, Sussex Collected by R.I. Firth 24th July 1971 South Drainage channel near the lay-by alongside the Lewes-Eastbourne road, between the level crossing and the bridge at Glynde Reach.</p>
321	<p>River Wharfe opposite Bolton Abbey, Yorkshire Collected from dripping rock face by B. Hartley. 1st August 1971</p>
322	<p>Pevensey Sluice, Sussex Collected by R.I. Firth 7th September 1947 <i>Pleurosigma angulatum</i> [Atlas Plate No.245]</p>
323	<p>Pevensey Sluice, Sussex Collected by R.I. Firth 21st May 1970 Almost all lost by T. Hall from broken flask.</p>
324	<p>Stream near Ashburnham, Sussex Collected by R.I. Firth 21st May 1970</p>
325	<p>Burton Pond, Petworth, West Sussex Overflow weir 2nd October 1970</p>
326	<p>Burton Pond, Petworth, West Sussex Overflow weir 5th August 1970 Weir scrapings</p>
327	<p>Burton Pond, Petworth, West Sussex Overflow weir 14th April 1971 Floating material</p>
328	<p>Burton Pond, Petworth, West Sussex Overflow weir 14th April 1971 From base of spillway</p>
329	<p>Burton Pond, Petworth, West Sussex Overflow weir 14th April 1971 From top of concrete weir – scrapings.</p>
330	<p>Wallop Well, Waddington Fells, near Clitheroe, Lancashire Collected 29th August 1971 <i>Surirella</i> and Diatoms Part also in CuNi acetate</p>
331	<p>Shawbridge, Clitheroe Col. R.I. Firth 7th August 1959</p>
332	<p>Saltdean gap, Brighton Collected by R.I. Firth 13th January 1971 "Not highly siliceous – go easy with H₂SO₄" <i>Amphora, Navicula, Schizonema, Amphipleura Berkeleya rutilans</i> [Atlas Plate No.34]</p>
333	<p>Hells Kettles, near Darlington Collected by R.I. Firth 13th August 1959 <i>Amphipleura pellucida</i>. Reacted to HCl. [Atlas Plate No.12]</p>

Entry No.	Particulars
	<p style="text-align: center;">6 Windover Crescent, LEWES, Sussex.</p> <p style="text-align: right;">14th January 1971.</p> <p>R.I.F. found <i>Amphipleura pellucida</i> here in 1959.</p> <p style="text-align: center;"><u>Hell's Kettles, Croft, Darlington.</u></p> <p>Dear Sir,</p> <p>Some time ago you were good enough to give me certain information concerning the rocks in Howroyd Clough, Todmorden, Yorkshire, when a friend and I were investigating the diatom flora of the Clough. I wish again to seek certain information about another diatom locality.</p> <p>About twenty years ago a correspondent in San Francisco sent me a sample of cleaned diatoms from Hell's Kettles, Croft, Darlington, England. The actual title of the locality may be a variant of Hell's Kettles, e.g. Hell Kettles. I gathered that this material had been sent to the States many years ago and had lain in the California Academy of Sciences until it again crossed the Atlantic and reached me. In August, 1959 I was able to visit Hell's Kettles and found they consisted of four small ponds in a pasture on the east side of A167 two miles or so south of Darlington. Three of the ponds were covered with duck weed but the fourth had much open water and I was able to make a gathering of diatom material which was to all intents and purposes identical with that gathered long ago by a former visitor. In the centre of the open water there appeared to be small eddies and occasionally bubbles of air rose to the surface. I gained the impression that the ponds were of natural origin and it may well be that in severe weather the agitation of the water might be much more evident - hence the name Hell's Kettles.</p> <p>If you are able to give me any information about Hell's Kettles which would be useful in preparing a report on the diatom flora of the ponds I should be very grateful.</p> <p style="text-align: right;">Yours faithfully,</p> <p style="text-align: right;">(R.I.Firth)</p> <p>The District Geologist, North Western Unit,</p>
334	<p>Fulking, W. Sussex Spring from well at 'Shepherd and Dog'. <i>Amphipleura pellucida</i> "Settle slowly!!!" Better than Hell Kettles. See also No. 283. [Atlas Plate No.12]</p>
<p>335 to 343. These 9 samples were collected or owned by George West of Dundee College, 50 or more years ago. The samples were all dried out and contained in individual bottles. Sample 345 was also by Geo. West and probably 346.</p>	

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Entry No.	Particulars
335	<p>Geo. West 23rd September 1916 Brown coating on mud in little stream within tidal limits nearly opposite railway bridge at east end of Tayport. <i>S. gemma</i> – pure, <i>Pleurosigma</i>, <i>Amphiprora</i>, <i>Navicula</i> etc. No parasites. [Atlas Plate No.274]</p>
336	<p>Geo. West 19th August 1926 Scrapings from stone and posts at weit (?) to White Loch, Blairgowrie. <i>Cymbella</i>, <i>Synedra</i> etc., in alcohol.</p>
337	<p>Geo. West. From stones in burn at head of Loch Ogilvie, Sidlaw Hills. Altitude 800 feet. <i>Ceratoneis arcus</i>, <i>Meridion</i>, <i>Diatoma</i>, <i>Fragilaria</i>, <i>Cocconeis</i> on <i>Cladophora</i>, <i>Synedra</i>, <i>Diatoma anceps</i> in filaments, <i>Gomphonema</i>. In this gathering there are also cysts of diatoms or more probably Amoeba distended with engulfed specimens. In one there were 2 <i>Synedras</i>, several <i>Diatoma</i>, 2 <i>Ceratoneis</i>, and 3 <i>Cocconeis</i> specimens. "Other individuals contained more diatoms, too many to count" [Atlas Plate No.75]</p>
338	<p>Geo. West 6th July 1905 Gelatinous masses floating in bays of Loch Skerrow. <i>Fr. Rhomboides</i> var. <i>saxonica</i>, (with shoulder) with some sporangial forms. <i>Cymbella</i>, <i>Tabellaria</i>, <i>Eunotia</i>, <i>Synedra</i>. [Atlas Plate No.104]</p>

Entry No.	Particulars
339	<p>Geo. West 5th July 1918 From the hills ? an Tuin Briac, Ben Lawers – 900 feet. Sacheria with spores covered with diatoms <i>Synedra, Ceratoneis, Eunotia, Gomphonema, Cymbella</i> etc. Very fine gathering.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p><u>BEN LAWERS, Scotland</u> 80</p> <p>An Tuin Briac.</p> <p>Coll: Geo. West 5/7/1918</p> <p>BH339</p> <p>"A very fine gathering"</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p><u>BEN LAWERS, Scotland</u> 166</p> <p>(on 600)</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p><u>LAWER'S BURN, Tay area</u> 611</p> <p>(from dripping rock, 900 feet, Coll: Geo. West 7/7/1918)</p> <p><i>Ceratoneis acuta</i></p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p><u>BEN LAWER, SCOTLAND</u> 668</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
340	<p>Geo. West 16th December 1922 Scraped from mud in stream flowing into Moreton Loch, Tents Muir, Fife. <i>Nitzschia</i> sp. With few other diatoms. Amoeba and other protozoa.</p>

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Entry No.	Particulars
341	<p>Geo West 24th September 1921 Collected by Geo. Henderson of Beech Grove, Balfron, Stirlingshire. Diatoms from Ballikinrain Burn, Campsie Falls, N.W. side. Later in a letter dated 20th November 1921 from Henderson to West, he says that the diatoms were not actually taken from the burn, but from the face of the Devonian red sandstone at the side of the burn. The rock-face is concave and kept damp by trickling water which percolates through joints of the sandstone. There was dry ground and heather above. <i>Fr. rhomboides</i> var. <i>saxonica</i> – ‘Good’. [Atlas Plate No.104]</p>
342	<p>Geo. West 26th August 1923 Water trough at shepherd’s house, Balkenback Farm, Teiling. Diatoms, <i>D. hiemale</i> var. <i>mesodon</i>, almost pure. [Atlas Plate No.75]</p>
343	<p>Geo. West 23rd May 1914 Pool in draine (sic) loch. Loch Morton, Tents Muir. <i>Nav. cuspidata</i>, <i>Nav. ambigua</i>, <i>Pinnularia</i>, <i>Pleurosigma</i>, <i>Synedra</i>, <i>Closterium</i>, <i>Carteria</i>, etc. [Atlas Plate No.137]</p>
344	<p>Toomebridge, N. Ireland Per R.I. Firth 15th December 1953 Cleaned by R.I. Firth. Sieved over 600 mesh by B. Hartley, Contains punctuate <i>Surirella</i> smaller than <i>S. turgida</i>.</p>
345	<p>Geo. West 9th August 1922 Washings from hepatica growing on cave in cove. Contains <i>Orthoneis Dickei</i> with caps in fair abundance. <i>O. spinosa</i> and other unusual forms. Fixed in Flemings solution and later in 50% alcohol.</p>
346	<p>(?) Geo. West 1st January 1915 “Blankenberg – Tempere” – a very small amount of sample.</p>
347	<p>Per J.M. Rollo 27th August 1971 (See letter on file) Fine beige or biscuit coloured powder of ‘Skye diatomite’. Calcined and wind sifted as it was probably produced by Scottish Diatomite Ltd. before they were liquidated about 1960. (Presumably Loch Cuithir material.)</p>
348	<p>Aldeburgh, Suffolk Collected by B. Hartley 6th September 1971 Floating mat of algae on fish pond. Mainly <i>Synedra</i>. Part in Cu.Ni acetate.</p> <div style="text-align: center;"> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
349	<p>Walberswick Harbour, Suffolk Collected by B. Hartley 5th September 1971 Mud from the surface of the creek. No reaction to HCl.</p>
350	<p>Walberswick gutter, Suffolk Collected by B. Hartley 5th September 1971 Algal squeeze and mud from banks. Reacts to HCl. Large <i>Pleurosigma</i> and <i>Gyrosigma</i></p>

The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
	<p>Samples 349/350 Slide – late P. E. Platten Slide of Diatoms from Walberswick A mile to the south of the little seaside town of Southwold, lies the village of Walberswick. Beloved of Artists, the happy hunting ground of the Ornithologist and Botanist. The rivers and creeks with which the area abounds are an Eldorado for the Diatomist. The rivers are tidal and brackish, particularly the Dunwich River, from which the diatoms that appear on this slide were taken. The Dunwich meanders along following the coastline, and at times the only thing that separated it from the cold grey water of the North Sea is a bank of shingle. So as might be expected, there is always a seepage of salt water into the river. At certain times of the year, to be more precise in the early Spring and again in the Autumn, a population explosion takes place among the Diatoms. A change of temperature or the advent of a sunny day, brings them to the surface of the shallow river in vast quantities. They form a brown scum which, blown by the wind, collects inches thick in sheltered places. No need for nets or elaborate methods of collecting; a screw-top jar, lightly passed over the surface, will bring in enough material to supply a study of them for years. Even the mud-loving kinds like <i>Pleurosigma</i> are here by the millions. It is also interesting to note that many of the marine diatoms of British coastal waters, are here, showing how salt the water must be. I have even found <i>Actinoptychus senarius</i>, or as it is more frequently known <i>A. undulatus</i> and this is a marine diatom and is spread through all the temperate areas. The following photographs were taken from this slide. [Transcribers Note: - Photographs not attached to document]</p>
351	<p>Beddingham level crossing, Lewes, Sussex. Floating mass of <i>Melosira</i> in brackish ditch. Collected 16th September 1971</p>
352	<p>Appleore, Kent Collected by B. Hartley 17th September 1971 Squeeze from weed in F/W dyke.</p>
<p>353 to 358. These 6 samples were collected from British Honduras by William A. Schipp, a botanical collector of 'Flora of British Honduras'. Probably about 1940. They were received by B. Hartley from R.I. Firth. [Klaus-Dieter Kemp reference: 148B - Mr.Schipp - British Honduras]</p>	
353	<p>Silt gathered from edge of mangrove swamp. Small quantity in muslin bag. Locality – All Pines, British Honduras No. 19.</p>
354	<p>No. 24. Stann Creek railway, British Honduras. Large quantity of dried scales of algal slime from quarry face.</p>
355	<p>No. 2. All Pines, British Honduras. Light brown marine algae. 'Seaweed with berries.'</p>
356	<p>No. 38. Stann Creek, British Honduras. Sea grass drift. Mainly roots and stems of plants.</p>
357	<p>No. 36. Stann Creek, British Honduras. Large quantity of filamentous algae and dirt from a stagnant pool.</p>
358	<p>? Stann Creek, British Honduras. Filamentous mats of algae growing in wet sound.</p>
359	<p>Tissington, Derbyshire Collected 10th October 1971 Top well, oval shaped like a horse trough. Brown algae on sides of trough.</p>
360	<p>Tissington, Derbyshire Collected 10th October 1971 Well opposite Fitzherbert's Hall. Well almost dry, but squeeze from moss and algae around former overflow.</p>
361	<p>Tissington, Derbyshire 10/10371 Well under Yew tree at bottom of village on road towards Lichfield. Dirt and algae from near stagnant well, and also from wet place in front of well.</p>
362	<p>Malvern Hills Collected 6th November 1971 in company with F. Hobbs of the Q.M.C. Outlet spring on west side.</p>
363	<p>Beddingham, Lewes Ditch near level crossing 29th October 1971</p>

Entry No.	Particulars
364	<p>River Thames, near Customs House. Scrapings from timber piles taken by H.H. Gleave of Q.M.C. in October 1971. First recording in the British Isles of <i>Hydrosera triquetra</i> Wallich.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p style="text-align: right;">312 7</p> <p>THAMES, RIVER LONDON</p> <p>Scrapings from baulks near Customs House. Coll: H.H. Gleave Octr. 1971. On 600.</p> <p style="text-align: center;">BH364</p> <p>+390 (+133) +673</p> </div> <p style="text-align: center;">R.I. Firth index card</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p style="text-align: right;">640</p> <p>GOMPHONEMA OLIVACEOIDES</p> <p>South Tyne, above Nent- head. Ex J.R.Carter</p> <p style="text-align: center;">BH364</p> </div> <p style="text-align: center;">R.I. Firth index card</p> <p>[Atlas Plate No.120] [Klaus-Dieter Kemp reference: 029R – B. Hartley 364 – Thames River, London]</p>
365	<p>Breens Farm, New Zealand Ex Doig per F. Hobbs November 1971 [Klaus-Dieter Kemp reference: 403R - K.D. Kemp - Breens Farm, Oamaru N.Z.] [Klaus-Dieter Kemp reference: 742B - K.D. Kemp - Breens Farm, Oamaru N.Z. - Good]</p>
366	<p>Rocky stream south Ex Doig per F. Hobbs November 1971 [Klaus-Dieter Kemp reference: 089G – B. Hartley 366 – Rocky Stream, South Oamaru, N. Zealand]</p>
367	<p>Waingi, Canterbury, New Zealand Fossil F/W Ex. Mr. Reed, a friend of Mr. Wise (per F. Hobbs November 1971)</p>
368	<p>River Kennet, Marlboro, New Zealand F/W Collected November 1955 by Mr. Reed (per F. Hobbs November 1971)</p>
369	<p>Oamaru, New Zealand Per F. Hobbs November 1971</p>
370	<p>River Gipping, Norwich Road bridge, Ipswich, Suffolk Brackish 4th September 1966 per F. Hobbs November 1971</p>
371	<p>Kew Gardens, Dynamentae pond (N. end) 4 October 1953 per R. Reed via F. Hobbs November 1971</p>
372	<p>Allen's Farm, Oamaru, New Zealand Ex. Doig collection of material with F. Hobbs. Received 1st December 1971</p>

The Bernard Hartley Sample and Strewn Slide Collection Index

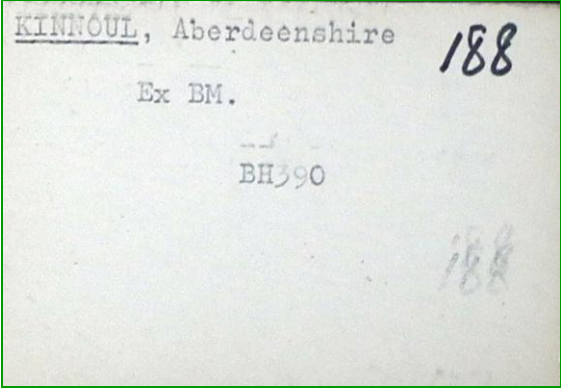
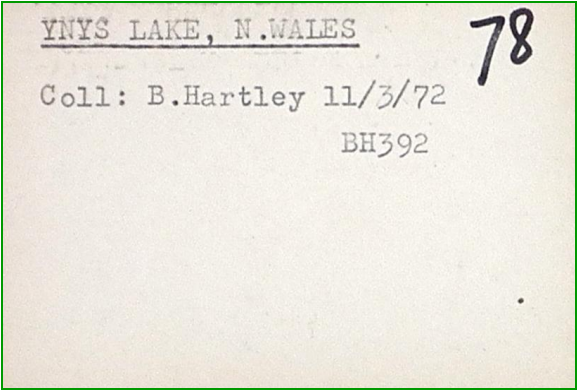
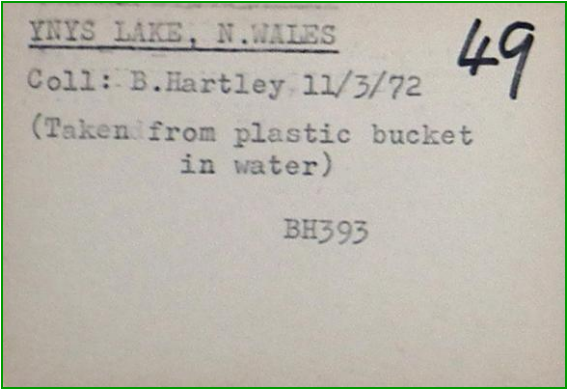
Entry No.	Particulars
373	<p>Toomebridge, N. Ireland Received December 1971 Broken down by R.I. Firth in glauber salts. Further cleaning by B. Hartley included: Boiling in HCl followed by settling and decanting twice. Boiling again in H₂O. Decanted and then digested in H₂SO₄ followed by Potassium Chlorate and a drop of Nitric acid. Boiled almost to dryness and fully fumed in H₂SO₄. Two samples returned to R.I. Firth. One after HCl and the other after full digestion. Heavy and medium material sent to T.B. Paddock for the British Museum June 1972 (see also sample 412)</p>
374	<p>Kentmere Possibly from Leeds Fireclay Co. originally. Ex. J.R. Carter via R.I. Firth 12th January 1972</p>
375	<p>Landport, near Lewes, Sussex Per R.I. Firth 12th January 1972 Six slides, 3 retained and 3 passing 600 mesh from R.I. Firth's material after sieving by B. Hartley. None retained. <i>Amphora ovalis</i>. [Atlas Plate No.21]</p>
376	<p>South Heighton, Sussex Collected by R.I. Firth 23rd January 1955</p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
377	<p>Probably Californian fossil material. Diatomaceous filtering material used by Midlands oil refineries. Halesowen. Received January 1972.</p>
378	<p>Burton Pond, West Sussex Seven slides of Material collected by R.I. Firth on 23rd April 1950, 20th May 1956 and 30th March 1956.</p>
379	<p>Lock Cottages, Kinver Sidewater adjoining Stourbridge Canal. Squeeze from Lemna minor, containing <i>Synedra</i>, <i>Diatoma</i>, <i>Melosira varians</i>, etc. Sample also in CuNi acetate. [Atlas Plate No.129]</p>
380	<p>Ditch near Glastonbury, Somerset Collected 19th February 1972 <i>Melosira</i>, <i>Fragilaria</i>, <i>Diatoma</i>, <i>Navicula</i> etc. Brown floating filamentous mass.</p>
381	<p>Ditch adjoining peat excavations near Glastonbury, Somerset. Squeeze from decaying rush leaves. (Mainly small <i>Naviculae</i> and <i>Achnanthes</i>)</p>
382	<p>Consett Bay, Barbados Diatomaceous rock per Dr. Malcolm Thain, Bure House, 2 Middleton Road, Shenfield, Essex. He says 'Diatoms broken, polycistines whole.'</p>

Entry No.	Particulars
383	<p>Abraham's Gill, Westlands Farm, Russ Hill, Charlwood, Surrey Small sample per A.G. Greenfield 10th February 1972 Pure growth on the Weald clay bottom.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>ABRAHAM'S GILL, WESTLANDS FARM, RUSS HILL, CHARLWOOD, SURREY. 676 Coll: A.G.Greenfield (AGG 86L)</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>ABRAHAM'S GILL, Charlwood, Surrey 194 Coll. Dec. 1979 629 Coll: A.G.Greenfield 1971-2 Coll: A.G.G.March 1980 (Stauroneis legumen) 661 (AG-86L) 676</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.258]</p>
384	<p>Westlands Farm, Russ Hill, Charlwood, Surrey. Diatoms freshly gathered by A.G. Greenfield on 21st February 1972 from surface of mud in horse paddock.</p>

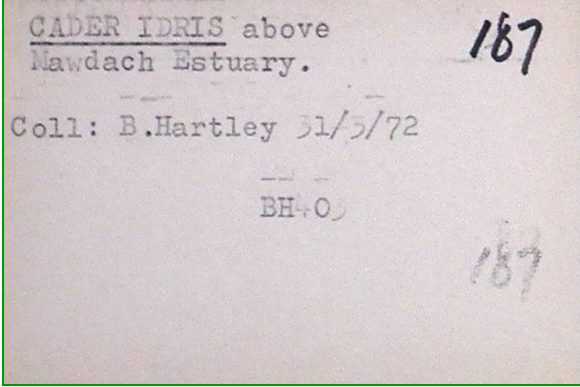
Entry No.	Particulars
385	<p>Beddingham, Lewes, Sussex Collected by R.I. Firth 24th February 1972 Drainage channel next to lay-by at south side of road between level crossing and Glyne Reach bridge.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>BEDDINGHAM, LEWES, SUSSEX.</p> <p style="text-align: right;">413 → 467 487-492 498</p> <p>Pleurosigma elongatum 510-1 (delicatula ?) 1946 - 1955</p> <p>487 } with 490 } with</p> <p style="text-align: right;">643 BH 385 → 34</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>ANOMOBONEIS SPHAEROPHORA 350 (Sculpta?)</p> <p>EASTBOURNE (Crumbles)</p> <p>Beddingham, 2x 413 & 467</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.246 & 26]</p>
386	<p>Westlands Farm, Charlwood, Surrey Received from A.G. Greenfield 3rd March 1972 Pond in which watercress is grown.</p>
<p>Samples 387, 388 and 389 received from British Museum (Nat. Hist.), Dept. of Botany; under cover of a letter dated 23rd February 1972. From T.B.B. Paddock and Ms. P.A. Sims. (Also samples 390 and 391)</p>	
387	<p>Diatomite from Balchik (Ginibair) Middle Sarmation, Bulgaria. Collected by N. Ruskova. No good, no diatoms! Returned to T.B.B. Paddock 23 March 1972.</p>
388	<p>"V. Diatomite, Sputie Bwin, Golspie" See Ivison Macadam, Trans. Geol. Soc. Edin. June 1886 Three samples "Heavy, medium and light" sent to B.M. and also to R.I. Firth in June 1972.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>SPUTIE BWIN, Golspie, Scotland. 44</p> <p>Sub-fossil. Coll: Ivison Macadam. Trans. Geol. Society of Edinburgh, June 1884. Mineralogical Magazine July 1886 Cleaned B.Hartley April 1972. BH388</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>

Entry No.	Particulars
389	<p>Loch Kinnord Three samples "Heavy, Medium and minute" sent to Mr. Paddock at the B.M., and also to R.I. Firth in June 1972.</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p><u>LOCH KINNORD, Aberdeen-</u> 35 <u>shire</u></p> <p>Cleaned B.Hartley May 1972. (Passing 600) Medium.</p> <p>BH389</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p><u>LOCH KINNORD, Aberdeen-</u> 39 <u>shire</u></p> <p>Cleaned B.Hartley May 1972. Passing through 600. Minute.</p> <p>BH389</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p><u>LOCH KINNORD, Aberdeen-</u> 40 <u>shire</u></p> <p>Cleaned B.Hartley May 1972. Retained on 600.</p> <p>BH389</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid black; padding: 5px;"> <p><u>LOCH KINNORD, Aberdeen</u> 189 <u>shire</u></p> <p>Ex BM</p> <p>BH389</p> <p>189</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 884B - R.I. Firth 38 - Loch Kinnord, Aberdeenshire Scotland - Fine]</p>

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Entry No.	Particulars
390	Diatomite, Kinnoul, Aberdeenshire Ex B.M. 23 rd February 1972  <p style="text-align: center;"><i>R.I. Firth index card</i></p>
391	Diatomite, Kinnoul, Aberdeenshire Ex B.M. 23 rd February 1972
392	Ynys Lake, near Harlech, Merioneth 11 th March 1972 Floating brown mass at side of lake.  <p style="text-align: center;"><i>R.I. Firth index card</i></p>
393	Ynys Lake, near Harlech, Merioneth 11 th March 1972 Diatoms scraped from the inside of a polythene bucket dumped in the lake.  <p style="text-align: center;"><i>R.I. Firth index card</i></p>
394	Beach at Borth y Gest, near Porthmadog where a stream of spring water flows through the mud and stones of the beach. 11 th March 1972
395	Top of the beach at Borth y Gest 11 th March 1972 Small stream
396	Near Llandecwyn railway HALT platform, between Porthmadog and Harlech. Diatoms scraped from mud in brackish stream.
397	East side of road between Harlech and Talsarnau, Merioneth. Brown jelly on dripping rocks.
398	Stones under land drain at tidal creek, Llandanwg, near Harlech, Merioneth. Collected 28 th March 1972


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Entry No.	Particulars
399	Scrapings from stones in small moorland stream above Harlech, Merioneth. Collected 29 th March 1972
400	Filamentous algae in fast flowing moorland stream on hills above Harlech, N. Wales Collected 29 th March 1972 <i>Tabellaria flocculosa</i> and <i>Diatoma</i> . [Atlas Plate No.284]
401	<i>Batrachospermum</i> in Llyn-y' Fedw, above Harlech, N. Wales. Collected 29 th March 1972 On decayed plant stems.
402	Filamentous algae on stones in fast flowing stream above Talsarnau and Ynys, N. Wales Collected 29 th March 1972
403	Rain all day on this Good Friday!!! Brown algal film and a little grey jelly on stones in River below Cader Idris above Mawdach Estuary. Collected 31 st March 1972 <i>Gomphonema</i> , <i>Didymosphenia</i> and <i>Cymbella</i> . 

R.I. Firth index card

Entry No.	Particulars
404	<p>Floating bubbling brown algae on village pond at Whittington, Shropshire 31st March 1972</p> <div style="border: 1px solid green; padding: 5px;"> <p>WHITTINGTON POND, 81 Shropshire. Floating bubbling algae in village pond. Coll: B.Hartley 31/3/72 BH404 On 600</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px;"> <p>WHITTINGTON POND, 37 Shropshire. Floating bubbling algae. Coll: B.Hartley 31/3/72. Passing through 600 BH404</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px;"> <p>WHITTINGTON POND on A5 41 Shropshire. Floating bubbling algae on village pond..Coll: B.Hartley 31/3/72 BH 404</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px;"> <p>WHITTINGTON POND on A5 46 Shropshire. Floating bubbling algae in village pond. Coll: B.Hartley 31/3/72 BH404 (on 600)</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
405	<p>2nd April 1972 Floating bubbling grey green algae in roadside ditch on A50 near Milton Keynes, Buckinghamshire. (On the way to visit David and Mary)</p>
406	<p>30th March 1972 Seaweed and sponges taken from just below low water in the narrow part of Aber Artro; opposite the breakwater at LLandanwg, near Harlech.</p>

Entry No.	Particulars
407	Sample per R.I. Firth 8 th April 1972 Collected by Dr. M.S. Bingley
408, 409, 410 and 411. These four samples were obtained from Thomas Gibson Ltd., Quarry Corner, Dundonald, Belfast. Tel. No. Dundonald 2065.	



Geological Survey of Northern Ireland
20 College Gardens Belfast BT9 6BS

Telephone Belfast 666595

4/1/72

R. I. Firth, Esq.
6 Windover Crescent
Lewes
SUSSEX.

Your reference

Our reference **E/222**

Date January 10, 1972.

Dear Sir

Thank you for your enquiry about diatomite in Northern Ireland.

Unfortunately we do not have any samples of diatomite from the localities you mention, apart from Toomebridge. However, if any of our officers is passing near the workings in the near future I shall arrange for samples to be collected. In the meantime I would suggest that you write to the companies actually working the deposits; I append a list of their names and addresses.

Samples from Toomebridge are being studied by one of our palaeontologists, Dr. R. Harland, at our office at Ring Road Halton, Leeds LS15 8TQ, and Mr. D. Thomas at the same address has been working on diatomite deposits in North Wales.

We have no knowledge of the place name 'Uncaldine' in Northern Ireland.

We should be interested to see slides of Northern Ireland diatoms.

Should you wish to visit Northern Ireland to collect samples we would be in a position to provide you with a fairly detailed list of localities.

Yours faithfully

Entry No.	Particulars
	<p style="text-align: center;">Names and Addresses of Diatomite producers in Northern Ireland</p> <hr/> <p>U.K. Peat Moss Litter Co. Ltd. The Creagh Toomebridge Co. Londonderry. Telephone No. Toomebridge 204.</p> <p>Thomas Gibson Ltd. <i>Samples</i> Quarry Corner <i>408. 409</i> Dundonald <i>410. 411.</i> Belfast. Telephone No. Dundonald 2065.</p> <p>Peat Fuels (Ulster) Ltd 93 Ann Street Belfast BT1 4EA. Telephone No. Belfast 21183.</p> <p>Geological Survey of N. Ireland 20 College Gardens <u>BELFAST BT9 6BS.</u></p> <p style="text-align: right;"><u>JANUARY 10, 1972.</u></p>
408	Largy, Bann Valley, about 2 feet deep.

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Entry No.	Particulars
409	<p>New Ferry, Bann Valley, N. Ireland.</p> <div style="border: 1px solid green; padding: 5px;"> <p><u>NEW FERRY, N.Ireland</u> 61</p> <p>Per Thos.Gibson Ltd., 362-4 Dundonald.</p> <p>Cleaned B.Hartley Apl.1972</p> <p>BH409</p> <p style="text-align: center;"><i>362-4 earlier cleaning</i></p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
410	Lisles, Bann Valley, N. Ireland
411 (B)	<p>Ballyscullion, Bann Valley, N. Ireland</p> <div style="border: 1px solid green; padding: 5px;"> <p><u>BALLYSCULLION, Bann</u> 57 <u>Valley, N.Ireland.</u> 361</p> <p>Per Thos. Gibson Ltd., Dundonald, Belfast.</p> <p>Cleaned B.Hartley Apl.1972</p> <p>BH411</p> <p>Passing 600</p> <p style="text-align: center;"><i>361 - acid only BH411</i></p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px;"> <p><u>BALLYSCULLION, Bann</u> 56 <u>Valley, N.Ireland.</u></p> <p>Per Thos. Gibson Ltd., Dundonald, Belfast.</p> <p>Cleaned B.Hartley Apl.1972</p> <p>Large BH411</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 278R – B. Hartley 411 – Ballyscullan, Bann Valley, N. Ireland. - Part of Toomebridge site, Light] [Klaus-Dieter Kemp reference: 279R – B. Hartley 411 – Ballyscullan, Bann Valley, N. Ireland. – Part of Toomebridge site, Heavy]</p>
412	Toomsbridge, N. Ireland (as sample 373)
413	Hell Kettles, near Darlington Collected by R.I. Firth 13 th August 1959

Entry No.	Particulars
	<p style="text-align: center;">Proc. Yorks. Geol. Soc. Vol.7. 1881 pg. 346.</p> <p>The "Hell Kettles" at Croft are two ponds connected by a narrow channel on the surface, situated near to and on an alluvium of the Tees, the water in them may be Tees water, that after traversing the limestone, is conveyed to the pit mouth of these natural shafts or swallow holes. The Hall Garth Ponds, on a terrace of the Ure are very similar cavities the water in them sing and falling with the river.</p> <p>That something very like a Ripon swallow hole did make its appearance where the "Hell Kettles" are, may be inferred from the following quaint description of a "convulsion of the earth," by a twelfth century annalist.</p> <p>"In the reign of Henry II, the earth rose on high at Oxendale, in the district of Darlington, (Oxendale is now Oxney flat) "in the likeness of a lofty tower, and so remained from nine in the morning until evening, when it sank down with a terrible "noise, to the terror of all that heard it, and being swallowed up, "it left behind it a deep pit."</p> <p>With all due deference to our twelfth century annalist, it is not likely that a more interesting phenomenon really occurred than that witnessed by Mr Dunwell, at Ripon, in 1856, and described by Mr. Tute. Mr. Dunwell with his pupils were at the watching some men fishing, when they heard a noise like thunder, and on looking round, saw at a little distance a mass of earth and stones rising into the air and falling back again. On going to the place they found a hole had formed in which was water; the sides of the pit fell rapidly in, and the water disappeared.</p>
414	<p>Forgan Bog, 2 miles s. of East Newport, Fife Ditch overgrown with <i>agrostis</i>, <i>Carex</i>, <i>Juncus</i>, Etc. Collected on 16th December 1922 by Geo. West Note: R.I. Firth cleaned a similar sample in April 1956 and found <i>Amphipleura pellucida</i> in it.</p> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;"><u>AMPHIPLEURA PELLUCIDA</u></p> <p style="text-align: right;">407 427 585</p> <p>Forgan Bog, South of East Newport, Fife.</p> <p>Coll: Geo. West 16th Decr. 1922.</p> <p>Hell Kettles 426 582 Borrow, Rowan 758 (772) Forgan - see McCall "Jay" 1933</p> </div> <p style="text-align: center;">R.I. Firth index card</p> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;"><u>FORGAN BOG, South of 407, 427</u> <u>East Newport, Fife. 585</u></p> <p>Coll: Geo. West 16th Decr. 1922.</p> <p style="text-align: center;"><u>AMPHIPLEURA PELLUCIDA.</u></p> <p style="text-align: right;">see McCall "Jay" 1933</p> </div> <p style="text-align: center;">R.I. Firth index card</p> <p>[Atlas Plate No.12]</p>

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Entry No.	Particulars
415	Burton Pond, W. Sussex 21 st January 1972 Floating material collected by R.I. Firth.
416	Burton Pond, W. Sussex 21 st January 1972 (as 415) but scrapings from waterfall.
417	Burton Pond, W. Sussex 21 st January 1972 (as 415) but from base of spillway.
418	The Cockshut Brook, Lewes, Sussex Collected by R.I. Firth on 20 th March 1972
419	'Kingcup Swamp' between Greensforge Farm, Swindoe, near Dudley and Kinver, Staffs. Collected with David 22 nd April 1972
420	Hajos 685 per Ms. Sims at British Museum 4 th May 1972 New species like <i>Cocconeis</i> but with an arching raphe.
421	Szurdokpuspoki (also known as Castel) Sample No. 1. Material per Ms. Sims of Brit. Museum. Creamy, straw coloured sample. Heavy, medium and light returned to B.M. 11 th June 1972
422	Szurdokpuspoki (also known as Castel) (as 421) but marked Sample No. 2. Slate grey coloured material. Also per Ms. Sims of B.M. 4 th May 1972
423	H.G. Barber's 'Kitchen sink flora'. The accumulation of many samples from many sources and countries. (see also 577)
424	<i>Didymosphenia geminata</i> (Lyngbye) M. Schm. H.G. Barber's sample 824 after cleaning by B. Hartley in May 1972.
425	Ditch near Muchelney Abbey, Somerset May 1972
426	Dean Brook, near Hurst Green, Lancashire Squeeze from algae and moss on slabs of rock in fast flowing stream. May 1972
427	Two slides made from minutely small sample, ex. M.O. Moss via R.I. Firth, from River Wey, Guildford. (<i>Stephanodiscus hantzschii</i>) [Atlas Plate No.263]
428	Squeeze from filamentous algae floating on pond above stream in Kidderminster roadside park, alongside A449. June 1972.
429	Squeeze from sphagnum in mountain rivulet running from acid moors towards the Elan Valley reservoirs, Radnorshire. June 1972. Large <i>Pinnularias</i> with <i>Eunotia</i> , <i>Navicula</i> and Desmids.
430	River Derwent, near Bamford, Derbyshire (On stones) Opposite Dr. Bailey's house. 17 th June 1972 Very variable shaped Diatoms.
431	Ditch near Litchfield. 18 th June 1972 On return journey from Jardines.
432	Small quantity in an old sample tube labelled A3 and discarded by R.I. Firth.

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Entry No.	Particulars
433	<p>Warri, S. Nigeria Mud Collected by Mr. Thomas Haythornthwaite, Chief Engineer on steamer trading with West African coastal ports. Received per R.I. Firth 28th June 1972. From a clearing in a mangrove swamp. See "Diatoms from Warri, South Nigeria", by Frederick W. Mills, J.R.M.Soc. 1932 Vol.LII pp.383-404 16th November 1932. [Klaus-Dieter Kemp reference: 459B - J.A.Long W21 - Warri River, Nigeria - R.M] [Klaus-Dieter Kemp reference: 883B - K.D. Kemp - Warri River, Nigeria - Cleaned by K.D.K 29/11/88] [Klaus-Dieter Kemp reference: 242B - Mills - Warri River, Nigeria] [Klaus-Dieter Kemp reference: 167B - Warri River, Nigeria] [Klaus-Dieter Kemp reference: 271B - Warri River, Nigeria] [Klaus-Dieter Kemp reference: 610B - Warri River, Nigeria - R.M] [Klaus-Dieter Kemp reference: 596B - Warri River, Nigeria[1] - R.M]</p>
434	<p>Burton Pond, West Sussex Collected by R.I. Firth 21st June 1972 (½ returned to him after cleaning). Scrapings from timbers bordering the pond and near the overflow.</p>
435	<p>About 5 miles from Belfast Sample received March 1972 per Ms. Sims of British Museum, for cleaning and part return.</p>
436	<p>Isle of Rassay 'Infusorial Earth' per Ms. Sims of British Museum. March 1972</p>
437	<p>Diatom clay from the Carse of Gourie Containing species now living in the Tay Estuary. Per Ms. Sims of British Museum March 1972</p>
438	<p>"IX Diatomite, Strathsteven; same localiy as V" Per Ms. Sims of B.M. March 1972</p>
439	<p>Pevensy Marsh (TQ-635-075) 20 miles from Lewes Collected by R.I. Firth June 1972</p> <div style="border: 1px solid green; padding: 10px; margin: 10px auto; width: fit-content;"> <p>PEVENSEY MARSH, Sx. 593-4</p> <p>TQ653075</p> <p>Coll: R.I. Firth June 1972.</p> <p>Cleaned B. Hartley (BH43)</p> <p>See also 592</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>

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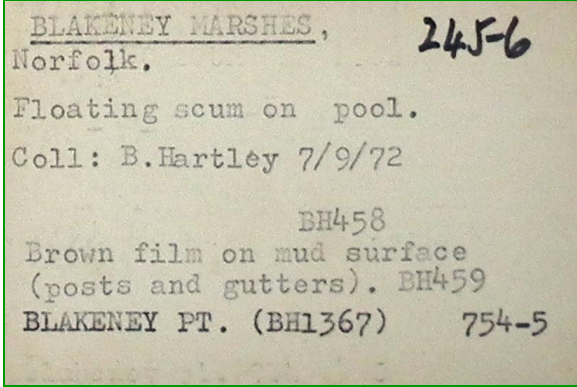
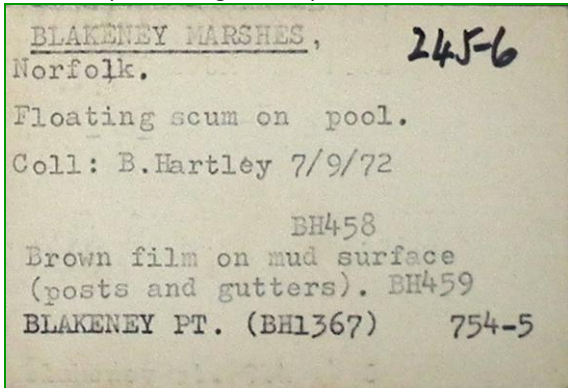
Entry No.	Particulars
440	<p>Squeeze from algae in stream at Malham Cove, Yorkshire 7th July 1972 Also part in CuNi acetate. <i>Meridion circulare</i></p> <div style="border: 1px solid green; padding: 5px; text-align: center;"> <p><u>MALHAM COVE, River</u> 76 <u>Aire</u> Coll: B.Hartley July 1972. BH440</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.127]</p>
441	<p>Scrapings from ford over Duerley Beck at Gale near Hawes, Yorkshire on 7th July 1972 (Part in CuNi acetate) <i>Didymosphenia</i> on stipes.</p> <div style="border: 1px solid green; padding: 5px; text-align: center;"> <p><u>DUERLEY BECK, Gale</u> 19 <u>Hawes.</u> Coll: B.Hartley July 1972 BH441</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
442	<p>Filamentous algae from stream above Muker, Yorkshire 6th July 1972 <i>Tabellaria flocculosa</i> etc. [Atlas Plate No.284]</p>
443	<p>Challenger Station 157, 1950 fathoms at 53°55'S, 108°25'W See also No. 671</p>

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Entry No.	Particulars
444	<p>Brenner Pass, Switzerland Collected by R.I. Firth 18th July 1953 Passed to B. Hartley 10th August 1972 Almost pure <i>Diatoma hiemale</i>. See also No. 633. Second sample received September 1981</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>BRENNER PASS, SWITZERLAND 756 <i>Diatoma hiemale</i> (Roth) Heiberg.</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>DIATOMA HIEMALE (ROTH) HEIBERG Brenner Pass 756 Loch Cuithir 159 & 164</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
<p>445, 446, 447 and 448. The following four samples received from Barrie Paddock of the British Museum on 18th August 1972 for cleaning and part return to the B.M.</p>	
445	Licata, Sicily
446	Jaen, Spain [Klaus-Dieter Kemp reference: 472B - J.A.Long J3 - Jaen, Spain - F.m]
447	Bory, Hungary Freshwater
448	Muro, Mallorca

Entry No.	Particulars
449	<p>Ordie Moss, Dinnet From Ms. Sims of the British Museum for cleaning and art return. R.I. Firth says that this is from the Dee River Valley and that Black Moss, Loch Kinnord etc, are all part of the bed of Loch Kinnord when it was much larger. Check later whether they have similar flora.</p> <div style="border: 1px solid green; padding: 5px; margin-bottom: 10px;"> <p><u>ORDIE MOSS, Aberdeen-</u> 242-4 <u>shire.</u> Ex BM. Cleaned B.Hartley 11/1972. BH449</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px; margin-bottom: 10px;"> <p><u>ORDIE MOSS, Aberdeen-</u> 54 <u>shire</u> Ex BM. Cleaned B.Hartley Dec. 1972. Through 600. Medium. BH449</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px; margin-bottom: 10px;"> <p><u>ORDIE MOSS, Aberdeen-</u> 84 <u>shire.</u> Ex BM. Cleaned B.Hartley Dec. 1972. BH449 On 600</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px;"> <p><u>ORDIE MOSS, Aberdeen-</u> 31 <u>shire (Ex BM)</u> Cleaned B.Hartley Dec.1972 (Through 600) BH449</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 846R - Brit.Mus/R.I. Firth 2084 - Ordie Moss, Scotland - Good, <i>Gomphonema coronatum</i>]</p>

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Entry No.	Particulars
450	North Uist. 20 th October 1887 Per Ms. Sims of the B.M. For cleaning and part return.
451	Black Moss, Dinnet Per Ms. Sims of the B.M. For cleaning and part return.
452	<i>Melosira varians</i> etc. floating on river at Needham Market, Suffolk 28 th August 1972 (Also in CuNi acetate) [Atlas Plate No.129]
453	On surface of mud at Orford Creek, Suffolk 28 th August 1972
454	Pool at Minsmere, Suffolk Floating scum on brackish pool. 5 th September 1972 (the day we saw 5 Avocets)
455	Salthouse, Norfolk 6 th September 1972 Scum on ditch alongside the coast road.
456	Salthouse, Norfolk 6 th September 1972 Scum on ditch further into the saltmarshes. [Klaus-Dieter Kemp reference: 222R – B. Hartley 456a – Salthouse Marsh, N. Norfolk]
457	<i>Melosira varians</i> etc. floating on the ditch at the rear of the craft shop in Cley-next-the-Sea, Norfolk 6 th September 1972 [Atlas Plate No.129]
458	Blakeney Marshes, Norfolk 7 th September 1972 Floating scum on pool.  <p style="text-align: center;"><i>R.I. Firth index card</i></p>
459	Blakeney Marshes, Norfolk 7 th September 1972 Brown film on mud surfaces of pools and gullies exposed at low tide.  <p style="text-align: center;"><i>R.I. Firth index card</i></p>

Entry No.	Particulars
460	<p>Lancing, Sussex <i>(Navicula oblonga)</i> Small sample received from R.I. Firth 18th September 1972 for cleaning. Collected July 1948 by R.I. Firth Freshwater sample from River Adur, near estuary at Shoreham.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>LANCING, SUSSEX 263-4 -do- College 650 ex sample</p> </div> <p style="text-align: center; margin-top: 5px;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.152]</p>
461	<p>St. Mary's Loch off A708 between Selkirk and Moffat, Scotland. 1st October 1972 2 jars gathered from stones under 6 inches of water at the margin of the loch.</p>
461a	<p>St. Mary's Loch off A708 between Selkirk and Moffat, Scotland. 1st October 1972 (as 461) but in Cu.Ni. acetate.</p>
461b	<p>(as 461a) but concentration of diatoms on stipes.</p>
462	<p>Burn above St. Mary's Loch near 18th Century burial ground. <i>Cymbella lanceolata</i> var. <i>cornuta</i> found by Betty on stones in small burn. 462a – the same but in CuNi acetate.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>ST. MARY'S LOCH - Burn 218- above Selkirkshire 219 Coll: B.Hartley 1/10/72 BH462 (Through 400) -do- (retained on 400) Cymbella lanceolata & var. cornuta</p> </div> <p style="text-align: center; margin-top: 5px;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.65] [Klaus-Dieter Kemp reference: 241R – B. Hartley 462 – St. Marys Loch, Scotland (burn above)] [Klaus-Dieter Kemp reference: 070R – B. Hartley 12219 – St. Marys Loch, Scotland (burn above)]</p>
463	<p>(As 462) but higher up. Abundance of small <i>Cymbella</i>. 1st October 1972 A leathery dark brown jelly, but alive with bubbles.</p>
464	<p>(as 463) but still higher up and at foot of waterfall. 1st October 1972. Mainly <i>Synedra</i>.</p>

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Entry No.	Particulars
465	<p>2nd October 1972 <i>Synedra</i> in brown filamentous strands at side of stoney stream leading to Elvan water, Lowther Hills on the border with Lanarkshire.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>ELVAN WATER, Scotland 319 Lowther Hills, (Ditch near) Lanarkshire Cymbella heterapleura minor.</p> </div> <p style="text-align: center; margin-top: 5px;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.68]</p>
466	<p>Small pool receiving drainage water adjoining Elvan Water. 2nd October 1972 Also in CuNi acetate (466a) <i>Fragilaria, Diatoma, Cymbella</i> etc., floating</p>
467	<p>Floating bubbling brown film in newly excavated drainage ditch leading into Elvan Water, Lanarkshire 2nd October 1972</p>
468	<p>Few, if any, diatoms in small 3' diameter pool on rocky coastline at high tide level in Brighthouse Bay, Kirkudbrightshire</p>
469	<p><i>Navicula</i> and <i>Cymatopleura solea</i> in stream below dairy farm (organic nutrient) near seashore at Brighthouse Bay, Kirkudbrightshire 6th October 1972</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>BRIGHOUSE BAY, 26 Kirkudbrightshire Stream below dairy farm. Coll: B.Hartley 6/10/72 BH469</p> </div> <p style="text-align: center; margin-top: 5px;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.62]</p>
470	<p>Almost dried up river bed at Rough How Bridge between Keswick and Thirlmere. 7th October 1972 <i>Didymosphenia, Gomphonema</i> and small <i>Cymbellas</i>.</p>
471	<p>'Pure' gathering of <i>D. geminata</i> on stones in Moffat Water just below confluence with stream from the Grey Mare's Tail. 1st October 1972 471a in CuNi acetate [Atlas Plate No.76]</p>

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Entry No.	Particulars
472	<p><i>Aulacodiscus kittonii</i> Arnott, collected by Mr. A. Doig on 28th August 1965 from Muriwal Beach, near Dunedin, New Zealand.</p> <div style="border: 1px solid green; padding: 5px;"><p><u>AULCODISCUS KITTONII</u> 11.</p><p>Muriwal, Near Dunedin, N.Z.</p><p>Ex A.Doig. Coll: 25/8/65</p></div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>

Entry No.	Particulars
473	<p>Port Dickson, Malaya. Seaweeds, sponges and other debris with attached diatoms. See also earlier samples 53/1, 2 and 3, also samples 522, 523 and 524.</p> <div style="border: 1px solid green; padding: 5px; margin-bottom: 10px;"> <p>PORT DICKSON, Malaya 25 Coll: A.N.Symonds Cleaned B.Hartley Nov.1972 BH473</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px; margin-bottom: 10px;"> <p>PORT DICKSON, Malaya 247-8 From seaweed, sponges etc.) Coll: Symonds. BH473 BH473</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px; margin-bottom: 10px;"> <p>PORT DICKSON, Malaya 191 From-pools among-coral rocks. Coll: Symonds 17/8/47 BH (Spicules)</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px;"> <p>PORT DICKSON, Malaya 2549 261 See also 21, 23, 25-27, 247-8 66, 191</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 636R - B. Hartley 473 - Port Dickson, Malaya off sponges]</p>
474	<p>Lake above Tremadog 6th January 1973 Slime on lily pad.</p>

Entry No.	Particulars
475	<p>Luton Sewage Works. Algae scraped from the outfall sill discharging to the River Lea.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>LUTON SEWAGE WORKS 58 (Outfall sill to River Lea). Coll: B.Hartley Jan.1973 BH475</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 789R – B. Hartley 475 – Luton Sewage Works, outfall sill – <i>Navicula mutica</i>]</p>
476	<p>Kidderminster Park Waterfall below lake adjoining the Wolverhampton Road A449 on 3rd March 1973. Dark chocolate brown film on loose brickwork in splash-zone. <i>Rhoicosphenia curvata</i> etc. Also part in CuNi acetate.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>KIDDERMINSTER PARK 265 <i>Rhoicosphenia curvata</i> (Kutz.) Grun.</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p><u>RHOICOSPHENIA CURVATA</u> 265 Kidderminster Park</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.251]</p>
477	<p>Mochras Beach 3rd November 1972 Epiphytic algae attached to long thin strings of seaweed on beach at high water mark. [Klaus-Dieter Kemp reference: 202R - B. Hartley - Mochras, N.Wales] [Klaus-Dieter Kemp reference: 265R - K.D. Kemp - Mochras, N.Wales]</p>
478	<p>Ynys Lake near Harlech 29th October 1972 Only a very small quantity available at the edge of the lake.</p>
479	<p>Afon Banwy at Foel between Welshpool and Dinas Mawddwy. 11th March 1973 Brown film on stones in river.</p>
480	<p>Afon Cerist (Tributary of R. Dovey) at Pont Buarth Glas. 11th March 1973 Brown film on stones in river.</p>

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Entry No.	Particulars
481	Llandanwg Beach, Merioneth, (Now Gwynedd), N. Wales. 12 th March 1973 Epiphytic diatoms on fine seaweed (red) attached to bladderwrack. [Klaus-Dieter Kemp reference: 486R – B. Hartley 481 – Llandanwg, N. Wales. On red Aglae - >600]
482	Brackish river at Pensarn, N.E. of Llanbedr Road. Brown film on stones 14 th March 1973 Bladderwrack existed marginally at the edge of the stream.
483	Ynys Lake, Ty Gwyn, Nr. Harlech 16 March 1973 Brackish and contaminated. Mainly <i>M. varians</i> and <i>Fragilaria</i> floating at the margins of the ditch. [Atlas Plate No.129]
484	<i>Tabellaria flocculosa</i> on stones in river flowing through valley towards Traws Fynydd. 18 th March 1973 [Atlas Plate No.284]
485	Whittington Village Pond, adjoining the A5 18 th March 1973 Floating brown and black small patches of 'Dirt' and 'Diatoms'.
486	Earth received on 20 th March 1973 from R.I. Firth, ex Sydney Chaffers (many years ago) after is death. Locality unknown. Looks Scottish. On later examination it looks more like Toomebridge, N. Ireland. <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p style="text-align: center;"> <u>TOOMEBRIDGE, N. Ireland</u> 24 (Through 600) BH486 </p> </div> <p style="text-align: center; margin: 5px 0;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p style="text-align: center;"> <u>TOOMEBRIDGE, N. Ireland</u> 83 Retained on 600. BH486 </p> </div> <p style="text-align: center; margin: 5px 0;"><i>R.I. Firth index card</i></p>

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Entry No.	Particulars
487	<p>Earth from Sydney Chaffers collection. Received from R.I. Firth 20th March 1973 Labelled 'Antrim'. It was not easy to break down, and was not as rich as other Bann Valley samples.</p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
488	<p>Boggy, marshy pit, Charlwood, Surrey April 1973 Collected by A.G. Greenfield. Russ Hill pit No. 2 National Grid Reference TQ-2322-73970 (???? Pit No. 1. Previously quoted as National Grid Reference TQ-2272-3970)</p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
489	<p>Minute trickle at roadside between Harlech and Barmouth. Photosynthesis active 21st April 73. <i>Diatoma hyemale</i> v. <i>quadratum</i>.</p>
490	<p>Fast flowing stream above Pensarn, N. Wales 22nd April 1973 Brown active diatoms on stones and attached to moss. [Atlas Plate No.75]</p>

Entry No.	Particulars
491	<p>Sample from slow sand filters at Walton-on-Thames Waterworks April 1973 The diatom flush choked the sand filters and restricted the water supply causing temporary hold-up of production of CONCORD aircraft. Part sample from R.I. Firth Part from C.H. Ball of Whitstable.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;">WALTON ON THAMES WATERWORKS 69</p> <p style="text-align: center;">Diatom surge on slow sand filters Apl.1973</p> <p style="text-align: center;">BH491</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;">WALTON ON THAMES WATERWORKS 32</p> <p style="text-align: center;">Diatom flush on slow sand filters April 1973</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
492	<p>Ditch near beach at Holkham, Norfolk 5th May 1973 At head of Lady Anne's river (<i>Naviculae</i> in tubes) Part in CuNi acetate.</p>
493	<p>Floating algae including diatoms in tubes at Abraham's Bosom (Lake) at Well-nest-the-Sea, Norfolk. 5th May 1973 Also in CuNi acetate.</p>
494	<p>Floating algae in ditch alongside road from Wells-next-the-Sea to the beach, Norfolk. 5th May 1973 Also in CuNi acetate.</p>
495	<p>Cobweb fine filaments between marginal pebbles in River N. Tyne near Bellingham, Northumberland 2nd June 1973 (also in CuNi)</p>
496	<p>White and brown jelly on stones in rivulet in Glen Almond, North of Crief, Perthshire, Scotland. 3rd June 1973 <i>Gomphonema</i> on stipes and <i>Cymbella affinis</i>.</p>
497	<p><i>Hannaea (Ceratoneus) arcus</i> etc., on stones in stream entering R. Almond above Newton Bridge, Perthshire 3rd June 1973</p>
498	<p><i>Cymbella</i> and <i>D. geminata</i> in cream coloured clumps on stones in tributary of R. Almond, Perthshire, near Auchnafrie. 3rd June 1973</p>
499	<p><i>Cymbella</i> in profusion on stones below waterfall and in stream entering Loch Shin, Sutherland from peaty moorland. 8th June 1973 Also in CuNi acetate. [Atlas Plate No.63]</p>

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Entry No.	Particulars
500	<p>Stream by A709 south of Peebels, Peebleshire, Scotland. 12th June 1973 <i>Didymosphenia</i>, small <i>Cymbella</i> and <i>Gomphonema</i> sp. Note: <i>Didymosphenia</i> seems to grow in rivers flowing from grassy moorlands rather than from peaty-heather moors.</p>
501	<p><i>Didymosphenia</i> pretty pure on stipes in headwaters of River Eske, Dumfrieshire. About 12 miles north of Langholm 12th June 1973 (One jar pure for cleaning) (One phial in Cu.Ni acetate)</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>RIVER ESK, DUMFRIES. 162 BH501 Coll: 12th June 1973</p> </div> <p style="text-align: center; margin: 5px 0;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>RIVER ESK, Dumfries 179 Coll: B.Hartley 12/6/73 about 12 miles N. of Langholm. BH501</p> </div> <p style="text-align: center; margin: 5px 0;"><i>R.I. Firth index card</i></p>
502	<p>Walloper Well, Waddington Fells, Yorkshire 14th June 1973 Also in CuNi acetate (very green)</p>
503	<p>Dried and cracked peat surface of a moorland pool at Dunnet Head, Scotland 6th June 1973 <i>Pinnularia rupestris</i> Hantzsch. [Atlas Plate No.228]</p>
504	<p>Klammath Lake, Oregon, United States of America Cal. Acad. Of Sci. Location 1597 Living diatoms dredged in 12ft on east side halfway to North end. Collected by G.D. Hanna 1928 (Per R.I. Firth July 1973)</p>

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Entry No.	Particulars
505	<p>Clonfill Lough, Offaly, Eire – 1930 Small pebbles and matted vegetation or guano.</p> <div style="border: 1px solid green; padding: 5px; text-align: center;"> <p><u>CLONFILL LOUGH, EIRE</u> 692</p> <p>BH505</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
506	<p>Lancing 1948 Salty Per R.I. Firth May 1973 See also 559, 560, 561 and 460</p>
507	<p>Lancing 1948 Per R.I. Firth May 1973 See also 559, 560, 561 and 460</p>
<p>508 to 524. These samples were sent to R.I. Firth by A.H. Symonds who collected the material in 1947. Samples cleaned by B. Hartley July 1973.</p>	
508	<p>Port Dickson, Malaya 30th November 1947 Greasy surfaces to dead coral rocks.</p>
509	<p>Port Dickson, Malaya November 1947 Crab droppings in ripples on sand. They look like little round grey balls and roll about with the lapping of the tide. The ground in this area is red with millions of small red crabs about one inch in size.</p>
510	<p>Port Dickson, Malaya 5th December 1947 Crab droppings No. 4.</p>
511	<p>Port Dickson, Malaya No date Grey sand with shells.</p>
512	<p>Port Dickson, Malaya November 1947 Rock scrapings with weeds and lumps of rock. No. 7. [Klaus-Dieter Kemp reference: 67ORR – B. Hartley 512 - Port Dickson, Malaya – Rock scrapings]</p>
513	<p>Port Dickson, Malaya Seaweed with diatoms, also pieces of sponge. No. 6.</p> <div style="border: 1px solid green; padding: 5px; text-align: center;"> <p><u>PORT DICKSON, Malaya</u> 27</p> <p>Coll: A.N.Symonds "Seaweed with diatoms"</p> <p>Cleaned B.Hartley July 1973</p> <p>BH513</p> <p style="text-align: right;">303-r +</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
514	<p>Port Dickson, Malaya No. 1. Fine cream fibrous material containing a little sand.</p>
515	<p>Port Dickson, Malaya No. 3. Ripples in the sand.</p>

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Entry No.	Particulars
516	Port Dickson, Malaya November 1947 No. 8. "I think that this wind blown drift material has a fair proportion of diatoms in it." Large quantity of fibrous material.
517	Port Dickson, Malaya No. 11 Green diatom scum on mud.
518	Port Dickson, Malaya "Mixture – possibly good" Looks like scum, mud, sand and shells.
519	Port Dickson, Malaya 12 th November 1947 Scum from ripples on sand at low tide.
520	Bungo-Kuso-gun, Higashihand-mura No. 6., Japan Ex. A.n. Symonds per R.I. Firth May 1973 Cream white powder as fine as talcum.

Entry No.	Particulars
521	<p>Miyagi-ken Katt-gun Yenda-mura, Japan Cream/white powder as fine as talcum.</p> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: right;">東京博物館</p> <p>Locality : Miyagi-ken Katta-gun Yenda-mura 産地 : 宮城県刈田郡圓田村</p> </div> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>MIYAKI-KEN. JAPAN 540</p> <p style="text-align: center;">FFW</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>STEPHANODISCUS SP. 214</p> <p style="text-align: right;">504</p> <p>BEND, OREGON 540</p> <p>Miyagi-ken, Japan</p> <p style="text-align: left;">214</p> <p style="text-align: right;">BEND, OREGON</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>

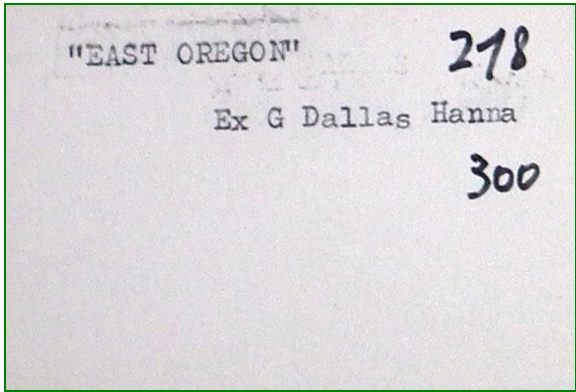
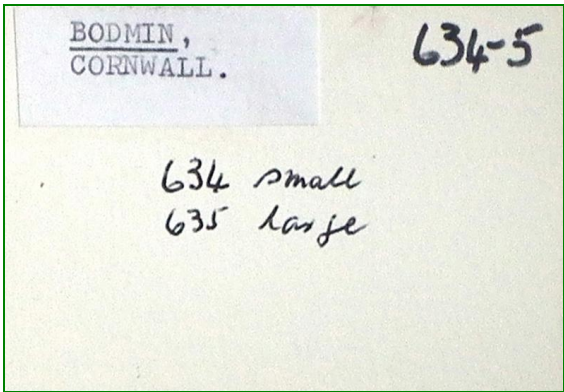
The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
522	<p>Port Dickson, Malaya No. 10. "Black Earth" which looks to B. Hartley like grey sand. Large quantity – 200gr. See also samples 53 and 473.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;">PORT DICKSON, MALAYA 66</p> <p style="text-align: center;">"Black Earth" Coll. A.N. Symonds Cleaned B. Hartley July, 1973</p> <p style="text-align: center;">BH522</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
523	<p>Port Dickson, Malaya No. 5. Grey fine sand – 100gr. See also samples 53 and 473.</p>
524	<p>Port Dickson, Malaya No. 13. Contains much fibrous matter. See also samples 53 and 473.</p>
525	<p>N.W. of All Stretton, long Mynd, Shropshire. 24th July 1973 Floating material in field trough (probably <i>Fragilaria</i>)</p>
526	<p>Roadside pond on heather and bracken moor N.W. of Long Mynd, Shropshire. 24th July 1973 Marginal floating <i>Potamogeton</i> and sphagnum. Sample mainly from overflow sill and partly a squeeze from the sphagnum.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;">LONG MYND, Shropshire 172</p> <p style="text-align: center;">Roadside pond on heather and bracken moor. Partly from sphagnum squeeze.</p> <p style="text-align: center;">Coll: B. Hartley 24/7/74 638</p> <p style="text-align: center;">BH526 7600</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
527	<p>Plankton and diatoms from Loch Badanloch, between Kimbrace and Syne. 28th October 1972 Supplied by Alan Joyce of Golspie, Sutherland.</p>
528	<p>Stream at Fell End, East of Garstang, Lancashire Collected 27th July 1973 Masses of filamentous algae in shallow stoney stream bed.</p>
529	<p>Squeeze from algae on ford near weir at Sherbourne Brook, Cotswolds. 20 August 1973</p>
530	<p>Wells, Somerset 15th September 1973 Floating brown algae in trough below cascading fountain in main street leading to The Cathedral. <i>Melosira</i>(?<i>Meridion</i>?) <i>circulare</i>, <i>Synedra ulna</i>, and several small <i>Naviculae</i>. See also 881. [Atlas Plate No.283]</p>
531	<p>Minute sample supplied by J.R. Carter and made into 5 slides. Collected by J.R. Carter July 1973 from Branston Pit big pool. <i>Cylindrotheca gracilis</i> (Breb.) Grun. [Atlas Plate No.60]</p>

Entry No.	Particulars
532	<p>Slide by J.R. Carter of his Slapstone Sike material from Upper Teesdale. See his paper in Vasculum LVII No. 3. 1972. <i>Cymbella lapponica</i>. [Atlas Plate No.69]</p>
533 (B)	<p><i>Diatomella balfouriana</i> Grev. In J.R. Carter's sample from Ettrick Pen Stream, Scotland. J.R. Carter sample No. 2506 collected August 1949.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p style="text-align: right;">29 321</p> <p><u>DIATOMELLA BALFOURIANA</u></p> <p>Ettric-Pen Stream (Coll: J.R.Carter Aug.1949)</p> <p>(JRC 12506)</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p style="text-align: right;">29</p> <p><u>ETTRIC PEN STREAM</u></p> <p><u>Diatomella balfouriana</u></p> <p>Coll: J.R.Carter Aug. 1949 (12506)</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.75] [Klaus-Dieter Kemp reference: 839R - R.I. Firth 2029 - Ettrick Pen, Stream - <i>Diatomella balfouriana</i>]</p>
<p>Note: Samples 534-536 re similar to those examined by Hustedt from which he name <i>Stephanodisus eccentricus</i> from a sample supplied by J.R. Carter.</p>	
534	<p>Cream coloured diatomaceous earth from Terrebone, Oregon, United States of America Collected by James F. Fidium 10th July 1973 From the middle quarry just above the mine buildings, not below the tail water tank.</p>
535	<p>As 534 but sample No. 2. Collected 14 inches under the basalt layer on the first curve of the road down the canyon to Lower Bridge. [Klaus-Dieter Kemp reference: 069G – B. Hartley 535 – Terrebonne, Oregon, United States of America]</p>
536	<p>As 534 but sample No. 6. Diatomite sampled above the sand layers on the straight part of the road to Lower Bridge.</p>

Entry No.	Particulars
537	<p>Little Norton Mill Pond, below Ham Hill, Somerset ST-460-560 May 1974 See also sample No. 96.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>LITTON NORTON, Somerset 177 Mill pond below Ham Hill. Coll: B.Hartley May 1974. BH537</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
538	<p>Chocolate brown coloured algae floating on lowland (?brackish) stream parallel to bottom road from Harlech to Ynys, Merioneth, Wales 14th May 1974</p>
539	<p><i>Meridion circulare</i> etc., collected by R.I. Firth from Heighton Street, Firle, Sussex on 30th April 1974 – National Grid Reference TQ(51)-482-078 See also slides as fluid mounts in formalin. In roadside drainage ditch alongside the 3rd class road to the Downs. [Atlas Plate No.127]</p>
540	<p>Norman's Bay, Sussex (of 1066 fame) from salty rainage channel. National Grid Reference TQ (51) 684-056. Drain for Pevensey Marsh. Collected by R.I. Firth July 1953 <i>Melosira nummuloides</i>, <i>Mast. crucigera</i> and <i>St. constricta</i>. [Atlas Plate No.129 & 257]</p>
541	<p>Squeezing from the moss <i>Ambystegium eurhynchoides</i> in a small waterfall in the moorland stream above Church Stretton, Shropshire. Collected 8th August 1969. Slide also in 2% formalin.</p>
542	<p>Cockshut stream near Southover, Lewes, Sussex. National Grid Reference TQ (51) 416-094 Collected by R.I. Firth 10th April 1974 Vast quantity of floating material.</p>
543	<p>Burton Mill pond weir scrapings. W. Sussex. 7th March 1974 Mainly <i>Diatoma</i> and <i>Cocconeis</i></p>
544	<p>Afon Dyfi, Llanymawddwy, near Dinas Mawddwy Collected 3rd June 1974 Prior to seeing the (Red) Kites at Cwm Ystwyth. Mainly <i>Fragilaria</i> and <i>Tabellaria flocculosa</i>. Fluid mount also after Cu.Ni. acetate. [Atlas Plate No.284]</p>
545	<p>Brackish stream leading to Cuckmere estuary at Afriston, Sussex. National Grid Reference TQ (51) 521-028 Collected by R.I. Firth April 1974.</p>
546	<p>Lough Ine. Core No. 1 from F. E. Round 0-34cms below top of sediment. Marine.</p>
547	<p>Lough Ine. Core No. 1 44-72cms below top of sediment. Freshwater.</p>
548	<p>Lough Ine. Spare Core 0cms below top of sediment.</p>
549	<p>Lough Ine. Spare Core. Bottom of sediment. Approximately 70cms (all above from F.E. Round)</p>
550	<p>Slapton Ley core. Per F.E. Round. 0-200cms. Freshwater diatoms.</p>
551	<p>Slapton Ley Core. Per F.E. Round 250-350cms. Marine diatoms largely but not very abundant.</p>

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Entry No.	Particulars
552	River Welland, Stanford. Per F.E. Round. Very small sample. Possibly brackish.
553	Brackish drainage channel, S.E. of road between Beddingham Level Crossing and bridge over Glynde Reach, near Lewes, Sussex. Collected many years ago by R.I. Firth.
554	Peterhead, Aberdeen. "Dickie" Minute quantity of sub-fossil. Light brown. Possibly from the B.M.
555	Bellshill near Belfast (? From the B.M.) Very small quantity of fine cream earth.
556	Mourne Mountains, Ireland (see also 226)
557	'East Oregon' Sample from R.I. Firth 27 th June 1974 Ex. G. Dallas Hanna No. 2-9100 Cleaned by A.G. Greenfield and received via J.R. Carter. 
558	Bodmin, Cornwall Per R.I. Firth August 1974 
559	South Lancing, Sussex 'The Saltings' R.I. Firth Sample No. 1 Received 6 th August 1974 See also Nos. 506, 507, 460, 560 and 561
560	As 559 but Sample No. 2
561	As 559 but Sample No. 3
562	Shoreham aerodrome, Sussex 1 st June 1946 Collected by R.I. Firth. Drainage channel. Heavy > 600 mesh. Light < 600 mesh.
563	Old Shoreham, Sussex Stream near waterworks Collected by R.I. Firth 16 th May 1948
564	Stream below Mill Hill Waterworks 'Small' Collected by R.I. Firth 19 th March 1956

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Entry No.	Particulars
565	Llangold, Anglesey Slide by H.G. Barber Good variety of marine species including <i>P. ergadensis</i> [Atlas Plate No.214]
566	Anglesey littoral marine Slide by H.G. Barber collected October 1971
567	Rhosneigr Marsh, near railway, Anglesey April 1954 Slide by H.G. Barber
568	Cynlais beach, Menai Straits April 1954 Slides by H.G. Barber. Nos. 356, 429(2), 450(2)
569	Tan-y-fron, Penmon, Anglesey Slide Nos. 394 and 315g
570	Llyn Cororion, Caernarvonshire, N. Wales 1961 Slide Nos. 459 and 521. See also sample No. 855.
571	Red Wharf Bay, Anglesey April 1954 H. G. Barber's slides Nos. 335, 572 and 578
572	The Creek, Red Wharf Bay, Anglesey April 1954 2 of H.G. Barber's slides No. 331. See also 332G later.
573	Caernarvon Quay, N. Wales Collected by H.G. Barber July 1961 Slide No. 518
574	Sands No. 1 Bamburgh H.G. Barber slide Light fraction
575	Singilewsky No. 1 Russia 2 slides by H.G. Barber
576	Singili, Ulanyovsk, U.S.S.R. H.G. Barber's slide
577	"From man lands" A mixture of British and Foreign Recent F/W, BI and also fossil material used by H. G. Barber. 3 slides
578	Red Wharf Bay, Anglesey H.G. Barber's 1380 July 1970 Four slides made by B. Hartley from this material.
579	Piddington, Sussex Brackish 3 slides made from .G. Barber's material
580	Toomebridge Per D.P. Fuge 1922 Slide No. 10725 by J. R. Carter
581	Toomebridge Slides 23 and 7363 by J.R. Carter
582	Pool on Handa Island July 1955 Slide 12271 by J.R. Carter
583	Devils Hole Cave, Fife Per A.W.R. West's material 1908 Slide 12716 by J.R. Carter See Nova Hedwigia XXI - 1971
584	K. Clarke's slides from River Bure i. Saltmarsh Pool ii. Back Dyke
585	K. Clarke's slides from River Alde i. Saltmarsh Pool 22 nd March 1970 ii. Mud surface 11 th November 1970

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Entry No.	Particulars
586	K. Clarke's slides from slow sand filters 1. Ormesby 28 th October 1969 2. Ormesby 28 th October 1969 3. Ormesby 20 th October 1969 4. Lound A 122 days 25 th September 1969 5. Ormesby 26 th June 1969
587	Morston Marsh, Norfolk 9 th September 1974 Floating on surface of saltmarsh pool. Including <i>Nitzschia longissima</i> [Atlas Plate No.186]
588	Long Mynd, Shropshire 21 st September 1974 On decaying leaves and stems in moorland pool. <i>Cymbella aspera</i> , <i>Pinnularia</i> and <i>Navicula</i> sp. etc. [Atlas Plate No.63]
589	Charles River, Massachussets per C.A.S. Collected July 1885 by J.B. Woodworth
590	Crane Pond, Massachussets (Per C.A.S.) ex. H. L. Smith ALB - 1025 September 1974 <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>CRANE POND, Mass., USA. 430 (X - H.L.Smith ALB. -1025) See T.&P. 1915 Nos.586-588 for list of taxa. 495-6 BH590. P. cardinaliculus etc.</p> </div> <p style="text-align: center;">R.I. Firth index card</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>CRANE POND, MASS. U.S.A. 495-6 (Per C.A.S. - Brigger 430 Coll. No. 342 & 1680) See T.&P. P.291 No. 586-8.) HL Smith ALB1025</p> </div> <p style="text-align: center;">R.I. Firth index card</p> <p>[Klaus-Dieter Kemp reference: 994B - R.I. Firth 496 - Crane Pond, Mass. U.S.A.]</p>
591	Pentwater outlet, Lake Michigan Ex. V.A. Latham ALB-1410 (per C.A.S. September 1974)

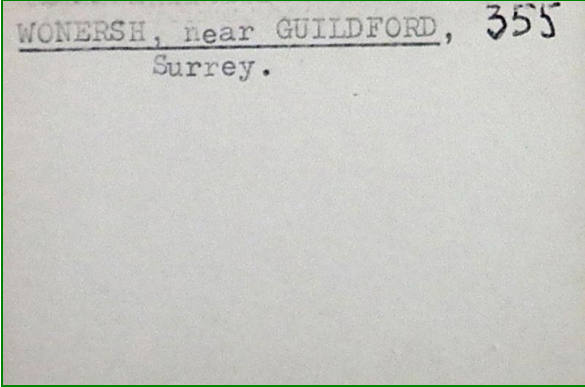
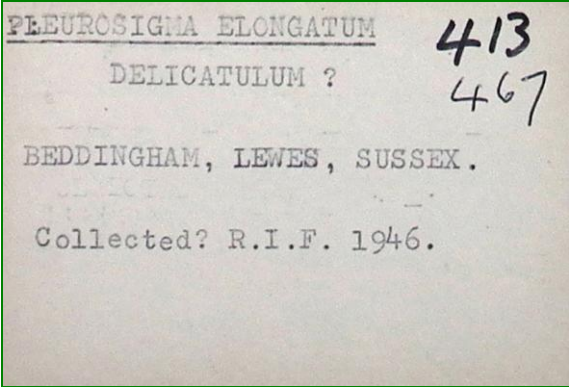
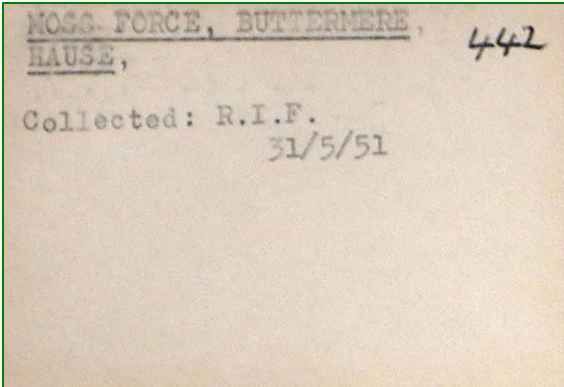
Entry No.	Particulars
592	<p>St. Johns, New Brunswick (per C.A.S. September 1974) Robt. Hagelstein's Collection – V.A. Latham</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>ST. JOHN'S, NEW BRUNSWICK 103 Canada. V.A. Latham Collection. and Hagelstein Collection</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 803R - R.I. Firth 2103 - St. Johns, New Brunswick Canada]</p>
593	<p>Griffith's Park stream, Fern Dell, Los Angeles, Cal. Per C.A.S. 1974. Incl. <i>Hydrosera triquetra</i> Wallich</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>LOS ANGELES 691 Griffiths Park Stream from Dell Ex Cal. Academy of Sciences BH593</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
<p>The following 5 samples are from R.I. Firth's Toomebridge material from Northern Ireland. A list classifying 14 of these Toomebridge samples is included below.</p>	
594	Toomebridge TB.6. Good very small
595	Toomebridge TB.7. Good - medium
596	Toomebridge TB.8. Good – minute
597	Toomebridge TB.9. Good - medium
598	Toomebridge TB. 12. Best large
<p>Note: R.I. Firth's slides of Toomebridge material are numbered from 1-14 classified as follows:-</p> <ol style="list-style-type: none"> 1. Fair but needs 600 sieve 2. Not so good. Could stand more cleaning 3. Good. Especially <i>S. robusta</i>, but some dirt 4. Fair but small. Perhaps would stand decanting 5. Good – large 6. Good – Very small 7. Good – medium 8. Good – minute material but slide too crowded 9. Good – medium 10. Good – small 11. Needs 600 mesh 12. Best – large 13. Very good – large 14. Very good large – could still improve over 600 mesh 	

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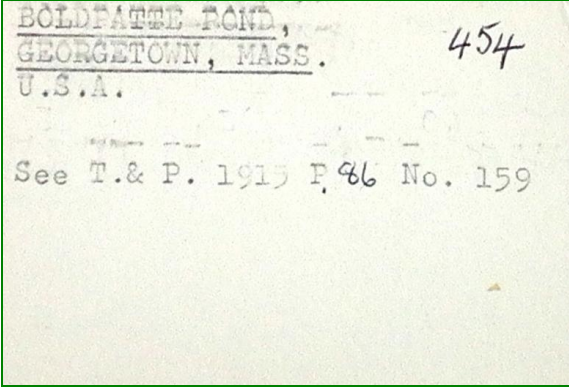
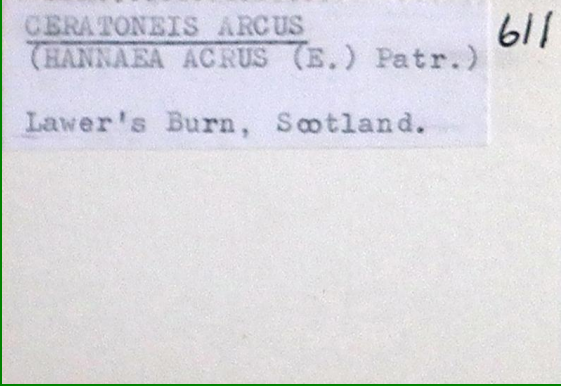
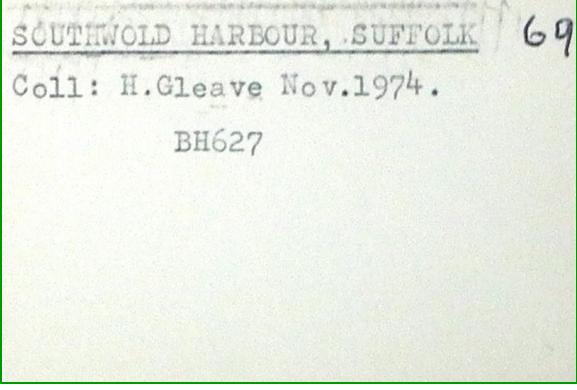
Entry No.	Particulars
599	Landport, Lewes, Sussex Small sample received 1971 from R.I. Firth Small <i>Surirella caproni</i> . See also Clent sample 280 and Landport samples Nos. 279 and 375. [Atlas Plate No.268]
600	Tushie Law Valley, Roxburgh September 1974 Slide from J.R. Carter <i>Frustulia specula</i> Amosse From wet seepage over boggy peaty ground disturbed by excavations.
601	Bexhill Sands, Southcliff, Sussex 1974 Slide from H.H. Gleave and later small sample. <i>Anorthoneis excentrica</i> Donk. [Atlas Plate No.27]
602	Landport Farm, Lewes, Sussex 2 slides by R.I. Firth of material collected in 1946. See also 279, 375 and 599 <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
603	Landport Farm, Lewes, Sussex Material collected by R.I. Firth from ditch. Slide No. 1. Bottom forms Slide No. 2. Free forms
604	Unknown English F/W locality Slide by Ed. Frison of Antwerp. Very good sample.
605	Beale mud flats, near Holy Island May 1971 2 slides by J.R. Carter. Nos. 13275 <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
606	Ardtoe peat bog drain June 1974 J.R. Carter's slide No. 13437 The peat bog is 8 feet deep and is drained by channels to the sea about ½ a mile away. Possibly the sea has affected the flora long ago. <i>Nitz. plana</i> W.Sm. and <i>Pinnularia largerstedtii</i> . [Atlas Plate No.189 & 218]

Entry No.	Particulars
607	Fossil F/W ex Francis T. Jones via R.I. Firth Chemult, Oregon, United States of America
608	Danny Bank, Sussex Surface scum collected by A.W. Round on 8 th March 1964
609	Balmidery, Scotland Sample collected by A.W. Round on 2 nd May 1914 from flat stones in the stream between ponds. Slide only.
610.	Bigbury-on-Sea. 2 slides by H.H. Gleave
611	Stone Trough, Newton in Bowland, Yorkshire 2 slides by R.I. Firth <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>NEWTON-IN-BOWLAND, 533 Yorks.</p> <p>From old stone trough in village (since vandalised) Coll: RIF 7th August 1950.</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>NEWTON-IN-BOWLAND, 471-3 Yorks.</p> <p>Coll: R.I.F. 31/5/51. - 471-3 Stone trough in village.</p> <p>-do- 578/50 = 472 do. 533</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
612	Stone Trough, Todmorden 2 slides by R.I. Firth
613	Chald Beck, Wakefield Slide by R.I. Firth <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>WAKEFIELD, YORKS. 554</p> <p>Chald Beck, Westgate. Nitzschia Coll: RIF 9th June 1951. (See also Chald Beck 472) 526</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
614	Loch Leven, Scotland 1970 Slide by R.I. Firth [Klaus-Dieter Kemp reference: Loch 608R - J.R. Carter 4297 - Leven, Scotland Stream entry] [Klaus-Dieter Kemp reference: 889R - R.I. Firth 470 - Loch Leven, Scotland - <i>Eunotia</i>]

The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
615	Westdean, Seaford, Sussex Collected by R.I. Firth 27 th March 1955 3 slides by R.I. Firth
616	Wonersh, Surrey 2 slides by R.I. Firth  <p>WONERSH, near GUILDFORD, 355 Surrey.</p> <p><i>R.I. Firth index card</i></p>
617	Kieselguhr – Irish/Algerian/Danish One slide by C.N. Walter
618	Beddingham near level crossing, Lewes, Sussex Collected by R.I. Firth 1946 2 slides  <p>PLEUROSIGMA ELONGATUM 413 DELICATULUM ? 467 BEDDINGHAM, LEWES, SUSSEX. Collected? R.I.F. 1946.</p> <p><i>R.I. Firth index card</i></p>
619	Moss Force, Buttermere house, Cumberland 1970 slide by R.I. Firth  <p>MOSS-FORCE, BUTTERMERE, 442 HAUSE, Collected: R.I.F. 31/5/51</p> <p><i>R.I. Firth index card</i></p>

The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
620	Boldpatte Pond, Georgetown, Masachusets Slide by R.I. Firth  <p style="text-align: center;"><i>R.I. Firth index card</i></p>
621	Kangaroo Valley, New Zealand 1970 Slide by R.I. Firth
622	Uncaldine, Aberdeenshire 1971 slide by R.I. Firth
623	"Boganoe", "Bog iron ore", Aberdeenshire 3 slides by R.I. Firth
624	Lawers Burn, Tay district, Scotland 2 slides by R.I. Firth  <p style="text-align: center;"><i>R.I. Firth index card</i></p>
625	Ditch above beach at Norman's Bay, Sussex Ex H.H. Gleave 1974
626	Sands at Galley Hill, Bexhill on sea December 1974 Ex H.H. Gleave
627	Southwold Harbour, Suffolk From pools on the bank at the upper end of the harbour. Collected by H.H. Gleave Received 18 th November 1974  <p style="text-align: center;"><i>R.I. Firth index card</i></p>
628	Weston-super-Mare, Somerset Collected 6 th December 1974 From pier walls at low tide

The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
629	Fossil F/W locality in Germany Originating from Breich near Hanover. It is part of the Leuenbergel Heide deposit (known as Luneberg) Interglacial deposit some 180,000 years ago. Per J.R. Carter via A.G. Green field 7 January 1975 Sample also received direct from J.R. Carter 8 January 1975 [Klaus-Dieter Kemp reference: 007B - West - Luneberg, Hanover Germany] [Klaus-Dieter Kemp reference: 148R - S.Chaffer - Luneberger Heide, Germany [2]]
630	Singiliewsky, U.S.S.R. Received cleaned from H.H. Gleave 3 February 1975
631	Dunkirk, Maryland, United States of America Received cleaned from H.H. Gleave 3 February 1975
632	Llyn Crafnant, Snowdonia, N. Wales Per H.H. Gleave February 1979
633	No. 1. Haslital, Switzerland Mainly Diatoma Collected by R.I. Firth 18 th July 1953 Cleaned A.G. Greenfield <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>HASLITAL, Switzerland 175</p> <p>Diatoma hiemale</p> <p>Sample A</p> <p>Coll; R.I.Firth 18/7/53</p> <p>5</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
634	No. 2 Haslital, Switzerland Mixed F/W flora Collected by R.I. Firth 18 th July 1952. Cleaned A.G. Greenfield
635	Llandanwg, near Harlech, N. Wales 12 th March 1975 Clear stream below village sewage works alongside the Maes 200 yards from H. W. M.

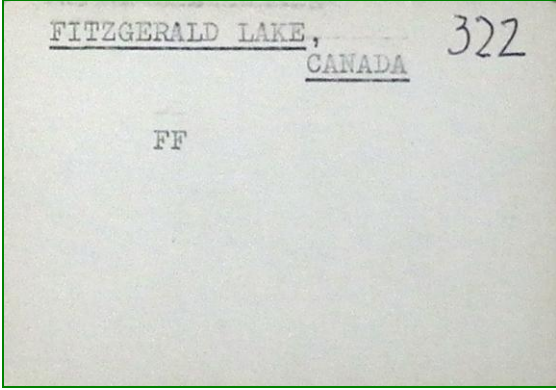
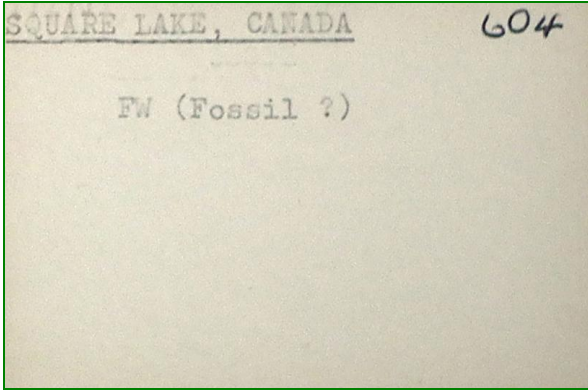
The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
List of Mr. Gleave's samples which are of particular interest to B.Hartley	
B.Hartley's No.	Locality
651	Chatsworth Park June 1927
653	Black Moss, Dinnet
654	Cymbella
655	Frieston Lake, Lincs. August 1937
656	Frieston Lake, Lincs. August 1937
657	Chatsworth Park
658	Ditchfield Park. May 1941
659	Mud from the Wash. October 1927
660	Ramsey Harbour
661	Pilling Sands, Lancs
662	East Retford. July 1937
674	False Bay, S. Africa
675	Georgia, Russia
676	Inza, Russia
677	Kamischev, Russia
694	Chesapeake Beach to Plum Point, Mid-USA
696	Miskoka, Ontario, Canada
698	Pinnularia, N. America
699	Silver Lake, Ontario, Canada [Klaus-Dieter Kemp reference: 387R - Silver Lake, Ontario Canada]
	<i>Cymbella</i> . Shirebrooke Reservoir 9/3
	<i>Cymbella</i> . Shirebrooke Reservoir 9/3
	Luneberg Heide Germany
B.H. 18 th January 1988	
636	Ynys Lake and outlet ditch near Ty Gwyn. 2 miles N/ of Harlech, N. Wales. Could be brackish.
637	North Loch, Vementry, Shetland No. 26. pH 7.7-8.0 Slide and material from J.R. Carter
638	Stream at Eype, Dorset 20 th October 1974 Collected by B. Hartley Cleaned A.G. Greenfield
639	Newborough Warren, Anglesey H.G. Barber's Slide No. 307G
640	Maltraeth, Anglesey Slide No. 418 by H.G. Barber
641	Cliffs at Shanklin, I.O.Wight Slide No. 1990 by H.G. Barber
642	South of Maw, Shetlands pH 6.7 to 7.3 J. R. Carter 18. Mud dredged from lake bottom
643	West of Maw, Shetlands pH 6.4 to 6.8 J.R. Carter 17 Mud dredged from lake bottom

The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
644	<p>Anso-muro, Japan Fossil F/W <i>Cyclotella</i> Slide from A.G. Greenfield</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p><u>CYCLOTELLA ?</u> 424</p> <p style="text-align: center;">ANSO MURO, JAPAN</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p><u>ANSO MURO, JAPAN</u> 424</p> <p style="text-align: center;"><i>Cyclotella</i> etc. Ex Wards.</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
645	<p>Baikata?, Japan Freshwater Slide by A.G. Greenfield</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p><u>PAIKATO, JAPAN</u> 313</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
646	<p>Wainui Banks, New Zealand Fossil F/W Slide by A.G. Greenfield</p>

The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
647	Fitzgerald Lake, Canada Slide by A.G.Greenfield  <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 996B - R.I. Firth 322\Wards - Fitzgerald Lake, Canada]</p>
648	Square Lake, Canada Slide by A.G. Greenfield  <p style="text-align: center;"><i>R.I. Firth index card</i></p>
649	Grand Lake, Cape Bretlan, Canada Slide by A.G.Greenfield
<p>Samples 650 to 699 were supplied by Henry Gleave, and returned to him in April 1975 after making slides.</p>	
650	Black Moss, Dinnet, Aberdeensire Material from Professor Trueman 18 th September 1942. 650A. Cleaned by H.H. Gleave August 1975. See also 653
651	Chatsworth Park, Derbyshire June 27
652	Stratford-on-Avon July 1927 Deposit from Lock Gates
653 (B)	Black Moss, Dinnet, Aberdeensire From Professor Trueman 18 th September 1942. 650A. Cleaned probably the same as 650 above.
654	From reservoir May 1939 <i>Cymbella</i>
655 (B)	Frieston Shore, Lincolnshire Mixed. August 1937
656	Frieston Shore, Lincolnshire Mixed. September 1938
657	Chatsworth Park road bridge horse trough October 1925
658 (B)	Ditchfield Park, Mansfield May 1941

The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
659 (B)	<p>Mud from a drain into the Wash, Lincolnshire October 1927</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>THE WASH, LINCOLNSHIRE 695 Mud from drain. BH659</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
660	Ramsey, I.O.M. – harbour April 1955
661	Pilling Sands, Lancashire Not quite pure [Klaus-Dieter Kemp reference: 879R - R.I. Firth 589 - Piling Sands, Lancs - <i>Surirella gemma</i>]
662	East Retford, Nottinghamshire July 1937 Scum on surface of pond.
663	S. E. Malling December 1943 Sludge underlying to slurry at bottom of reservoir near outlet pipe.
664	Hunstanton, Norfolk September 1936 <i>Surirella gemma</i> [Atlas Plate No.274]
665 (B)	Isle of Skye From Professor Trueman 25 August 1942
666	Pilling Sands, Lancashire September 1937 <i>Scoliopleura tumida</i> , almost pure [Atlas Plate No.254]
667	Wainfleet, Lincolnshire August 1938 Mixed diatoms
668	Wainfleet, Lincolnshire August 1938 <i>Surirella gemma</i> [Atlas Plate No.274]
669 (B)	Keffleman Hills (under sandstone)
670 (B)	St. Laurent, France Presumably St. Laurente la Vernede
671	Challenger Expedition 3 rd March 1874 Large bottle of dredging from a depth of 1874 fathoms 53°55'S and 108°35'E Small cleaned sample and larger partly cleaned sample. H.H. Gleave says that the large bottle of Challenger dredging was from Morley Jones.
672	Oran, Algiers F.R.S. sample [Klaus-Dieter Kemp reference: 789B - B. Hartley 2021 - Oran, Algiers] [Klaus-Dieter Kemp reference: 301B - Oran, Algiers]
673 (B)	Walfish Bay (Walvis), South Africa October 1926 Deep sea dredgings

The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
674 (B)	False Bay, South Africa Recent Marine  <i>R.I. Firth index card</i> [Klaus-Dieter Kemp reference: 064R - False Bay] [Klaus-Dieter Kemp reference: 807R - E.J.Steer/R.I. Firth 17 - False Bay, S.Africa] [Klaus-Dieter Kemp reference: 700R - H.Gleave - False Bay, S.Africa (R.M)]
675	Georgia, Russia
676 (B)	Ina, Russia Fossil Marine
677 (B)	Kamischev, Russia
678 (B)	Carlova, Russia
679 (B)	Allan's Farm, Oamaru, New Zealand
680	Mataura, Oamaru, New Zealand
681	Lake Takapuna, Auckland, New Zealand Mud from the lake
682 (B)	Totara, Oamaru, New Zealand
683	Troublesome Gully, Oamaru, New Zealand Cleaned [Klaus-Dieter Kemp reference: 825B - Ex S.Chaffer - Troublesome Gully, Oamaru N.Z. Fine - Cleaned K.D.K] [Klaus-Dieter Kemp reference: 826B - Ex S.Chaffer - Troublesome Gully, Oamaru N.Z. Medium - Cleaned K.D.K] [Klaus-Dieter Kemp reference: 662B - Troublesome Gully, Oamaru N.Z. - F.M <i>Coscinodiscus</i> , <i>Stictodiscus</i> .] [Klaus-Dieter Kemp reference: 971R - Troublesome Gully, Oamaru N.Zealand - <200>30u]
684	Troublesome Gully, Oamaru, New Zealand Uncleaned Dark Brown
685 (B)	William's Bluff, Oamaru, New Zealand ? uncleaned grey brown
686	Barbados Fines.
687 (B)	Springfield, Barbados
688	Trinidad, Retreuch quarry
689	Newcastle, Barbados No. 1 See also slide 689WM from sample loaned by William Marshall
690	Newcastle, Barbados No.2.
691 (B)	Newcastle, Barbados 'M'
692	Barbados 'N to T2' (? Newcastle)
693	Des Chutes River, Oregon. Terrebonne
694	Cesapeake Beach to Plum Point, Mid-USA
695 (B)	Conkey Pond, Nova Scotia, Canada
696 (B)	Ontario, Canada --- Muskoka
697	Newport Beach, California, United States of America Mark 6X [Klaus-Dieter Kemp reference: 964R - K.D. Kemp - Newport Beach(1), California U.S.A.] [Klaus-Dieter Kemp reference: 965R - K.D. Kemp - Newport Beach(3), California U.S.A.] [Klaus-Dieter Kemp reference: 966R - R.I. Firth 316 - Newport Beach, California U.S.A. - Large]
698	<i>Pinnularia</i> etc. from N. America

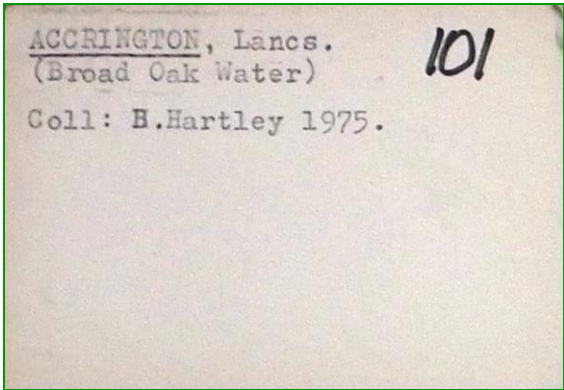
The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
699	Silver Lake, Pembroke, Ontario, Canada Fossil F/W <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> SILVER LAKE, ONTARIO 403 FFW Ex Wards </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
700	Garvavina, Iceland Slide by A.G. Greenfield
701	Heidavatn, Iceland Slide by A.G. Greenfield
702	Heidevatn, Iceland Slide by A.G. Greenfield
703	Uik, Iceland. Sewer Slide by A.G. Greenfield
704	Keene, ? New Hampshire Slide by A.G. Greenfield
705	San Jose River, Baja California, United States of America Slide by A.G. Greenfield <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> SAN JOSE RIVER 105 CAPE SAN LUCAS, BAJA CALIFORNIA Coll: P.C.Booth. Loy Collection CAS 55390 </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 916R - R.I. Firth 05 - San Jose River, Cape San Lucas California U.S.A.] [Klaus-Dieter Kemp reference: 990B - R.I. Firth 209\P.C.Booth\Loy coll\CAS55390 - San Jose River, Cape San Lucas California U.S.A. - <i>Terpsinoe musica</i> pure.]</p>
706	Waverley, New Jersey, United States of America Slide by A.G. Greenfield
707	Monterey, United States of America Fossil Marine – Large Slide by A.G. Greenfield
708	Virginia City, United States of America Eocene Slide by A.G. Greenfield
709	Stream entering Black Rock Sands, Nr. Porthmadog, N. Wales 15 th April 1975

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Entry No.	Particulars
710	<p>Mochras, nr. Llanbedr, North Wales Stream near bridge on mudflats and saltmarsh. Filamentous <i>Schizonema</i> and attached <i>Synedra</i> and <i>Nitzschia</i> 17th April 1975</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>MOCHRAS near LLANBEDR 222 N.Wales Brackish stream in salt marshes. Coll: Apl. 1975 B.Hartley BH710 222</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
711	Scum on saltmarsh pool at Traeth Bach, West of Ynys, Gwynedd, N. Wales
712	Coyehithe, Benacre Broad, between Southwold and Lowestoft Slide from H.H. Gleave April 1975
713	Quarterness Skerry. Orkney National Grid Reference HY 420-149 2 slides from A.G. Greenfield
714	On marine seaweed, Orkney Slide from A.G. Greenfield
715	Anglesey, North Wales H. G. Barber's material Slide from A.G. Greenfield
716	Preston near Weymouth, Dorset 6 th May 1975 Ditch on land side of promenade.
717	Ditch at Red Hill, Sedgemoor, nr. Langport, Somerset 12 th May 1975
718	Arlington Court (National Trust), Devon 14 th May 1975 Floating material from Lake
719	Braunton, North Devon 16 th May 1975 Ditches – probably brackish but inland of sea bank.
720	Loch Mill, Newborough, Fife May 1975 Mud Collected by W. F. Reeve in 1967 from mud 30 feet deep. Per A.G. Greenfield
721	Cherryfield, Maine, United States of America Sample from W. Marshall in July 1979
722	W. Marshall's sample No. 6. Labelled ' <i>Plagiogramma crassum</i> ' but actually containing <i>Denticula</i> sp. Returned to him.
723	River Lea. Sample from W. Marshall, later returned to him.
724	Dunkirk, Maryland, United States of America 'Large' and 'Medium' samples returned to W. Marshall. 'Medium' sample retained.
725	<i>Nitzschia linearis</i> W.Sm. Near Kingsswear from sample loaned by W. Marshall
726	Osuna, Spain From sample loaned by W. Marshall
727	Java 'A.Y.12' from a sample loaned by Marshall
728	Ananino, Russia From a sample loaned by W. Marshall
729	Carlova, Russia From a sample loaned by W. Marshall

The Bernard Hartley Sample and Strewn Slide Collection Index

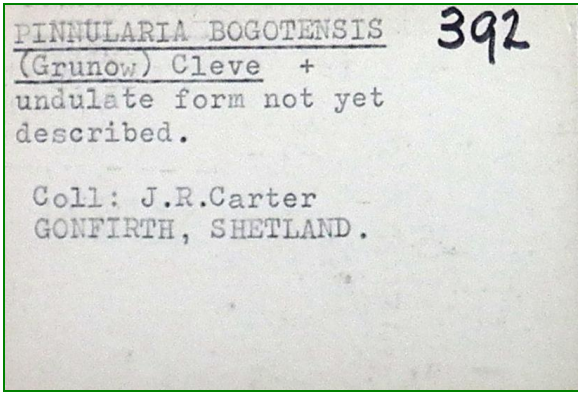
Entry No.	Particulars
730	Inza, Russia July 1975 From a sample loaned by W. Marshall
731	'Russian Fossil Diatoms' – probably Simbirsk July 1975 From a sample loaned by W. Marshall
732	<i>Plerosigma aestuarii</i> (Breb.) W.Sm. Gathered by H.H. Gleave from surface of mud on beach by sewage outfall at Galley Hill, Bexhill-on-Sea, Sussex
733	Southease, Sussex 10 th April 1975 Drainage channel Collected by R.I. Firth Sieved over 600 mesh by B. Hartley
734	Broad Oak Water, at Grange Lane, Accrington, Lancs. National Grid Reference SD 762-283 27 th July 1975 ½ cleaned by R.I. Firth See also sample 766 
	<i>R.I. Firth index card</i>
735	Filtrate from wine making kit sold at Boots the Chemist. Stourbridge August 1975
736	Southease, Sussex From the same locality as 733, but collected by R.I. Firth on 4 th June 1975 for H.H. Gleave, who gave it acid treatment
737	Hells Kettles, near Darlington Interesting flora. Slide by “?B April 1898”
738	Slide of culture by A.G. Greenfield 1974 <i>Cyclotella meneghiniana</i>
739	Brackish ditch at Pensarn, near Harlech On marsh by sea wall on the way to Llandanwg Collected 28 th August 1975 Thin brown film on broken stones and bottle. [Klaus-Dieter Kemp reference: 034R – B. Hartley 739 – Pensarn. N. Wales (Brackish ditch)]
740	Brown film scraped from surface of sand at low tide line of the estuary between the sea and Mauntwrog, Gwynedd 1 st September 1975
741	Salthouse, N. Norfolk 11 th September 1975 Floating film on brackish water.
742	Breydon Water, Norfolk 15 th September 1975 Floating film on brackish dyke behind sea wall bank (Pure gathering)
743	Breydon Water, Norfolk 15 th September 1975 <i>Pleurosigma</i> Thin film of diatoms on mud at tideline. Small percentage of diatoms.

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Entry No.	Particulars
744	Rive Yare, Norfolk 15 th September 1975 <i>Surirella gemma</i> Diatoms and mud from river bank where it enters Breydon Water. [Atlas Plate No.274]
745	Cley-next-the-Sea, N. Norfolk 16 th September 1975 Floating scum on brackish ditch <i>Gyrosigma</i> and ladders of <i>Bacillaria paxillifer</i> [Atlas Plate No.33]
746	Cley-next-the-Sea, N. Norfolk 16 th September 1975 As 745 but in large quantities later dehydrated on newspaper.
747	Heacham (South Bank), N. Norfolk 19 th September 1975 Diatoms in runnels on beach <i>Navicula</i> and <i>Nitzschia spathulata</i> [Atlas Plate No.191]
748	Holme-next-the-Sea, N. Norfolk Dry sand taken on Betty's advice from troughs in sand ripples on beach. V.G. flora and range of species inc. <i>Surirella strigosum</i> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;"> HOLME-NEXT-SEA, NORFOLK Sand Ripples on beach BH748 </p> <p style="text-align: right; font-size: 1.2em;">686</p> </div> <p style="text-align: center; margin-top: 5px;"><i>R.I. Firth index card</i></p> [Atlas Plate No.280]
749	Thornham, N. Norfolk 19 th September 1975 <i>Surirella gemma</i> Diatoms on mud of the creek near harbour landing stage. [Atlas Plate No.274]
750	Walberswick Common, Suffolk Diatoms floating on brackish ditch behind South Bank of River Blyth. Good variety of species. Also in Cu.Ni. acetate.
751	Walberswick Harbour, Suffolk Brackish pond containing floating diatoms and other small algae.

Entry No.	Particulars
752	<p>Core from Windermere Taken by the Liverpool University team under Rodger Padgham (upper recent) ex Ron Darby</p> <div style="border: 1px solid green; padding: 5px;"> <p><u>PINNULARIA PLATYCEPHALA</u> <u>EPISCOPALIS ETC.</u> 400</p> <p>Windermere: upper end of core taken by University of Liverpool. BH752.</p> <p><i>Windermere Liverpool University</i></p> </div> <p><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px;"> <p><u>WINDERMERE</u> 369</p> <p>"Upper Core" 400</p> <p>BH 752</p> <p>> 600</p> </div> <p><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px;"> <p><u>WINDERMERE</u> (Upper end 400 core taken by Liverpool University).</p> <p>P. episcopalis, platycephala etc. (BH752)</p> </div> <p><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px;"> <p><u>PINNULARIA EPISCOPALIS</u> 400 <u>PLATYCEPHALA ETC.</u></p> <p>Upper end of core taken by Liverpool University in Windermere. BH752.</p> </div> <p><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.227 & 213]</p>
753	<p>Core from Windermere – Bottom core, estimated at 1100 to 1200 AD. Ex Ron Darby September 1975 Sample later mixed with green crystals during cleaning.</p>
754	<p>River bed, Heidelberg, Germany Sydney Chaffers material per R.I. Firth, uncleaned.</p>

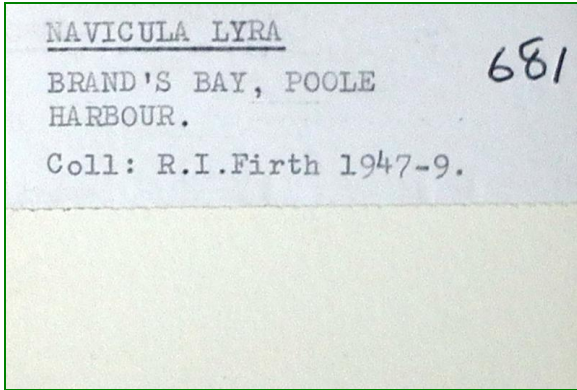
The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
755	North Sea plankton Per L. Pastori from Lowestoft Marine Biol. Assoc. Sample taken between Lowestoft and Norway.
756	From a horse trough in France fed by an icy cold mountain stream. 28 th October 1975 per Louigi Pastori
757	Brown Gill, Nenthead July 1975 Slide by J.R. Carter containing new species <i>Pinnularia infrenata</i> which is near to <i>Pinnularia subcapitata</i> . [Atlas Plate No.232]
758	Breydon Water, Norfolk J.R. Carter's sample 2820 alleged to contain <i>Stauroneis spicula</i> Hickie. [Atlas Plate No.260]
759	Mussel Loch, Shetland No. 32 pH 6.8-7.6 See also slide by J.R. Carter with <i>St. spicula</i> marked thereon. [Atlas Plate No.260]
760	South of Gonfirth, Shetland No. 5. Ref. 384-621 pH 4.6 Slide by J.R. Carter  <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 998R - R.I. Firth 392] J.R. Carter - Gonfirth, Shetland - <i>Pinnularia bogotensis</i> & var <i>undulata</i> not yet described]</p>
761	Blelham Tarn Top 5cms of material (Mud and Sediment) from the bed of the tarn 2 slides No. 13558 by J.R. Carter. Blelham Tarn is located on the west side of the north end of Windermere. Just south of Ambleside and east of Hawkshead.
762	Rue Castle pond pH. 6.2 June 1964 J.R. Carter slide No. 12796 Should contain <i>Pinnularia braunii</i> [Atlas Plate No.206]
763	Brodick Bay, Arran Slide by J. Morley Jones per Frank Hobbs
764	Breid Bay, Antarctica 1966/7 expedition. Slide by Emile Bailleux of Brussels via Frank Hobbs. <i>Eucampia, Corethron, Chaetoceros, Nitzschia, Fragilaria, Fragilariopsis</i> etc.
765	Piron (La Manche) de Brelefon No. 312. Slide from F. Hobbs <i>Biddulphia pulchella</i> Gray. [Atlas Plate No.35]
766	Broad Oak Water, Accrington National Grid Reference 762-283 27 th July 1975 This is half of sample 734 but this portion was cleaned by A.G. Greenfield.


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Entry No.	Particulars
767	Inverkirkaig Brackish riverside pool. Very varied flora. The bog is near a stream some 5 miles from the sea.
768	Inverpolly peat ditch J.R. Carter's slide No. 13588 Marked specimen of <i>Nav. placenta</i> Ehr. [Atlas Plate No.155]
769	The Spine, Ewell, Surrey Slide by A.W. Round via F. Hobbs. Collected 6 th June 1964
Slides 769-773 were all prepared by A.W. Round and received from Frank Hobbs.	
770	Ruislip nature reserve, Middlesex 23 rd May 1964
771	Long Water, Hampton Court 9 th May 1964
772	Gillon, near Aboyer, Aberdeenshire 31 st August 1922 Bottom of wooden mill sluice. Collector unknown.
773	Allt a Cheillin, Loch Tay at 1100 feet 10 th October 1913 Collector unknown
774	Galley Hill, Sussex Rainwater trickle on beach below cliff. Per H.H. Gleave January 1976
775	Walberswick, Suffolk Stagnant pool on saltmarsh near harbour Per H.H. Gleave January 1976
776	Toomebridge, N. Ireland Pale Cream rock received for R.I. Firth January 1976
777	Cherryfield, Maine, United States of America White powder received from R.I. Firth January 1976
778	Retford Pond, Nottingham, England 1948 slide by S.H. Meakin Meakin Diatom Collection: 1121 Retford Pond. Recent, Freshwater, Heavy 1130 Retford Pond. Recent, Freshwater, Large, good 1388 Retford Pond. Recent, Freshwater
779	North Sea Slide by Thum of Leipzig <i>Triceratium favus</i> [Atlas Plate No.290]
780	Mourne Mountains deposit, N. Ireland 2 slides by unknown mounter
781	Toomebridge, N. Ireland Old pare-covered slide.
782	Toomebridge Per Stanley of London
783	Toomebridge, N. Ireland 1967 Slide by C.N. Walter
784	Black Moss, Aberdeen, Scotland 1967 slide by C.N. Walter
785	"Aberdeen" Slide by Dr. C.
786	Loch Cuithir, Isle of Skye 1945 slide by C.N. Walter
787	Monstead, Isle of Skye Old slide
788	Isle of Lewis 1967 slide by C.N. Walter
789	Wales 'Strew with seven types of <i>Nitzschia</i> '

The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
790	Belgian-Dutch Antarctic Expedition 1964-1965 Station 59°06'S 24°7'E Sea water Samples 790-795 supplied by Monsieur Emile Bailleux, Rue de l'Equateur 47, Bte. 4, 110 Bruxelles, Belgium
791	As 790 but Station 206. 59°06'S 24°27'E
792	As 790 but Station 211. Breid Bay 70°10'S 23°44'E Near Queen Maud Land (see also 830)
793	As 790 but Station 214. 70°18'S 24°27'E Near Queen Maud Land
794	Glacon 29-1/VII Fusion water off the ice floe.
795	Glacon 29-1/VII "Brown Ice" fusion water off the ice.
796	F/W sample from Ardennes. Small clear pond on the outskirts of a wood on calcareous land.
797	Westlands Farm, Charlwood, Surrey Bottom of a pond 18" deep. Mud/Algae squeeze. Eutrophic. March 1976 ex A.G. Greenfield
798	Criccieth, S. Wales 10 th March 1976 Scraped from stones in small stream near promenade at E. end of town.
799	River Holdart, above the bridge. June 1975 Fast flowing river a few miles from the sea. Slide No. 13606 by J.R. Carter <i>Brebissonia boeckii</i> Grun. [Atlas Plate No.38]
800	Brands Bay, Poole Harbour. Collected by Rupert Carter for R.I. Firth 20 th June 1948 Cleaned by B. Hartley 1976 
801	Poole Harbour Collected by R.I. Firth 9 th July 1949 Cleaned B. Hartley April 1976
802	Nassington, Northants Ancient fishpond at Prebendal Manor Material from H.H. Gleave
803 (B)	Llangollen, Wales Grey/Brown jelly on rock face just above the canal, opposite the Chain Bridge Hotel
804	Mortimer Forest, near Ludlow, Salop. On stones in trickle of a stream to a pond in the forest. Collected by Betty 24 th April 1976
805	Bolton le Sands, Lancashire Red-brown mud from foreshore collected by R.I. Firth 7 th August 1950
806	Clynde Gap, Bexhill From Henry Gleave. Scrapings from timber at outlet pipe below high water mark.


The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
807	<p>Ashburnham Lake, Ashburnham Park, Sussex Per R.I. Firth Cleaned by A.G. Greenfield, and finished by B. Hartley.</p> <div style="border: 1px solid green; padding: 5px; text-align: center;"> <p>ASHBURNHAM LAKE Sussex</p> <p>Coll: R.I. Firth Apr. 1976</p> <p>BH807 On 600</p> <p>89</p> <p>Also 93-4 220-1</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
808	<p>Ashburnham Lake, Ashburnham Park, Sussex As 807 but cleaned by B. Hartley R.I. Firth says richer gathering. Small quantity only. Bottle broken on arrival.</p>
809	<p>Wrenham Stream, Pevensey Marsh, E. Sussex, adjoining Cooden Road near Norman's Bay Per H.H. Gleave May 1976</p>
810	<p>Pevensey Marsh, Wallers Haven, Sussex which runs into the sea at Norman's Bay Per H.H. Gleave May 1976</p>
811	<p>Lowland river adjoining bottom road to Ynys from Harlech, Gwynedd. Chocolate brown growth and filaments on stems and leaves of potamogeton. Collected 20th May 1976</p> <div style="text-align: center;">  </div> <p style="text-align: center;"><i>Potamogeton</i></p>
812	<p>Saltwater gutter, w. of railway on Talsarnau Marsh, Gwynedd. 21st May 1976 <i>Schizonema</i> in tubs and pure <i>Navicula</i> on pipe and other submerged objects. Also part in 2% formalin after Cu.Ni.</p>
813	<p>Mud surface in saltwater gutter at Talsarnau on 21st May 1976. Bubbling brown growth on mud in shallow margins.</p>
814	<p>Shallow pool at low tidemark on Talsarnau saltmarsh 25th May 1976 Bubbling pale brown film on muddy and sandy surface. <i>Surilella</i>, <i>Gyrosigma</i>, <i>Navicula</i>, <i>Achnanthes</i>, etc.</p>
815	<p>J.R. Carter slide No. 11029. Probably Ehrenberg's original material from Franzenbad, containing Type <i>Navicula cincta</i> (Ehr.) Ralfs (Ex. B.M. per Kützing)</p>
816	<p>Was found to be devoid of diatoms and was discarded.</p>

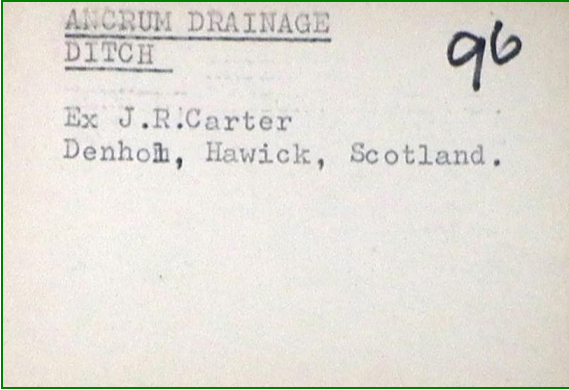
The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
817	Brands Bay, Poole Harbour 1950 Per R.I. Firth uncleaned.
818	Discarded. Devoid of diatoms. Old sample from R.I. Firth.
819	Poole Harbour 9 th March 1949 Per R.I. Firth uncleaned.
820	Discarded. R.I. Firth sample found to be devoid of diatoms after cleaning.
821	Polluted ditch, Surrey 1975 Slide by J.R. Carter 13515 24 th July 1976 J.R. Carter says like the <i>Navicula cincta</i> in Franzenbad original material. [Atlas Plate No.134]
822	Drinking fountain, Gallet Hill, Sussex Slide by H.H. Gleave July 1976
823	Wrenham stream, Pevensey Marsh, Sussex June 1976 Sample by H.H. Gleave by road from Henbrands Waly to A259.
824	Norman's Bay, Sussex Sample loaned by H.H. Gleave and one slide.
825	Leintwardine Fishery, Shropshire F/W tributary of R. Teme at Clifton Ford bridge. Floating brown film of filamentous algae and diatoms. 5 th August 1976
826	Lake Vyrnwy, Powys, Wales 12 th August 1976 Mud exposed in the lake bed during extreme drought.
827	Eunant Fawr, above Lake Vyrnwy. 12 th August 1976 One of the supply streams. Filamentous and other brown algae.
828	Whittington, Shropshire 17 th August 1976 Brown floating filamentous algae ('bubbling') on village pond.
829	Tenby Sands 2 slides by H. G. Barber 1128/B [Klaus-Dieter Kemp reference: 474B - J.A.Long T40 - Tenby, S.Wales - R.M] [Klaus-Dieter Kemp reference: 395B - J.A.Long T41 - Tenby, S.Wales] [Klaus-Dieter Kemp reference: 625B - Tenby, S.Wales]
830	Belgian-Dutch Antarctic expedition Station PB1 Phytoplankton. Small sample per E. Bailleux from Breid Bay, Queen Maud Land. 70°20'S 24°12'E. 60µ plankton net hauled from 230 metres to surface. See also 792.
831	Arafura Sea, N. of Australia and S. of New Guinea. Phytoplankton incl. <i>Bacteriastrium</i> sp. Ex R.I. Firth
832	Burton Pond, near Petworth, W. Sussex From overflow weir Collected by R.I. Firth 11 th August 1976 and cleaned by B. Hartley.

Entry No.	Particulars
833	<p>River Liddell, Roxburgh 'From stream itself'. Collected by J.R. Carter with R.I. Firth 31st July 1976 Cleaned B. Hartley</p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
834	<p>River Liddell, Roxburgh From vertical dripping rocks at the side of the stream. Collected by R.I. Firth with J.R. Carter 31st July 1976. Cleaned by B. Hartley</p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p style="color: red;">[Atlas Plate No.125 & 69]</p>
835	<p>Tushie Law, Roxburgh 31st July 1976 Collected by J.R. Carter with R.I. Firth Cleaned B. Hartley</p>


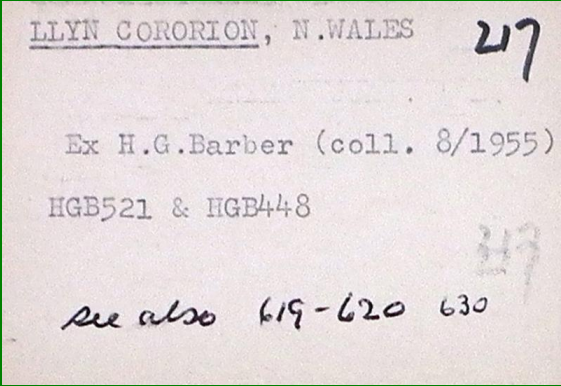
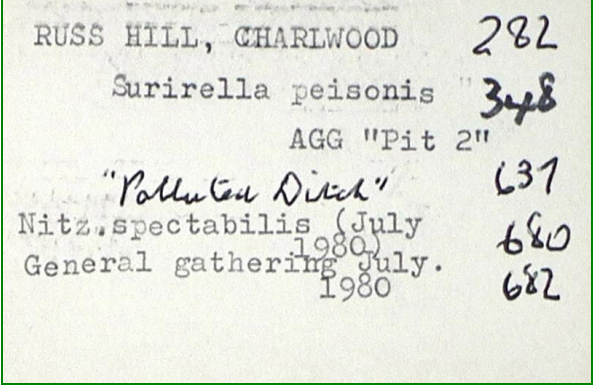
Entry No.	Particulars
836	<p>Ettrick River Upper reaches Collected by J.R. Carter with R.I. Firth 31st July 1976 Cleaned B. Hartley Look out for <i>Diatomella balfouriana</i></p> <div style="border: 1px solid green; padding: 5px; text-align: center;"> <p>RIVER ETTRICK, Rox. 168 CoLL: J.R.Carter 31/7/76 BH836 68</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.75]</p>
837	<p>Birkwell, South Unst, Shetland 139. September 1975 pH 6.6 Bottom mud from small Loch 200 yards from high tide, across peat bog. Small sample and one slide from J.R. Carter.</p> <div style="border: 1px solid black; text-align: center;">  </div> <p style="text-align: center;"><i>Unst</i></p>
838	<p>Hulma Water, Shetland (or ? Bodmin Moor, Cornwall) <i>Melosira fennoscandis</i> A.Cl. Small cleaned sample from J.R. Carter.</p> <div style="border: 1px solid green; padding: 5px; text-align: center;"> <p>HULMA WATER, CORNWALL? SHETLANDS? 688 Ex J.R.Carter BH838</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>



The Bernard Hartley Sample and Strewn Slide Collection Index


Entry No.	Particulars
839	Eardesley, Hereford August 1976 Small sample of uncleaned mud from Parton Farm. Small sample received from J.R. Carter September 1976 and incinerated.
840	As 841 below, but small quantity cleaned and supplied by J.R. Carter <i>Melosira arenaria</i> , almost pure.
841	Wet vertical brickwork on the outside of a pump chamber within a wood alongside the road from Denholm to Ancrum, Roxburgh. Collected 14 th September 1976 by B. Hartley, with J.R. Carter. See also two slides of H.G. Barber's gathering in 1963 and J.R. Carter's gathering in 1947. Also part in Cu Ni acetate.  <p style="text-align: center;"><i>R.I. Firth index card</i></p>
842	Holy Island, Lindisfarne, Northumberland Collected by B. Hartley and M.E.H. on 15 th September 1976 from sand on beach below Castle.
843	Sand on beach alongside the causeway from Beal to Holy Island, Northumberland. Collected by B. Hartley 5 th September 1976.
844	Bubbling green algae and leathery brown skin on the base of a saltmarsh pool near the causeway from Beale to Holy Island, Northumberland. 15 th September 1976
845	Bubbling brown film and mud on stones in a saltmarsh gutter at Beale, Northumberland Collected by B. Hartley 15 th September 1976
846	Mud, Sand and diatoms at low tide on the Alnmouth estuary, Northumberland Collected by B. and M.E.H. 16 th September 1976

Entry No.	Particulars
847	<p>Flush of chocolate brown film on shallow depth of water issuing as a spring in "The Well" at rear of King William House, High Street, Settle, Yorks. Collected by B. Hartley with R.I. Firth 19th September 1976 <i>Diatoma hyemale</i> var. <i>quadratum</i>. Also part sample in Cu Ni, as fluid mount. Note: Use top only and avoid frustules when making strew slides.</p> <div style="border: 1px solid green; padding: 5px;"> <p>DIATOMA HIEMALE VAR. 249 MESODON (E.) Grun. 573-4 (v. quadratum (K.) Ross) Spring behind King William House, High Street, Settle, N. Yorkshire. BH847 573-4 collected 29/5/79</p> </div> <p style="text-align: center;">R.I. Firth index card</p> <div style="border: 1px solid green; padding: 5px;"> <p>SETTLE, N. YORKSHIRE 249 (Spring behind King William House, High Street,) Diatoma hiemale var. mesodon (E.) Grunow. 573 coll. 29/5/79 574 (v. quadratum (Kütz.) Ross)</p> </div> <p style="text-align: center;">R.I. Firth index card</p> <p>[Atlas Plate No.75]</p>
848	<p><i>Cocconeis pediculus</i> on filamentous green algae (<i>Mougeotia</i>) collected from a stream alongside the road between Malham and Arncliffe. Collected by R.I. Firth 15th September 1976 Also in Cu Ni acetate and later 2% formalin for fluid mounts. [Atlas Plate No.52]</p>
849	<p>Slide by C.N. Walter received from H.H. Gleave in October 1976 Dual mount of Chalk Pond, Cherryfield, United States of America (a) in StyraX and (b) in PleuraX which is of much higher R.I. and contrast.</p>
850	<p>Kallithea, Rhodes, Greece Seaweed from rocks 3 feet deep 50 yards out "173 x 200" per Dr. Bradley, via R.I. Firth</p> <div style="border: 1px solid green; padding: 5px;"> <p>RHODES, Greece. 414 <u>Kallithea</u> Seaweed from rocks 3 feet under surface, 50 yards out. Collected: L.N. Bramley 1970. (LNB150)</p> </div> <p style="text-align: center;">R.I. Firth index card</p> <p>[Klaus-Dieter Kemp reference: 923R - R.I. Firth - Rhodes, Kallithea Greece - Mastogloia]</p>
851	<p>Allerley Well J. R. Carter slide 12826 <i>Diploneis elliptica</i> (Kütz.) Cl. [Atlas Plate No.81]</p>

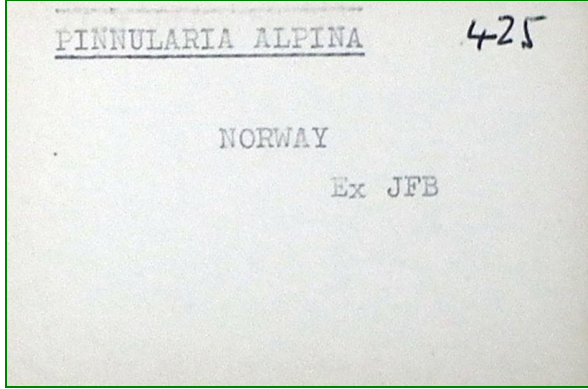
The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
852	Lancin, Sussex Ditch. 1941 Slide by J.R. Carter
853	Old slide. "Meakin's mixed diatoms" Original mount by H.R.W. in 1912. Re-ringed in 1976 by B. Hartley. Contains gross <i>Pinnularia</i> with: 
854	Stream running mainly over brickwork of an inclined culvert at Coalbrookdale, in Shropshire. Opposite the Coalport Museum. Collected 23 rd November 1976 with Frank Hobbs.
855	Llyn Cororion, Caernarfonshire, N. Wales 6 B. Hartley slides made from H.G. Barber's material 521 and 448. Sample sieved later and returned to R.I. Firth (see also 570)  <i>R.I. Firth index card</i>
856	Loch Assynt, Scotland June 1976 Slide 13676 by J.R. Carter <i>Gomphonema helveticum</i> and <i>Caloneis laticula</i> . [Atlas Plate No.109 & 42]
857	Clay pit pond, Westlands Farm, Russ Hill, Charlwood, Surrey Collected by A.G. Greenfield November 1973 <i>Surirella peisonis</i> Pant. Pure.  <i>R.I. Firth index card</i> [Atlas Plate No.277]

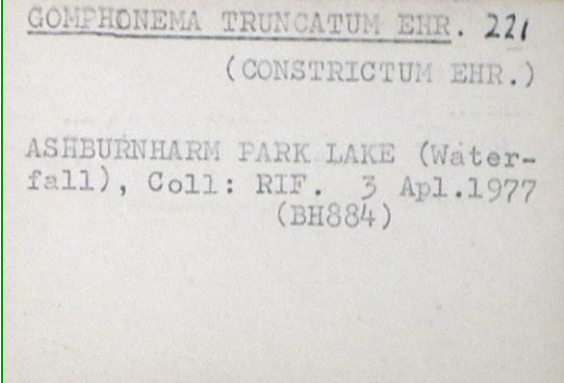
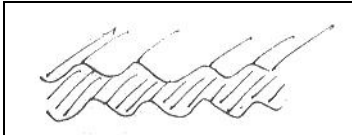
Entry No.	Particulars
858	<p>Brackish stream entering Mawdach estuary near east end of bridge and viaduct on the Barmouth to Fairbourne railway. 19th January 1977 Chocolate brown film 1-2mm thick on muddy sandy bed.</p>  <p><i>Mawdach Estuary nr. Barmouth</i></p>  <p><i>Mawdach Estuary nr. Barmouth</i></p>
859	<p>National Grid Reference 23/ 628-148 Chocolate brown film similar to 858, but in brackish pool clear of the running stream. 19th January 1977</p>
860	<p>Fossil marine earth "for packng dangerous liquids". Supposed to be crushed and calcined.</p>

Entry No.	Particulars
861	<p>Acid pond on Thursley Common, Surrey National Grid Reference SU/ 903-414 Collected by L.V. Martin December 1976 Received via R.I. Firth January 1977 See also sample F84 for desmids taken from this sample.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>THURSLEY POND, Surrey Coll: L.V. Martin Dec. 1976 BH861 Medium</p> <p style="text-align: right; font-size: 1.2em;">196 ↓ 202</p> <p style="text-align: center; font-size: 1.5em;">(7 tubes)</p> <p>coll: L.V.M. Sept 1978 334 -do- March 1980 659</p> </div> <p style="text-align: center; margin-top: 5px;"><i>R.I. Firth index card</i></p> <div style="margin-top: 20px;">  <p style="font-size: 0.8em; margin-left: 5px;">A H LINDLEY</p> <div style="margin-left: 10px;"> <h3>THURSLEY BECOMES NATIONAL NATURE RESERVE</h3> <p>Thursley Common, which has been managed by the Surrey Trust for the past fourteen years, has become the first National Nature Reserve in Surrey. The Nature Conservancy Council have bought over 780 acres of land on Thursley and the adjoining Ockley and Rodborough Commons— one of the finest remaining pieces of heathland in Surrey—from the former owner Colonel Whitbread. The Trust will continue to manage the reserve on behalf of the NCC.</p> <p>In the reserve can be found the most important bog in South East England, containing many species of sphagnum moss, bog asphodel, cranberry and the insect eating plant long-leaved sundew. Many different types of dragonflies breed in the scattered pools and the area is also a breeding ground for many heathland birds such as Nightjar, Redstart and Stonechat.</p> <p>One of the jobs the Trust is doing is controlling the spread of pine and birch woodland onto the heathland. Thursley National Nature Reserve contains a variety of habitats ranging from dry heath through humid and wet heath to an extensive valley bog. The area has been used for many years for research and teaching purposes.</p> </div> </div>
862	<p>St. Mary's Loch, Scotland October 1959 J.R. Carter slide No. 2390</p>
863	<p>St. Mary's Loch, Scotland September 1972 J.R. Carter slide No. 3425</p>
864	<p>Swithland Quay, Leicestershire J.R. Carter slide No. 13662 In Ragalli's medium R.I. 1.88 Sample collected by H.G. Barber</p>
865	<p>Ardslaigh Lochan June 1976 J.R. Carter Slide No. 13665</p>

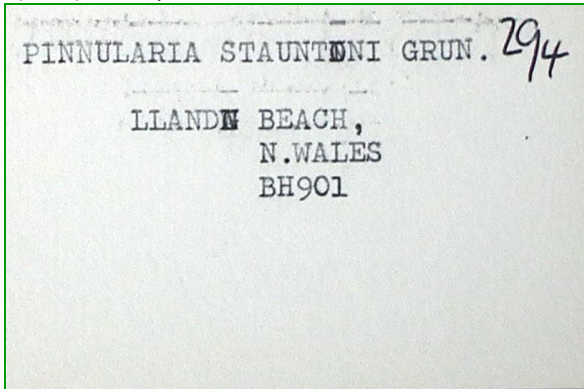
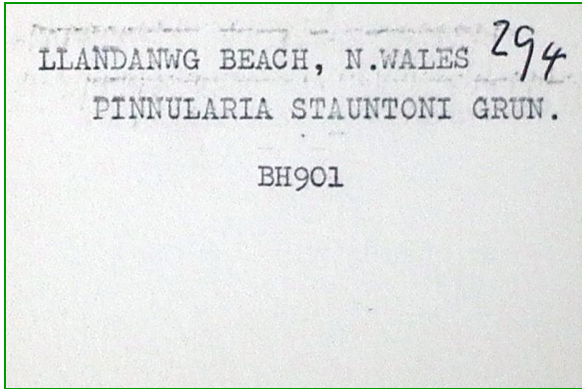
The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
866	E. side of Mawdach estuary near railway. Brown filamentous algae and tubes of ' <i>Schizonema</i> ' on stones in fast running flow of brackish stream. 19 th January 1977 See also sample 858.
867	Plankton from the Arafura Sea, between Australia and the East Indies. Sample per R.I. Firth February 1977 Same as sample 831
868	From Norway. <i>Pinnularia alpina</i> W.Sm. Per R.I. Firth February 1977  <i>R.I. Firth index card</i>
869	Epiphytes and small algae in tidal pool at Borth y Gest, Gwynedd 22 nd February 1977 Small sample
870	Thin film on mud and sand in tidal pool at Borth y Gest, near Porthmadog, Gwynedd 22 nd February 1977
871	Brown film on mud, stones and debris in tidal creek on Talsarnau saltmarsh 2 nd February 1977
872	H.G. Barber slide of strewn diatoms from fine seaweed' Cornwall. September 1976 <i>Cocconeis molesta</i> var. <i>crucifera</i> Grun. [Atlas Plate No.52]
Note: Samples 873 to 999 were received from H.H. Gleave in August 1978	
873	Emile Bailleux slides from Belgian 1964/5 Antarctic Expedition. Stations P81B and 219. Bleid Bay. See also paper in Q.M.J. Vol.33. pt.2, 1976 re. <i>Amphora kufferathii</i> Manguin
874	Emile Bailleux's slide of material taken from Belgian Antarctic Expedition, Station 207 1966
875	H.G. Barber's slide from unknown locality. Doubtfully Toomebridge.
876	Marshy area in woodland at Charlwood, Surrey 2 nd March 1977 Small sample containing excellent <i>Pinnularia</i> , <i>P. gentilis</i> etc., from A.G. Greenfield. [Atlas Plate No.215]
877	Farm ditch, Westlands Farm, Charlwood, Surrey 'March 1977' Small sample per A.G. Greenfield. <i>Pinnularia viridis</i> and relatives [Atlas Plate No.237]
878	Llyn Cororion, Wales 4 slides from H.G. Barber of different gatherings from this Llyn.
879	Narborough Bog, Leicestershire Slide from H.G. Barber. Mainly <i>Pinnularias</i> , and later a small sample with <i>Synedra minuscula</i> . [Atlas Plate No.283]
880	George West's 1910 plankton samples. A mixture from his samples A-J and L, M, X and W. See also samples F86-97.
881	Wells, Somerset 5 th April 1977 Bubbling brown algae on floor of trough in main street fountain. See also sample 530

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Entry No.	Particulars
882	Roversley Park pool. April 1972 Combined sample from three dregings by H.G. Barber. Cleaned by B. Hartley.
883	Geo. West's 1910 plankton sample "H". Uncleaned portion filed as F.89. <i>Thalassiosira</i>
884	Ashburnham (Pond) Park, Sussex 6 th March 1977 Artificial waterfall near lake (? or house) Collected by R.I. Firth  [Atlas Plate No.109]
885	Ashburnham Park, Sussex 31 st March 1977 Stream entering (or leaving) lake. Collected by R.I. Firth
886	Seaweed from unspecified foreign locality Per R.I. Firth April 1977
887	Black Moss, Dinnet, Aberdeenshire Fossil F/W dark brown diatomite Per R.I. Firth April 1977 Between Ballater and Arboyne
888	Lyons Farm, New Jersey Glacial kettle hole without outlet Per R.I. Firth April 1977 "Classic F/W material" [Klaus-Dieter Kemp reference: 338B - J.A.Long L27 - Lyons Farm, New Jersey U.S.A. - F.F\W]
889	Cooma, New South Wales, Australia Per R.I. Firth April 1977 It is a laminated white fossil rock of light weight. Large sample partly cleaned.
890	Unknown locality Fossil fairly hard white/pale cream rock Per R.I. Firth April 1977
891	Unknown locality Fossil fairly hard white/grey rock Per R.I. Firth April 1977
892	Unknown locality Fossil grey/cream rock Per R.I. Firth April 1977 Sides undulating as though cut by a waved knife:  Large sample. Part only cleaned.
893	Unknown locality Fossil white/grey rock Per R.I. Firth April 1977 Part only of large sample cleaned.

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Entry No.	Particulars
894	Talbot, ?) Australia R.I. Firth says in April 1977 that this can be very good.
895	Minute brown quantity of fossil diatoms from Berlin, Germany "K.M.C. Mobile, Ala." [Klaus-Dieter Kemp reference: 287B - Berlin, Kieselguhr Germany]
896	Kieselguhr – Germany. Minute sample of red earth from R.I. Firth in April 1977
897	"Diatoms in situ", Southerdown <i>Rhabdonema</i> on sponge. Minute sample per R.I. Firth
898	"Boganoe", Aberdeen Small sample per .I. Firth April 1977
899	Port Dickson, Malaya Two strewn slides supplied by R.I. Firth One containing <i>Synedra formosa</i> Hantzsch. and <i>S. hennedyana</i> Greg.
900	Diatoms and sane on a plastic sheet washed up above high water mark on the beach at Llandanwg, near Harlech, Gwynedd. 25 th April 1977
901	Patch of diatoms on sandy surface of Llandanwg beach at high water mark. 25 th April 1977 <i>Pinnularia stauntonii</i> (Grun) Cleve, pure.  <p>PINNULARIA STAUNTONI GRUN. 294 LLANDANWG BEACH, N.WALES BH901</p> <p>R.I. Firth index card</p>  <p>LLANDANWG BEACH, N.WALES 294 PINNULARIA STAUNTONI GRUN. BH901</p> <p>R.I. Firth index card</p> <p>[Atlas Plate No.230]</p>
902	Trentham Gardens Dredge from lake in August 1963 Slide by H.G. Barber
903	Loch an Ordan, Lochinver June 1976 Slide 13733 by J.R. Carter

Entry No.	Particulars
904	<p>Stream in water meadow near Hendford roundabout, Yeovil Somerset 23rd May 1977 Scraped from stones and mud.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>YEOVIL, SOMERSET (Stream at Hendford). 705 Coll: B.Hartley 3rd May 1977. BH904. (Gomphoneis olivaceum)</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>GOMPHONEIS OLIVACEUM 705 (Gomphonema) Yeovil, Somerset (Stream at Handford. Coll: B.Hartley 3rd May 1977. BH904</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.106] [Klaus-Dieter Kemp reference: 012R - K.D. Kemp - Yeovil stream, Yeovil Somerset]</p>
905	<p>Lower pond in Nine-Springs woodland, Yeovil, Somerset 23rd May 1977 Floating scum and diatoms.</p>
906	<p>Mixture of upper and lower ponds at Nine-Springs woodland, Yeovil, Somerset 23rd May 1977</p>
907	<p>Lowland stream, Clapton, near Crewkerne, Somerset 13th May 1977 Floating scum and mud.</p>

Entry No.	Particulars
908	<p>The Lagoon, Southport, Lancs Collected by R.I. Firth in the 1950s. <i>Biddulphia aurita</i> var. <i>obtusa</i> (Kütz.) Hust. See also further sample 908A which is as 908 but without contamination. Note: 908 was contaminated by an unknown freshwater sample.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>SOUTHPORT, LANCs. 494 The Lagoon. Biddulphia obtusa (K.) Ralfs. <i>R.I. Firth</i></p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>BIDDULPHIA OBTUSA (K.) 494 <u>RALFS.</u> Southport, Lancs. Lagoon</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 058R - K.D. Kemp - Southport Marine lake, Lancs] [Klaus-Dieter Kemp reference: 078R - K.D. Kemp - Southport Marine lake, Lancs - Fine]</p>
909	<p>Narborough Bog, Leicestershire On mud of old oxbow stream route. Slide by H.G. Barber</p>
910	<p>Kyle of Durness from sand ripples at low tide. J.R. Carter slide No. 3752</p>
911	<p>Howroyd Clough, Todmorden, Yorks Collected by W. Haworthon 4th April 1977 from same site as sample BH 59</p>
912	<p>Howroyd Clough, Todmorden, Yorks Collected by W. Haworthon 4th April 1977 from same site as sample BH 60</p>
913 (B)	<p>Kentmere, Windermere Diatomaceous soft earth. Caustic cleaning finished by B. Hartley in April 1986</p>

Entry No.	Particulars
914	<p>Collected by R.I. Firth on 20th July from the 18 inch wide road channel between pavement and roadway of Trumpington Street, Cambridge. Outside the Fitzwilliam Museum. Note: that it was on this day 20th July 1977 that R.I. Firth was honoured by the Illinois Microscopical Society and made an Honorary Member, in recognition of his lifelong work and association with diatoms.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>TRUMPINGTON STREET, 250 CAMBRIDGE. 376</p> <p>Cymbella affinis Kutz. with C. cistula (Hemprich) Grun. Coll: R.I. Firth 20 July 1977. BH914 376 uncleaned</p> </div> <p style="text-align: center;">R.I. Firth index card</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>CAMBRIDGE (Trumpington 250 Street) 376</p> <p>Cymbella affinis Kutz. with C. cistula (Hemprich) Grun. Coll: R.I. Firth 20/7/77 BH914 150 376 - uncleaned</p> </div> <p style="text-align: center;">R.I. Firth index card</p> <p>[Atlas Plate No.63 & 65]</p>
915	<p>National Grid Reference 129/ 480-876 <i>Cymbella affinis</i> with thick brownish green skin in spray area of a water supply overflow tank in a field near Shropshire 9th August 1977 [Atlas Plate No.63]</p>
916	<p>River Thames estuary, Thorpe Bay, East of Southend on Sea, Essex Collected 23rd December 1974 by R. Hare of 15 Lime Avenue, Upminster, Essex</p>
917	<p>As 916 but collected by R. Hare on 15th April 1976</p>
918	<p>Llyn Cororion. Collected September 1954. Slide by H.G. Barber containing <i>Pinnularia "chickenpoxensis"</i> n.sp.</p>
919	<p>Llyn Cororion Drain. Collected on August 1954 and July 1961 H.G. Barber No. 523B containing <i>Cymbella Morse cordiana</i></p>
920	<p>Riversley Park Pool, Nuneaton Dredging on January 1964 H.G. Barber 762 slide containing <i>Pinnularia transversa</i> (Schm) A. Mayer [Atlas Plate No.235]</p>
921	<p>H.G. Barber slide of sample gathered in August 1954 en route for Llyn Idwal, N. Wales. Contains <i>Pinnularia carminata</i> Barber & Carter [Atlas Plate No.209]</p>
922	<p>River Teviot, Scotland J.R. Carter slide No. 13376 of <i>Nitzschia acicularis</i> and <i>Nitzschia acicularoides</i> Archibald. The latter about 1 in 50. [Atlas Plate No.180] [Klaus-Dieter Kemp reference: 477R - J.R. Carter - Teviot River]</p>

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Entry No.	Particulars
923	<p>Chalk Pond, Cherryfield, Maine, United States of America August 1977 "per H.R. S. Meakin" via R.I. Firth</p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
924	<p>Carama, Chile Fossil</p>
925	<p>Roatarua, New Zealand Per R.I. Firth August 1977 Fossil</p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
926	<p>Diatomaceous earth, Rappahanock River, Quigley, Virginia, United States of America Per R.I. Firth August 1977</p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>

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Entry No.	Particulars
927	<p>Drakesville, New Jersey, United States of America Per R.I. Firth August 1977</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: right;">313</p> <p>DRAKESVILLE, NEW JERSEY</p> <p style="text-align: center;">BHQ27</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
928	<p>15 miles west of San Felipe, Baja, California C.A.S. loc. 39904 Collected 1966 See also 52 [Klaus-Dieter Kemp reference: 043G - R.I. Firth - San Felipe, Baja Co California U.S.A.]</p>
929	<p>Poutiki Bluff, Kaipara Harbour, Auckland, New Zealand Fossil marine. Sent to R.I. Firth by L.D. Coombs [Klaus-Dieter Kemp reference: 294B - Main Bluff, Batley Kaipara harbour Auckland N.Z.]</p>
930	<p>Llandanwg, nr. Harlech, Gwynedd 19th September 1977 Mixed seaweed floating in the sea about low water mark. Note. This sample later became contaminated slightly with sample 928.</p>
931	<p>Henbrands Walk, Cooden, Sussex From plastic sheet in ditch near level crossing. Collected by H.H. Gleave 1977 <i>Surirella gemma</i> [Atlas Plate No.274]</p>
932	<p>Norman's Bay, Sussex Stream running off the land through sand near a groyne at low tide. September 1977</p>
933	<p>Farmoor Reservoir Slide supplied by Liz Haworth of the FWBA at Windermere, reference her 9 types of <i>Stephanodiscus</i>.</p>
934	<p>Blelham Tarn, English Lake District Mud from about 10cms below lake bed. Supplied by Dr. Liz Haworth October 1977 Blelham Tarn is on the west side of the north end of Windermere, just south of Ambleside and east of Hawkshead.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>BLELHAM TARN, AMBLESIDE, 497 Cumbria, Ex E.J.Haworth 396 FBA: B.T. J.6.1975. 0-0.5 <i>P. cardinalicus</i> Cleve Dr. Lund's material? Ex J.R. Bardie 560 (Ex EYH)</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.208]</p>

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Entry No.	Particulars
935	<p>Applecross Bay On sand between tides. June 1975 Slide by J.R. Carter No. 13818 "Marine, S.W. Scotland"</p> <div style="border: 1px solid green; padding: 5px; text-align: center;"> <p>TUSHIE LAW, Rox. 178 Coll: J.R.Carter 31/7/76 BH935</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 487R - J.R. Carter - Applecross, Rox.]</p>
936	<p>Newcastle upon Tyne Path. Lab. 3 slides of water from a dead Russian sailors lungs. See letter November 1977 from Mr. L. W. Little.</p>
937	<p>Cynlais Beach, Llangold, Menai Straits, Anglesey H.G. Barber's cleaning 429 dated August 1955. Slide September 1977 with marked specimens of <i>Navicula menaiana</i> Hendey [Atlas Plate No.150]</p>
938	<p>Bermuda rise, Deep sea dredgings project. Station 6 West flank Leg. 1. C.A.S. loc. 43151 <i>Isthmia equinaboldi</i> Forti etc.</p> <div style="border: 1px solid green; padding: 5px; text-align: center;"> <p><u>BERMUDA RISE</u> 253 Deep Sea Drilling Project , Leg. 1, Sta. 6, West Flank. CAS 43151(6) (F)</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
939	<p>McMurdo Sound, bottom dredge 457 C.A.S. loc. 42585</p> <div style="border: 1px solid green; padding: 5px; text-align: center;"> <p>McMURDO SOUND 225A CAS 42585. Bottom 457m. 225B Ex Richard B. Hoover / Well cleaned</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 799R - R.I. Firth 225a - McMurdo Sound, Bottom Dredge] [Klaus-Dieter Kemp reference: 926R - C.A.S 43151(6) R.I. Firth253 - Bermuda Rise, Deep Sea drilling project Leg 1 Station 6 West flank - Rare, but contaminated with Skye deposit]</p>

Entry No.	Particulars
940	<p>San Fiora, Italy May 1971 Fossil F/W <i>Cymbella ehrenbergii</i> and a good selection of <i>Pinnularia</i>. Slide from R.I. Firth</p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
941	<p>Wells, Somerset 4th April 1978 Diatoms in public fountain in main shopping street. Collected with R.I. Firth</p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p style="color: red;">[Atlas Plate No.175]</p>
942	<p><i>Diatoma vulgare</i> from the swift flowing overflow sill at Hornsbury Mill, near Chard, Somerset May 1978 [Atlas Plate No.75]</p>
943	<p>Steep Holm in the Bristol Channel 27th May 1978 South Landing. Minute quantity of film from crevice in rocks where seepage water percolates down through the limestone rockface. In the splash zone and possibly submerged at high tides.</p>
944	<p>Steep Holm, Bristol Channel 27th May 1978 South landing. Epiphytes and mucous fronds of pale brown algae in small pools on the limestone rocky shore. Exposed at low tide. <i>Synedra tabulata</i> in bunches.</p>

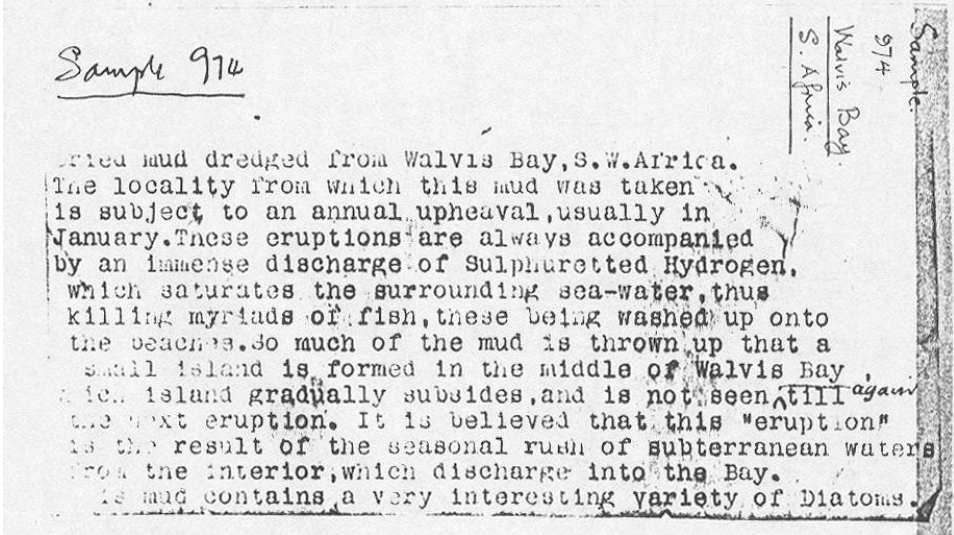
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Entry No.	Particulars
945	Steep Holm, Bristol Channel 27 th May 1978 "The Beach" on the north side. Small pools exposed at low tide on the limestone rocky foreshore. A little East of the main landing point. <i>Licmophora, Synedra, Melosira</i> and <i>Navicula</i> in tubes.
946	Plankton collected by Klaus Kemp 27 th May 1978 By holding his large plankton net in the tidal current off the end of the shingle spit of Steepholm, Bristol Channel. <i>Biddulphia sinensis, Rhizosolenia, T. favus</i> , sponge spicules, <i>Coscinodiscus</i> and <i>Bacillaria paradoxa</i> . [Atlas Plate No.290 & 33]
947	Steepholm, Bristol Channel 27 th May 1978 Dried mud from old puddle at rear of "The Barracks". Cleaned by Klaus Kemp of East Brent [Klaus-Dieter Kemp reference: 473R – K-D. Kemp – Steepholm Island, Avon] [Klaus-Dieter Kemp reference: 818R – K-D. Kemp – Steepholm Island, Bristol Channel, Avon - <i>Licmophora</i>]
948	Ditch below Surlingham Church, Norfolk TG63 304-066 23 rd April 1978 Enormous quantities of bubbling diatoms which filled a long wide ditch. <i>Melosira varians, Synedra, Fragilaria</i> etc. [Atlas Plate No.129]
949	Walberswick Harbour, Suffolk 24 th April 1978 Diatoms on black mud surface between tides. A few <i>Coscinodiscus</i> .
950	Walberswick, Suffolk 24 th April 1978 Diatoms on car tyre in brackish ditch.
951	Salthouse, North Norfolk coast 26 th April 1978 Bubbling and floating scum on brackish ditch Good mixed sample.
952	Holkham Salt Marshes, N. Norfolk 26 th April 1978 Floating bubbling algae in brackish ditch. <i>Nitzschia, Hantzschia, Gyrosigma, Pleurosigma</i> etc., etc.

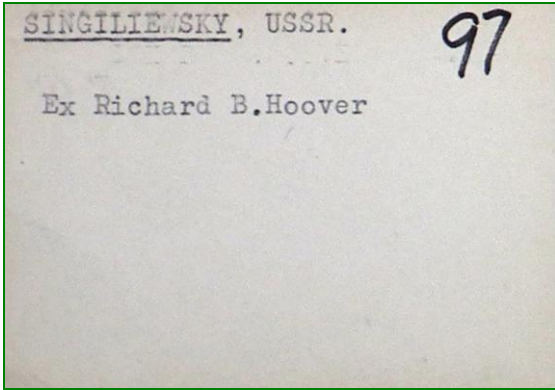
Entry No.	Particulars
953	<p>West Bay, Dorset 15th May 1978 On concrete piles in harbour between tides. <i>Navicula mutica</i> and var. <i>cohnii</i>.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>WEST BAY, DORSET Nav. mutica var. cohnii (Hilse) Grun. Coll: B. Hartley 15/5/78 On concrete piles in harbour. BH953.</p> <p style="text-align: right;">699 689</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>NAVICULA MUTICA VAR. COHNII (Hilse) Grun. West Bay, Dorset - coll: B. Hartley 15/5/78 - on concrete piles in harbour.</p> <p style="text-align: right;">699 689</p> <p style="text-align: center;">BH953</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.151]</p>
954	<p>Cranway Farm, Forton, near Chard, Somerset 20th May 1978 On old plant stems in fast flowing streams at Mr. Scotts farm.</p>
955	<p>Forton, near Chard, Somerset 20th May 1978 Long strands of algae and diatom film attached to stones in fast flowing river. A tributary of the River Axe. Near the railway bridge. <i>Diatoma vulgare</i> Bory [Atlas Plate No.75]</p>
956	<p>Sartil, Digg, Isle of Skye Uncleaned sample collected by Klaus Kemp. [Klaus-Dieter Kemp reference: 093R – B. Hartley 956 – Sartil, Skye, Scotland]</p>
957	<p>Loch Cuithir, Isle of Skye Cleaned sample received from Klaus Kemp on 24th June 1978. [Klaus-Dieter Kemp reference: 578R – K-D. Kemp – Loch Cuithir, Skye, Scotland]</p>
958	<p>Phytoplankton from the Bristol Channel, off Weston-super-Mare Collected by Klaus Kemp 20th July 1974 See also sample 1249</p>
959	<p>Wedmore, Somerset <i>Navicula cuspidata</i> per K. Kemp [Atlas Plate No.137]</p>
960	<p>Hong Kong 1973 per K. Kemp 24th June 1978 Collected by M. Chui. [Klaus-Dieter Kemp reference: 454R– Hong Kong] [Klaus-Dieter Kemp reference: 457R– Hong Kong]</p>
<p>Samples 961-963 were collected by Klaus D. Kemp in June on the Island of Mull, when he was a member of the Field Study Party from Salford University.</p>	

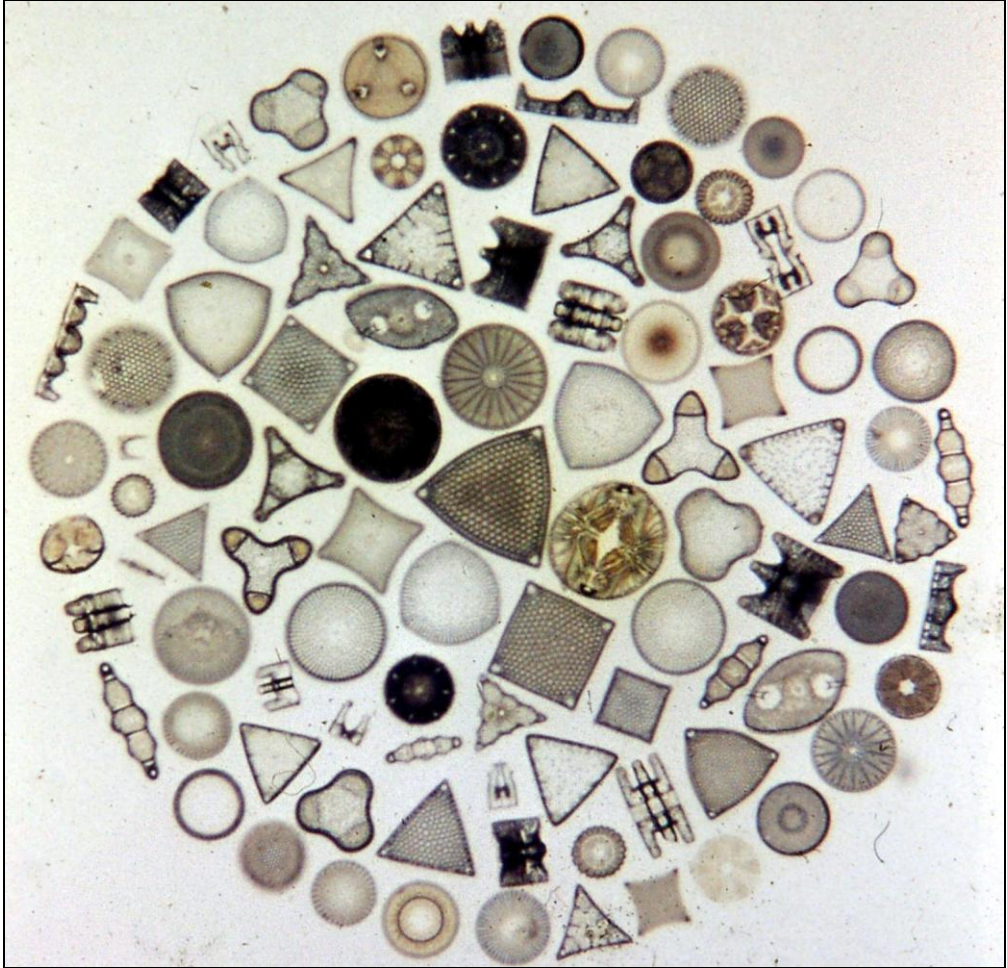
Entry No.	Particulars
961	Island of Mull Marine and brackish Dervaig [Klaus-Dieter Kemp reference: 769B - K.D. Kemp - Dervaig, Mull Scotland] [Klaus-Dieter Kemp reference: 768B - K.D. Kemp - Dervaig, Mull Scotland]
962	Island of Mull (marine) Sound of Erraid [Klaus-Dieter Kemp reference: 770B - K.D. Kemp - Erraid, Sound of Mull Scotland]
963	Island of Mull. Graig Nur. Freshwater June 1973
964	Island of Mull. Carraig F/W and tidal marine.
965	Island of Mull <i>Diatoma</i> 6 th June 1973
966	Squeeze from green filamentous algae in long pond adjoining Berrow golfcourse, beyond Berrow Church, Somerset. 10 th June 1978 <i>Cymbella, Epithemia, Gomphonema</i> See also 971
967	South Ambersham Common, near Midhurst, Sussex National Grid Reference SU 915-195 May/June 1978 Collected by L.V. Martin. Taken from a very secluded marshy spot which has also yielded very rare rotifers <div> </div> <p style="text-align: center;">R.I. Firth index card</p> <div> </div> <p style="text-align: center;">R.I. Firth index card</p> <p>[Atlas Plate No. 233, 226, 202, 212, 213, 232 & 230] [Klaus-Dieter Kemp reference: 059R - L.V. Martin - Ambersham Common, West Sussex]</p>
968	Exmouth Beach, Devon. Yellow brown thick film of jelly on percolating ground water on the seaward face of red Devonian sandstone rock face – rarely if ever in seawater.
969	E. end of Exmouth foreshore, Devon. 30 th June 1978. 15cm. tufts of brown branched algae attached to rock face of red Devonian sandstone. Covered at high tide, but otherwise exposed. Many epiphytes and ribbons of diatoms.

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Entry No.	Particulars
970	Bexhill on Sea, Sussex May 1978 Rocks on south cliff. Slide and material from H.H. Gleave. Very similar to 944 and 945.
971	Pond at Berrow golf course, Somerset 20 th July 1978 Squeeze from filamentous algae and scrapings from <i>Potamogeton crispus</i> and other pond weeds. See also previous sample 966.
972	Scrapings from fast flowing drainage water in N. and S. channels on Fore Street, Chard, Somerset. 27 th July 1978 Mainly <i>Meridion circulare</i> . Also in Cu. Ni. Acetate. [Atlas Plate No.127]
973	H.G. Barber's slide No. 1987 of Newborough Warren, Anglesey with examples of <i>Navicula tusculoides</i> . [Atlas Plate No.166? tuscula]
974	Walvis Bay, South Africa July 1978 Uncleaned sample from Klaus Kemp  <p>[Klaus-Dieter Kemp reference: 020B- Walvis Bay] [Klaus-Dieter Kemp reference: 112R- Walvis Bay] [Klaus-Dieter Kemp reference: 135R- Walvis Bay] [Klaus-Dieter Kemp reference: 154R- Walvis Bay, Green mud from bottom]</p>
975	Housetter, Shetland October 1975 Slide '66' by J.R. Carter
976	Loch Loyal June 1978 Slide 13856 by J.R. Carter
977	Applecross, Scotland June 1976 Ditch behind beach Slide 13660 by J.R. Carter
978	Mannitol Sample from H.H. Gleave August 1978
979	Springfield, Barbados Sample from H.H. Gleave

The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
980	Singiliewsky, Russia  <i>R.I. Firth index card</i>
981 (B)	Dunkirk, Maryland, United States of America [Klaus-Dieter Kemp reference: 880R – B. Hartley 981 – Dunkirk, Maryland, United States of America – <i>Actinoptychus heliopelta</i>]
982	Richmond, Virginia, United States of America
983	Sharkstooth Hill, Kern County, LA1068, U.S.A
984	Pitt River, Mount Shasha, California, United States of America
985	Moreno Shale, California, United States of America 'Original'
986	Moreno Shale, California, United States of America 'West gathering'
987	Oamaru, New Zealand Mixed through 300 mesh
988	Oamaru, New Zealand Retained 30 mesh
989	Oamaru, New Zealand '4'
990	Jacksons, Oamaru, New Zealand Top of west bed 'Copping'
991	Jacksons, Oamaru, New Zealand Near Base
992	Jacksons, Oamaru, New Zealand Ex. J.S. Coombs
993	Allans, Oamaru, New Zealand
994	Mataura, Oamaru, New Zealand
995	Papakaio, Oamaru, New Zealand
996	Totara, Oamaru, New Zealand
997	Troublesome Gully, Oamaru, New Zealand

Entry No.	Particulars
998	<p>Watson's Museum Jar of Oamaru material</p>  <p> [Klaus-Dieter Kemp reference: 924B – Watson Museum Jar – Oamaru. N. Zealand – <i>Stephanopyxis grunowii</i>] [Klaus-Dieter Kemp reference: 929B – Watson Museum Jar – Oamaru. No. 1. N. Zealand] [Klaus-Dieter Kemp reference: 928B – Watson Museum Jar – Oamaru. N. Zealand – <i>Stephanopyxis grunowii</i>] [Klaus-Dieter Kemp reference: 935B – Watson Museum Jar – Oamaru. No. 8. N. Zealand] [Klaus-Dieter Kemp reference: 930B - Ex Watson Museum Jar - Jacksons Paddock, Oamaru N.Zealand (Near Base)] </p>
999	William's Bluff, Oamaru, New Zealand
1000	<p>Sea Wall, Sidmouth, Devon</p> <p>September 1971</p> <p>At the west end of the town, near Jacob's Ladder</p> <p>Small sample and also slide from H.H. Gleave</p>
1001	<p>Buddleigh Salterton, Devon</p> <p>Sample of macro algae collected by K-D. Kemp 23rd August 1970</p>
1002	<p>Minute quantity from sandy pool at Galley Hill, Bexhill on Sea, Sussex.</p> <p>August 1978</p> <p>No diatoms present in sample after H2SO4!</p>
1003	<p>Sendai, Japan</p> <p>A mount made from Henry Gleave's capped slide.</p>
1004	<p>Rear of beach at Howards Dunwich, below Walberswick, Suffolk.</p> <p>Slide by H.H. Gleave September 1978</p> <p>See also 1008 below.</p>
1005	<p>Mixed brackish sample from Suffolk of medium to light material.</p> <p>August 1978</p> <p>Also slide 2346 of the heavy and light material from H.G. Barber.</p>
1006	<p>Slide by H.G.Barber, of Walberswick, Suffolk</p> <p>Containing <i>Navicula cryptolyra</i></p> <p>[Atlas Plate No.136]</p>

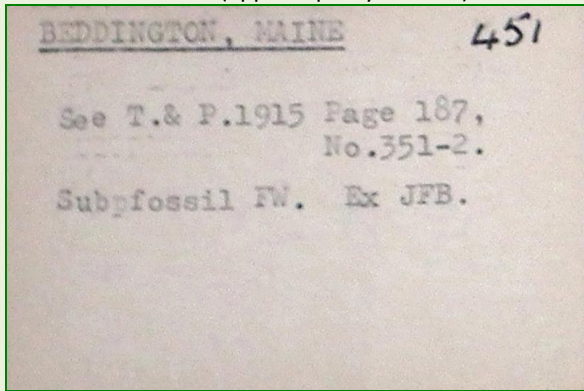
The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
1007	Sands at Norman's Bay, Sussex August 1978 Two slides and also H. Gleave's sample 152/3a.
1008	Saltflat puddles behind sand dunes between Walberswick and Dunwich, Suffolk. September 1978. Deteriorated Pleurax slide from H.H. Gleave See also 1004
1009	Beam Brook, 5 miles S.W. of Reigate. Newdigate, Surrey National Grid Reference 187/ 215-452 Two slides from Glyn Greenfield. One just before 95% pollution of the brook in 1973 by farm wastes, and one four years later showing some recovery. See also 1039.
1010	Mud from 'Wooden Loch' May 1975 Slide from J.R. Carter received 14 October 1978 on the occasion of his visit to us at Howley.
1011	Isle of Barra Wet rock on cliff face. July 1978 Slide 13855 by J.R. Carter
1012	Ricaston. Wet rock on old railway cutting. Slide 13852 by J.R. Carter
1013	Hong Kong, China 10 th October 1978 Marine plankton from British Museum sample Per R.I. Firth
1014	Poole Harbour, Dorset "ex. N.I. Hendey 1967" Per R.I. Firth 10 th October 1978 "Very Good"
1015	Poole Harbour, Dorset Collected 20 th June 1948 by R.I. Firth
1016	Locality unknown 10 th October 1978 Per R.I. Firth <i>Coscinodiscus</i> (small)
1017	Duxbury Reef, Bolinas Bay, California, United States of America Per R.I. Firth 10 th October 1978 <i>Aulacodiscus oregonis</i> and <i>Biddulphia (Cerataulus) edwardsii</i>
1018	Jewell, Maryland, United States of America Per R.I. Firth 10 th October 1978 <i>Actinocyclus octonarius</i> [Klaus-Dieter Kemp reference: 085G - J.F.B. - Jewel, Maryland United States of America]
1019	Jewell, Maryland, United States of America Per R.I. Firth 10 th October 1978 <i>Actinocyclus octonarius</i>
1020	Dunkirk, Maryland, United States of America Per R.I. Firth 10 th October 1978 <i>Actinoptychus heliopelta</i> , <i>Asteromphalus</i> etc.
1021	<i>Arachnoidiscus ehrenbergii</i> , from Puget Sound, United States of America Per R.I. Firth 10 th October 1978 [Klaus-Dieter Kemp reference: 210R - J.F.B. - Puget Sound - <i>Arachnoidiscus ehrenbergii</i>]
1022	<i>Arachnoidiscus ornatus</i> (Large) from California, United States of America Per R.I. Firth 10 th October 1978
1023	<i>Arachnoidiscus ornatus</i> (Medium) from California, United States of America Per R.I. Firth 10 th October 1978
1024	Blewbury, Waterford 12 th June 1931 Slide by H.H. Gleave
1025	Geelong, Australia Slide 168 by H.H. Gleave

Entry No.	Particulars
1026	Trwyn Ddu, Penmon, Anglesey Slide No. 2353 by H.G. Barber <i>Auricula complexa</i> (Greg.) Cleve [Atlas Plate No.33]
1027	Inza, Russia November 1978 Minute sample of fossil marine material from J.R. Carter
1028	Bogangoe, Aberdeenshire November 1978 Sample from J.R. Carter
<p>J. R. Carter says that he received his "Bogangoe" material from the Rev. D. P. Fuge, who died in 1941. It was labelled "Bogangoe, Huntly, Aberdeen" but as it contains <i>P. major</i> var. <i>pulchella</i>, J.R. Carter suspects that it is Fossil F/W from America. However, Huntly is midway between Aberdeen and Elgin in Scotland. Perhaps the label was placed on the wrong bottle!</p> <div style="text-align: center;"> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.221]</p>	
1029	Brenda Knudson's material from High Nook Farm, Cumberland, near Loweswater Containing <i>Tabellaria binodis</i> (Ehr.) Grun., <i>T. fenestrata</i> , <i>T. flocculosa</i> etc. Minute sample from J.R. Carter November 1978 from which it was possible to make two slides. [Atlas Plate No.284]
1030	Llanfihangel y Traeth, near Harlech National Grid Reference SH(23) 655-377 25 th October 1978 Sent to A.G. Greenfield 28 th October 1978 and returned 7 th February 1979
1031	Squeeze from plants and Sphagnum in outlet of small Llyn Llenrych above Techwyns, near Harlech National Grid Reference SH(23) 655-377 22 nd October 1978 Sent to A.G. Greenfield 28 th October 1978 and returned 7 February 1979
1032	<p>Brown bubbling film on mud in gutter at Talsarnau saltmarsh National Grid Reference SR(23) 607-364. 25th October 1978 Part only sent to A.G. Greenfield. <i>Surirella gemma</i> and many other species.</p> <div style="text-align: center;"> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.274] [Klaus-Dieter Kemp reference: 051R – B. Hartley 1032 - Talsarnau Salt marsh, Wales & 023R – Talsarnau Saltmarsh, N. Wales]</p>

Entry No.	Particulars
1033	Brown film on mud in saltmarsh gutter at Ynys, near Harlech National Grid Reference SH(23) 603-355. 25 th October 1978 Sent to A.G. Greenfield 28 October 1978
1034	Red brown film on sand surface exposed at low tide in Trastn Bach, Afon Dwyrhyd, Gwynedd, near Ynys. 25 th October 1978 [Klaus-Dieter Kemp reference: 117R – B. Hartley 1034 - Afon Dwyrhyd, N. Wales]
1035	Brown Film in damp sand ripples at a slack place on Llandanwg beach near Harlech 27 th October 1978 <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;">NAVICULA MONILIFERA 401</p> <p style="text-align: center;">LLANDANWG BEACH NWALES.</p> <p style="text-align: center;">Coll. B. Hartley (BH1035)</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;">LLANDANWG BEACH 401</p> <p style="text-align: center;">North Wales.</p> <p style="text-align: center;">BH1035.</p> <p style="text-align: center;">Navicula monilifera</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.151]</p>
1036	As 1035 but selected short tufts of filamentous brown algae. 27 th October 1978 [Klaus-Dieter Kemp reference: 016R – B. Hartley 1036 - Llandanwg, N. Wales Beach – Short seaweed on beach]
1037	Epiphytic diatoms from Bladderwrack and other seaweeds on the foreshore at Port Dinorwng, N. Wales 26 th October 1978 [Klaus-Dieter Kemp reference: 017R – B. Hartley 1037 - Port Dinowyg, N. Wales]
1038	As 1037 but in the estuary of Afon Artro, near the breakwater of Llandanwg beach near Harlech, Gwynedd. 28 th October 1978 [Klaus-Dieter Kemp reference: 013R – B. Hartley 1038 - Aber Artro, Llandanwg, Wales]
1039	Beam Brook, Newdigate, Surrey National Grid Reference 187 215-452. After organic farm pollution a) May 1973 b) July 1973 c) September 1973 See also sample 1009
1040	Lake Sumner, New Zealand Slide by A.G. Greenfield No. 314 <i>Pinnularia cardinaliculus</i> var.
1041	Old Mill sluice, "Lillycoes" Slide 313 by A.G. Greenfield

The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
1042	Ambersham Common, East Sussex Collected by L.V. Martin September 1973 Cleaned initially by A.G. Greenfield as 335 small and 336 large Sieved and swirled later by B. Hartley for R.I. Firth
1043	Llyn Cororion, N. Wales. Drain B. Two slides 605 by H.G. Barber <i>Pinnularia braunii</i> , <i>P. nodosa</i> etc. [Atlas Plate No.206 & 226]
1044	Brackish Pool Aber Ogwen, Bangor, N. Wales October 1978 Slide by H.G. Barber. Also 1044A a similar sample per H.G. Barber
1045	North Canterbury, New Zealand Sub-peat bog Slide given by H.H. Gleave containg <i>Terpsinoe trifoliata</i> Cleve
1046	Unknown source Slide by H.H. Gleave December 1978 <i>Cyclotella stelligera</i> Cleve [Atlas Plate No.60]
1047	River Taman, Tasmania <i>Hydrosira triquetra</i> Wallich Slide by H.H. Gleave
1048	Fossil diatomaceae from Baldjiki, near Varna, Black Sea Slide by H.H. Gleave
1049	Juneau, Alaska Recent marine Very small sample per K-D. Kemp
Note: Samples 1050-1054 were sent by R.I. Firth on 12 th December 1978 to B. Hartley for cleaning and return of 50% to R.I. Firth	
1050	Drakesville, New Jersey, United States of America [Klaus-Dieter Kemp reference: 032R – B. Hartley 1050 - Drakesville, New Jersey, United States of America - Light]
1051	Diatomite, Beddington, Maine, United States of America Fossil F/W from the D.B. Ward collection (appears partly cleaned)  <i>R.I. Firth index card</i> [Klaus-Dieter Kemp reference: 322B - Beddington, Main United States of America] [Klaus-Dieter Kemp reference: 081B - Beddington, Main United States of America] [Klaus-Dieter Kemp reference: 236B - Beddington, Main United States of America]

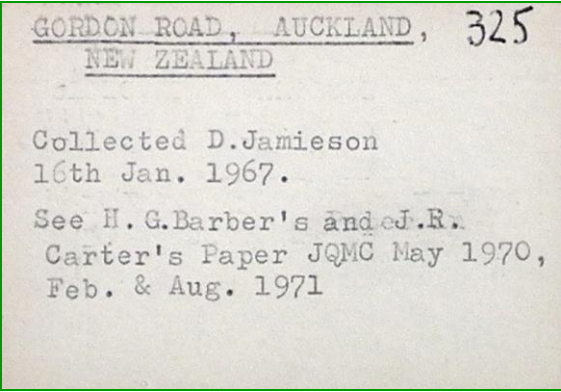
The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
1052	Keene, New Hampshire I.T.C. Fossil <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="margin: 0;">KEENE, New Hampshire, 399 U.S.A. Sub-fossil FW. (Cleaned BH1052).</p> </div> <p style="text-align: center; margin-top: 5px;"><i>R.I. Firth index card</i></p>
1053	Duck Pond, Waterford, Maine, United States of America Fossil (? Wadespond) [Klaus-Dieter Kemp reference: 031R – B. Hartley 1053 - Waterford, Maine, United States of America – On duck pond]
1054	Perley's Meadow, South Brighton, Maine, United States of America
<p>Letter to R.I. Firth Eastern States Samples. They have been given treatment in HCl and H₂SO₄ and a little ammonia. I think you will agree that they could generally do with a touch of soda. Let me know what you recommend, and try it out on your half of the samples; then I'll have a go to do the final polishing-up of my half of these samples. BH.1050 Drakesville, New Jersey A plentiful sample of 'Heavy' with just about the best <i>Epithemias</i> that I have seen; with some interesting <i>Cymbellas</i>. What about the coarse looking <i>Navicula</i>. Is it <i>peregrina</i>? The very plentiful 'Light' sample is probably even more interesting than the 'heavy', if ever you felt like working it. BH.1051 Beddington, Maine The 'Heavy' and 'Light' are in moderate quantity, but you will recall that this was a Wards sample, and it was very white as though it might have already been treated – possibly by heating in a furnace. I have treated it just like the rest but the results are quite different. You might like to try soda here as the sample is otherwise good. BH.1052 Keene, New Hampshire The quantity here is relatively small, as there was only a tiny bit of the original powder. In consequence, I have not sieved it over the 600 sieve. At first I thought this was going to be the same as Bogangoe when I saw <i>P. major</i> var. <i>pulchella</i> Boyer as the Americans call it. But there is some difference and I don't recall <i>Anomoeoneis serians</i> in the Bogangoe material. BH.1053 Duck Pond, Waterford, Maine I couldn't make out from the label whether this was Waterford or Wadesford. Good quantity and very interesting stuff, but it needs more doing to it. BH.1054 Perley's Meadow, South Brighton, Maine Small quantity of the 'Heavy' only, mostly 'Light' stuff. The heavy is interesting, but horror upon horrors, it has become contaminated with some large marine stuff. However, this should not prevent you from making some selected mounts from it. All the samples are in distilled water. I enclose a slide from each sample, so that you may assess the situation without the necessity of removing the sample first. These small tubes will not pour easily. The material is best extracted by using a pipette.</p> <p style="text-align: right;">BH 15th January 1979</p>	
<p>Samples 1055-1059. Ex. K.D.K. stock 18th December 1978</p>	

Entry No.	Particulars
1055	<p>Soos, Bohemia Fossil F/W R.I. Firth says that this is the classic material dealt with by Grunow in 1882. Also T & P (Tempere et Peragallo) slide No. 44 <i>Campylodiscus clypeus</i> and several vars of <i>Anomoeoneis sphaerophora</i> See also 1076</p> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">DIATOMÉES COLLECTION J. TEMPÈRE & H. FERAGALLO</p> <p style="text-align: center;"><u>FRANZENBAD (Bohème).</u></p> <p>Le No. 167 de nature saumâtre me parait être celui qui est connu sous le nom d'EGER près de Franzenbad en tous cas il n'en diffère pas. Le no. 168 d'eau douce est le vrai dépôt de Franzenbad. Le dépôt de SOOS est <i>(su Soos slide BH 1055)</i> également très semblable au 168.</p> <p>Ces dépôts ont été étudiés par Ehrenberg dans la microgéologie pl. 1 et par Grunow, Diat. fossiles de Hongrie dans les contributions à la paléontologie de l'Autriche-Hongrie (Vienne 1882).</p> <p><u>Bernard</u>: I have material from Franzenbad and Soos and also C. & M. Slide 263 (Eger). Also T. & P. slides of Franzenbad and Soos. The C. & M. Eger slide (canada balsam) is choc-a-bloc with many <i>Anomoeoneis</i>. (according to Grunow's list Eger contains: <i>Navicula sculpta</i> Ehr. a. var. <i>bohemica</i> Ehr., <i>N. fossilis</i> Ehr., <i>N. biceps</i> Ehr. (= <i>N. sphaerophora</i> var.)). I think that much time spent on this Eger slide would be profitless as the <i>Anomoeoneis</i> on it seem to vary enormously. The <i>Anomoeoneis</i> in all three deposits (Franzenbad, Soos and Eger) vary a great deal, e.g. <i>sphaerophora</i> var. <i>sculpta</i> in my Soosis extremely nodose and I have yet to see its equal in Franzenbad. There are splendid <i>costata</i> in Franzenbad and also another which matches up to USA 49/46-47..</p> <p style="text-align: right;"><i>Slide enclosed</i></p> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p style="text-align: center;"><u>SOOS, BOHEMIA</u> 429</p> <p style="text-align: center;">FB</p> <p style="text-align: center;">See T. & P. 1907 P.13 Slide No. 21.</p> <p style="text-align: center;">SOOS - Ex Klaus Kemp (S. Chaffers material) 429A</p> </div>

R.I. Firth index card

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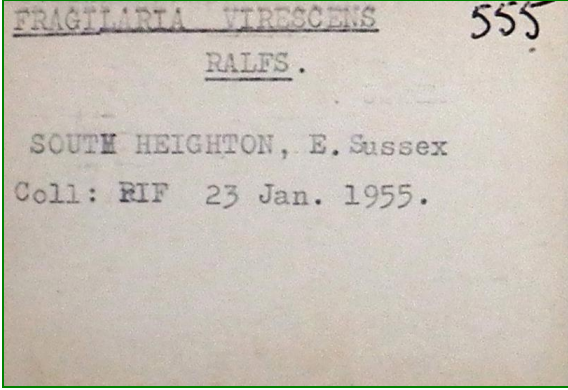
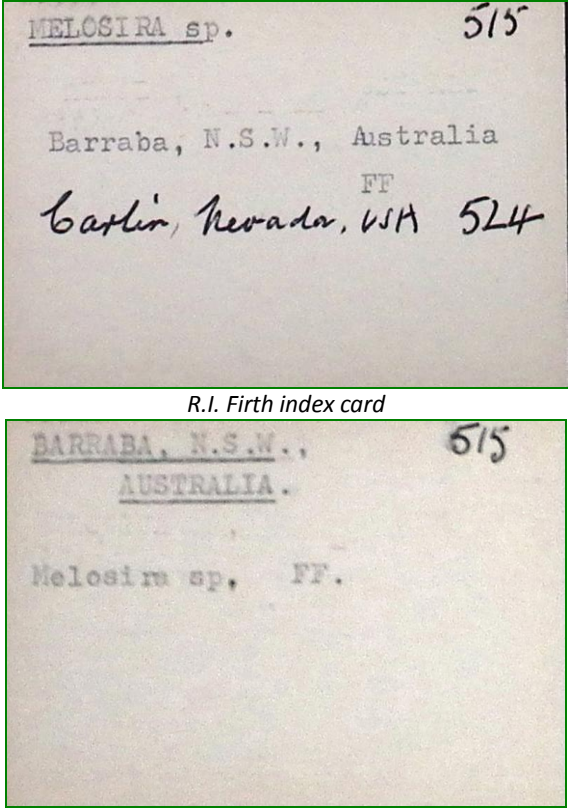
Entry No.	Particulars
1056	South Yarra, Australia 1933 [Klaus-Dieter Kemp reference: 843B - Ex S.Chaffer - South Yarra - <i>Campyloneis</i> , <i>Hyalodiscus</i> .] [Klaus-Dieter Kemp reference: 323B - South Yarra - <i>Hyalodiscus</i> .] [Klaus-Dieter Kemp reference: 435B - South Yarra - <i>Coscinodiscus</i> fragments.] [Klaus-Dieter Kemp reference: 061B - South Yarra, [1]] [Klaus-Dieter Kemp reference: 142B - South Yarra, [3]]
1057	Pollenger's District, New Zealand 'No. 1'
1058	Pollenger's District, New Zealand 'No. 2'
1059	Auckland, New Zealand Cleaned by Klaus Dieter Kemp 1963 [Klaus-Dieter Kemp reference: 535B - K-D. Kemp - Auckland, New Zealand]
1060	Amersham Common, East Sussex A further sample (3 rd) collected by L.V. Martin in September 1978 Slide from R.I. Firth See also 967 and 1042
1061	Oaston Moat, Horeston Grange, Nuneaton Slide per H.G. Barber December 1978 Site now no longer in existence.
1062	"Londonderry deposit" Fossil diatoms. Large forms. Old slide
1063	Mors, Jutland Old strewn slide. Re-labelled
1064	Nairobi, Kenya Temporary mount by R.I. Firth
1065	Newport and Redondo Beach, California Fossil marine. Sample from H.G. Barber collected by Bill Smith and supplied by the late Bill Fleming. [Klaus-Dieter Kemp reference: 640B - Poss J.A.Long R - Redondo Beach, California U.S.A. - F.M] [Klaus-Dieter Kemp reference: 724B - Poss J.A.Long R2 - Redondo Beach, California U.S.A.]
1066	Gordon Road deposit, New Zealand Uncleaned fossil F/W sample from H.G. Barber. His paper in the Q.M.J. was based on this.  <i>R.I. Firth index card</i>
1067	Whangamarino, New Zealand (NIH/66) 34 feet bore. F.B.N. ex. F. Reed. Slide 2/63 per H.G. Barber February 1979
1068	Oamaru, New Zealand "ex. A.M.J." Per H.G. Barber February 1969 Slide only Pure <i>Biddulphia aurita</i> v. <i>obtusa</i> (Kütz.) Hust.

Entry No.	Particulars
1069	<p>Pond near Beam Brook, Newdigate, Surrey A.G. Greenfield No. 319 Nostoc layer on mud surface, bubbling and floated to surface. Collected by A.G. Greenfield March 1978</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>BEAM BROOK, CHARLWOOD, 323 SURREY 447 (Pond at) Ex A.G.Greenfield</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>BEAM BROOK near Newdi- 447 gate, Surrey - Pond 323 at brook. Coll: A.G.Greenfield March 1978 AGG319</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
<p>Note: Samples 1070 to 1075 were sent uncleaned from R.I. Firth to B. Hartley</p>	
1070	<p>Pale/Brown/Cream sample of finely powdered earth which resembles Northern Ireland fossil F/W</p>
1071	<p>Mourne Mountains, Northern Ireland Brown Earth</p>
1072	<p>New Braunfels, Texas, United States of America Recent F/W (Algae in liquid)</p>
1073	<p>Delagoa Bay, S. Africa (Fom Seaweed) Fine grey powder</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>DELAGOA BAY, S.AFRICA 148 From seaweed</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 982B - R.I. Firth 148 - Delagoa Bay, Africa] [Klaus-Dieter Kemp reference: 266B - E.J.Steer - Delagoa Bay, S.Africa - Prawns stomach] [Klaus-Dieter Kemp reference: 798R - R.I. Firth 149 - Delagoa Bay, S.Africa]</p>
1074	<p>Unknown locality Pure white fine powder</p>

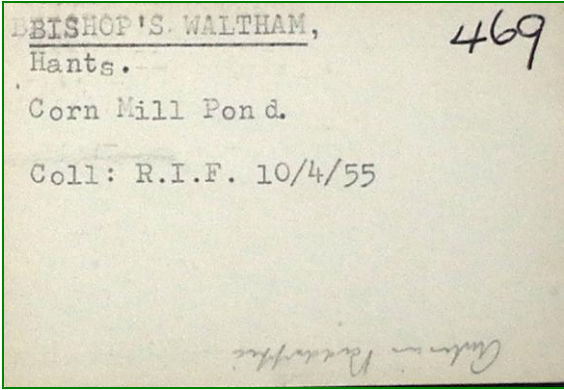
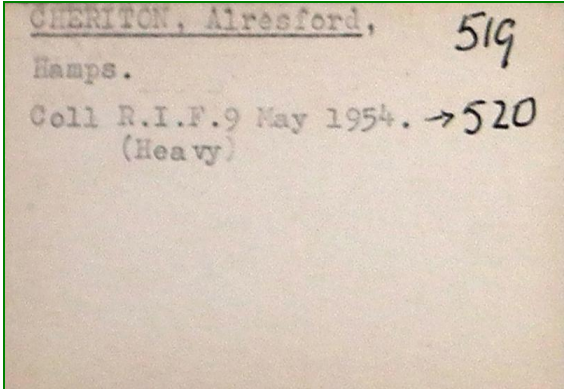
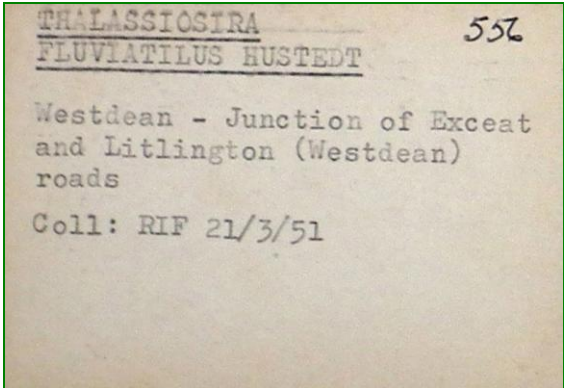
Entry No.	Particulars
1075	<p>The Crumbles, Eastbourne, Sussex <i>Anomoeoneis sphaerophora</i> var. <i>sculpta</i>.</p> <div style="border: 1px solid black; padding: 5px;"> <p>EASTBOURNE (Crumbles) 350 Sussex. 732 Also in <i>Anomoeoneis sphaerophora</i> ^{partly any} _{cabrih} (Ehr.) Pfitzer (sculpta) striatula, Elongatum, clypeus, elegans ?.</p> </div> <p style="text-align: center;">R.I. Firth index card</p> <div style="border: 1px solid black; padding: 5px;"> <p>ANOMOEONEIS SPHAEROPHORA 350 (Sculpta?) EASTBOURNE (Crumbles) Beddington, 2x 413 & 467</p> </div> <p style="text-align: center;">R.I. Firth index card</p> <p>[Atlas Plate No.26]</p>
1076	<p>Soos, Bohemia Sydney Chaffers sample Ex K-D. Kemp February 1979 See also 1055 and 1824 [Klaus-Dieter Kemp reference: 591R - Soos, Bohemia - Coarse] [Klaus-Dieter Kemp reference: 592R - Soos, Bohemia - Fine] [Klaus-Dieter Kemp reference: 894B - S.Chaffer - Soos, Bohemia - <i>Campylodiscus, Anomoneis</i>]</p>
1077	<p>Ongaroto Valley, New Zealand Cleaned by R.I. Firth July 1955 Ex R.I. Firth February 1979 See also H.G. Barber's paper in QMJ Vol.28 p.387 [Klaus-Dieter Kemp reference: 307B - Ongaroto Valley, New Zealand] [Klaus-Dieter Kemp reference: 401R - Cleaned K.D.Kemp - Ongaroto Valley, New Zealand (Coarse)] [Klaus-Dieter Kemp reference: 402R - Cleaned K.D.Kemp - Ongaroto Valley, New Zealand (Fine)]</p>
1078	<p>Ongaroto Valley, New Zealand Cleaned by R.I. Firth April 1947</p> <div style="border: 1px solid black; padding: 5px;"> <p>ONGAROTA VALLEY, N.Z. 439-440 Sub-fossil FW. 452 See Barber: "The Fossil ^{FW} Diatoms of the Ongaroto Valley Deposit, North Island, New Zealand" J.Q.M.C. May 1961. 764-5</p> </div> <p style="text-align: center;">R.I. Firth index card</p>

The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
1079	Blok Island, Great Salt Pond, United States of America Per R.I. Firth February 1979 <i>Surirella striatula</i> , <i>Nitzschia scalaris</i> , etc. [Klaus-Dieter Kemp reference: 317R - H.C.Wheeler - Great Salt pond, Rhode Island From rocks - <i>Surirella striatula</i> , <i>Pleurosigma elongatum</i> , <i>Nitzschia scalaris</i>]
1080	Loch Cuithir, Isle of Skye H.G. Barber's sample 'A'
1081	Loch Cuithir, Isle of Skye H.G. Barber's sample 'B'
1082	Newborough Warren, Anglesey Sample recived from H.G. Barber 21 st February 1979
1083	<p>Hinton Marsh, Hampshire R.I. Firth sample collected 10th April 1955 'Heavy' and 'Light'</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p style="text-align: center;">FRACILARIA LEPTOSTAURON 459-60 (harrissonii) Hinton Marsh Hants.</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>HINTON MARSH, HAMP- 459 SHIRE. 460 Coll: R.I.F. 10/4/55. <i>F. leptostauron</i> "Heavy" cleared Aug. 1955 607</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
1084	Narborough Bog, Old Oxbow, River Sence Slide from H.G. Barber
1085	Stream through marshland below North Street, Crewkerne, Somerset Owned by Tony Parsons Collected 20 th February 1979 T.P's samples 1) on concrete slab in stream bed 2) Back of weir under waterfall 3) On hamstone sill of weir. This was the best
1086	Side walls below the weir of the above stream at Crewkerne, Somerset Collected 20 th February 79 by Tony Parsons
1087	South Heighton, Newhaven, Sussex Collected by R.I. Firth 8 th April 1951 Slide by R.I. Firth

Entry No.	Particulars
1088	<p>South Heighton, Newhaven, Sussex Slide by R.I. Firth from sample collected 28th January 1955</p>  <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.103]</p>
1089	<p>Barraba, New South Wales, Australia Fossil F/W sample from R.I. Firth Cleaned March 1979</p>  <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 117B - N.E.Brown - Barraba, New South Wales]</p>
1090	<p>Kamischev, Russia R.I. Firth's 'KAM2' Cleaned February 1948 Re-sieved over 300 mesh to remove 'fluff'</p>
1091	<p>Kamischev, Russia As 1090 but 'KAM3'</p>

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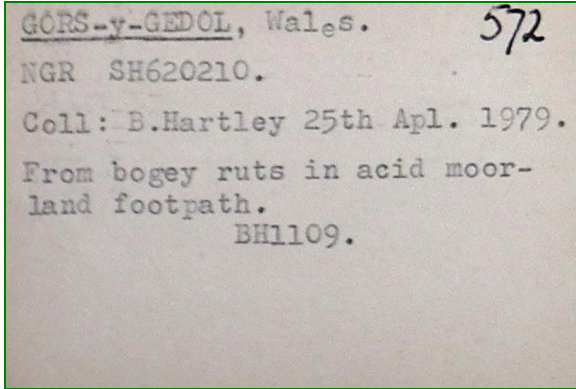
Entry No.	Particulars
1092	<p>Bishops Waltham, Corn Mill Pond, Hampshire Collected 10th April 1955 Received by B. Hartley 6th March 1979</p>  <p style="text-align: right;"><i>R.I. Firth index card</i></p>
1093	<p>Cheriton, Alresford, Hampshire Collected by R.I. Firth 9th May 1954 and sent to B. Hartley 6th March 1979</p>  <p style="text-align: right;"><i>R.I. Firth index card</i></p>
1094	<p>West Dean, East Sussex Collected by R.I. Firth 23rd March 1951 <i>Thalassiosira fluviatilis</i> Hust. From drainage channel at junction of West Dean and Exceat roads.</p>  <p style="text-align: right;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.286]</p>
1095	<p>Newcastle, Barbados 1948 from K-D. Kemp</p>

Entry No.	Particulars
1096	<p>Denton, near Newhaven, Sussex Collected by R.I. Firth 9th October 1949 <i>Pleurosigma strigosum</i> W.Sm. Salty drainage channel below industrial estate.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p><u>DENTON, NEWHAVEN,</u> 468 <u>SUSSEX.</u> Pleurosigma strigosum W.Sm. Coll. R.I.Firth 9/10/49 -10- 509</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p><u>PLEUROSIGMA STRIGOSUM</u> 468 <u>W.SMITH</u> DENTON, NEWHAVEN, SUSSEX Collected R.I.F. 9/10/49 Check identification</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.247]</p>

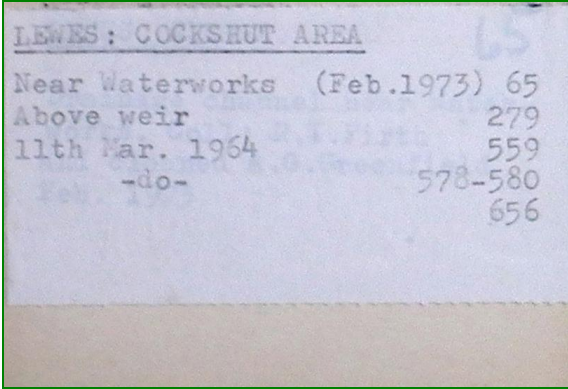
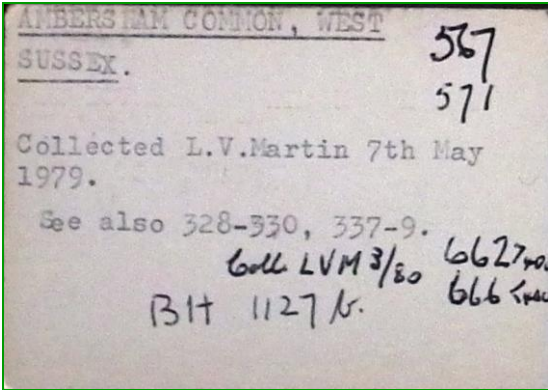
Entry No.	Particulars
1097	<p>Southbourne, Sussex R. I. Firth sample 486 <i>Pleurosigma decorum</i> W.Sm. 258-27-18/19</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p><u>SOUTHBOURNE, Sussex</u> 486</p> <p>Coll: R.I.F.2/6/46</p> <p>Pl. decorum ?</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p><u>PLEUROSIGMA DECORUM</u> 486</p> <p style="text-align: center;">?</p> <p>SOUTHBOURNE, SX. - Coll: R.I.F. 2/6/46</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p style="color: red;">[Atlas Plate No.246]</p>

Entry No.	Particulars
1098	<p>River Tamar, Devonshire R.I. Firth slide 33, sample collected by the late Rupert Coates of Bexhill <i>Cylindrotheca gracilis</i>, pure.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p><u>PLEUROSIGMAS</u> Nitzschias etc. River Tamar 402</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p><u>CYLINDROTHECA GRACILIS</u> 402 (Breb.) Grun. River Tamar = R.C.Carter's gathering of August 1949 with Burns.</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p><u>TAMAR (River), DEVONSHIRE</u> 402 Collected: R.C.Carter August 1949. Recent brackish: Pleurosigma, Nitzschia, Cylindrotheca gracilis. G.littorale?</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.60 & 109]</p>
1099	<p>Springwater discharging through wall near Harlech Church, opposite the garage on the main road. <i>Diatoma hyemale</i> var. <i>quadratum</i> (Kütz.) Ross [Atlas Plate No.75]</p>
1100	<p>Rhosneiger, Anglesey Estuary marsh in August 1955 Slides 431L and 431H by H.G. Barber</p>
1101	<p>Benllech Bay, Anglesey August 1956 Slide 475 H.G. Barber</p>
1102	<p>Newborough Warren, Anglesey August 1956 Slide 475 by H.G. Barber</p>
1103	<p>Afon Braint, Newborough Warren, Anglesey August 1956 Slide 476 by H.G. Barber</p>

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Entry No.	Particulars
1104	Llyn Rhos Ddu, Newborough Warren, Anglesey August 1956 Slides 478L and 478H by H.G. Barber
1105	Newborough Warren, Anglesey October 1978 Slide 3/79 by H.G. Barber
1106	Blelham Tarn, Cumbria 4.3 metres. J. R. Carter sample 2877, passed later to R. Crawford, Bristol University in May 1979
1107	Bicton Gardens, Devon Stream at outlet from ornamental gardens. Collected by K-D. Kemp on 7 th May 1979 [Klaus-Dieter Kemp reference: 104R – K-D. Kemp - Bicton Gardens, Devon, England]
1108	Wedmore, Somerset Collected by K-D. Kemp on 13 th May 1979 Separated into 'Coarse' and 'Fine' [Klaus-Dieter Kemp reference: 163R – K-D. Kemp - Wedmore Rhyne, Somerset (Peaty)] [Klaus-Dieter Kemp reference: 164R – K-D. Kemp - Wedmore Rhyne, Somerset (Peaty)] [Klaus-Dieter Kemp reference: 404R – K-D. Kemp - Wedmore, Somerset]
1109	Bubbling filamentous and other algae in boggy ruts in a moorland footpath above Gors-y-gedol, Duffryn Ardudwy, North Wales National Grid Reference SH 620-210 A few <i>Pinnularia alpina</i> !!  <i>R.I. Firth index card</i> [Atlas Plate No.203] [Klaus-Dieter Kemp reference: 061R – B. Hartley 1109 - North Wales – National Grid Reference SH-610-210 Boggy ruts in acid moorland footpath]
1110	Brackish stream near footbridge (by railway) leading to Pensarn Harbour, N. Wales (<i>Navicula</i> and <i>Gyrosigma</i>)
1111	Brackish stream as above but reddish brown algae on stones in stream bed 16 th March 1979
1112	Brackish ditch (stream) near Llandecwyn railway halt. Reddish brown film and mud on stones in bed (<i>Navicula</i> and <i>Nitzschia</i>)
1113	Llandanwg, near Harlech, North Wales Stream on 'The Maes' near kissing gate. Receives effluent from village sewage treatment works. <i>Synedra ulna</i> , <i>Meridion circulare</i> etc. [Atlas Plate No.283 & 127]
1114	Outlet sill discharge point into the last brackish ditch where it receives land drainage water 16 th March 1979 Bunches of <i>Synedra pulchella</i>
1115	As 1114 but from a drainage outlet discharging into the same ditch between samples 1114 and 1110 16 th March 1979
1116	Film of brown diatoms and much mud on stones exposed in the tidal part of Pensarn Harbour, alongside the landing jetty and before the stream meets the main Afon Artro. 16 th March 1979
1117	Talsranau Saltmarsh – Main gutter. Strands of reddish brown filamentous algae on old timber and mud bank of brackish stream. <i>Amphipleura rutilans</i> in tubes – very good.

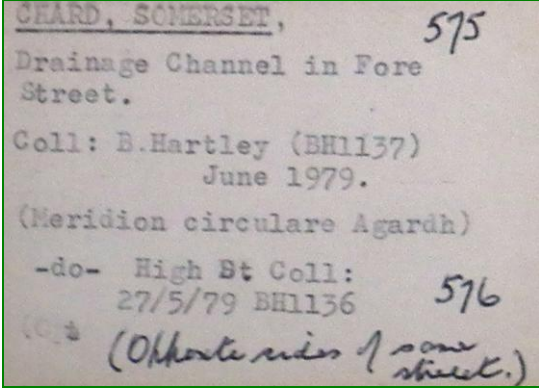
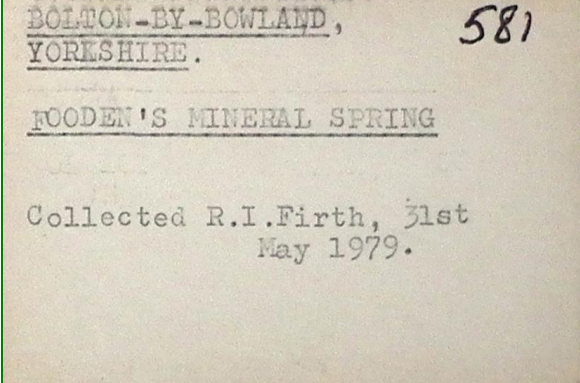
The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
1118	Talsarnau saltmarsh. Bubbling filamentous algae in pool exposed at low tide. 19 th March 1979
1119	Whittington village pond adjoining the A5. Squeeze from filamentous green algae floating in large mats.
1120	Talsarnau – Main gutter. Brown film on surface of sand and mud exposed at low tide. 19 th March 1979
1121	Wet Moor, near Long Load, Somerset <i>Melosira varians</i> etc., floating on rhyne 31 st March 1979 [Atlas Plate No.129]
1122	Wet Moor, near Long Load, Somerset Floating algae from bottom of rhyne 31 st March 1979
1123	East Brent, Somerset Ditch alongside Burnham Road. Floating algae collected by K-D. Kemp 10 th March 1979 See also 1126 below.
1124	West Dean, East Sussex Drainage channel at junction of Exceat/Litlington roads. Collected by R.I. Firth 27 th February 1955 R.I. Firth No. 402
1125	Cockshutt, near Lewes, Sussex R.I. Firth sample 559 Collected 11 th March 1964  <p style="text-align: center;"><i>R.I. Firth index card</i></p>
1126	East Brent, Somerset (as 1123 above) but this sample gathered by B. Hartley on 29 th March 1979 and cleaned by him.
1127	Ambersham Common, West Sussex Collected by L.V. Martin on 17 th May 1979 – R.I. Firth No. 567 1127a cleaned by A.G. Greenfield and sieved and finished by B. Hartley 1127b cleaned by B. Hartley and sieved and finished by B. Hartley  <p style="text-align: center;"><i>R.I. Firth index card</i></p>

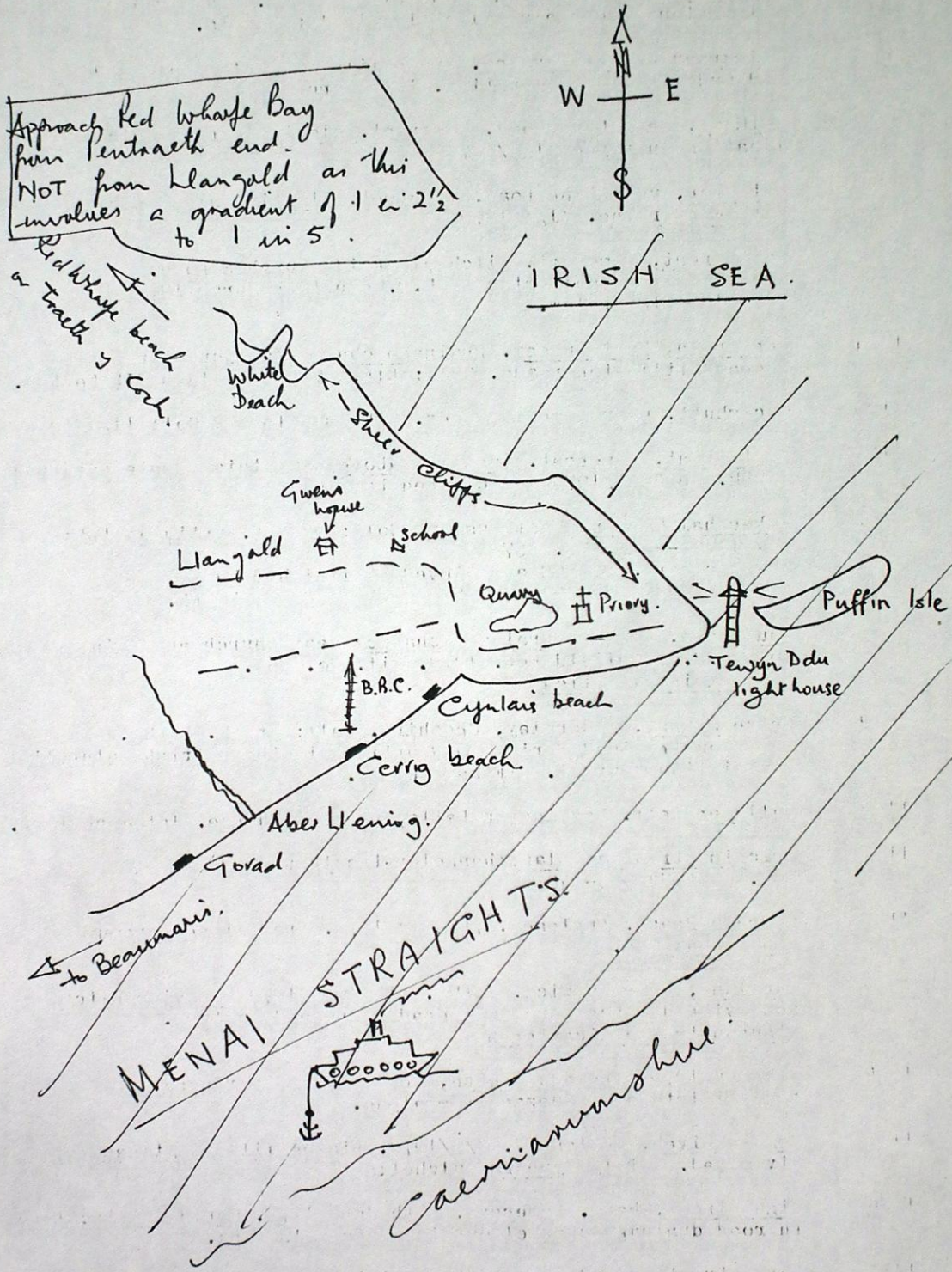
Entry No.	Particulars
1128	<p>Southeast, Sussex Drainage channel near church and swingbridge. Collected by A.G. Greenfield February 1979 R.I. Firth No. 569. <i>Mastogloia elliptica</i></p> <div style="border: 1px solid green; padding: 5px;"> <p style="text-align: center;"><u>SOUTHEASE, E. SUSSEX</u> 67</p> <p>Ditch, Rodmell side of road between Church and Bridge. Coll: A.G.Greenfield Feb.73 and cleaned by him.</p> <p style="text-align: center;">NGR TQ426054</p> <p>Gathering by A.G.Greenfield Spring 1979 (<i>Mastogloia</i>)</p> <p style="text-align: center;"><i>see also 608</i> <i>-do- 631-2</i> 569→</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px;"> <p style="text-align: center;"><u>MASTOGLIA ELLIPTICA &</u> <u>M. SMITHII VAR. LACUSTRIS</u> 569</p> <p>Southeast (Drainage Channel), Near Lewes. Gathering made by A.G.Greenfield Spring 1979.</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.125 & 127]</p>
1129	<p>Brine Spring, Aldersley, Cheshire Collected by Frederick Burke See "Countryside" Spring 1979 article in the British Naturalist Association Journal. R.I. Firth sample 565.</p> <div style="border: 1px solid green; padding: 5px;"> <p style="text-align: center;"><u>ALDERSLEY BRINE SPRING,</u> 565 <u>CHESHIRE.</u></p> <p>Collected: Fdk Burke. See British Naturalists' Association Journal, "Country- Side" Spring 1979, Page 458.</p> <p>J.R.Carter also did some work at Fdk Burke's request 1943.</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
1130	<p>Walloper Wall, Waddington Fells, near Clitheroe 1st June 1979</p>
1131	<p>Brackish stream at Llanfihangel-y-traethau, Gwynedd National Grid Reference 62 (SH) 595-348</p>
1132	<p>Penrhyn Beach, Anglesey 7th May 1970 From miscellaneous small seaweeds.</p>
1133 (K)	<p>Lawkland, near Auswick, Yorks. 6th June 1979 Roadside ditch receiving drainage from wet meadowland and pasture. <i>Stauroneis phoenicentron</i> [Atlas Plate No.260] [Klaus-Dieter Kemp reference: 030R – B. Hartley 1133 – Lawkland, roadside ditch nr. Austwick]</p>

Entry No.	Particulars
1134	<p>Trefadog beach, Anglesey 5th May 1979 From rock pools, rocky inlets and squeeze from algae.</p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
1135	<p>Cemais River, Anglesey 6th May 1979 Diatom film on stones in river bed. Mainly <i>Synedra pulchella</i></p>
1136	<p>High Street, Chard, Somerset 27th June 1979 <i>Meridion circulare</i> in road drainage channel outside Barclays Bank [Klaus-Dieter Kemp reference: 116R – B. Hartley 1136 – Chard, High street, Somerset]</p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.127]</p>

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Entry No.	Particulars
1137	<p>Fore Street, Chard, Somerset <i>Meridion circulare</i> in road drainage channel outside Baxter's Butchers shop.</p>  <p style="text-align: right;">575</p> <p>CHARD, SOMERSET, Drainage Channel in Fore Street. Coll: B.Hartley (BH1137) June 1979. (Meridion circulare Agardh) -do- High St Coll: 576 27/5/79 BH1136 (Opposite side of same street.)</p> <p style="text-align: center;">R.I. Firth index card</p> <p>[Atlas Plate No.127]</p>
1138	<p>Well Hill, Settle Collected by R.I. Firth 29th May 1979 <i>Diatoma hyemale</i> var. <i>quadratum</i> (Kütz.) Ross [Klaus-Dieter Kemp reference: O22R – B. Hartley 1138 – Well Hill, Settle, Yorks - <400]</p>
1139	<p>Fooden's mineral spring, Bolton by Bowland 31st May 1979 Collected by R.I. Firth</p>  <p style="text-align: right;">581</p> <p>BOLTON-BY-BOWLAND, YORKSHIRE. FOODEN'S MINERAL SPRING Collected R.I.Firth, 31st May 1979.</p> <p style="text-align: center;">R.I. Firth index card</p> <p>[Atlas Plate No.75]</p>

Entry No.	Particulars
1140	<p>Toomebridge, N. Ireland R.I. Firth sample TB17 containing <i>Cyclotella comta</i> Ehr. [Atlas Plate No.58]</p>

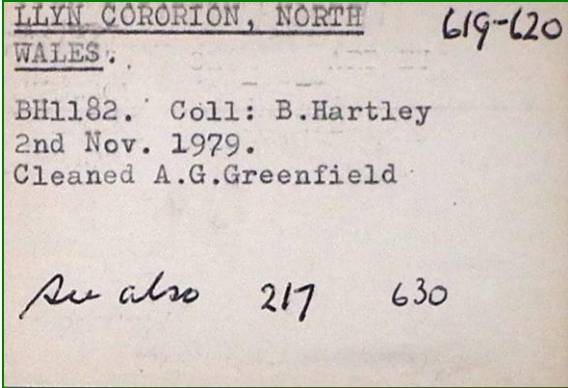


Entry No.	Particulars
1141	<p>Maenporth, Cornwall Brackish pool, behind the sea bank Collected by K-D. Kemp 18th July 1979</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>MAENBORTH, CORNWALL 690 Mud from drain BH1147 BH699 Brackish Pool.</p> </div> <p style="text-align: center; margin-top: 5px;"><i>R.I. Firth index card</i></p>
1142	<p>Ku Jun Se, Ghana April 1979 Via K-D. Kemp <i>Nav. perotettii</i> Grun. [Klaus-Dieter Kemp reference: 054R - Ku Jun Se, Ghana - F.M] [Klaus-Dieter Kemp reference: 096R - Ku Jun Se, Ghana - Fine]</p>
1143	<p>J.R. Carter's slide No. 13893. Sample taken in July 1979 at low water on Cardoness Shore in the Solway Firth</p>
1144	<p>Cemais Bay, Anglesey 6th May 1979 Sand scraped from several places on the beach. (No obvious signs of diatoms)</p>
1145	<p>Llyn Coron, Anglesey 7th May 1979 Squeeze from Potomageton and marginal plants at the lakeside.</p>
1146	<p><i>Synedra closteroides</i> Grun. Etc. from sand between Gooden and Norman's Bay, Sussex, where water flows from the line of a wooden groyne. Collected by H.H. Gleave Summer 1979 See also sample 1148 [Atlas Plate No.282]</p>
1147	<p><i>Pleurosigma aestuarii</i> (Breb. Ex. Kütz.) W.Sm. Soft wet patch of fine mud at Vennis Gap, between Boxhill and Cooden, Sussex. 100 yards from pebbles where water discharges from a pipe onto the 'Beach'. Collected by H.H. Gleave Summer 1979 [Atlas Plate No.245]</p>
1148	<p><i>Synedra closteroides</i>. Sample as 1146 above but cleaned by H.H. Gleave. Received around 10th August 1979 [Atlas Plate No.282]</p>
1149	<p>Llanberis, North Wales Roadside spring August 1954 Slide 480 by H.G. Barber</p>
1150	<p>Rock pool, White Beach, Llangold, Anglesey Slide 293G by H.G. Barber</p>
1151	<p>As 1150. H.G. Barber good slide 427G August 1955</p>
1152	<p>Cynlais Beach, Llangold, Anglesey August 1953 Slide 351 by H.G. Barber</p>
1153	<p>Red Wharf Bay, Anglesey Slide 321G by H.G. Barber</p>
1154	<p>Rhosneigr, Anglesey (on the Holyhead side) 2 slides 'heavy' and 'light' of No. 431 by H.G. Barber</p>

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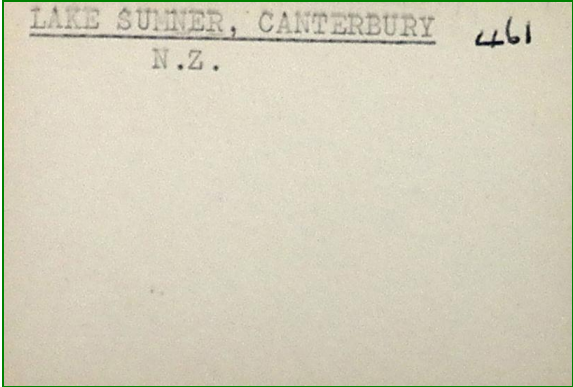
Entry No.	Particulars
1155	Marsh at rear of sea bank at Herbrands Walk, Norman's Bay, Sussex Collected 25 th August 1979 and cleaned by B. Hartley. September 1979
1156	<i>Pleurosigma angulatum</i> collected by R.I. Firth in January 1949 from a 'flush' at Cuckmerehaven, Sussex. Received August 1979 for cleaning by B. Hartley [Atlas Plate No.245]
1157	Burton Bradstock, Dorset 16 th September 1979 Large pool at the river outlet above the gravel beach. <i>Melosira varians</i> Ag. [Atlas Plate No.129]
1158	Burton Bradstock, Dorset 16 th September 1979 Floating, bubbling pads from river bed.
1159	Minehead Harbour, Somerset 11 th September 1979 <i>Pleurosigma aestuarii</i> in golden film on the harbour mud exposed at low tide. [Atlas Plate No.245]
1160	West Bay, Dorset 12 th September 1979 Scraped from steel and wooden piles in the harbour.
1161	Silverdale, "Wood Well" Slide 13902 by J.R. Carter
1162	Scremerston Sands July 1947 Slide 11011 by J.R. Carter <i>Navicula rostellata</i> [Atlas Plate No.172]
1163	Burton in Kendal Tunnel under canal Slide 13907 by J.R. Carter See also H.G. Barber miscellaneous plate 404.
1164	Loch Maben September 1970 Slide 13213 by J.R. Carter <i>Navicula tripunctata</i> O.F. Muller [Atlas Plate No.165]
1165	Herbrands Walk, Cooden Beach, Sussex 12 th October 79 Surface water drainage discharge waterfall onto beach. Algae scraped from sill and adjoining timber piles. Diatoms in tubes. Also in Cu. Ni.
1166	Beach near Herbrands Walk, Cooden, Sussex 12 th October 79 Brown diatom film on sand surface and in sand ripples. Almost pure gathering of <i>Synedra closteriodes</i> Grun. Also in Cu. Ni. [Atlas Plate No.282] [Klaus-Dieter Kemp reference: 007R – B. Hartley 1166 – Cooden sands – <i>Synedra closteriodes</i>]
1167	Herbrands Walk, Cooden Beach, Sussex 12 th October 79 As 1166 but concentration of very good and pure diatoms in small eddy pool protected by the end pile of a groyne, alongside which water trickled down the beach. Also in Cu. Ni.
1168	12 th October 1979 Diatoms scraped from (a) a wooden plank flating at the edge of the tide; and (b) a plastic bottle. Both off Cooden Beach. <i>Fragilaria</i> and <i>Licmophora</i>
1169	1210/1979 Mixed seaweeds taken from the beach and the tide edge at Cooden Beach, Sussex

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Entry No.	Particulars
1170	Ditch in marshland just inland from Herbrands Walk, near Cooden, Sussex 12 th October 1979 Golden brown filamentous diatoms, almost pure <i>Melosira nummuloides</i> [Atlas Plate No.129]
1171	Similar adjoining ditch, but the floating scum was more leathery, and more green in colour. <i>Nitzschia</i> and <i>Navicula</i> mixed with <i>Melosira</i> . 12 th October 1979
1172	Sample collected by Henry Gleave in September 1979. From rut near woodyard, Herbrands Walk, Sussex
1173	Mochras Beach, near Llanbedr, N. Wales 28 th October 1979 From wet patches and pools on sandy surface. Dinoflagellates plus <i>Pinnularias</i> etc. Also in Cu. Ni.
1174	As 1173 but from drier ripples after tide had receded.
1175	Aber Artro estuary. 28 th October 1979 Red iron oxide stains at margin of pools on sandy foreshore at low tide, opposite airfield on road to Shell Island.
1176	As 1175 but from the drier ripples on the sandy surface where the tide had receded. 28 th October 1979
1177	Talsarnau saltmarsh. 31 st October 1979 Bubbling layer of diatoms on bed of the shallow brackish gutter, within the tidal range. Diatoms and dinoflagellates.
1178	As 1177 but found floating on an adjoining wide and deep gutter. 31 st October 1979 Mainly dinoflagellates
1179	On the foreshore of Talsarnau saltmarsh. A large dark chocolate brown patch on the silty sand, just above low water mark. 31 st October 1979 <i>Nav. rostellata</i> Kütz. [Atlas Plate No.172]
1180	Tufts of chestnut brown filamentous algae attached to objects under water at the margin of Talsarnau saltmarsh gutter. Near entrance from the railway. 31 st October 1979 Naviculoid diatoms in tubes.
1181	Llandanwg, Gwynedd, Wales 1 st November 1979 In tidal estuary of Afon Artro. On wet sand taken from below high water mark, between the Maes and the boathouse.
1182	Llyn Cororion, Caernarfon 2 nd November 1979 Surface mud, leaves, and debris collected from the swampland in the wooded area adjoining the Llyn. 
	<i>R.I. Firth index card</i>
1183	Slide by F. Oldaker per H.G. Barber of F/W diatoms from Green Scar Crag, Yorkshire in July 1979 <i>Cymbella helvetica</i> var. <i>compacta</i> (Ost.) Hust.
1184	Trwyn Ddu, Penmon, Anglesey Slide 450 by H.G. Barber F/W and brackish

Entry No.	Particulars
1185	Ditch at Tan-y-Pentre, Llangoed April 1954 F/W and Brackish Slide by H.G. Barber
1186	Amlwch, Anglesey April 1954 F/W and brackish Slide by H.G. Barber
1187	<p>South Atlantic core material. Vema 17-107. 51°08'S 54°22'W. 1525 metres. Sample level in core 200cm. Courtesy of Lamont Doherty Geological Observatory</p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 034G – B. Hartley – Vema 17-107 S. Atlantic Core 51°08'S 54°22'W]</p>
1188	<p>Newport Beach, California, United States of America Cleaned fossil marine sample from R.I. Firth 14th October 1979</p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 964R - K.D. Kemp - Newport Beach(1), California U.S.A.] [Klaus-Dieter Kemp reference: 965R - K.D. Kemp - Newport Beach(3), California U.S.A.] [Klaus-Dieter Kemp reference: 966R - R.I. Firth 316 - Newport Beach, California U.S.A. - Large]</p>

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Entry No.	Particulars
1189	<p>Lake Sumner, Canterbury, New Zealand Collected by F. Reed, 49 St. James Avenue, New Zealand (Christchurch) in 1941 He says "Deposit almost gone – contains 3 types of <i>Stauroneis</i> including <i>S. fulvum</i> also <i>T. trifoliatum</i> etc. Received as uncleaned earth from R.I Firth 14th January 1979</p> <div style="text-align: center;">  </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
1190	<p>Uncleaned fossil F/W material ? from New Zealand Per R.I. Firth October 1979</p>
1191	<p>Match Box Creek, Klamath Falls, Oregon Fossil F/W earth from R.I. Firth October 1979</p>
1192	<p>Shishibashi, Higashdorimura, Shimokita peninsula, Japan. Miocene Gamanosawa formation. Pr Tokyo Imperial University, Sendai, Japan. Uncleaned earth. R.I. Firth says it is very good.</p>
1193	<p>Bains North End, Oamaru, New Zealand. Earth per R.I. Firth October 1979</p>
1194	<p>California Academy of Science Loc. 1068. S.E. Side of Sharkstooth Hill, Kern Co., California, Lower Miocene Collected by G.D. Hanna</p>
1195	<p>California Academy of Science Loc. 27295(75) Pliocene, from highway grade over Purisinima Hills from Harris to Lompoc, Santa Barbara Co., California.</p>
1196	<p>California Academy of Science Loc. 40638 Pliocene, from cut on old road from Carmel Valey to Salina Valley, Monterey Co., California</p>
1197	<p>California Academy of Science Loc. 40219 Coyote Springs, Mon Co., California. Pliocene [Klaus-Dieter Kemp reference: 015R - Cas Loc.40219 - Coyote springs, Mono Co. Cal U.S.A. - Pliocene]</p>
1198	<p>California Academy of Science Loc. 40391 Laguna Seca, Merced Co., California. Eocene Kreyenhagen Shale. [Klaus-Dieter Kemp reference: 249B - Kreyenhagen Shale, Calif. United States of America] [Klaus-Dieter Kemp reference: 004R - Kreyenhagen Shale, Laguna Seca Merced Co California Academy of Science Loc 40391 (Eocene)] [Klaus-Dieter Kemp reference: 642B - Kreyenhagen Shale, United States of America] [Klaus-Dieter Kemp reference: 125B - Kreyenhagen Shale, United States of America] [Klaus-Dieter Kemp reference: 643B - Kreyenhagen Shale, United States of America] [Klaus-Dieter Kemp reference: 372B - J.A.Long K2 B - Kreyenhagen Shale, U.S.A.]</p>
1199	<p>Not cleaned. No obvious diatoms on close inspection.</p>
1200	<p>Sponge spicules supplied by R.I. Firth October 1979</p>
1201	<p>Calbec, Orkney Isles Minute sample ex J.R. Carter via H.G. Barber January 1980 Sufficient only to make two rough slides</p>
1202	<p>Sample left uncleaned by Klaus Kemp at Bramble Bank, October 1979 Waterfall in Brecon Mountains</p>
1203	<p>Burton Mere on the Dorset Coast. National Grid Reference SY 508-879. 5th October 1979 Sample of mud surface almost overgrown with rushes</p>
1204	<p>2nd December 1979 Sandy patch on North side of Aber Artro, Llandanwg beach</p>
1205	<p>2nd December 1979 From algae and other weeds in pools on Llandanwg beach</p>

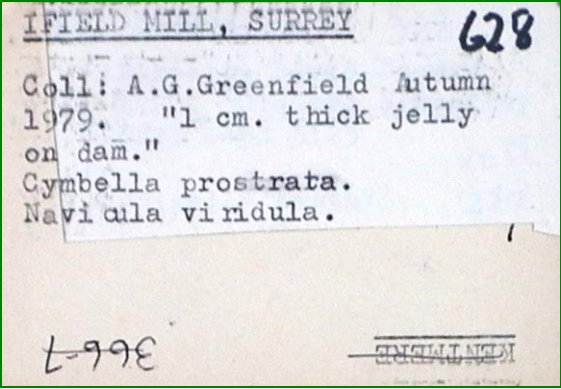
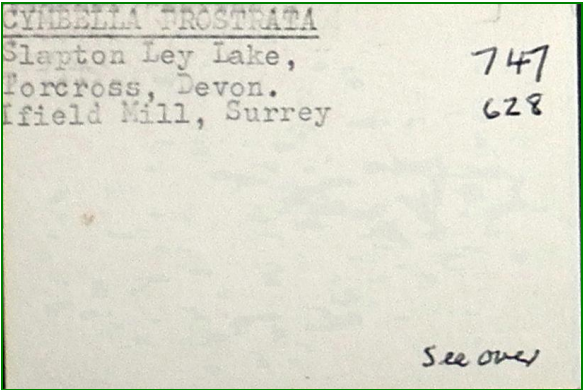
Entry No.	Particulars
1206	2 nd December 1979 Seaweed taken from the beach and from the banks of the River Artro estuary, Llandanwg, near Harlech, Gwynedd.
1207	Glynde Gap, Bexhill rocks 26 th December 1979 Slide by H.H. Gleave
1208	Waterfall, Newstead Abbey 1 st January 1980 Slide by Colin Lamb, 32 Clement Avenue, Balderton, Newark
1209	<p>Pagham Harbour, Sussex Collected by Miss Gosden August 1979 Cleaned by A.G. Greenfield No. 338 and by R.I. Firth No. 610 <i>Stauroneis spicula</i> Hickie</p> <div style="border: 1px solid green; padding: 5px;"> <p>PAGHAM HARBOUR, SUSSEX 610 AGG338M Coll: Miss J. Gosden Aug. 1979. NAVICULA (STAURONEIS) SPICULA Coll: A.G. Greenfield June 1980. <u>Stephanodiscus</u> <u>excentricus</u> Hust. 714 -do- Coll: R.I. Firth June 1947. 462</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px;"> <p>STAURONEIS (NAVICULA) 610 SPICULA Pagham Harbour, Sussex. AGG338M Coll: Miss J. Gosden Aug. 1979</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px;"> <p>NAVICULA (STAURONEIS) 610 SPICULA AGG338M Pagham Harbour, Sussex (Coll: Miss J. Gosden Aug. 1979)</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.260]</p>

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Entry No.	Particulars
1210	South side of Kentmere Lake, Cumbria Fossil F/W dark brown earth excavated by mechanical grab. Received uncleaned from Klaus Kemp January 1980 [Klaus-Dieter Kemp reference: 577B – K-D. Kemp – Kentmere Diatomite, Westmorland - Fine] [Klaus-Dieter Kemp reference: 618B – K-D. Kemp – Kentmere Diatomite, Westmorland - Coarse] [Klaus-Dieter Kemp reference: 392B – K-D. Kemp – Kentmere Diatomite, Westmorland] [Klaus-Dieter Kemp reference: 950B - K-D. Kemp - Kentmere Diatomite, Cumberland] [Klaus-Dieter Kemp reference: 300B - Kentmere large, Westmorland (Coarse)] [Klaus-Dieter Kemp reference: 273B - Kentmere Medium, Westmorland] [Klaus-Dieter Kemp reference: 068B - Kentmere, Westmoreland]
1211	Sample of <i>Cymbella</i> from Brecon Beacons, South Wales Collected by K-D. Kemp October 1979 and left at Bramble Bank. Cleaned by B. Hartley. See also 1202
1212	"Mystery Sample" cleaned by K-D. Kemp Probably as BH1113 from ditch at Llandanwg Collected 16 th March 1979, and part passed to Klaus uncleaned.
1213	Berrow Golf course. Collected 17 th May 1979 by K-D. Kemp and cleaned by him. Received 20 th January 1980 <i>Rhopalodia gibba</i> [Atlas Plate No.252] [Klaus-Dieter Kemp reference: 124R – K-D. Kemp – Berrow Golf Course, Rhyne, Berrow, Somerset, England]
1214	Paddling pool at Weston-super-Mare Collected 17 th August 1979 by K-D. Kemp. Sample supplied uncleaned and cleaned coarse and fine. <i>Gyrosigma balticum</i> and <i>Nitzschia epithemioides</i> [Atlas Plate No.112 & 183]
1215	Aber Artro, Llandanwg, Gwynedd Top surface of sand at high water mark just near the footpath from The Maes Collected by K-D. Kemp 11 th October 1979 Cleaned sample [Klaus-Dieter Kemp reference: 362R – K-D. Kemp – Llandanwg, N. Wales] [Klaus-Dieter Kemp reference: 919B – K-D. Kemp – Llandanwg, N. Wales – <i>Trachyneis aspera</i>] [Klaus-Dieter Kemp reference: 069R – K-D. Kemp – Llandanwg, N. Wales (Middle Shore)] [Klaus-Dieter Kemp reference: 056R – K-D. Kemp – Llandanwg, N. Wales (On sandy beach) – <i>Trachneis clepsydra</i>]
1216	Aber Artro, adjoining estuary on south side of causeway leading to Mochras. On mud surface opposite the R.A.F. hangar. Collected by K-D. Kemp 12 th October 1979. Cleaned sample
1217	Glynde Gap, Sussex 30 th January 1980 Scraping of <i>Schizonema</i> from rocks and pools on the foreshore Per H.H. Gleave
1218	27 th January 1980 On surface of sandy beach at Berrow, Somerset Collected by K-D. Kemp

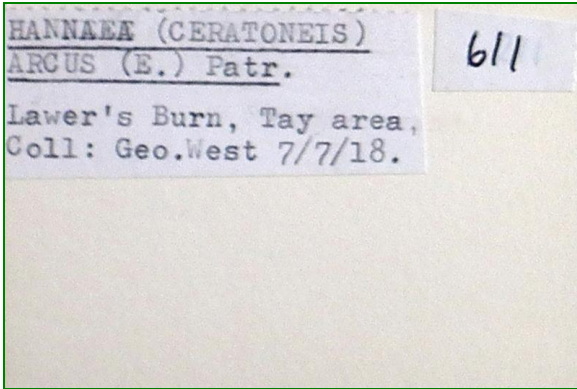
The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
1219	<p>30th January 1980 Uphill Beach, Avon Collected by K-D. Kemp</p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 072R – K-D. Kemp – Uphill Beach, Avon (on sand) - <i>Navicula</i>]</p>
1220	<p>Poole Harbour, Dorset R.I. Firth sample 614 > and < 600 mesh ex N.I. Hendey Badly contaminated with hairs.</p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
1221	<p>Slide by H.G. Barber West Cork, Gongave Borra, Forest Park Interesting F/W sample</p>


Entry No.	Particulars
1222	<p>Ifield Mill, Surrey 1cm thick jelly on the dam Collected by A.G. Greenfield Autumn 1979 <i>Cymbella prostrata</i> (Berkeley) Cleve and the var. <i>auerswaldii</i>.</p>  <p style="text-align: center;">R.I. Firth index card</p>  <p style="text-align: center;">R.I. Firth index card</p> <p>[Atlas Plate No.167] [Klaus-Dieter Kemp reference: 997B - R.I. Firth 628\A.G.Greenfield - Ifield Mill, Surrey - <i>Cymbella prostrata</i>]</p>
1223	<p>Southeast, Sussex Ditch on left hand side of road from hamlet to bridge. Collected by A.G. Greenfield February 1980 and separated over a 400 mesh sieve.</p>
1224	<p>Sample from Burnham-on-Sea 3rd November 1979 Muddy foreshore exposed at low tide Cleaned by B. Hartley 1224A as above but cleaned by K-D. Kemp [Klaus-Dieter Kemp reference: 011R – K-D. Kemp – Burnham-on-Sea, Somerset, England - Fine] [Klaus-Dieter Kemp reference: 053R – K-D. Kemp – Burnham-on-Sea, Somerset, England – <i>Pleurosigma angulatum</i>, <i>Pleurosigma aestuarii</i>]</p>
1225	<p>Caernarfon Quay and estuary. Very good sample cleaned by H.G. Barber Thick silt from bottom of steps opposite the castle</p>
1226	<p>Llyn Cororion, North Wales Drain 'B' Slide 519 by H.G. Barber</p>
1227	<p>Mud from Llyn Ogwen, North Wales Slide 447 by H.G. Barber</p>


Entry No.	Particulars
1228	<p>Rectory Wood, Charlwood, Surrey Slide by H.G. Barber from sample collected by A.G. Greenfield from a leaf filled semi-permanent water hollow amongst the trees. March 1980</p> <div style="border: 1px solid green; padding: 5px;"> <p>CHARLWOOD RECTORY, Surrey. 636 Marshy ground with dead leaves. PINNULARIA BICLAVATA A.CI. Coll: A.G.Greenfield Mar. 1980.</p> <p>Pond in West- lands greenhouse ACCSB 701</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px;"> <p>PINNULARIA BICLAVATA 636 A.CI. CHARLWOOD RECTORY, Surrey. Collected: A.G.Greenfield March 1980.</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.204]</p>
1229	<p>Cosby Brook, Narborough Road Slide by H.G. Barber May/June 1980</p>
1230	<p>Low tide at Lane End Rocks, Bexhill-on-Sea 13th April 1980 Edges of rocks tilted downwards, exposed at exceptionally low tide, fringed with dense masses of <i>Nav. grevillei</i> ¼ mile from high water mark. Slide and sample from H.H. Gleave</p>

Entry No.	Particulars
1231	<p>Stream through Preston village, Yeovil, Somerset 8th June 1980 Also in Cu. Ni. Part taken by K-D. Kemp and his No. 1012.</p> <div style="border: 1px solid green; padding: 5px;"> <p>DIATOMA VULGARE BORY 685 Preston Village, Yeovil, Somerset. BH1231. ‡ Synedra ulna HIGH WYCOMBE 760</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px;"> <p>YEOVIL, SOMERSET 685 Stream through Preston Village. BH1231. Diatoma vulgare Synedra ulna</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.75 & 283]</p>
1232	<p>La Albufera, Majorca 17th May 1980 Brackish main drain Collected by K-D. Kemp</p>
1233	<p>Mollins Beach, Cala san Vicente, Majorca Collected 20th May 1980 by K-D. Kemp <i>Actinocyclus subtilis</i>, which when live threw out mucuos threads and adhered to algae and to his sieve. [Klaus-Dieter Kemp reference: 787R – K-D. Kemp – Molins Bay, Cala san Vicente, Mallorca (on sandy beach) – <i>Navicula palpebralis</i>] [Klaus-Dieter Kemp reference: 042R – K-D. Kemp – Molins Beach, Cala san Vicente]</p>
1234	<p>Wisley Horticultural Society grounds Collected by L.V. Martin in 1980 Initial cleaning by A.G. Greenfield Final sieveing by B. Hartley 6/1980</p> <div style="border: 1px solid green; padding: 5px;"> <p>WISLEY, Surrey 662 (R.H.S. Grounds) 663 Coll: L.V.Martin Mar.1980. 664 671</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 878R - R.I. Firth 663 - Wisley, (R.H.S.)A.G.Greenfield]</p>
1235	<p>Ambersham Common, Sussex Collected by L.V. Martin 1980 Cleaned initially by A.G. Greenfield and final sieving by B. Hartley</p>

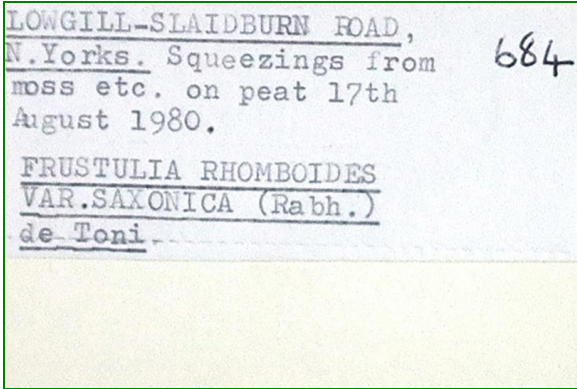
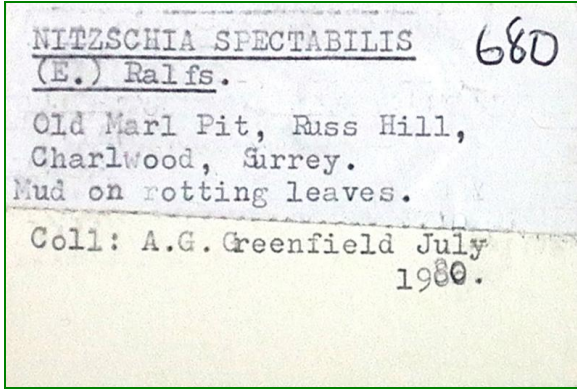
Entry No.	Particulars
1236	<p>Lawer's Burn, Tay area. (R.I. Firth No.211) Collected by Geo. West on 7th July 1918 Dripping rocks 800 feet. <i>Hannaea arcus</i> (Ehr.) Patrick. (<i>Ceratoneis arcus</i> Ehr.)</p>  <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.115]</p>
1237	<p>Cynlais beach, Llangold, Anglesey 28 slides by H.G. Barber with marked specimens of <i>Navicula lyra</i> Ehr.</p>
1238	<p>East Brent, Somerset 12th March 1980 Puddle on public footpath near Church in the village <i>Pinnularia brebissonii</i>, <i>Hantzschia amphioxys</i> and very variable <i>Surirellas</i> around <i>S. ovalis/ovata</i>. [Atlas Plate No.206, 116 & 276]</p>
1239	<p>Bahiade, Alendia, Majorca <i>Melosira moniliformis</i> Collected by K-D. Kemp May 1980</p>
1240	<p>Albufera salt pans or sedimentation tanks in Majorca May 1980 <i>Matogloia lanceolata</i> Thw. and others [Klaus-Dieter Kemp reference: 613R – K-D. Kemp – Albuferata Torrente, Mallorca – <i>Syndera</i>, <i>Achnanthes</i>] [Klaus-Dieter Kemp reference: 679R – K-D. Kemp – Albuferatas, Mallorca (Salinas) – Fine] [Klaus-Dieter Kemp reference: 680R – K-D. Kemp – Albuferatas, Mallorca (Salinas) – Medium] [Klaus-Dieter Kemp reference: 681R – K-D. Kemp – Albuferatas, Mallorca (Salinas) – Coarse] [Klaus-Dieter Kemp reference: 682R – K-D. Kemp – Albuferatas, Mallorca (Salinas)] [Klaus-Dieter Kemp reference: 612R - K.D. Kemp - Torrente Albuferata, Mallorca On weed]</p>
1241	<p>Wells, Somerset 14th July 1980 Brown film on road channel running with water in the main street. 1241A as above but cleaned by K-D. Kemp [Klaus-Dieter Kemp reference: 380R – K-D. Kemp – Wells, Somerset (footpath drain)]</p>
1242	<p>Wells, Somerset 14th July 1980 Brown/green film from waterfall at the wishing well in the main street [Klaus-Dieter Kemp reference: 568R – B. Hartley 1242 – Wells, Somerset Wishing Well]</p>
1243	<p>Malham Cove, Yorkshire Slide 13945 by J.R. Carter <i>Navicula pelliculosa</i> (Breb.) Hilse [Atlas Plate No.153]</p>
1244	<p>River Yeo, near Long Load, Somerset 22nd July 1980 Diatoms epiphytic on <i>Cladophora</i> and other filamentous algae floating in strands on river.</p>
1245	<p><i>Striatella unipunctata</i> and <i>Licmophora</i> etc. on stranded algae on the tideline at Weymouth Beach, Dorset 24th July 1980 [Atlas Plate No.264]</p>

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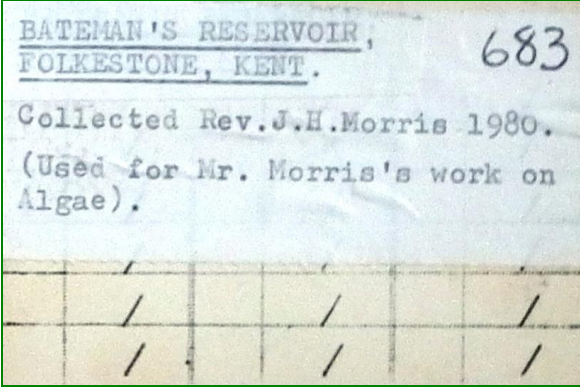
Entry No.	Particulars
1246	<p>The Fleet, Dorset 24th July 1980 Brackish to marine end of the long lake inshore of Chesil Beach Attached <i>Achnanthes</i></p>  <p style="text-align: center;"><i>Bernard Hartley</i></p>
1247	<p>As 1214 Weston-super-Mare paddling pool on muddy edge 17th August 1980 <i>Gyrosigma balticum</i> and <i>Nitzschias</i> cleaned by K-D. Kemp [Atlas Plate No.112]</p>
1248	<p>As 1247 but received with muck and rubbish for further decanting and cleaning by B. Hartley <i>G. balticum</i> [Atlas Plate No.112]</p>
1249	<p>Plankton haul by K-D. Kemp between Steephholm and Weston-super-Mare in the Bristol Channel April 1973 See also sample 958</p>
1250	<p>Weston-super-Mare 27th July 1980 B. Hartley and K-D. Kemp Brown film on muddy foreshore near Birbeck pier launch jetty. Scraped with plastic card.</p>
1251	<p>As 1250 but further out towards the sea</p>
1252	<p>Sand Bay, north of Weston-super-Mare, 27th July 1980 Small <i>Gyrosigma</i> mixed with few <i>Pl. angulatum</i> on muddy surface of the foreshore. 1252A Second cleaning by K-D. Kemp 1552B Third cleaning by K-D. Kemp [Atlas Plate No.245]</p>
1253	<p>As 1252, but further North on the foreshore and containing more <i>Pl. angulatum</i> and less <i>Gyrosigmas</i>. Also a few large <i>Pl. angulatum</i> with <i>S. gemma</i> and <i>Scol. tumida</i>. [Atlas Plate No.245, 274 & 254]</p>
1254	<p>As 1253 but collected carefully by B. Hartley with 3" x 1" slip applied to the diatom film then dipped in the collecting water.</p>
1255	<p><i>Achnanthes</i> etc. from wall seepage onto the Knightstone pier at Weston-super-Mare 27th July 1980</p>


Entry No.	Particulars
1256	<p>Uphill boat yard creek, Avon 27th July 1980 Dark brown film clearly visible on the mud surface. <i>Pl. angulatum</i> in very good condition. B. Hartley stuck in the mud and came out less one Wellie!!!</p>  <p style="text-align: center;"><i>Bernard Hartley</i></p> <p>[Atlas Plate No.245] [Klaus-Dieter Kemp reference: 194R - K-D. Kemp - Uphill Boat Yard, Avon] [Klaus-Dieter Kemp reference: 433R - K-D. Kemp - Uphill Boat Yard, Avon] [Klaus-Dieter Kemp reference: 081R - K-D. Kemp - Uphill Boat Yard, Avon (<i>Pleurosigma angulatum</i>)] [Klaus-Dieter Kemp reference: 502R - K-D. Kemp - Uphill Boat Yard, Avon (<i>Pleurosigma angulatum</i>)] [Klaus-Dieter Kemp reference: 671R - K-D. Kemp - Uphill Boat Yard, Avon (Fine)] [Klaus-Dieter Kemp reference: 672R - K-D. Kemp - Uphill Boat Yard, Avon (<i>Pleurosigma angulatum</i> coarse)] [Klaus-Dieter Kemp reference: 395R - K-D. Kemp - Uphill Boat Yard, Avon On mud flats (<i>S. gemma</i>)] [Klaus-Dieter Kemp reference: 329R - K-D. Kemp - Uphill Boat Yard, Lake outlet]</p>
1257	<p>Burnham-on-Sea, Somerset April 1980 K-D. Kemp sample 1011 from muddy beach. Special <i>Surirella</i> with 'pegs' around margin.</p>
1258	<p>Clevedon Pool, Avon 10th February 1980 K-D. Kemp sample 1019 <i>Gyrosigmas</i> and <i>Pleurosigmas</i> etc. [Klaus-Dieter Kemp reference: 019R – K-D. Kemp – Clevedon Pool, Avon] [Klaus-Dieter Kemp reference: 046R – K-D. Kemp – Clevedon Pool, Avon] [Klaus-Dieter Kemp reference: 047R – K-D. Kemp – Clevedon Pool, Avon] [Klaus-Dieter Kemp reference: 048R – K-D. Kemp – Clevedon Pool, Avon - <i>Navicula</i>] [Klaus-Dieter Kemp reference: 049R – K-D. Kemp – Clevedon Pool, Avon - <i>Melosira</i>] [Klaus-Dieter Kemp reference: 110R – K-D. Kemp – Clevedon Pool, Avon]</p>
1259	<p>Benacreiness to Keesingland, Covehithe, Suffolk 1973 Slide by H.H. Gleave <i>Nav. atlantica</i> Schmidt and good <i>Achnanthes brevipes</i> Ag. [Atlas Plate No.132 & 1]</p>

The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
1260	Sandy Beach, Exmouth, Devon 3 rd August 1980 Collected by K-D. Kemp <i>Actinocyclus roperi</i> , <i>Anorthoneis excentrica</i> etc. [Atlas Plate No.10 & 27] [Klaus-Dieter Kemp reference: 348R – K-D. Kemp – Exmouth, Devon (sand drainage)]
1261	Pagham Harbour, Sussex Collected by A.G. Greenfield Reed beds behind the raised path beyond the church
1262	Southease, Sussex Collected by A.G. Greenfield Floating algae on brackish ditch
1263	River Ouse at Southease, Sussex Collected by A.G. Greenfield July 1980 At low tide from mud and timber piles
1264	Caldicote Lane, drain outlet near railway bridge. Nuneaton, Warwickshire
1265	Coastal mudflats at Steart, North Somerset (Sheet 182 267-459) 29 th August 1980
1266	Coastal Creek, Stolford, NorthWest Somerset (Sheet 182 232-459) 29 th August 1980
1267	Moss squeezing from side of road between Low Gill and Slaidburn, Yorkshire Collected by R.I. Firth August 1980  <p style="text-align: center;">R.I. Firth index card</p> <p>[Atlas Plate No.104]</p>
1268	Russ Hill, Charlwood Ex A.G. Greenfield via R.I. Firth <i>Nitzschia spectabilis</i>  <p style="text-align: center;">R.I. Firth index card</p>

The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
1269	<p>Bateman's Reservoir, Folkstone Ex J. H. Morris per R.I. Firth, cleaned by A.G. Greenfield</p>  <p style="text-align: center;"><i>R.I. Firth index card</i></p>
1270	<p>Stourhead, Wiltshire 1st September 1980 Collected by K-D. Kemp [Klaus-Dieter Kemp reference: 522R – K-D. Kemp – Stourhead Lake] [Klaus-Dieter Kemp reference: 359R – K-D. Kemp – Stourhead Lake, Bruton - Fine] [Klaus-Dieter Kemp reference: 360R – K-D. Kemp – Stourhead Lake – with <i>Oscillatoria</i>, <i>Cymbella inaequalis</i>] [Klaus-Dieter Kemp reference: 361R – K-D. Kemp – Stourhead Lake] [Klaus-Dieter Kemp reference: 485R – K-D. Kemp – Stourhead Lake (on algae)]</p>
1271	<p><i>Isthmia nervosa</i> Ex K-D. Kemp Ref. 272L from California Collected by Mr. Barth</p>
1272	<p>Southern Beach, Beer, Devon 18th August 1980 Collected by K-D. Kemp <i>Rhabdonema arcuatum</i>, <i>Grammatophora marina</i> etc. Sample split – heavy and light [Atlas Plate No.249 & 111] [Klaus-Dieter Kemp reference: 166R – K-D. Kemp – Beer, Devon, England – <i>Rhabdonema adriaticum</i>] [Klaus-Dieter Kemp reference: 167R – K-D. Kemp – Beer, Devon, England – fine on <i>Ulva</i>]</p>
1273	<p>Unlabelled sample tube of material cleaned by B. Hartley <i>S. gemma</i> and <i>Pl. angulatum</i> etc. Probably from Burnham-on-Sea or Weston-super-Mare muddy foreshore in late 1979 or early 1980 [Atlas Plate No.274 & 245]</p>
1274	<p>16th September 1980 River Thames down granite stairs near Customs Office. Scraped from foot of steps and adjoining woodwork at low tide. <i>Hydrosera triquetra</i> Wallich 2 slides by H.H. Gleave. See also 1279 below. [Atlas Plate No.120]</p>
1275	<p>Jedburgh, Roxburgh Roadside fountain October 1980 <i>Melosira arenari/teres</i> 2 slides from H.G. Barber Heavy and light</p>
1276	<p>Gairloch beach bog Collected by J.R. Carter 1980 Slide by H.G. Barber</p>
1277	<p>Norman's Bay, Sussex Collected by H.H. Gleave 27th August 1980 From sandy beach</p>
1278	<p>Porlock weir, Somerset Collected by B. Hartley 29th September 1980 From mud on the river bed immediately below the weir gates</p>

Entry No.	Particulars
1279	<p>River Thames, near Tower Bridge 11th October 1980 Scraped from the river walls and piles at the low tide near the Customs House and below jetty to H.M.S. Belfast; just upstream of the Tower of London. Collected by B. Hartley and K-D. Kemp on the occasion of a visit to the Quekett Club Exhibition</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;"><u>RIVER THAMES, NEAR TOWER BRIDGE.</u> 709</p> <p>Scrapings from river wall and piles. 11th Oct. 1980. BH1279.</p> <hr/> <p style="text-align: center;">- do - 6th 1977 713</p> <p style="text-align: center;">H. H. S. Kearney Hydrosera linguata</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 107R - K.D. Kemp - Thames River, Tower Bridge London - Fine] [Klaus-Dieter Kemp reference: 080R - K.D. Kemp - Thames River, Tower Bridge London - <i>Nitzschia parvula</i>] [Klaus-Dieter Kemp reference: 106R - K.D. Kemp - Thames River, Tower Bridge London - <i>Hydrosera triquetra</i>]</p>
1280	<p>Pond near Petworth, Sussex Slide by R.I. Firth dated 3/1979 <i>Fragilaria construens</i> in many forms</p> <div style="text-align: center;">  </div> <p style="text-align: center;"><i>Bernard Hartley at Petworth pond</i></p>
1281	<p>Unspecified localities on a slide from H.G. Barber Four samples Nos. 2521, 2526, 2538 and 2539</p>

The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
1282	<p>Southease, Sussex Collected by A.G. Greenfield October 1980 (R.I. Firth 707) <i>Mastogloia elliptica</i> var. <i>dansei</i></p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>SOUTHEASE, EAST SUSSEX. 707 Brackish Ditch. Coll: A.G.Greenfield Oct.1980. NGR426054.</p> </div> <p style="text-align: center; margin-top: 5px;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.125]</p>
1283	<p>Volcanic ash from Mount Saint Helen, Washington; from the eruption on the 19th May 1980. Collected 200 miles N.E. at Spokane and sent to B. Hartley by James F. Fidiham of Berkeley</p>
1284	<p>Newborough Warren, Anglesey From H.G. Barber 8 November 1980 Probably the same sample as 1287 below</p>
1285	<p>Ellesmere, near car park A dredge taken by H.G. Barber in May 1963. One slide</p>
1286	<p>Crosemere, Salop Surface dredge taken 9th November 1980 Slide by H.G. Barber</p>
1287	<p>Newborough Warren, Anglesey Slide from H.G. Barber with marked <i>Nav. tuscula</i> var. <i>capitata</i> (Font.) A. Cleve [Atlas Plate No.166]</p>
1288	<p>Sandy Beach, Berrow, Somerset November 1980 Collected by K-D. Kemp and passed as sand to B. Hartley for cleaning</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>NAVICULA HUMEROSA 719 Sandy beach at Berrow, Somerset Nov. 1980. BH1288</p> </div> <p style="text-align: center; margin-top: 5px;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.145] [Klaus-Dieter Kemp reference: 547R – B. Hartley 1288 – Berrow Sand, Berrow, Somerset]</p>
1289	<p>"H.G. Barber's kitchen sink flora" received 10th October 1980</p>
1290	<p>Newborough Warren, Anglesey 2 slides made from Horace Barber's sample No. 248.</p>
1291	<p>As 1290 but small amount of sample No. 310 from H. G. Barber</p>

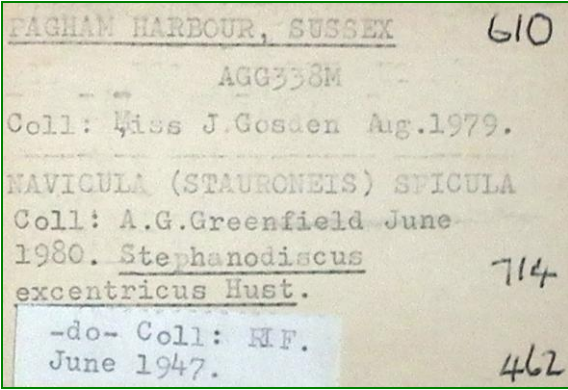
The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
1292	<p>As 1290 but from a different sample gathered by H.G. Barber in 1958</p> <div style="border: 1px solid green; padding: 5px;"> <p>NEWBOROUGH, WARREN, 704 ANGLESEY. BH1292. 693 Coll: H.G.Barber. Navicula tuscula.</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.166]</p>
1293	<p>Old Coach Road, Nant Francon Pass, North Wales Cleaned sample received from H.G. Barber on 10th October 1980</p> <div style="border: 1px solid green; padding: 5px;"> <p>NANT FRANCON PASS, 712 North Wales. Old Coach Road. Coll: H.G.Barber.</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
1294	<p>Arne, Poole Harbour, Dorset Collected by R.I. Firth 1950, R.I. Firth No. 501 Minute quantity from R.I. Firth November 1980</p> <div style="border: 1px solid green; padding: 5px;"> <p>ARNE, Poole Harbour . 501 Coll: R.I.FIRTH 1950. 595 Nav.marina Ral fs 726 <i>didyme</i> BH1490 790</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.149]</p>

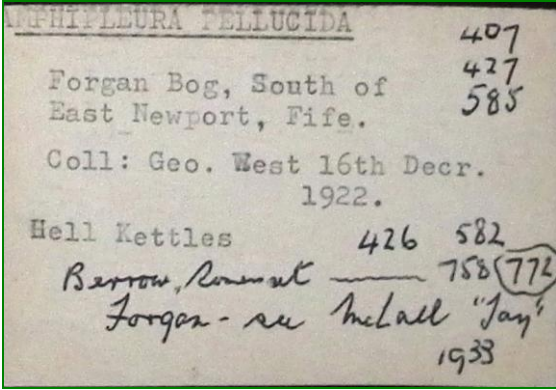
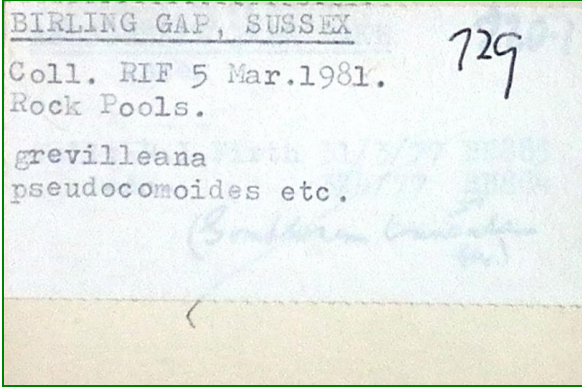
The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
1295	<p>Dunrobin Castle Lake, Sutherland Ex. J.W. Ryde One slide R.I. Firth <i>Cyclotella antiqua</i> W.Sm.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>DUNROBIN CASTLE, 706 SUTHERLAND, SCOTLAND. Lake in grounds. Coll: J.W.Ryde. Cleaned: A.G.Green- field Oct. 1980.</p> </div> <p style="text-align: center; margin-top: 5px;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.58]</p>
1296	<p>Kamischev, U.S.S.R. Small sample in bottom of old tube rejected by R.I. Firth in October 1980</p>
1297	<p>Plankton samples from River Yare, Norfolk TG 080-320 Slide by Hilary Belcher and Erica Swale including <i>Thalassiosira lacustris</i> (Grun.) Hasle <i>foramaputiae</i> (Ehr.) Hoobensen and Locker [Atlas Plate No.285]</p>
1298	<p>Chichester Harbour R.I. Firth ref. 641 December 1980 One strewn slide and small sample</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>CHICHESTER CHANNEL, 641 Sussex. 642 Coll: R.I.F. 29th August 1948. - Sample Sample A 8/9/13 - B</p> </div> <p style="text-align: center; margin-top: 5px;"><i>R.I. Firth index card</i></p>
1299	<p>Chichester Harbour R.I. Firth ref. 642 December 1980 One strewn slide and small sample</p>
1300	<p>Hinton Marsh, Hampshire Three strewn slides 'Heavy', 'Medium' and 'Light' by R.I. Firth December 1980</p>

Entry No.	Particulars
1301	<p>Slide by R.I. Firth from Pagham harbour A.G. Greenfield ref. 339 which should be the same as BH 1261 containing <i>Steph. excentricus</i></p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>PAGHAM HARBOUR, SUSSEX 610 AGG338M Coll: Miss J. Gosden Aug.1979. NAVICULA (STAURONEIS) SPICULA Coll: A.G.Greenfield June 1980. <u>Stephanodiscus</u> <u>excentricus</u> Hust. 714 -do- Coll: R.I. F. June 1947. 462</p> </div> <p style="text-align: center;">R.I. Firth index card</p> <div style="border: 1px solid black; padding: 5px;"> <p>STEPHANODISCUS EXCENTRICUS 714 HUSTEDT Pagham Harbour, Sussex. Coll: A.G.Greenfield June 1980. (AGG339)</p> </div> <p style="text-align: center;">R.I. Firth index card</p> <p>[Atlas Plate No.260]</p>
1302	<p><i>Pl. angulatum</i> and chains of <i>Melosira</i> from Pevensey sluice September 1974 Dried up uncleaned sample from R.I. Firth October 1980</p>
1303	<p><i>Melosira moniliformis</i> (Dillw.) Ag. (- <i>M. borneri</i> Grev) From rear of beach Norman's Bay, Sussex Slide by H.H. Gleave 1 January 1981 Sample later collected 8th January 1981 muddy drain running over pebbles from Herbrands Walk to the sea at Norman's Bay. Beyond the timber store. Also in Cu. Ni. And later in 2% formalin. [Atlas Plate No.128]</p>
1304	<p><i>Melosira</i> sample collected by Klaus D. Kemp 12th January 1981 Shallow paddling pool at Clevedon, Avon. 1304A cleaned by B. Hartley and 1304B cleaned by K-D. Kemp See also 1317 and 1320</p>
1305	<p>Plankton from River Yare, Norfolk Grid. Ref. TG 320-089 Collected by Belcher and Swale 6th April 1976 Part received direct from Hilary Belcher and part later from H. G. Barber. B. & S. Ref. 44</p>
1306	<p>As 1305 but collected 1st June 1977. Belcher and Swale ref. 156.</p>
1307	<p>Hinton Marsh, Hampshire Collected by R.I. Firth 10th April 1955 Received from R.I. Firth in three minute quantities: RIF460 Heavy RIF607 RIF654 Light See also 1300</p>

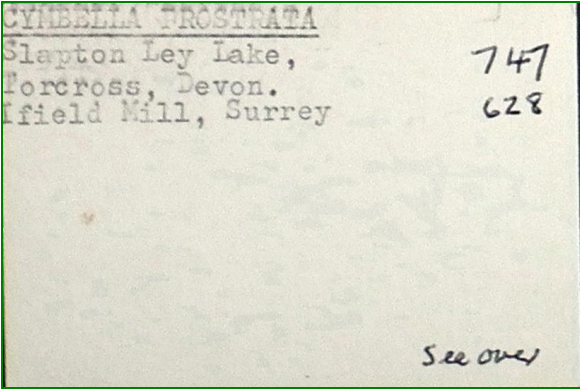
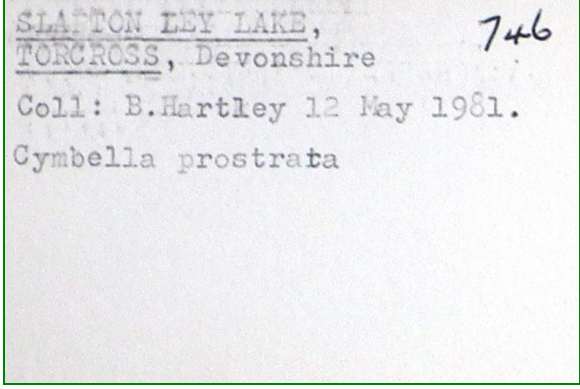
Entry No.	Particulars
1308	<p>Pagham Harbour, Sussex Collected by R.I. Firth June 1947 RIF No.462 Small cleaned sample received January 1981</p>  <p style="text-align: center;">R.I. Firth index card</p> <p>[Atlas Plate No.260]</p>
1309	<p>Site in the Rockies (? Iowa) ex. John Bradbury, American Geological Survey, of Denver, Colorado, 1002302 Received from H.G. Barber and separated over a 400 mesh sieve. Cleaned by K-D. Kemp See also HGB plates 1-4 and his slide 1316</p>
1310	<p>Cuckmere Haven, Sussex Collected by A.G. Greenfield January 1981 <i>Rhopalodia musculus</i> and <i>Mastogloia pumila</i> [Atlas Plate No.252 & 126]</p>
1311	<p>Slide 11910 by J.R. Carter 2nd January 1981 of Hustedt's material collected in 1958 from brackish site at Hamburg. Fine <i>Cyclotella striata</i> and much else of interest</p>
1312	<p>Slide 544 by J.R. Carter 2nd January 1981 purporting to show <i>Cyclotella striata</i> and indoubtedly <i>C. meneghiniana</i> from Rover Weser from the collection of Chris. Brockmann No.79 14th May 1926</p>
1313	<p>Superb sample of <i>M. dendroteres</i> (Ehr.) Ross (Syn. <i>M. roseana</i> Rabh.) from Bucklands, Hawick, Scotland Slide by J.R. Carter [Klaus-Dieter Kemp reference: 377R - J.R. Carter 4005 - Bucklands, Rox Scotland]</p>
1314	<p>3 slides by J.R. Carter 14008a, b & c. Hasendean, Hawick, Scotland <i>Navicula gallica</i>, <i>N. tantula</i>, <i>N. seminulum</i>, <i>N. mutica</i>, <i>N. nivalloides</i> and <i>Nitzschia</i> sp. [Atlas Plate No.142, 165, 163 & 151]</p>
1315	<p>Slide 13998 by J.R. Carter Railway bridge at Lurden, Middle Shields <i>Nav. gallica</i>, <i>M. dendroteres</i>, <i>Achnanthes coarctata</i> etc. [Atlas Plate No.142 & 2]</p>
1316	<p>Iowa F/W fossil deposit IO-22-20 from H.G. Barber cleaned by K-D. Kemp See plates 5010 by H.G. Barber and also slide 1309</p>
1317	<p>See also 1304 and 1321 Swimming pool, Clevedon, Avaon 19th January 1981 <i>Navicula delognei</i> Part also in Ciu. Ni. For fluid mounts Collected from wall of pool [Atlas Plate No.138]</p>
1318	<p>Slide 14012 by J.R. Carter Belses, Roxburgh railway bridge 6th February 1981 <i>Nav. gallica</i>, <i>Nitz. frustulum</i>, <i>Nitz. hantzschiana</i> [<i>Nit. thermalis</i> Grun] = Syn. <i>Nitz umbonata</i> Lange-Bertalot [Atlas Plate No.142 & 184] [Klaus-Dieter Kemp reference: 371R - J.R. Carter - Belses, Rox Scotland]</p>
1319	<p>Old slide from Dr. John Cawood of Yeovil "from Guano, Ichaboe – 1844" Marine</p>

Entry No.	Particulars
1320	<p>"Diatomaceae from Premnay Peat" A sample much referred to by the Rev. W. Smith Slide obtained from Dr. John Cawood</p>
1321	<p><i>Navicula delognei</i> collected from bathing pool at Clevedon, Avon 3rd February 1981 by K-D. Kemp Part in Cu. Ni. And later 2% formalin 1321A cleaned by K-D. Kemp</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>CLEVEDON SWIMMING POOL, 721 AVON. Nav. grevilleana Hendey Coll: K.D.Kemp 3/2/81</p> </div> <p style="text-align: center;">R.I. Firth index card</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>NAVICULA GREVILLEANA 721 HENDEY Clevedon Pool, Avon. Coll: K.D.Kemp 3/2/81</p> </div> <p style="text-align: center;">R.I. Firth index card</p> <p>[Atlas Plate No.138]</p>
1322	<p>East Brent, Somerset, River Lyne Huge quantities of <i>Synedra ulna</i> collected and cleaned by K-D. Kemp [Atlas Plate No.283] [Klaus-Dieter Kemp reference: 342R – K-D. Kemp – East Brent, Somerset (rhyne) – <i>Synedra ulna</i>]</p>
1323	<p>Elys Harbour, Bermuda 1980 Ex Owen Rogers per K-D. Kemp [Klaus-Dieter Kemp reference: 456R – K-D. Kemp – Ely's Harbour] [Klaus-Dieter Kemp reference: 501R – K-D. Kemp – Ely's Harbour, Bermuda (fine)] [Klaus-Dieter Kemp reference: 494R – K-D. Kemp – Ely's Harbour, Bermuda (poor)] [Klaus-Dieter Kemp reference: 456R – K-D. Kemp – Ely's Harbour, Bermuda] [Klaus-Dieter Kemp reference: 187R – K-D. Kemp – Ely's Harbour, Bermuda (buoy)] [Klaus-Dieter Kemp reference: 195R – K-D. Kemp – Ely's Harbour, Bermuda (coarse)] [Klaus-Dieter Kemp reference: 196R – K-D. Kemp – Ely's Harbour, Bermuda (fine)] [Klaus-Dieter Kemp reference: 616R - J.Canne - Ely's harbour, Bermuda (Growing on inside of a bucket)] [Klaus-Dieter Kemp reference: 617B - J.Canne - Ely's harbour, Bermuda]</p>
1324	<p>Lough Neagh, Northern Ireland November 1980 Ex C. E. Gibson per K-D. Kemp [Klaus-Dieter Kemp reference: 071R - Lough Neagh, N.Ireland]</p>

Entry No.	Particulars
1325	<p>Hell Kettles, near Croft, Darlington Collected by K-D. Kemp 23rd February 1981 1325A heavy 1325B Light 1325C in formalin Note: 1325A include <i>Amphipleura pellucida</i>. 1325C shows auxospores of <i>Cymbella</i> on <i>Hippuris</i>.</p>  <p style="text-align: center;">R.I. Firth index card</p> <p>[Atlas Plate No.12] [Klaus-Dieter Kemp reference: 065R – K-D. Kemp – Hell’s Kettle, Croft Durham, Yorks] [Klaus-Dieter Kemp reference: 066R – K-D. Kemp – Hell’s Kettle, Croft Durham, Yorks] [Klaus-Dieter Kemp reference: 067R – K-D. Kemp – Hell’s Kettle, Croft Durham, Yorks] [Klaus-Dieter Kemp reference: 068R – K-D. Kemp – Hell’s Kettle, Croft, N. Yorks – <i>Amphipleura pellucida</i>]</p>
1326	<p>Birlinging Gap, Sussex Very small uncleaned sample collected by R.I. Firth 5th March 1981 from rocky pools on chalky foreshore</p>  <p style="text-align: center;">R.I. Firth index card</p> <p>[Atlas Plate No.156]</p>
1327	<p>Burton Pond, Petsworth, Sussex Collected by R.I. Firth March 1981 1327A retained 600 mesh 1327B passing 600 Main part of sample returned to R.I. Firth</p>
1328	<p><i>Pleurosigma angulatum</i> (Quek.) W.Sm Cuckmere Haven, Sussex Part preserved in Cu. Ni. And later in 2% formalin</p> <p>[Atlas Plate No.245]</p>
1329	<p>As 1328 but collected by Bob and Mildred Firth on 12th March 1981</p>
1330	<p>Nottingham, Maryland, United States of America Fossil marine sample received from R.I. Firth 12th March 1981 Contains <i>Aulacodiscus</i> and <i>Cosc. apiculatus</i>. [Klaus-Dieter Kemp reference: 006B - J.A.Long N26 - Nottingham, Maryland U.S.A. - F.M] [Klaus-Dieter Kemp reference: 502B - J.A.Long N32 - Nottingham, Maryland U.S.A. - F.M] [Klaus-Dieter Kemp reference: 763B - Nottingham, Maryland U.S.A. - Miocene F.M]</p>
1331	<p><i>Melosira lineata</i> (Dillw.) Ag. Ex Von Stoch, R.M.C. sample 227 A minute quantity. Poorly cleaned, if at all!</p> <p>[Atlas Plate No.128]</p>

Entry No.	Particulars
1332	Firemore Bay, Scotland Ex. F. Round Small quantity per Dick Crawford 16 th March 1981 on his visit to "Teasel Cottage" <i>Staurorsepta</i> n. sp. which falls possibly within <i>Capartogramma</i>
1333	<i>Nitzschia umbonata</i> (Ehr.) L-B, Newly dug out ditch at Ancrum, Roxborough, Scotland Slide 14103 by J.R. Carter 25 th February 1981 [Atlas Plate No.193]
1334	<i>M. nummuloides</i> (Dillw.) Ag. Burnt on slide by Henry Gleave from a ditch at Norman's Bay. Sussex 25 th February 1981 <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>MELOSIRA NUMMULOIDES Norman's Bay, Sussex</p> <p style="text-align: right;">730 749 763</p> </div> <p style="text-align: center; margin-top: 5px;"><i>R.I. Firth index card</i></p> [Atlas Plate No.129]
1335	Rhosneigr marsh estuary, Anglesey Slide 3/1981 by H.G. Barber from his sample No. 431 collected in August 1955
1336	Drainage weepholes under railway bridge at Nuneaton, Warks. Collected by H.G. Barber 27 th March 1981 and sent uncleaned
1337	Lyons Creek, Maryland, United States of America Cleaned October 1947 1337A Large 1337B Medium From the same extensive deposit at Dunkirk, Fairhaven, Calvert Co., Nottingham, United States of America [Klaus-Dieter Kemp reference: 883R – B. Hartley 1337 – Lyons Creek, Maryland, United States of America – <i>Actinoptychus heliopelta</i>] [Klaus-Dieter Kemp reference: 073G - J.J.G. - Lyons Creek Road, Maryland U.S.A.] [Klaus-Dieter Kemp reference: 613B - J.A.Long L20 - Lyons Creek, Maryland U.S.A. - F.M] [Klaus-Dieter Kemp reference: 108B - Williams - Lyons Creek, Maryland U.S.A.]
1338	Cuckmere Haven, Sussex Collected from brackish ditch by A.G. Greenfield in March 1981 R.I. Firth No. 724 <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>CUCKMERE HAVEN, SUSSEX</p> <p>Brackish Ditch. Coll: A.G.Greenfield Mar.1981.</p> <p style="text-align: right;">724⁽²⁾✓</p> <hr/> <p>Amphiprora alata (Coll: RIF 11/47)</p> <p style="text-align: right;">735'</p> </div> <p style="text-align: center; margin-top: 5px;"><i>R.I. Firth index card</i></p> [Atlas Plate No.12]

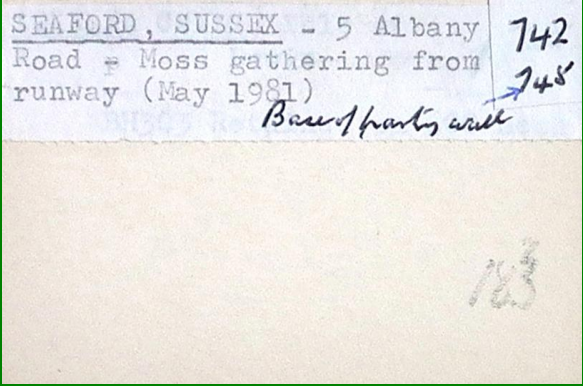
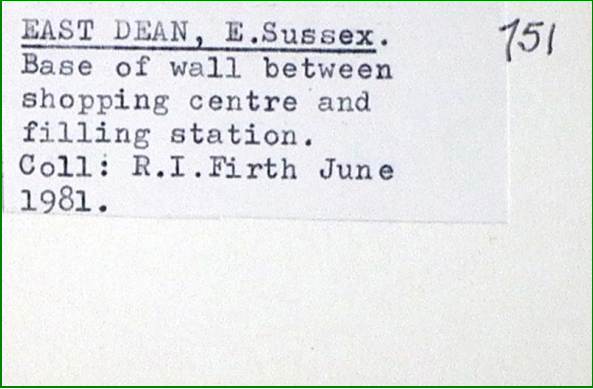
Entry No.	Particulars
1339	<p>Norman's Bay, Sussex. Collected June 1953 as sample 730 by R.I. Firth <i>Stauroneis constricta</i> W.Sm Norman's Bay is a small railway halt between Pevensey and Cooden near Bexhill. This sample was taken from brackish pools a little inland from the beach.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>NORMAN'S BAY, SUSSEX 730 Coll. R.I.F. June 1953. nummuloides Stauroneis sp. ? crucigera etc. 749 763</p> </div> <p style="text-align: center; margin-top: 5px;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.257]</p>
1340	<p>Toomebridge, Northern Ireland Sample received from Klaus Kemp 13th April 1981 [Klaus-Dieter Kemp reference: 470R – K-D. Kemp – Toome Bridge, N. Ireland] [Klaus-Dieter Kemp reference: 744R – K-D. Kemp – Toome Bridge, N. Ireland]</p>
1341	<p>Cuckmere Haven, Sussex <i>Amphiprora alata</i> (Ehr.) Kütz. Collected by R.I. Firth November 1947</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>AMPHIPRORA ALATA 735 (E.) Ktz. Cuckmere Haven, Sx. Coll: R.I.F. Nov.1947.</p> </div> <p style="text-align: center; margin-top: 5px;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.12]</p>
1342	<p>Loch Goil, Scotland, which is off Loch Long and discharges into the Clyde. Slide by R.I. Firth. He only had a small quantity from the B.M. <i>Cosc. centralis</i>, <i>C. concinnus</i>, <i>C. radiatus</i>, <i>C. stellaris</i> and <i>Thalassiosira excentrica</i></p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>LOCH GOIL, Scotland 644 Recent marine.</p> </div> <p style="text-align: center; margin-top: 5px;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate Page 128, 130 & Plate 285]</p>

Entry No.	Particulars
1343	<p><i>Cymbella prostrata</i> and <i>C. prostrata</i> var. <i>auerswaldii</i> from Ifield Dam, Surrey One cm thick jelly on the dam Collected by A.G. Greenfield in Autumn 1979</p>  <p style="text-align: center;">R.I. Firth index card</p> <p>[Atlas Plate No.71]</p>
1344	<p>Marine phytoplankton 1977 gathering by the Marine Biological Association from the English Channel. <i>Coscinodiscus wailesii</i> Gran et Angst.</p> <p>[Atlas Page No.130]</p>
1345	<p>As 1344. Sample of marine phytoplankton brought into Plymouth Marine Biological Association Lab. on 13th May 1981. Containing <i>Cosc. Wailesii</i> Gr. Et Angst, <i>Thalassiosira angstii</i> (Gr. Et Angst.) Hasle, <i>Guinardia flaccida</i>, and the dinoflagellate <i>Phaeocistis pouchettii</i>.</p> <p>[Atlas Page No.130 & Plate No. 111]</p>
1346	<p>Slapton Ley, Devon 12th May 1981 (My birthday!) Mats of <i>Cymbella</i> in tubes on the stone paving at the Torcross outlet of the lake. Fast flowing water some 12 inches deep and fifteen feet wide all covered with the diatom 'jelly'.</p>  <p style="text-align: center;">R.I. Firth index card</p> <p>[Atlas Plate No.71]</p>
1347	<p>12th May 1981 Slapton Ley, Torcross, Devon Sample of zoo- and phytoplankton from the lake outlet at the Torcross end. [Klaus-Dieter Kemp reference: 079R – B. Hartley 1347 – Slapton Ley, Devon – Cleaned 11 April 94] [Klaus-Dieter Kemp reference: 585R – K-D. Kemp – Slapton Ley, Devon (2)] [Klaus-Dieter Kemp reference: 586R – K-D. Kemp – Slapton Ley, Devon] [Klaus-Dieter Kemp reference: 576R – K-D. Kemp – Slapton Ley, Devon (reeds on bank)] [Klaus-Dieter Kemp reference: 587R – K-D. Kemp – Slapton Ley, Devon (Surface scum)]</p>
1348	<p>As 1346 but at the stoney margin of the lake in a quiet lagoon 200-300 metres north of the Torcross village and opposite some cottages.</p>
1349	<p>19th May 1981 River Tavey near Tavistock, just alongside the Bedford road car park. Scraped from stones in river bed and floated down into plankton net.</p>
1350	<p>19th May 1981 West Dart River at the 'Two bridges' adjoining B3212 on Dartmoor. Scraping of moss and algae from large stones removed from river bed.</p>

Entry No.	Particulars
1351 (B)	<p>19th May 1981 Dartmoor, adjoining stream where it crosses over the B3212 from the adjoining moorland, between postbridge and Lettaford north of Widdecombe. Squeeze from damp swamp with <i>Potamogeton polygoniformis</i> on the damp surface. N.W. of road.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;"><u>DARTMOOR, DEVONSHIRE.</u></p> <p>Squeeze from peaty swamp (B.Hartley 19 May 1981 BH1351) 751</p> <p>Squeeze from sphagnum bog (B.Hartley 19 May 1981 BH1352) 752</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 097R – B. Hartley 1351 – Dartmoor, Nr. Widebombe, Devon - >600] [Klaus-Dieter Kemp reference: 098R – B. Hartley 1351 – Dartmoor, Nr. Widebombe, Devon - <600]</p>
1352 (B)	<p>19th May 1981 Dartmoor, Cornwall. As 1351 but squeeze from sphagnum and boggy land with <i>Potamogeton</i> on the S.W. side of the road.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;"><u>DARTMOOR, DEVONSHIRE.</u></p> <p>Squeeze from peaty swamp (B.Hartley 19 May 1981 BH1351) 751</p> <p>Squeeze from sphagnum bog (B.Hartley 19 May 1981 BH1352) 752</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 109R – B. Hartley 1352 – Dartmoor, Nr. Widebombe, Devon - >600] [Klaus-Dieter Kemp reference: 099R – B. Hartley 1352 – Dartmoor, Nr. Widebombe, Devon - >600 on sphagnum] [Klaus-Dieter Kemp reference: 876R - R.I. Firth 752 - Dartmoor, Devonshire Sphagnum squeeze]</p>
1353	<p>Wayford Woods, near Crewkerne, Somerset 23rd May 1981 Floating bubbling light brown film on small pools in the drained bed of a former lake.</p>
1354	<p>River Cam. Culture from Hilary Belcher Slide 14016 by J.R. Carter Allegedly containing a marked specimen of <i>Simonsenia delognei</i> (Grun.) L-B. [Atlas Plate No.254]</p>
1355	<p>Damp Moss from stonework of Unitarian Church, Brighton. 5th April 1981 Very difficult to clean properly <i>Pinnularia borealis</i> etc. Collected by R.I. Firth [Atlas Plate No.205]</p>

Entry No.	Particulars
1356	<p>Moss from tarmac runway, 5 Albany Road, Seaford, Sussex Home of R.I. Firth Cleaned by A.G. Greenfield May 1981 R.I. Firth No.742 See also better cleaning at 1362</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>MOSS GATHERING, 5 Albany Road, Seaford, Sx. (Moss on tarmac runway 1 yard from backdoor - May 1981). Base of party wall</p> <p style="text-align: right;">742 742</p> </div> <p style="text-align: center; margin-top: 5px;"><i>R.I. Firth index card</i></p>
1357	<p>Popes Creek, Maryland, United States of America Strewn slide by K-D. Kemp [Klaus-Dieter Kemp reference: 317B - Popes Creek, Maryland U.S.A.] [Klaus-Dieter Kemp reference: 842B - Ex S.Chaffer - Popes Creek, Virginia U.S.A. - Coscinodiscus, Craspedoporus.]</p>
1358	<p>Strewn slide by K-D. Kemp Philip Harris slide No. M11018/4 of radiolarians</p>
1359	<p>Strewn slide by K-D. Kemp from Kamischev, Russia [Klaus-Dieter Kemp reference: 928R - Kamischev, Russia (Good)] [Klaus-Dieter Kemp reference: 003B - Kamischev, Russia (Picked 1938)] [Klaus-Dieter Kemp reference: 397B - Kamischev, Russia (Light)] [Klaus-Dieter Kemp reference: 398B - Kamischev, Russia (Good)] [Klaus-Dieter Kemp reference: 400B - Kamischev, Russia] [Klaus-Dieter Kemp reference: 401B - Kamischev, Russia] [Klaus-Dieter Kemp reference: 806B - Kamischev, Russia] [Klaus-Dieter Kemp reference: 437B - Kamischev, Russia(1)] [Klaus-Dieter Kemp reference: 399B - Kamischev, Russia(2)] [Klaus-Dieter Kemp reference: 402B Kamischev, Russia(2)]</p>
1360	<p>Strewn slide by Norman Hendey – May 1981 from ‘Glomar Challenger’ core in the S.W. Pacific with bits of <i>Bruniopsis mirabilis</i> (Brun.) Karsten</p>
1361	<p>Strewn slide by Norman Hendey – May 1981 Garden pond, St. Agnes, Cornwall. <i>Pinnularia major</i> (Kütz.) Rabh. [Atlas Plate No.220]</p>
1362	<p>Dead moss from the party wall in the garden of 5 Albany Road, Seaford, Sussex May 1981 As sample 1356 but much better cleaning. <i>Navicula pusilla</i> etc. [Atlas Plate No.157]</p>

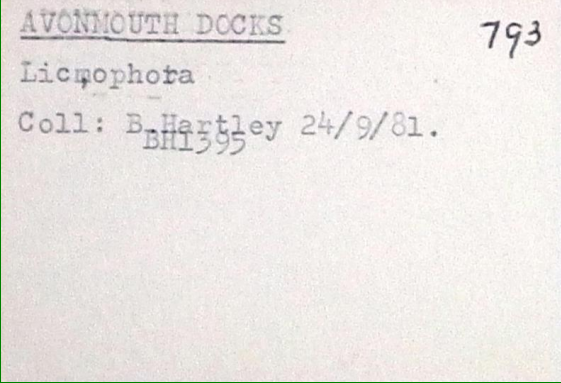
The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
1363	<p>A sample which appears like No. 1362 but this one was labelled "From the base of the wall in tarmac runway, 5 Albany Road, Seaford, Sussex Collected 21st May 1981 Later sample 1363A received 21 May 1981 and cleaned by B. Hartley 5 September 1981</p>  <p style="text-align: center;"><i>R.I. Firth index card</i></p>
1364	<p>East Dean shopping centre, Sussex Strewn slide by R.I. Firth extracted from moss on car park June 1981 Sample 1364A as above but cleaned by B. Hartley</p>  <p style="text-align: center;"><i>R.I. Firth index card</i></p>
1365	<p>Lake Coniston, Cumbria From a pile of clay on the shore Presumably from a discarded core. Slide by H.G. Barber</p>
1366	<p>Recent marine slide by H.G. Barber from Currig Beach, Llangold, Anglesey</p>
1367	<p>Blakeney Point, North Norfolk 12th June 1981 Samples of sand from foreshore and 'inland' tidal areas above normal high water mark. [Klaus-Dieter Kemp reference: 074R – B. Hartley 1367 – Blakeney Point, Norfolk – Passing 600]</p>
1368	<p>Blakeney Point, Norfolk 12th June 1981 Seaweed from tidal creeks</p>
1369	<p>River Yare at Reedham, Norfolk Plankton sample which appears to be mostly colloidal 'sewage'</p>
1370	<p>Afon Aran at Dolgellau, Wales near the fleece and flensing works 8th July 1981 <i>Didymosphaenia geminata</i> and other small sp. [Atlas Plate No.76] [Klaus-Dieter Kemp reference: 103R – B. Hartley 1370 – Dolgellau, N. Wales]</p>
1371	<p>Walloper Well, Waddington Fells, Yorks 16th July 1981 Pure gathering of <i>Fragilaria virescens</i> Also in 2% formalin [Atlas Plate No.103] [Klaus-Dieter Kemp reference: 076R – B. Hartley 1371 – Walloper Well]</p>

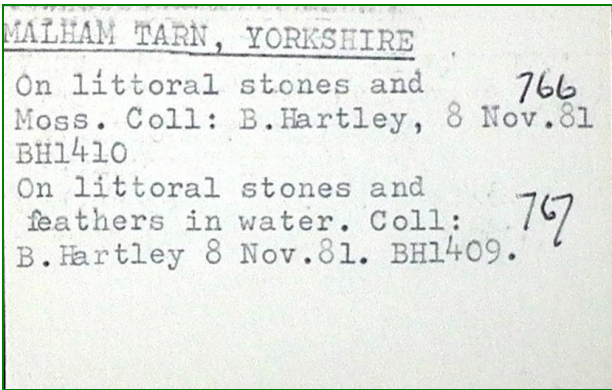
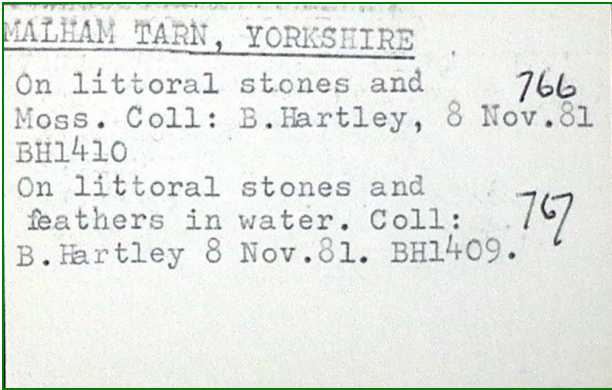
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Entry No.	Particulars
1372	17 th July 1981 <i>Diatoma heimale</i> var. <i>quadratum</i> Pure gathering from the spring behind King William House, Settle Also in 2% formalin [Atlas Plate No.75]
1373	17 th July 1981 Small red and other seaweed on Llandanwg beach at the edge of the tide
1375	Radiolaria – Barbados Slide from E.G. Williams by J.T. Norman-Thomas circa 1890-1910 'Stone cells' in balsam. Very nice material
1376	Llyn Tegid, (Bala Lake), Wales 10 th July 1981 Slide by E.G. Williams of diatoms burnt on cover
1377	Serpentine Lake, Chester at Eaton Park 22 nd March 1972 Slide by E.G. Williams
1378	Springwater in roadside trough at Robertson, near Hawick, Scotland Sample preserved in 2% formalin by J.R. Carter Floating diatoms
1379	As 1378 but wet rocks at outlet from the trough Sample collected by J.R. Carter on 8 th August 1981 and preserved in 2% formalin
1380	<i>Didymosphenia geminata</i> from Burnfoot Ale, Scotland Collected 8 th August 1981 by J.R. Carter and preserved in 2% formalin [Atlas Plate No.76] [Klaus-Dieter Kemp reference: 419R - J.R. Carter - Burnfoot Ale, Rox (<i>Didymosphenia geminata</i>)]
1381	Fairyland Creek, Bermuda Slide by K-D. Kemp [Klaus-Dieter Kemp reference: 188R – K-D. Kemp – Fairyland Creek, Bermuda]
1382	Marine Biological Station, Bermuda Slide by K-D. Kemp
1383	Lagoon at Maritime Museum, Bermuda Slide by K-D. Kemp
1384	Mill Creek, Bermuda Slide by K-D. Kemp [Klaus-Dieter Kemp reference: 392R - K.D. Kemp - Mill Creek, Bermuda]
1385	Princess outlet, Waterlot, Southampton, Bermuda Slide by K-D. Kemp [Klaus-Dieter Kemp reference: 212R - K.D. Kemp - Waterlot, Southampton Princess Bermuda - Coarse, <i>Navicula lyra</i>] [Klaus-Dieter Kemp reference: 139R - K.D. Kemp - Waterlot, Southampton Princess outlet Bermuda]
1386	Wreck Pond, Bermuda Slide by K-D. Kemp [Klaus-Dieter Kemp reference: 138R - K.D. Kemp - Wreck Road pond, Bermuda]
1387	River Thames, Cousin Lane in the City 4 th May 1972 Slide by H.H. Gleave <i>Nitzschia parvula</i> and <i>Nitzschia sigma</i> var <i>clausii</i> (Hantzsch.) Grun. Also small sample later [Atlas Plate No.188]
1388	Sandy foreshore, Norman's Bay, Sussex 18 th July 1981 Slide by H.H. Gleave labelled and ringed by B. Hartley
1389	Fanagmore, near Scourie June 1979 Slide by J.R. Carter Very rich material

Entry No.	Particulars
1390	<p>Pond at Berrow golf course, Somerset Hard freshwater supporting <i>Nitella</i> and <i>Potamogeton natens</i>. Collected by K-D. Kemp on 23rd August 1981 Part fixed later that day in formalin</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>BERROW GOLF COURSE SOMERSET (Pond at) 757-8 Coll: 23/8/81 BH1390. Amphipleura pellucida - 758 (Part of 757) Cymbella cistula - 757 (Part of 758) (Excellently) BH1470 772</p> </div> <p style="text-align: center;">R.I. Firth index card</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>AMPHIPLEURA PELLUCIDA 407 427 585 Forgan Bog, South of East Newport, Fife. Coll: Geo. West 16th Decr. 1922. Hell Kettles 426 582 Berrow, Somerset 758 (772) Forgan - see McCall "Jay" 1933</p> </div> <p style="text-align: center;">R.I. Firth index card</p> <p>[Atlas Plate No.12 & 64] [Klaus-Dieter Kemp reference: 108R – K-D. Kemp – Berrow Golf Course pond, Somerset, England – <i>Synedra capitata</i>] [Atlas Plate No.282] [Klaus-Dieter Kemp reference: 082R – K-D. Kemp – Berrow Golf Course, Somerset, England (small pond, coarse)] [Klaus-Dieter Kemp reference: 776R – K-D. Kemp – Berrow pond, Somerset – <i>Amphipleura pellucida</i>] [Klaus-Dieter Kemp reference: 020R – K-D. Kemp – Berrow Golf Course, Somerset, England (pond)]</p>
1391	<p>Slide by H.G. Barber Gougane, Barra Forest Pary, W. Cork, Eire Collected by his optician Rich in <i>Frustulia rhomboides</i> and vars. [Transcribers Note: Horace Barber's optician was Frank Oldaker] [Atlas Plate No.104]</p>
1392	<p>Cuckmere Haven, Sussex 20th August 1981 Small sample from H.H. Gleave <i>Rhopalodia musculus</i> etc. at West side of river mouth. Small sample Also 1392A cleaned by B. Hartley [Atlas Plate No.252]</p>
1393	<p>Loch Leven plankton March 1981 Containing <i>Stephanodiscus</i> sp. Slide 14064 by J.R. Carter</p>

Entry No.	Particulars
1394	Royston Water Grid. Ref. 193/ 226-134 September 1981 Near Churching Ford, Somerset Squeeze from moss and algae on the river <i>Melosira varians</i> and <i>Gomphonema</i> [Atlas Plate No.129]
1395	Avonmouth Docks 24 th September 1981 Collected by K-D. Kemp <i>Licmophora gracilis</i> ? on <i>Ceramium rudens</i> , on wooden piles in the harbour wall  <p style="text-align: center;"><i>R.I. Firth index card</i></p> [Klaus-Dieter Kemp reference: 179R – K-D. Kemp – Avonmouth Docks, Avon - Fine] [Klaus-Dieter Kemp reference: 180R – K-D. Kemp – Avonmouth Docks, Avon - Fine] [Klaus-Dieter Kemp reference: 463R – K-D. Kemp – Avonmouth Docks, Avon] [Klaus-Dieter Kemp reference: 474R – K-D. Kemp – Avonmouth Docks, Avon] [Klaus-Dieter Kemp reference: 781R – K-D. Kemp – Avonmouth Docks, Avon - Coarse] [Klaus-Dieter Kemp reference: 781R – K-D. Kemp – Avonmouth Docks, Avon - Fine]
1396	Ditch under cliff near Scourie harbour June 1981 Slide 14053 by J.R. Carter purporting to contain <i>Nitzschia archibaldii</i> Lange-Bertalot 20-25,1-2,17kp,50str. See 'Bacillaria 3 p44, 1980' [Atlas Plate No.181]
1397	River Gowy, at Kockinhull, East of Chester 11 th September 1981 Drains a large area of non-acid marshes Slide by E.G. Williams <i>Cyclotella meneghiniana</i> and <i>Amphiprora ornata</i> [Atlas Plate No.58 & 13]
1398	Ditch adjoining the above aite (1397) Slide by E.G. Williams
1399	Herbrande Walk, near Cooden, and Norman's Bay, Sussex Brackish ditch inland from beach Collected 29 th September 1981 by Henry Gleave <i>Melosira nummuloides</i> (Dillw.) Ag. Sample also in formalin, later transferred to 2% formalin. [Atlas Plate No.129]
1400	Freshwater land drain crossing North shore beach, Bridlington, Yorkshire Collected in May 1981 and cleaned by Colin Lamb
1401	Dredge from Sheep Mill Pool, Atherstone Slide by H.G. Barber Sample collected 15 th October 1981
1402	Ancient Bottle marked 'Loch Lomond' J. Richardson, sent by R.I. Firth Very few diatoms but with fungus and other detritus. Cleaned by KMnO4 method. Mainly <i>Stephanodiscus rotula</i> . [Atlas Plate No.263]
1403	5 Albany Road, Seaford, Sussex Sample of moss from garage drive near garden wall Collected by B. Hartley 30 th October 1981 <i>Navicula pusilla</i> etc. Contaminated slightly with 1405 Burton Road [Atlas Plate No.157]

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Entry No.	Particulars
1404	East Dean Shopping Centre Sample of moss from ground adjoining car park Collected by B. Hartley 30 October 1981
1405	Burton Pond, Petworth, Sussex Diatoms and algae floating on surface and arrested by netting at overflow weir. Collected by B. Hartley 1 st November 1981 on return journey from Seaford [Klaus-Dieter Kemp reference: 145R – B. Hartley 1405 – Butron Pond, West Sussex, England - >600]
1406	Lake or ditch in S.W. Kenya from G.T. Gibson per H.H. Gleave. November 1981 Sample of very nice <i>Epithemia</i> which requires further cleaning and sieving. From Sysamba or Koriandus
1407	Glacon, Antarctica, Bried Bay, Queen Maude Land Belgian 1965 Expedition Slide from Emile Bailleux November 1981
1408	Station 207/16 83m 'filet' Breid Bay, Queen Maudsland. Belgian 1965 Antarctic Expedition Slide by E. Bailleux November 1981
1409	8 th November 1981 Malham Tarn, Yorkshire Algae and submerged diatoms with feathers etc. on the lake margin pH about 8  <i>R.I. Firth index card</i>
1410	8 th November 1981 Malham Tarn Yellow/Brown film of diatoms on stones and on moss attached to stones and pebbles in the shallow margin of the lake. Near the Field Study Centre  <i>R.I. Firth index card</i>
1411	8 th November 1981 Moss and other small plants in the wet area from the spring emerging from the limestone near Malham Tarn
1412	<i>Melosira arenaria/teres</i> from the lake at Longleat Collected by K-D. Kemp on 9 th September 1981 [Klaus-Dieter Kemp reference: 088R – K-D. Kemp – Longleat lake, Longleat, Devon]

Entry No.	Particulars
1413	<p>Sample from J.R. Carter ex Dingley Fuge's widow. The tube was labelled in pencil "Bogangoe, Huntley, Aberdeen", but the writing was not that of Dingley Fuge, Meakin or John Long. The origin of the samples appear to be of F/W species from N. America.</p> <div style="border: 1px solid green; padding: 5px;"> <p><u>PINNULARIA LATEVITTATA</u> 351-4 <u>var. domingensis Cl.</u> Bogangoe, Huntly, Aberdeenshire (Believed wrongly labelled - should be USA)</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px;"> <p><u>PINNULARIA MAJOR</u> 351-4 <u>var. PULCHELLA BOYER</u> (P. major var. domingensis Cleve) Bogangoe, Huntly, Aberdeen (Believed wrongly labelled - should be USA)</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
1414	<p><i>Didymosphenia geminata</i> from H.G. Barber November 1981 [Atlas Plate No.76]</p>
1415	<p>Simbirsk, Russia 'Large' ex S. Chaffers Cleaned R.I. Firth Received November 1981</p>
1416	<p>As 1415 but smaller</p>
1417	<p>Singiliewsky, Russia Ex R.I. Firth November 1981</p>
1418	<p>Maria Madre Island, Arroyo Hondo, North end of island off west coast of Mexico Collected by G.D. Hanna and E.K. Jordan 1925 Cleaned R.I. Firth 1969 Ungraded</p> <div style="border: 1px solid green; padding: 5px;"> <p>1001. West Coast of Mexico At Maria Madre Island Poor Arroyo Hondo at north end of Island. Miocene. Collected by G.D. Hanna + E.K. Jordan 1925. Cleaned by R.I. Firth 1969.</p> </div> <p style="text-align: center;"><i>L. N. Bramley (Cleaned Diatoms) Book 2</i></p>
1419	<p>Kamischev, Russia 'Large' Ex R.I. Firth November 1981</p>
1420	<p>Kamischev, Russia 'Small' July 1966 Ex R.I. Firth November 1981</p>
1421	<p>Takapuna, New Zealand Ex R.I. Firth November 1981</p>

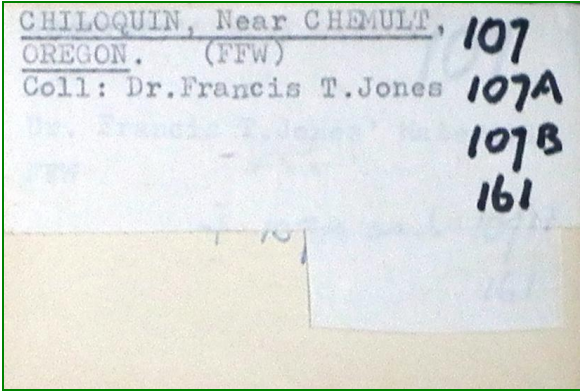
The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
1422	<i>Stephanodiscus nova-zeelandiae</i> Cleve Auckland, New Zealand Ex R.I. Firth November 1981
1423	Borth y Gest sands, near Prothmadog, North Wales Slide by H.G. Barber
1424	<i>Navicula viridula</i> var. <i>rostellata</i> Slide by H.G. Barber Llandecwyn Sands, Anglesey
1425	Dredge from Sheepy Mill pool, Atherstone Slide by H.G. Barber 2 nd February 1964
1426	River Ure, Middleham September 1955 <i>Achnanthes delicatula</i> Slide by J.R. Carter [Atlas Plate No.3]
1427	Malham Tarn, Yorkshire 8 th November 1981 Collected by Dr. Eliz. Haworth from Chara and cleaned H ₂ SO ₄ , Pot. Dichromate and Hydrogen peroxide
1428	Malham Tarn 8 th November 1981 Collected by Dr. Eliz Haworth from littoral stones and cleaned H ₂ SO ₄ , Pot. Dichromate and Hydrogen peroxide
1429	Malham Tarn area, on springwater wetland vegetation (limestone) on North East Side 8 th November 1981 J.R. Carter Slide No. 14087 <i>Navicula sponsa</i> Carter marked. Similar sample to my 1411
1430	Cherryfield, Maine, United States of America Collected by W.D. Fleming Slide 358/C 1946 ex H.G. Barber December 1981
1431	Rutland Water from marginal stones Slide ex H.G. Barber November 1981
1432	Brackish stream by road between Pevensey and Norman's Bay, Sussex Slide ex H.H. Gleave Collected 31 st August 1981 See also 1443
1433	Loch Merkland, Sutherland <i>Synedra delicatissima</i> W.Sm. Slide by J.R. Carter No. 14095
1434	Jalapa, Mexico F/W sample worked on by Dr. Jorge Furet at Cardiff University. See correspondence in 1981 when I checked and added to his species list. See also <i>Amphipleura lindheinei</i>
1435	21 st January 1982 National Grid Reference 182 399-457 Dyke alongside Tealham Moor, Somerset Acting bubbling diatoms partly under ice following several days of snow and frost [Klaus-Dieter Kemp reference: 140R – B. Hartley 1435 – Tealham Moor, Somerset]
1436	15 th November 1981 Marshy land below the outlet from Sutton Bingham reservoir, near Yeovil, Somerset
1437	Edgerton Park Lake (brackish at the inlet) Bexhill-on-Sea, Sussex 4 th November 1981 Sample from H.H. Gleave

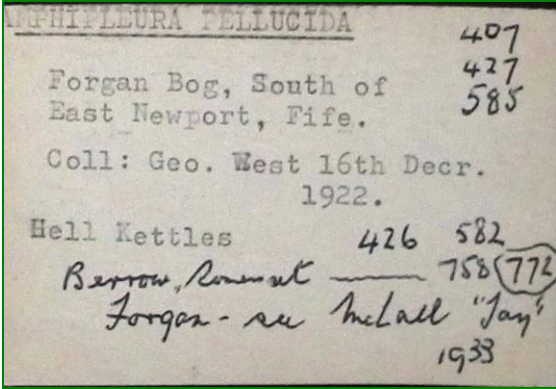
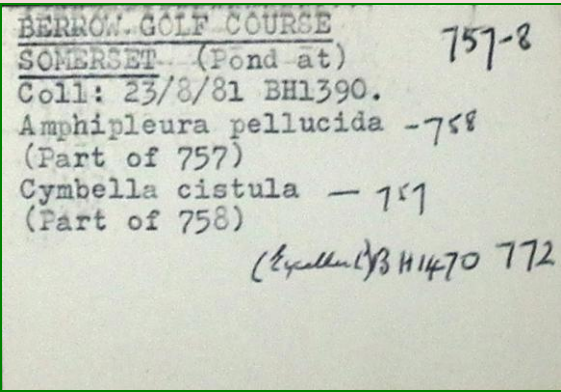
The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
1438	<p>Chiloquin, Chemult, Oregon R.I. Firth's 'heavy' fraction after re-cleaning by B. Hartley January 1982 See also sample 607 [Klaus-Dieter Kemp reference: 857B - R.I. Firth - Chiloquin Mountains, Chelmut Oregon] [Klaus-Dieter Kemp reference: 849R - R.I. Firth 2161 - Chiloquin, Chelmut Oregon U.S.A.] [Klaus-Dieter Kemp reference: 246B - R.I. Firth - Chiloquin, Chelmut Oregon] [Klaus-Dieter Kemp reference: 011G - R.I. Firth 110 - Chelmut, Oregon U.S.A. - Ex Francis T. Jones] [Klaus-Dieter Kemp reference: 852R - R.I. Firth 2107a - Chelmut, Oregon U.S.A.] [Klaus-Dieter Kemp reference: 976B - R.I. Firth 107 - Chemult, Oregon U.S.A.]</p>
1439	<p>Brent Knoll rhyne, near East Brent public house, Somerset Collected by K-D. Kemp 22/282 <i>St. phoenicentron</i>, <i>St. anceps</i>. [Atlas Plate No.260 & 256] [Klaus-Dieter Kemp reference: 094R – K-D. Kemp – Brent Knoll pub rhyne, Somerset, England – <i>Stauroneis phoenicentron</i>]</p>
1440	<p>Castle Carey, Somerset 18th March 1982 Floating chocolate-brown film on village pond in main street</p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.177]</p>
1441	<p>Coxley near Wells, Somerset 27th March 1982 Floating bubbling brown film on ditch and cart rut Part also in formalin</p>
1442	<p>As 1441 but including ribbons of <i>Fragilaria</i> and chains of <i>Melosira varians</i>. Part also in formalin [Atlas Plate No.129]</p>
1443	<p>Brackish stream by side of road between Norman's Bay and Pevensey, Sussex 20th February 1962 Collected by H.H. Gleave</p>
1444	<p>Burton Pond, Petworth, Sussex Uncleaned sample ex R.I. Firth April 1982 1444A sample cleaned twice and sieved over 600 mesh [Klaus-Dieter Kemp reference: 339R – B. Hartley 1444 – Burton Pond, W. Sussex, England - >600]</p>
1445	<p>Ditch at Hockenhull, Chester 28th February 1982 East of Chester Slide from E.G. Williams then aged over 84 National Grid Reference SJ 476-657 <i>Amphiprora ornata</i> Bailey</p>

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Entry No.	Particulars
1446	<p>Sample No. 1 from Chiloquin, Oregon, United States of America Ex F.T. Jones July 1980 'from as high as I could reach, but not the top stratum'</p>  <p style="text-align: center;"><i>R.I. Firth index card</i></p>
1447	As 1446 July 1980 but from above the hard dark layer of volcanic ash, adjacent. Ex Francis T. Jones
1448	As 1446 but from below – adjacent to the ash stratum (Dark + 1½" white) Ex F.T. Jones July 1980
1449	As 1446 but August 1976 Top of lowest stratum Ex Francis T. Jones
1450	As 1446. Sample No. 5 Dark hard stratum, mostly volcanic ash Ex Francis T. Jones
1451	1 st Hat Creek Bridge going West from Alturas to Redding, California, United States of America Ex Francis T. Jones June 1978 [Klaus-Dieter Kemp reference: 876B - 1st Hat Creek, California U.S.A. - Going West from Redding]
1452	From a road cut, 7 miles east of Canby, California, United States of America, West Alturas Collected by Francis T. Jones 1978
1453	<i>Diatoma vulgare</i> from the River Piddle at Priddle Trentide, Dorset 21 st April 1982 [Atlas Plate No.75]
1454	Springfield, Barbados '1882 upper' Cleaned by R.I. Firth 1956
1455	Springfield, Barbados Ex. F.W? Griffin 1876 Cleaned R.I. Firth 1956
1456	As 1455
1457	Road between Norman's Bay and Pevensey 18 th April 1982 Seaward ditch Received uncleaned from H.H. Gleave <i>Berkeleya rutilans</i> See also 1432 [Atlas Plate No.34] [Klaus-Dieter Kemp reference: 358R – B. Hartley 1457 – Normans Bay, Norfolk, Pevensey Road]
1458	As 1457 but upper landward side ditch <i>Melosira</i> Ex. H.H. Gleave <i>Melosira moniliformis</i> [Klaus-Dieter Kemp reference: 475R – B. Hartley 1458 – Normans Bay, Pettworth, Norfolk]
1459	Seaward side lower ditch as 1457 25 th April 1982 [Klaus-Dieter Kemp reference: 476R – B. Hartley 1459 – Normans Bay, Pettworth, Norfolk]
1459(2)	Number used twice! Roadside pond, Clapton, Dorset 23 rd April 1982
1460	As 1458 landward side ditch at Norman's Bay/Pevensey Road 25 th April 1982 [Klaus-Dieter Kemp reference: 366R – B. Hartley 1460 – Normans Bay, Norfolk]

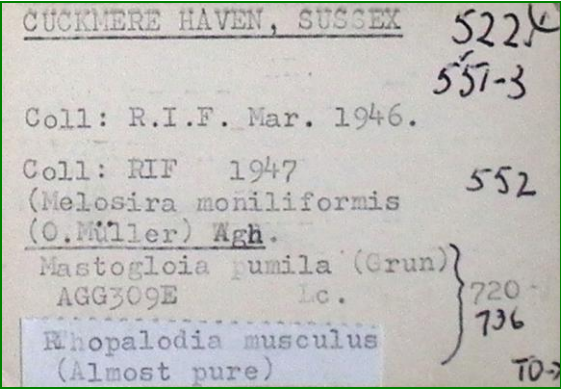
The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
1461	Burnham-on-Sea, Somerset 2 nd May 1982 Weeping through concrete sea wall <i>Surirella ovata</i>
1462	2 nd May 1982 Frondose algae on face of paddling pool was at Burnham-on-Sea foreshore. <i>Melosira moniliformis</i> [Atlas Plate No.128]
1463	2 nd May 1982 Brackish ditch subject of tidal flooding from Rover Parret at Burnham-on-Sea, Somerset
1464	2 nd May 1982 Burnham-on-Sea saltmarsh pool No. 1 adjoining the estuary of the River Parret
1465	2 nd May 1982 Burnham-on-Sea saltmarsh pool No. 2 <i>Navicula delognei</i> Also in 2% formalin [Atlas Plate No.138]
1466	2 nd May 1982 Berrow golf course, Somerset F/W pond with <i>Surirella</i> and multiple <i>Nitzschia</i>
1467	2 nd May 1982 Ditch near footbridge at Berrow golf Course <i>Amphipleura pellucida</i> – PURE!!!  <p>R.I. Firth index card</p> [Atlas Plate No.12]
1468	H.G. Barber slide 2882 Ditch near Narborough Road, Littlethorpe April 1982 In Naphrax
1469	5 th May 1982 Berrow golf course, small pond across fairway <i>Rhopalodia parallela</i> on a short curly pond weed growing from the bottom of the pond. [Atlas Plate No.252]
1470	 <p>R.I. Firth index card</p> [Atlas Plate No.12 & 66]

The Bernard Hartley Sample and Strewn Slide Collection Index

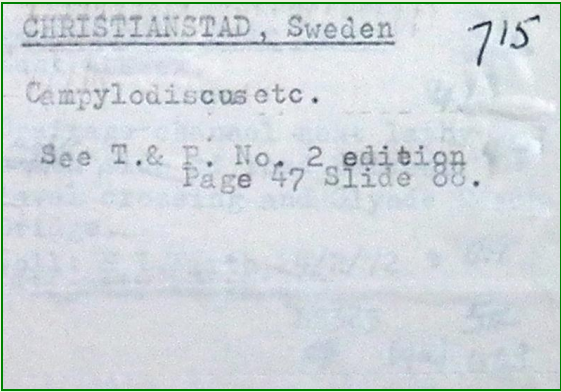
Entry No.	Particulars
1475A	<div> </div> <p><i>R.I. Firth index card</i></p> <p>[Atlas Plate No.149, 84 & 288] [Klaus-Dieter Kemp reference: 127R – B. Hartley 1475 – Aber Artro estuary, Llandanwg, Wales]</p>
1480	<div> </div> <p><i>R.I. Firth index card</i></p>
1481	<div> </div> <p><i>R.I. Firth index card</i></p>
1486	<div> </div> <p><i>R.I. Firth index card</i></p>
<p>1470-1486 Not recorded or page missing – probably the latter</p>	

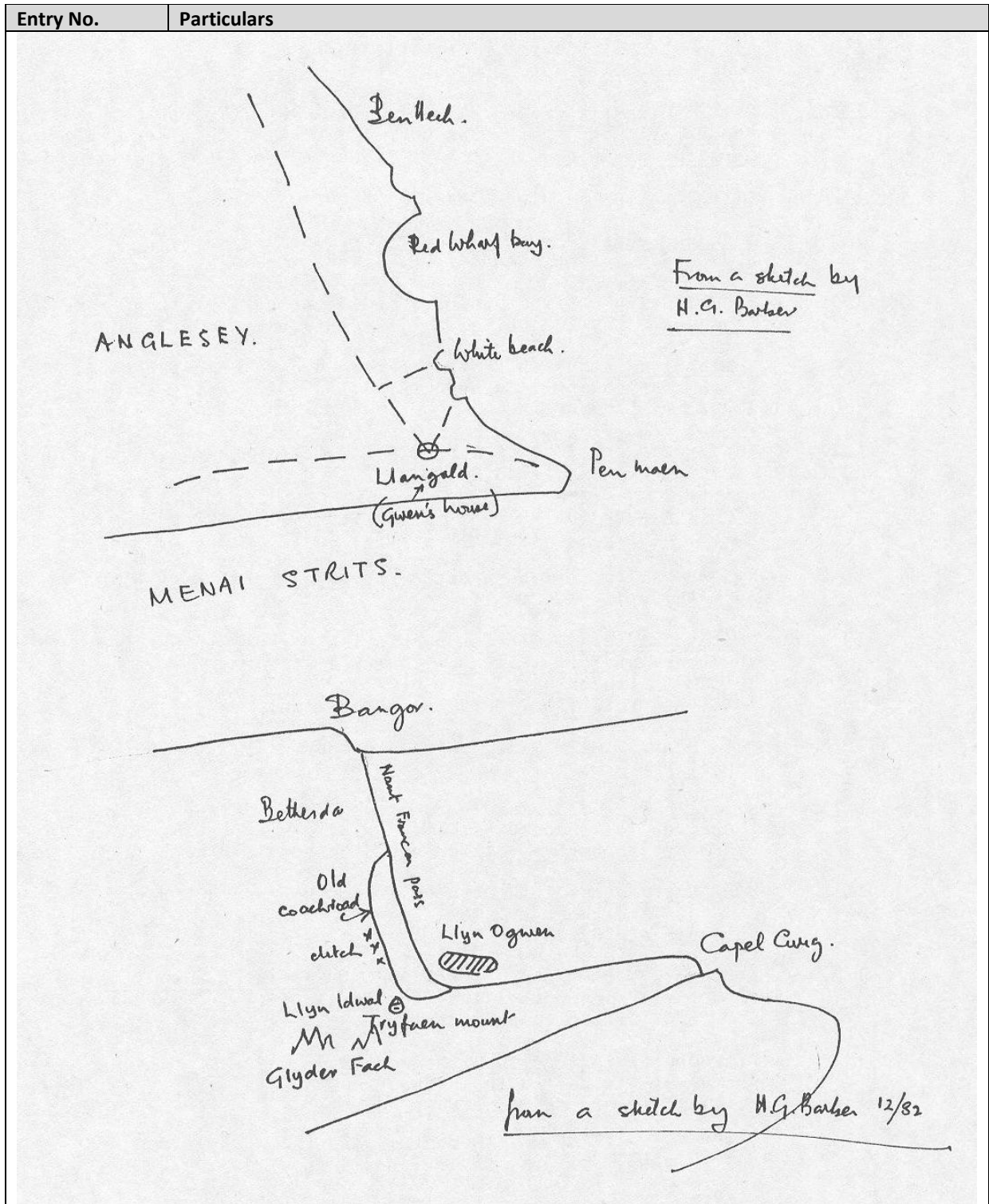
Entry No.	Particulars
1487	Loch Kinnord 'Bogangore'. Estuary mud 6 feet down Collected by J.R. Carter in 1982 Slide J.R. Carter No. 14139
1488	Loch Kinnord, from mud around Lily roots in summer 1982 Collected by J.R. Carter Also slide J.R. Carter No. 14140
1489	Loch Kinnord Uncleaned sample sent by J.R. Carter and cleaned by B. Hartley Presumably from mud around the lily roots
1490	<p>Floating scum in creek, surface sand and mud (black) from the edge of Poole Harbour, Dorset 11th July 1982 Near Arne. Very dirty sample but with <i>Scoliolepleura tumida</i> and a few <i>Lyrella lyra</i></p> <div> </div> <div> <p>R.I. Firth index card</p> </div> <div> </div> <div> <p>Lyrella lyra</p> </div> <p>[Atlas Plate No.254 & 123]</p>
1491	<p><i>Isthmia nervosa</i> Kütz. Golden Gate Beach, Seattle, United States of America Small sample ex R.I. Firth July 1982</p> <div> </div> <div> <p>R.I. Firth index card</p> </div> <p>[Klaus-Dieter Kemp reference: 079G - Golden Gardens Beach, Seattle U.S.A. - <i>Archnoidiscus ehrenbergii</i> pure]</p>

Entry No.	Particulars
1492	Llyn Maelog, Anglesey Slide 434 by H.G. Barber
1493	Cuckmere Haven, Sussex (R.I.Firth 551) Collected by R.I. Firth March 1946  <p style="text-align: center;">R.I. Firth index card</p> <p>[Atlas Plate No.128, 126 & 252]</p>
1494	<i>Amphiprora alata</i> Ehr. Cuckmere Haven (R.I. Firth 551) Collected by R.I. Firth May 1946 [Atlas Plate No.12]
1495	Duxbury Reef, Bolinas Bay, California, United States of America Just north of San Francisco <i>Aulac. oregonus, Bidd. edwardsii</i> etc., <i>Isthmia nervosa</i>
1496 (B)	As 1495
1497	As 1495
1498	As 1495
1499	St. James Church reef, Bermuda Ex. J. Canne Dry mount by K-D. Kemp [Klaus-Dieter Kemp reference: 675R – K-D. Kemp – Bermuda Reef] [Klaus-Dieter Kemp reference: 676R – K-D. Kemp – Bermuda Reef, Bermuda - Coarse] [Klaus-Dieter Kemp reference: 677R – K-D. Kemp – Bermuda Reef, Bermuda – Only HCl cleaned] [Klaus-Dieter Kemp reference: 183R - J.Canne - St.James Church Reef, Bermuda] [Klaus-Dieter Kemp reference: 427R - J.Canne - St.James Church Reef, Bermuda (Medium)] [Klaus-Dieter Kemp reference: 548R - J.Canne - St.James Church Reef, Bermuda] [Klaus-Dieter Kemp reference: 426R - J.Canne - St.James Church Reef, Bermuda (Fine)] [Klaus-Dieter Kemp reference: 428R - J.Canne - St.James Church Reef, Bermuda (Heavy)] [Klaus-Dieter Kemp reference: 208R - J.Canne - St.James Church Reef, Bermuda Echo 30] [Klaus-Dieter Kemp reference: 123R - J.Canne - St.James Church Reef, Bermuda Plankton] [Klaus-Dieter Kemp reference: 128R - K.D. Kemp - St.James Church Reef, Bermuda] [Klaus-Dieter Kemp reference: 490R - K.D. Kemp - St.James Church Reef, Bermuda]
1500	Slide by K-D. Kemp Collected 17 th July 1982 Poerto Pollensa, Mallorca On <i>Zostera</i> [Klaus-Dieter Kemp reference: 144R - K.D. Kemp - Poerto Pollensa, Mallorca - On Eel grass] [Klaus-Dieter Kemp reference: 341R - K.D. Kemp - Poerto Pollensa, Mallorca - Coarse] [Klaus-Dieter Kemp reference: 350R - K.D. Kemp - Poerto Pollensa, Mallorca - Fine] [Klaus-Dieter Kemp reference: 364R - K.D. Kemp - Poerto Pollensa, Mallorca - M.Schmidtii] [Klaus-Dieter Kemp reference: 383R - K.D. Kemp - Poerto Pollensa, Mallorca - Fine] [Klaus-Dieter Kemp reference: 510R - K.D. Kemp - Poerto Pollensa, Mallorca - Coarse] [Klaus-Dieter Kemp reference: 533R - K.D. Kemp - Poerto Pollensa, Mallorca - Fine] [Klaus-Dieter Kemp reference: 541R - K.D. Kemp - Poerto Pollensa, Mallorca] [Klaus-Dieter Kemp reference: 001R - K.D. Kemp - Poerto Pollensa, Mallorca - <i>Melosira varians</i>] [Klaus-Dieter Kemp reference: 271R - K.D. Kemp - Poerto Pollensa, Mallorca - On <i>Zoostera</i>] [Klaus-Dieter Kemp reference: 384R - K.D. Kemp - Poerto Pollensa, Mallorca - Coarse] [Klaus-Dieter Kemp reference: 684R - K.D. Kemp - Poerto Pollensa, Mallorca - On <i>Zoostera</i>] [Klaus-Dieter Kemp reference: 367R - K.D. Kemp - Poerto Pollensa, Mallorca Harbour wall - Coarse] [Klaus-Dieter Kemp reference: 601R - K.D. Kemp - Poerto Pollensa, Mallorca To Cala San Vicente - Mountain walk]

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Entry No.	Particulars
1501	Slide by K-D. Kemp Collected 17 th July 1982 Cala san Vicente, Mallorca On algae at Nieuw Beach [Klaus-Dieter Kemp reference: 338R - K.D. Kemp - Cala San Vicente, Mallorca - F\W Stream] [Klaus-Dieter Kemp reference: 572R - K.D. Kemp - Cala San Vicente, Mallorca] [Klaus-Dieter Kemp reference: 132R - K.D. Kemp - Cala San Vicente, Mallorca Nieuw Beach] [Klaus-Dieter Kemp reference: 573R - K.D. Kemp - Cala San Vicente, Mallorca Nieuw Beach] [Klaus-Dieter Kemp reference: 504R - K.D. Kemp - Cala San Vicente, Mallorca Water well]
1502	Slide by Dr. H. Stolterforth of surface dredging in the River Dee estuary. <i>Bacteriastrum</i> His slide per E.G. Williams
1503	Slide per E.G. Williams F/W diatomaceae from Trondjem, Norway
1504	Slide by W.A. Firth Per E.G. Williams Dick pond, Waterford, Maine, United States of America
1505	Mat of floating green algae in the lower lake at Cheddar village in Cheddar Gorge, Somerset 18 th August 1982 <i>Meridion circulare</i> Part also in Vu. Ni. And 2% formalin [Atlas Plate No.127]
1506	As 1505 but in the upper lake in Cheddar village
1507	Boulonge Quai, Gambetta Way, France Collected by H.H. Gleave on 4 th August 1982 Slide by him
1508	Sandy surface at the high water mark in the estuary of Aber Artro, Llandanwg, Gwynedd, North Wales 9 th September 1982
1509	Epiphytic diatoms on bootlace seaweed cast upon the sandy beach at Llandanwg, Gwynedd, N. Wales 10 th September 1982 1509A in 2% formalin
1510	Sandy beach surface on the estuary at Ynys near Harlech, Gwynedd, North Wales 11 th September 1982
1511	Floating scum on the inner estuary near the car park at Porthmadog, North Wales 11 th September 1982
1512	Mud and silty surface from the beach at Borth y Gest, North Wales on 11 th September 1982 [Klaus-Dieter Kemp reference: 143R - B. Hartley 1512 - Borth-y-gest, Wales - >600]
1513	Benthic diatoms on the stones in the stream discharging onto the beach at Borth y Gest, North Wales 11 th September 1982 1513a – filamentous 1513b – brown film Both in 2% formalin
1514	18 th September 1982 Mixed seaweed gathered from the rocky coast opposite the Borstal on Portland Bill, Dorset
1515	River Thames adjoining the Customs House. Several sites on the river walls and piers 2.00-5.30pm on 28 th September 1982 <i>Hydrosera triquetra</i> Wallich and other collected by H.H. Gleave [Atlas Plate No.120]
1516	West Bay, Dorset 6 th October 1982 Thin yellow brown film on N. wall of harbour Collected on finger tip <i>Navicula</i> and <i>Gyrosigma</i>
1517	West Bay, Dorset 6 th October 1982 Chocolate brown film on wooden piles and steel sheeting in the harbour exposed at low tide <i>Nitzschia</i> and <i>Gyrosigma</i>

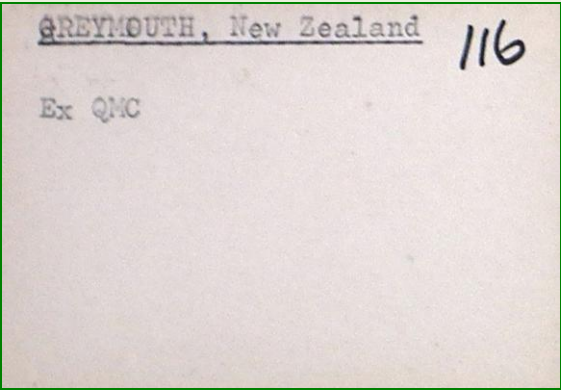
Entry No.	Particulars
1518	As 1517 but scraping from the bottom of the boat 'Avocet' which was beached in the harbour mud on 6 th October 1982 <i>M. moniliformis</i> and <i>Ach. Brevipes</i> [Atlas Plate No.128 & 1]
Slides 1519-1522 were received from E.G. Williams 'Out of the Siddall residues'.	
1519	Slide by W.A. Firth of 'Recent freshwater specoes' Rover Lagan, Belfast, Northern Ireland 1884
1520	Slide of 'Algae from Ajaccio' 1873
1521	Fossil diatoms from Christianstad, Sweden  <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 886R - R.I. Firth 714 - Christianstad, Sweden - <i>Campylodiscus</i>, <i>Anamoneis</i>, Very like Soos] [Klaus-Dieter Kemp reference: 140B - Chenev - Christianstadt, Sweden]</p>
1522	Freshwater diatoms from Cornwallis, Nova Scotia
1523	2 slides by H.G. Barber Cleaning No. 801 Sutton Park Lake, Birmingham Lake dredge <i>?Amphiprora ornata</i> [Atlas Plate No.13]
1524	2 slides by H.G. Barber From sands at Borth y Gest, North Wales
1525	Slide by H.G. Barber Estuarine mud at Caernarvon Quay, North Wales
1526	2 slides by H.G. Barber From the Parsonage pond at Nettlecombe Court, Williton, Somerset Collected 31 st October 1982 <i>Navicula joubaudii</i> Germain [Atlas Plate No.147]
1527	One drop of <i>Centronella reichelti</i> Voigt collected from Grabenee, Austria by Dr. Anne-Marie Schmid of Salzburg in November 1982
1528	<i>Stauroneis anceps</i> Ehr. & <i>P. commutata</i> Grun from a puddle in Bexhill-on-Sea, Sussex. Strewn slide by H.H. Gleave [Atlas Plate No.256]
1529	White Beach Cliffs, Llangold, Anglesey in August 1951 Slide by H.G. Barber in November 1982 "An old situation for <i>Rhopalodia</i> , <i>Epithemia</i> , <i>Cymbella</i> etc." Presumably an inland pool or lake



Entry No.	Particulars
1535	<p><i>Aulacodiscus oregonus</i> from Seattle marine beach, United States of America The last sample received by me from my friend R.I. Firth Esq., before his death on 11th November 1982</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p>SEATTLE MARINE BEACH, 778 OREGON, USA. Hyalodiscus, 778 H. 778 L.</p> </div> <p style="text-align: center; margin-top: 5px;"><i>R.I. Firth index card</i></p>
1536	<p>Slide by H.G. Barber December 1982 Squeeze from 'milestone buttress' at base of Tryfaen <i>Eunotia rhomboides</i> Hust. Sadly too this was the last slide to be received from him before he died in December 1982 [Atlas Plate No.99]</p>
1537	<p>Loch of Havay, Orkney 1st August 1973 F/W sample No. 40/2 from B.M. North end between Kirkness and Vetquoy Coating from stones in shallow sheet of water Ex T.B.B. Paddock and P. Sims <i>Rhopalodia, Epithemia, Mastogloia</i> and <i>C. helvetica</i> [Atlas Plate No.67]</p>
1538	<p>Loch of Havay, as above but Sample 41/2</p>
1539	<p>Loch of Havay, as above but Sample 43/2 Mud floor of a sheet of water ¼" deep <i>Cymbella, Mastogloia</i> and <i>Amphora</i></p>
<p>Slides 1540 to 1545 supplied by the material from the B.M.</p>	
1540	<p>Sand of Evie, Orkney Surface of sand exposed at low tide Collected by Paddock and Sims 1st August 1973 Sample 56(m) <i>Nav. abrupta, N. rostellata, T. lepidoptera</i> [Atlas Plate No.130 & 161]</p>
1541	<p>Sandi Bay, Sandi sand, Orkney Sample No. 63 1st August 1973 Surface of sand and mud exposed at low tide <i>Toxinoidea</i>, good <i>Amphoras</i>, <i>P. cruciformis</i>, <i>L. lyra</i> etc. Paddock and Sims [Atlas Plate No.209 & 123]</p>
1542	<p>N. Dales, Sullom Voe, Shetlands 13th August 1973 Collected by I. Tittley as B.M. sample No. 76 'at 45 feet' <i>Triceratium antedeluviana, Pleurosigmas, Grammatophora</i> etc. [Atlas Plate No.289]</p>
1543	<p>Loch of Skail, Orkney B.M. sample No. 66 Paddock and Sims 2nd August 1973 An odd lot of <i>C. helvetica</i> including a turgid one. [Atlas Plate No.67]</p>

Entry No.	Particulars
1544	The Cames, Sullom Voe, Shetlands 13 th August 1973 B.M. sample No. 77 collected by I. Tittley Mainly <i>Diploneis</i> and <i>Campylodiscus</i>
1545	As 1544 but sample No. 78 by I. Tittley on 13 th August 1973 Super <i>T. aspera</i> , <i>Gr. serpentina</i> , large <i>Pleurosigma</i> [Atlas Plate No.287 & 111]
1546	F/W. spring in a semi-moorland field in Snowdonia Rich brown filaments growing in profusion Collected earlier in 1982 by Stanley Midwinter
1547	Llyn gwrl 27 th July 1884 Slide by H. Stolterforth of Chester <i>Didymosphenia geminata</i> [Atlas Plate No.76]
1548	<p>Yarra Yarra, Australia Fossil deposit v. good <i>Actinocyclus</i> Slide by W.A. Firth</p> <div> <p>A photograph of a slide label with the text: "YARRA YARRA Australia" at the top left, "152" at the top right, and "Actinocyclus barklyi ?" in the center.</p> </div> <p style="text-align: center;">R.I. Firth index card</p> <div> <p>A photograph of a slide label with the text: "YARRA RIVER, Australia" at the top left, "130" at the top right, and "Actinocyclus Barklyi ?" in the center.</p> </div> <p style="text-align: center;">R.I. Firth index card</p> <p>[Klaus-Dieter Kemp reference: 845R - R.I. Firth - Yarra River, Australia Ex QMC - <i>Actinocyclus ralfsii</i>] [Klaus-Dieter Kemp reference: 375R - Yarra Yarra, [300] - <i>Actinocyclus ralfsii</i>]</p>
1549	F/W diatoms from Galliford, Lancaster Canal September 1982 Slide by E.G. Williams
1550	River Till at Etol, Berwickshire 1 st August 1982 Slide 14146 by J.R. Carter in Pleurax

Entry No.	Particulars
1551	<p>Howroyd Clough, Todmorden, Yorks Slide by R.I. Firth in 1970 of material collected in 1938 from the above site, but labelled 'Stream at Gorpley reservoir' See joint paper in Q.M.J.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;"><u>GORPLEY RESERVOIR</u> <u>TODMORDEN</u></p> <p>Howroyd Clough samples 431 (some in mahogany cabinet) Spring near caretaker's bungalow 415-416. 449 <i>and in cabinet</i></p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 014R - J.R. Carter 117 - Gorpley, Bungalow springs]</p>
1552	<i>Diatoma grande</i> on a slide by George Norman circa 1875
1553	<p><i>Hydrosera triquetra</i> on a slide by George Norman circa 1875 [Atlas Plate No.120]</p>
1554	<p>F/W sample of <i>Ach. saxonica</i> from Iona Ex P.A. Sims via R.I. Firth</p> <div style="border: 1px solid green; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;"><u>ACHANTHES SAXONICA</u></p> <p style="text-align: right; font-size: 2em;">6</p> <p style="text-align: center;">IONA (No.91 -BM) Ex Miss P.A.Sims</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
1555	<p>Mixed test diatoms as R.I. Firth sample 586 See also slide 1480</p>
1556	<p>Slide 14054 by J.R. Carter Picts Well, Binghead, Morayshire Collected August 1981 <i>Denticula rainierensis</i> Sov. 1963</p>
1557	<p>Parkgate, Dee Estuary J.A. Wright's sample No.7 on 12th March 1983</p>
1558	<p>As 1557 but sample No.8 12th March 1983</p>
1559	<p>Uncleaned sample of diatoms, mainly <i>Pinnularias</i> in 4% formalin Collected J.A.E 18th July 1982 from Nant-y-ffrith Cleaned by B. Hartley May 1983 Part in 2% formalin</p>
<p>1560 to 1568 in a batch from Mrs. Margaret Hanna in 1976 and originally numbered 2001-2009</p>	
1560	<p>Stewart Lake, Powell R., B.C. (formerly 2001) [Klaus-Dieter Kemp reference: 819R - R.I. Firth 21 - Stewart Lake, British Columbia] [Klaus-Dieter Kemp reference: 908R - R.I. Firth 21 - Stewart Lake, Powell River British Columbia]</p>

Entry No.	Particulars
1561	Greymouth, New Zealand (formerly 2002) <div style="text-align: center; border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;">  </div> <p style="text-align: center; margin-top: 5px;"><i>R.I. Firth index card</i></p>
1562	Trinidad, Barbados (formerly 2003)
1563	Unknown locality (formerly 2004) Very good for <i>S. fastuosa</i> , <i>Anomoeoneis</i> , <i>Campylodiscus</i> Possibly R.I. Firth sample No. 2487 Beddingham, Lewes, Sussex [Atlas Plate No.270]
1564	Lake deposit, Isle of Skye (formerly 2005)
1565	<i>Xanthiopyxis</i> etc. from Trinidad (formerly 2006)
1566	1 mile S.E. of Cormack's, Oamaru, New Zealand (formerly 2007)
1567	Kenya (formerly 2008)
1568	Mijilones "<300 A" (formerly 2009)
1569	Brackish pool with <i>Oscillatoria</i> at Mochras, Llanbedr, North Wales Floating mat collected 11 th March 1983
1570	Algal fronds on seaweed in stream draining Mochras marshes into the Aber Artro, near Llanbedr, North Wales Collected 11 th March 1983
1571	Thrown away later. Mostly dirt and a few <i>Coscinodiscus radiatus</i> [Atlas Page No.130]
1572	On seaweed at low tide, Old Town Beach, St. Mary's, Isles of Scilly 9 th April 1983
1573	Miscellaneous diatoms trapped on small seaweed on harbour wall, St. Mary's, Isles of Scilly 10 th April 1983
1574	On seaweed at low tide, Bryher, Isles of Scilly 12 th April 1983 Including bootlace weed [Klaus-Dieter Kemp reference: 376R - B. Hartley 1574 - Bryher, Scilly Isles England]
1575	On seaweed at low tide St. Martin, Isles of Scilly 14 th April 1983
1576	Rafts of floating <i>Melosira</i> on the stream through the nature trail, inland from Old Town, Dt. Mary's, Isles of Scilly April 1983
1577	Lake Rotoaira, near Taupo, New Zealand <i>Cyclotella stelligera</i> B.M. Nat. Hist. sample Collection Berggrer det. Hust.

The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
1578	Slide 14177 by J.R. Carter Wet Rocks, Hassendean, Roxburgh Collected April 1983 from a lime deposit below tufa (fossilised moss) Lime is rare in the Roxburgh area.
1579	F/W diatoms from Bridlington Collected by Colin G. Lamb Slide in 'aluminium shadowed in vacuum' by Horace E. Dall of Luton
1580	Mixed test diatoms shadowed in vacuum by Horace E. Dall of Luton. See also slide 1555
1581	Sendai, Japan F/M sample Ex. B.M. via R.I. Firth
1582	Sendai, Japan F/M sample Ex. J.A. Long via R.I. Firth
1583	Sendai, Japan F/M sample Ex. J.R. Carter, via R.I. Firth [Klaus-Dieter Kemp reference: 026B - Fuge - Sendai, Japan] [Klaus-Dieter Kemp reference: 464B - J.A.Long S2 - Sendai, Japan - F.M] [Klaus-Dieter Kemp reference: 608B - J.A.Long S4 - Sendai, Japan - F.M] [Klaus-Dieter Kemp reference: 812B - S.Chaffer - Sendai, Japan - <i>Coscinodiscus asteromphalus</i> , <i>Arachnoidiscus</i>]
1584	On stone groynes, Langney Point, Eastbourne Collected by H.H. Gleave 22 nd April 1983 Later thrown away -- useless
1585	Waterfall below the Plas Café, Harlech, N. Wales 12 th May 1983
1586	Slide 12640 by J.R. Carter Cheviot summit June 1963 ? marked specimen of <i>P. commutata</i> (Grun.) Dippel
1587	Slide 14179 by J.R. Carter Skelf Hill, Perc stream, Roxburgh May 1983 Marked specimen of <i>Hantzschia</i> like <i>Nitzschia</i> with both raphes on same side!!!
1588	Mountainside stream at 2,500 feet O.D. Arenig Fawr, Snowdonia, N. Wales 30 th April 1983
1589	<i>Meridion circulare</i> Stream through Cheddar village, Mendip Hills, Somerset 13 th June 1983 Collected by K-D. Kemp Part by B. Hartley in 2% formalin [Atlas Plate No.127]
1590	Phytoplankton haul by K-D. Kemp from Windermere, ex Flatters and Garnett <i>Asterionella formosa</i> See also sample F.103 [Atlas Plate No.28] [Klaus-Dieter Kemp reference: 917B - Windermere, Phytoplankton]
1591	Denholme Dene, Roxburgh Wet rocks September 1952 <i>Denticula elegans</i> Kütz. [Atlas Plate No.74]
1592	Eddrachylis Bay, Scotland Slide No. 14188 by J.R. Carter June 1983 In a slime fungus <i>Mastogloia smithii</i> var. <i>lacustris</i> , <i>M. elliptica</i> var. <i>dansei</i> [Atlas Plate No.127]

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Entry No.	Particulars
1593	Drainage channel, Parkgate, Dee estuary Collected by J.A.Wright 19 th June 1983 Cleaned B. Hartley
1594	Poole Harbour near the docks, Dorset Mixed seaweed from the foreshore 28 th June 1983
1595	Brown film on muddy surface of harbour piles, West Bay, Dorset 12 th July 1983
1596	Slide No. 14193 by J.R. Carter Arkle-Lochan na Faoileige, Scotland June 1983
1597	Slide No. 14194 by J.R. Carter <i>Cymbella affinis</i> Kütz. Loch Bui, Polin Dronan stream, Scotland June 1983 [Atlas Plate No.63]
1598	Loch Bonxie, Island of Foula, Shetland Islands Ex J.R. Carter July 1983
1599	Sanvatten, Island of Foula, Shetland Ex J.R. Carter July 1983 Void of diatoms
1600	Joe's River, Barbados B. Hartley sample cleaned by K-D. Kemp July 1983 See also 1624
1601	Avonmouth Docks, Avon Collected by K-D. Kemp 5 th July 1983 <i>Nav. poretzkajae</i> (Syn. <i>Nav. complanatula</i> Hust.)
1602	Salt Springs, near Sandbach, Cheshire Slide by J.A. Wright
1603	Red Lake flash, near Sandbach, Cheshire Slide by J.A. Wright
1604	Watch lake flash, near Sandbach, Cheshire Slide by J.A. Wright
1605	Unlabelled sample ex. the late R.I. Firth Possibly Alaska <i>C. comta</i> , <i>Steph. niagaras</i> , <i>Rh. gibba</i> , <i>Epithemia turgida</i> etc.
1606	Unlabelled sample ex. the late R.I. Firth containing marine diatoms – <i>Podocystis adriatica</i> , <i>Actinocyclus</i> , <i>Pleurosigma</i> etc. This could be from Corfu???
1607	Unlabelled sample from the late R.I. Firth It looks similar to B. Hartley 404 – Whittington Pond, Shropshire
1608	Recent marine Locality unknown Possibly Mediterranean Ex the late R.I. Firth Good range of <i>Gyrosigma</i> , <i>Pleurosigma</i> etc.
1609	Harbour wall, Poerta Pollensa, Mallorca, Spain Collected by K-D. Kemp August 1982
1610	St. Laurente la Vernede, France Fossil marine earth from the late R.I. Firth Cleaned by K-D. Kemp and graded by B. Hartley July-August 1983 A) Heavy B) Medium C) Light [Klaus-Dieter Kemp reference: 174R - B. Hartley - St.Laurent de Vernede, France] [Klaus-Dieter Kemp reference: 175R - B. Hartley - St.Laurent de Vernede, France] [Klaus-Dieter Kemp reference: 580B - J.A.Long L46 - St.Laurent De Vernede, France F.M.] [Klaus-Dieter Kemp reference: 628B - J.A.Long L46 - St.Laurent, France F.M.]

Entry No.	Particulars
1611 (B)	<p><i>Arachnoidiscus japonicus</i> Shad. (<i>A. ornatus</i> Ehr.) California, United States of America Cleaned R.I. Firth March 1950</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>ARACHNOIDISCUS ORNATUS 779-780 JAPONICUS SHADBOLT. 100+ ↑</p> </div> <p style="text-align: center; margin: 5px 0;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;"> <p>ARACHNOIDISCUS JAPONICUS 779 SHADBOLT ORNATUS EHR. 100+ 780</p> </div> <p style="text-align: center; margin: 5px 0;"><i>R.I. Firth index card</i></p>
1612 (B)	<p><i>Arachnoidiscus ehrenbergii</i> Puget Sound, United States of America Ex. J.F.B. via R.I. Firth [Klaus-Dieter Kemp reference: 210R - J.F.B - Puget Sound - Arachnoidiscus ehrenbergii]</p>
1613	<p>Marine Lake, West Kirby, Dee Estuary Collected by A.J. Wright 31st July 1983 in formalin for fluid mounts Slide by him and part sample DE/22/83</p>
1614	<p>Red Rock nature reserve, near West Kirby A slack which is only flooded once a year Slide DE/20383 by J.A. Wright</p>
1615	<p>Calvert Brook, Derbyshire (J.J. Grover) ex R.I. Firth <i>M. circulare</i> and <i>S. ulna</i> [Atlas Plate No.127 & 283]</p>
1616	<p>Recent marine from Harwich, England Ex B.M. via R.I. Firth <i>G. balticum</i>, <i>Pl. elongatum</i>, <i>Nav. digito-radiata</i> etc. [Atlas Plate No.112, 246 & 138]</p>
1617	<p>Broadsands, Torbay, Devon J.A. Long No. B77</p>
1618	<p>Sidmouth, Devon Dirty marine sample Probably from seaweed ex the late R.I. Firth</p>
1619	<p>Port Glenome, Ireland F/W ex. B.M. via the late R.I. Firth</p>
1620	<p>Loch Kinnord, Aberdeenshire, Scotland <i>Pinnularia major</i> 'good' Collector unknown [Atlas Plate No.220]</p>

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Entry No.	Particulars
1621	<i>Gyrosigma balticum</i> Hunstanton, Norfolk Collector unknown [Atlas Plate No.112]
1622	N. American sample Source unknown Ex the late R.I. Firth <i>Pinnularias</i>
1623	<i>Pinnularia alpina</i> W.Sm Norway Ex R.I. Firth [Klaus-Dieter Kemp reference: 345R - B. Hartley 1623 - Norway - F.F\W <i>Pinnularia alpina</i>] [Klaus-Dieter Kemp reference: 003Y - B. Hartley - Norway - <i>Pinnularia alpina</i>]
1624	Radiolaria – Joe’s River, Barbados 2 nd cleaning by K-D. Kemp See also sample 1600
1625	Sphagum Bog, Ham Little, Fouls, Shetlands August 1983 Slide 14209 by J.R. Carter <i>Pinnularia sudetica</i> (Hilse) M. Perag. and <i>P. comutata</i> (Grun.) Dippel. [Atlas Plate No.234]
1626	Kamischev, Russia Part of R.I. Firth sample of earth cleaned by Dick Gosden in 1983
1627	J.R. Carter slide No. 14008C Hessenden, Roxburgh – Railway bridge Collected 22 nd January 1981 Mounted in Dirax having an R.I. circa 1.68
1628	Alderney, Channel Islands 26 th September 1983 Seaweed in shallow water at low tide in Braye Bay [Klaus-Dieter Kemp reference: 193R - B. Hartley 1628 - Alderney, on seaweed]
1629	As 1628 26 th September 1983 But silvery brown sand from the beach Few apparent diatoms
1630	Alderney, Channel Islands 27 th September 1983 Floating diatoms in drinking trough near coastal path above Telegraph Bay on the south side of the island
1631	Alderney, Channel Islands 30 th September 1983 Film of diatoms on the vertical face of a fountain drinking trough in memory of a farmer, at the road junction in Le Grand Val.
1632	Sands near outfall at Cooden Beach, Norman’s Bay, Sussex Collected 21 st September 1983 Small sample from H.H. Gleave
1633	Marine diatoms from tidal pools at Formby Point 28 th May 1983 Collected by A.L. Galliford Sent by E.G. Williams Phytoplankton made into fluid mounts and incinerated mounts
1634	<i>Eunotia pectinalis</i> preserved freshly in ribbons, initially in Iodine (weak) but later in 2% formalin Collected by Mike Smith from springs and pools on moor near Haworth, Yorkshire on 3 rd October 1983 Fluid Mounts and incinerated mounts made [Atlas Plate No.97]

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Entry No.	Particulars
1635	Slide by J.R. Carter No. 12363 Allan Beck, Eskdale May 1959 <i>Gomphonema tergestinum</i> [Atlas Plate No.109]
1636	Slide No. 13937 by J.R. Carter in Dirax Glen Coe, Scotland June 1976 Stream containing <i>Gomphonema bohemicum</i>
1637	Windblown froth at the edge of a coastal pubble at the rear of the beach near Cooden, Norman's Bay, Sussex Collected by H.H. Gleave 6 th October 1983 Slide in Dirax
1638	Slide No. 14217 by J.R. Carter Part of Choit, L. Laxford June 1983 Brackish
1639	Slide No. 14219 by J.R. Carter In Dirax II Strath Glass waterfall June 1983
1640	J.R. Carter slide No. 14133 in Dirax No. 183 <i>Amphipleura pellucida</i> Un-named source [Atlas Plate No.12]
1641	Silent Pool, Surrey <i>Fragilaria pinnata-lapponica</i> in Dirax 3
1642	Swan Pool, Falmouth, Cornwall Collected by K-D. Kemp 19 th July 1979 <i>Amphiprora alata</i> with spines [Atlas Plate No.12] [Klaus-Dieter Kemp reference: 083R - K.D. Kemp - Swan Pool, Falmouth Cornwall - <i>Amphiprora alata</i>]
1643	Harrington Sound, Bermuda R/M ex K-D. Kemp [Klaus-Dieter Kemp reference: 200R - O.Rogers - Harrington Sound, Bermuda - Coarse] [Klaus-Dieter Kemp reference: 201R - O.Rogers - Harrington Sound, Bermuda - Fine] [Klaus-Dieter Kemp reference: 400R - O.Rogers - Harrington Sound, Bermuda - Coarse] [Klaus-Dieter Kemp reference: 389R - O.Rogers - Harrington Sound, Bermuda Sediment]
1644	Grindon Burn, Roxburgh Slide by J.R. Carter No. 14225 in Dirax
1645	Whithaugh Loch August 1983 <i>Cymbella caespitosa</i> Slide No. 14227 by J.R. Carter in Dirax
1646	Long Mynd, Shropshire – Rockface Slide by J.A. Wright No. 0007/Rf Collected 26 th November 1983
1647	As 1646 but Slide No. 0008/B - Bog 26 th November 1983
1648	As 1646 but slide No. 0009/M – Marsh
1649	As 1646 but slide No. 0010/M – Marsh
1650	Slide by J.R. Carter of F/W diatoms including <i>Nitzschia acuminata</i> treated by aluminum in vacuum by Horace E. Dall January 1984 [Atlas Plate No.180]
1651	<i>Coscinodiscus</i> for selected mounts

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Entry No.	Particulars
1652	<i>Stephanodiscus novae-zeelandiae</i> Cleve Auckland Ex. R.I. Firth, ex 'W'
1653	<i>Didymosphenia geminata</i> Beck running into Hawes Water at the South End of the reservoir. Collected by R.I. Firth October 1951 [Atlas Plate No.76]
1654	Lake Elementerta, Rift Valley, Kenya Upper and lower Pleistocene white fossil material Ex. M.A.C.G. Best via the Quekett Microscopical Club, per Tom Worthington [Klaus-Dieter Kemp reference: 151R - Elge, Kenya - White Diatomite]
1655	<i>Nitzschia hungarica</i> From rhyne at East Brent, Somerset. Surface scum Collected by K-D. Kemp 11 th March 1984 [Atlas Plate No.184]
1656	Ditch at Bellevue Lane J.A. Wright sample 0065/D collected 29 th February 1984 <i>?Eunotia didyma</i> var. <i>curta</i>
1657	Small reservoir at Leadbrook near Flint Collected 3 rd March 1984 by J.A. Wright
1658	Floating brown material on the incoming tide as it passed over the mud banks of the river at Axmouth, Devon on 29 th March 1984
1659	<i>Cymbella inaequalis</i> from Stourhead, Wiltshire Collected by K-D. Kemp in September 1983 <i>Stauroneis phoenicentron</i> in floating scum [Atlas Plate No.69 & 259]
1660 to 1667 received from K-D. Kemp on 8 th April 1984	
1660	False Bay, South Africa <i>B. pulchella</i>
1661	Carsaig, Mull June 1973 [Klaus-Dieter Kemp reference: 114R - K.D. Kemp - Carsaig, Mull Scotland - R.M]
1662	Beer, Devon Recent marine collected by K-D. Kemp on 18 th August 1980 <i>Rhabdonema arcuatum</i> , <i>Grammatophora</i> [Atlas Plate No.249]
1663	Hong Kong Harbour Ex M. Chiouvia K-D. Kemp
1664	Ditch near Berrow Church, Somerset 1 st April 1984 <i>Navicula pseudoexigua</i> [Klaus-Dieter Kemp reference: 227R - K.D. Kemp - Berrow road ditch, Somerset England] [Klaus-Dieter Kemp reference: 228R - K.D. Kemp - Berrow road ditch, Somerset England - Fine]
1665	Southampton Princess Hotel, Bermuda In 1981 Marine sediment ex K-D. Kemp [Klaus-Dieter Kemp reference: 687R - O.Rogers - Southampton Princess, Bermuda - 2nd sample] [Klaus-Dieter Kemp reference: 688R - O.Rogers - Southampton Princess, Bermuda - 2nd sample] [Klaus-Dieter Kemp reference: 266R - K.D. Kemp - Southampton Princess, Pier Bermuda - <i>Actinocyclus subtilis</i>] [Klaus-Dieter Kemp reference: 391R - O.Rogers - Southampton Princess, Waterlot [2]Bermuda - Partly cleaned]
1666	Rhyne near Brant Knoll public house, East Brent, Somerset Collected by K-D. Kemp 22 nd February 1982 <i>Stauroneis phoenicentron</i> [Atlas Plate No.259]
1667	Rhyne at East Brent, Somerset 11 th March 1984

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Entry No.	Particulars
1668	Ancrum Pump, Roxburgh Collected by K-D. Kemp 23 rd March 1984
1669	Flower Farm trout lakes, Hifield near Batcombe Friary, Dorset. Floating scum on top lake 9 th April 1984 Many frogs were mating on this occasion. [Klaus-Dieter Kemp reference: 333R - B. Hartley 1669 - Batcombe Friary, Trout lake England]
1670	As 1669 but the middle or lower lake 9 th April 1984 [Klaus-Dieter Kemp reference: 332R - B. Hartley 1670 - Batcombe Friary, Trout lake England]
1671 to 1677 collected by B. Hartley and K-D. Kemp on a joint afternoon trip to the Somerset Levels on 8 th April 1984	
1671	Floating scum on ditch near end of causeway to Mark village [Klaus-Dieter Kemp reference: 343R - B. Hartley 1671 - Mark Moor ditch [1], Mark Moor Somerset] [Klaus-Dieter Kemp reference: 368R - B. Hartley 1671 - Mark Moor ditch[1], Mark Moor Somerset]
1672	Floating scum on ditch near Burtle village [Klaus-Dieter Kemp reference: 336R - B. Hartley 1672 - Burtle ditch, Somerset England - [2]]
1673	Floating brown scum on shallow rainwater sump on the peat workings near Burtle village Almost pure gathering of diatoms – part in formalin [Klaus-Dieter Kemp reference: 355R - B. Hartley 1673 - Mark Moor rain sump, Mark Moor [3] Somerset]
1674	Scraping of diatom film from vertically cut face of peat workings (facing West) in Burtle peat fields [Klaus-Dieter Kemp reference: 354R - B. Hartley 1674 - Mark Moor [4], Mark Moor Somerset - Vertical face of peat]
1675	Floating scum passing under the bridge of the River Brue, Somerset near 'Bird in the Hand' 8 th April 1984 [Klaus-Dieter Kemp reference: 347R - B. Hartley 1675 - Brue River, Somerset England] [Klaus-Dieter Kemp reference: 225R - B. Hartley 1675 - Brue River, Somerset England] [Klaus-Dieter Kemp reference: 466R - K.D. Kemp - Brue River, Somerset England - <i>Navicula oblonga</i> , <i>Caloneis amphisbaena</i> , <i>Anamoneis sphaerophora</i> , <i>Cymatopleura librile</i>] [Klaus-Dieter Kemp reference: 491R - K.D. Kemp - River Brue, Somerset - Fine]
1676	Rhyne at Mark Moor Very brown floating scum <i>Caloneis amphisbaena</i> [Atlas Plate No.39] [Klaus-Dieter Kemp reference: 356R - B. Hartley 1676 - Mark Moor Rhyne, Mark Moor Somerset - >600]
1677	Rhyne at Mark Moor Scum floating on surface rich in diatoms and unusual ciliates [Klaus-Dieter Kemp reference: 357R - K.D. Kemp - Mark Moor Rhyne, Mark Moor Somerset - Surface scum] [Klaus-Dieter Kemp reference: 351R - B. Hartley 1677 - Mark Moor Rhyne[7], Mark Moor Somerset]
1678	Floating <i>Melosira</i> and <i>Synedra</i> in large masses on creek entering the River Coly, Devon 15 th April 1984
1679	Epipellic diatoms richly covering large stones in the River Coly, Devon 15 th April 1984
1680	<i>Cymbella</i> . Pale cream jelly in small waterfall running down the face of the clay/silty cliffs at Axmouth, Devon, on 15 th April 1984 [Klaus-Dieter Kemp reference: 373R - B. Hartley - Axmouth cliff, Creamy jelly on wall]
1681	Fine red seaweed from pools exposed at low water mark on beach at Lyme Regis, Dorset 29 th April 1984
1682	8 th May 1984 Brown film containing over 90% of small ciliates, pollen grains and some <i>Nitzschias</i> as a scum at the end of a drainage ditch on the Somerset Levels at Shapwick Heath
1683	8 th May 1984 Floating algal mass with higher plants such as water parsley and water crowfoot in drainage ditch at Shapwick Heath, Somerset Levels.

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Entry No.	Particulars
1684	Fossil F/W sample from the Rift Valley, Kenya. Obtained from Tom Worthington at the Quekett Club. [Klaus-Dieter Kemp reference: 382R - B. Hartley 1684 - Rift Valley, Kenya]
1685	Allens Farm, Oamaru, New Zealand Fossil Marine Cleaned by K-D. Kemp May 1982
1686	Conway Estuary, Wales 21 st March 1984 Alan Wright's sample 15/1 marked 'Channel'
1687	As 1686 but sample 15/4 marked 'Pan'
1688	River Any, Norfolk 30 th March 1984 Slide 0098/R by J.A. Wright
1689	Moston, Sandbach, Chester area 31 st March 1984 Slide by J.A. Wright No.0103/r
1690	<i>Diatoma vulgare</i> Bory on plenty on the stones in the River Lim at Lyme Regis, Dorset on 31 st April 1984 [Atlas Plate No.75]
1691	Rusty coloured margin to the main tidal gutter at Talsarnau saltmarsh, Gwynedd, N. Wales 24 th April 1984 Collected with much silt [Klaus-Dieter Kemp reference: 412R - B. Hartley 1691 - Talsarnau, GwyneddWales]
1692	Thin yellow film on sandy ripples below surface of tidal estuary – Traeth Bach/Talsarnau saltmarsh Part from dried out areas
1693	Tufts of <i>Schizonema</i> like material possibly <i>Nav. delognei</i> growing in brackish gutter on Talsarnau saltmarsh 24 th April 1984 [Atlas Plate No.138] [Klaus-Dieter Kemp reference: 413R - B. Hartley 1693 - Talsarnau, GwyneddWales - R.Br]
1694	Brackish field ditch between railway and Talsarnau saltmarsh. Floating scum. 24 th April 1984
1695	Surface of saltmarsh mud between reed on foreshore of Traeth Bach, Ynys near Harlech 24 th April 1984
1696	Planktonic diatoms collected in Flatters and Garnett net at Traeth Bach estuary, Gwynedd, in shallow water on the incoming tide as it ran over the sands 24 th April 1984
1697	Large quantity of <i>Navicula delognei</i> or similar tufts in pools and ditches exposed at low tide on Traeth Bach near Llanfihangel 24 th April 1984 [Atlas Plate No.138]
1698	Red film collected by Betty on the sides of sandy depressions in the saltmarsh between the tides. Traeth Bach 24 th April 1984
1699	Four combined collections of scrapes from the sandy beach where there were indications of brown or yellow film Traeth Bach, below Llanfihangel 24 th April 1984
1700	Brown floating scum on F/W drainage ditch alongside the A1 at Balderton, Newark, Notts. Reed. May 1984 from Colin Lamb
1701	Marine channel between St. Agnes and Gugh on the Islies of Scilly 29 th May 1984 Selected epiphytes on marine algae in 2% formalin

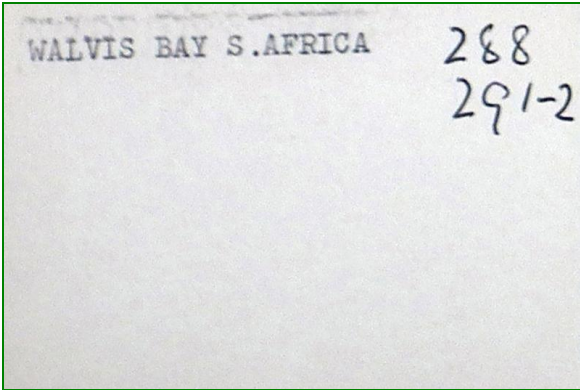
The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
1702	29 th May 1982 As 1701 but a few diatoms from the granite sand flora, together with phytoplankton from shallow water
1703	29 th May 1984 As 1701 but diatoms from mixed seaweeds collected in shallow water at low tide
1704	Island of Tresco, Isles of Scilly 30 th May 1984 Brown film on sandy beach amongst worm casts also sample of <i>Ulva</i> from same beach. [Klaus-Dieter Kemp reference: 438R - B. Hartley 1704 - Tresco, Scilly Isles On sandy beach] [Klaus-Dieter Kemp reference: 411R - B. Hartley 1704 - Tresco, Scilly Isles Sandy beach]
1705	Island of Tresco, Isles of Scilly 30 th May 1984 Algaw and windblown rubbish at end of "Abbey Pool"
1706	As 1705 but green algal mats floating at the East End of "Great Pool"
1707	Tresco 30 th May 1984 Fine brown algae growing on an anchor rope, exposed at low tide on the Island Hotel beach [Klaus-Dieter Kemp reference: 410R - B. Hartley 1707 - Tresco, Scilly Isles On Anchor rope]
1708	Tresco 30 th May 1984 Green algae and moss in seepage waterfall freshwater running down the N. face of granite cliffs at Pipers Hole [Klaus-Dieter Kemp reference: 437R - B. Hartley 1708 - Tresco, Scilly Isles]
1709	31 st May 1984 Bryher, Isles of Scilly Mixed seaweed collected at low tide in the sheltered bay of Kitchen Porth, opposite Hangman's Island. Including some from serrated wrack.
1710	31 st May 1984 Bryher, Isles of Scilly at Kitchen Porth off Hangman's Island, Exclusively two species of bootlaces seaweed on which there was a good covering of fine brown algal threads of <i>?Fragilaria striatula</i>
1711	As 1710 but in 2% formalin
1712	6 th June 1984 Porthmellon Beach and Thomas Porth, Isles of Scilly Extract from granite sand on beaches. No apparent sign of diatoms
1713	Slide No. 14240 by J.R. Carter Tidal stream, Inverceddle Bay, Loch Lonhe June 1984
1714	?27 th May 1984 Slide by J.A. Wright of <i>Amphipleura ornata</i> from a Shropshire Union Canal, Upton, Chester
1715	Ongorato Valley, New Zealand Cleaned by K-D. Kemp in July 1984 See H.G. Barber's paper in QMJ Vol.28, p.387 See also samples 225, 1077 and 1078
1716	Interglacial F/W material from Luneberger, Heide Ex Sydney Chaffer See paper by F. Hustedt in November 1954
1717	Range of species of special diatoms for testing high and medium power objectives, made up of the following samples:- 2030 <i>Pl. formosum</i> -- Australia 2426 Hell Kettles, Darlington, incl. <i>Amphipleura pellucida</i> and a good selection of F/W sp. including <i>Cymbella</i> , <i>Gomphonema</i> and <i>Rhopalodia</i> 2590 <i>Surirella gemma</i> from Pilling Beach 2594 <i>Pl. angulatum</i> , <i>Amphiprora alata</i> etc., from Pevensey sluice, Sussex 2772 <i>Amphipleura pellucida</i> from Berrow = B. Hartley 1470 > 1247/8 <i>Gyrosigma balticum</i> , Weston-super-Mare paddling pool 1666 <i>St. phoenicentron</i> . Rhyne at Brent Knoll 267 <i>Pinnularia</i> sp. from Cherryfield, Maine 43a Cherryfield, Maine. Mainly large <i>Pinnularia</i>

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Entry No.	Particulars
1718	<i>Aulacodiscus africanus</i> Cotton The type material from Banana Creek. Sample ex B.M. 31 st July 1984
1719 (B)	<i>Aulacodiscus kittonii</i> Arnot ex Ralfs in Pritch. 1861 Sample ex B.M. 31 st July 1984 [Atlas Plate No.29]
1719A	As 1719 but mainly the decanted girdles
1720	Slide by H.H. Gleave (Re-mounted) Norman's Bay sands 18 th July 1984 <i>Synredra closteroides</i> , <i>Anorthoneis excentrica</i> , <i>Nav. palpebralis</i> and <i>Druridgea compressa</i> [Atlas Plate No.282, 27, 152 & 90]
1721	Cherryfield, Maine, United States of America Good clean sample of FFW Part passed to KDK 10 th March 1984 [Klaus-Dieter Kemp reference: 431R - B. Hartley 1721 - Cherryfield, Maine U.S.A.]
1722	Klamath Falls, Oregon, United States of America Ex Behan Cleaned by R.I. Firth July 1955
1723	Slide by N.I. Hendey Goss Moor, Cornwall 19 th June 1984
1724	Klamath Falls, Oregon, United States of America Same as 29 but separated into retained and passing 600 mesh sieve. Part passed to K-D. Kemp October 1984 [Klaus-Dieter Kemp reference: 432B - B. Hartley 1724 - Klamath Falls, Oregon - <600 Choir mouth]
1725	Palos Verdes, California, United States of America B.M. '2' 'Small' Fossil marine R.I. Firth No. PV28
1726	Palos Verdes, California, United States of America F/M ex W.A. Sokol PV25 'medium' cleaned R.I. Firth March 1969
1727	Palos Verdes, California, United States of America F/M 'large and medium' Combination of PV2 and PV30 = B.M. lic. Also PV31 added
1728	Palos Verdes, California, United States of America 'Mixed good; F/M (PV10 medium) + (PV32 = B.M. 15) + (PV26 ex JFB)
1729	Palos Verdes, California, United States of America F/M mixed sizes PV8, PV9 = 6A, PV24 = ex W.A. Sokol 'c' and PV27 = '4B' Part to K-D. Kemp [Klaus-Dieter Kemp reference: 429R - B. Hartley 1729 - Palos Verde, California U.S.A. - F.M Very good]
1730	Palos Verdes, California, United States of America Fossil Marine Mixed Heavy contains <i>Arachnoidiscus</i>
1731	Palos Verdes, California, United States of America F/M dregs, heavy diatoms and sponge spicules
1732	Jewel, Maryland, United States of America Ex Wards
1733	Jewel, Maryland, United States of America 'Light' cleaned R.I. Firth September 1947 [Klaus-Dieter Kemp reference: 430R - B. Hartley 1733 - Jewel, Maryland]
1734	Jewel, Maryland, United States of America <400 mesh ex. J.A. Long collection

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Entry No.	Particulars
1735	Unleaned sample from J.R. Carter Burnfoot Ale, Roxburgh Collected 20 th April 1984 <i>D. geminata</i> and associated flora 1735A Cleaned by B. Hartley 1735B Cleaned by K-D. Kemp, girdles removed by B. Hartley 1735C Cleaned KmNO ₄ + later HCl as Linda Medlin formula [Atlas Plate No.76]
1736	Slide No. ----- by J.R. Carter Fluid mount of plankton from Loch Lomond Collected 6 th September 1984
1737	<i>Odontella regia</i> from Silverdale shore, Lancashire Morecombe Bay, Lancashire 19 th August 1984 Slide by J.A. Wright [Atlas Plate No.196]
1738	<i>Gomphoneis olivaceum</i> from Park Street, Hertfordshire F/W stream Collected 13 th May 1984 by Doug. Smith <i>N. lanceolata</i> and <i>N. tripunctata</i> [Atlas Plate No.106 & 185]
1739	Slide by Doug. Smith of material from Palos Verdes, California, United States of America
1740	<i>Amphora hybrida</i> Grun Harbour Wall, Weston-super-Mare Knightstone pier, Avon Collected by K-D. Kemp 14 th September 1984 '409R'
1741	Walvis Bay, South Africa Sample left by R.I. Firth Cleaned by K-D. Kemp See also 974 <div style="text-align: center;">  <p>WALVIS BAY S.AFRICA 288 291-2</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
1742	Scum from the incoming tide at Llanddwyn, Newborough Sands, Anglesey Collected by J.A. Wright September 1984
1743	C.A.S. sample 971 Miocene diatomite Maria Madre Island, Tres Maria Group, Mexico Collected by G. Dallas Hanna May 1925 and sent to B. Hartley by Mrs. Margaret Hanna in October 1984
1744	CAS sample 1068 Tremblor, lower miocene, Sharkstooth Hill, Kern County, California, United States of America Sec.25, T285, R 28E Diatomaceous shale from 200 feet below the bone bed on the south side of Sharkstooth Hill. Collected by G. Dallas Hanna, per Mrs. M. Hanna October 1984

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Entry No.	Particulars
1745	CAS sample 40633 Miocene from a cut on the old road from Carmel Valley to Salmas Valley, Monterey County, California, United States of America Prominent bed of dark bed of gray pumicite outcropping Collected by G.D. Hanna per Mrs. M. Hanna October 1984 [Klaus-Dieter Kemp reference: 050G - R.I. Firth - Carmel Bay, California U.S.A.]
1746	Silent Pool, Pilgrims Way, near Guildford, Surrey Slide by Dr. Maurice O. Moss 12 th May 1981
1747	Pool at Maltreath N.N.R., Anglesey September 1984 Collected and cleaned by J.A. Wright and later sieved by B. Hartley over 600 mesh Ref. No. 33/4-0172/Ma
1748	Wet sand, Red Wharf Bay, Anglesey September 1984 Collected and cleaned by J.A. Wright Ref. No. 33/4-0170/Ma Later sieved by B. Hartley over 600 mesh
1749	As 1748 but Serial No. 33/3-0169/Ma
1750 to 1752 cleaned in KmNO4 followed 24 hours later by HCl and warming to 60°C. Fairly successful, but would probably have done better with 48 hours in KmNO4.	
1750	7 th September 1984 From damp place on a cart track on the Pennine Way as Kisdon, above Muker in Swaledale, Yorkshire
1751	Sample found in my ruc-sack in November 1984. Possibly from ditch in Somerset Levels in May 1984!!!! ????
1752	Sample collected 27 th October 1984 on the saltmarshes, near Colchester, Essex on the occasion of the Annual meeting of the British Diatomists at Flatford Mill [Klaus-Dieter Kemp reference: 453R - B. Hartley 1752 - Colchester, Ipswich Saltmarsh - >600]
1753	Slide by J.R. Carter of <i>Asterionella ralfsii</i> W.Sm. from Loch Alecmore, Donegal [Atlas Plate No.28]
1754	Borrow Dyke at Holbrook Bay, Suffolk on the estuary of the River Stour. South of Royal Hospital School and East of Sutton Church. TM 167-234 Collected 27 th October 1984 by P. Boyd
1755	Slide by J.R. Carter No. 14323A farm pond, Bourne End, Buckinghamshire See also J.R. Carter's figures (27) and comments
1756	<i>Navicula belsesiensis</i> A.S. according to J.R. Carter is a finer edition of <i>Nav. constans</i> var. <i>symmetrica</i> Hust. As fig. 1783B
1757	Loch na Cuilc, Kirkibost, Bernera, Isle of Lewis Fossil F/W Collected by B. Hartley 31 st May 1971 Cleaned by K-D. Kemp December 1984 and finished off by B. Hartley
1758	Millrace, Flatford Mill, Suffolk 27 th October 1984 Collected by B. Hartley and J.A. Wright Slide by J.A. Wright
1759	Saltmarsh gutters, River Orwell, Suffolk 27 th October 1984 2 slides by J.A. Wright
1760 (B)	Loch na Cuilc, Bernera, Isle of Lewis Fossil F/W (as No. 1757) Collected by B. Hartley Cleaned by K-D. Kemp and finished off by B. Hartley
1761	Slide DE14/84 by J.A. Wright Fisherman's Path, Parkgate near Chester
1762	Slide 0194/R by J.A. Wright River Clwyd, Rhuddlan with marked <i>Neidium productum</i> [Atlas Plate No.179]
1763	Sample DE14/84 by J.A. Wright from Dee Estuary Brackish Marine
1764	Slide DE4/84 by J.A. Wright > 600 from around Hilbre Island 7 th July 1984

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Entry No.	Particulars
1765	Slide 0022/Br/6 by J.A. Wright > 600 Stanlow Point 28 th October 1982
1766	Slide 0208/L by J.A. Wright Ddol Trough Hatcheries 43/1 24 th February 1985
1767	Slide 14229 by J.R. Carter Loch Enoch, Merrick Un-named <i>Pinnularia</i> and <i>Eunotia bactriana</i> in sediment [Atlas Plate No.94]
1768	Slide by J.R. Carter Loch Urr, Merrick Surface sediment at 14" deep R.I. mountant 1.85
1769	21 st March 1985 Floating mats of <i>Melosira</i> in ditch at Grange-over-Sands, Cumbria [Klaus-Dieter Kemp reference: 455R - B. Hartley 1769 - Grange over Sands]
1770	Thin bubbling film on surface of mud in tidal ditch Grange-over-Sands 21 st March 1985 [Klaus-Dieter Kemp reference: 451R - B. Hartley 1770 - Grange over Sands]
1771	Brown bubbling clumps on surface at Dinnington Pond, near Ilminster, Somerset F/W diatoms mixed with <i>Oscillatoria</i> 1 st April 1985 See report in South Somerset Naturalist Newsletter No. 3 in October 1986, also article in 'The Countryside' in 1985/6
1772	Sample 01403L by J.A. Wright Collected from Llyn Crafnant, North Wales, Snowdonia
1773	Slide 0221/Br by J.A. Wright Very green brackish ditch off Afon Leri, Dyfi <i>Mastogloia</i> , <i>Synedra pulchella</i> , <i>S. fasciculata</i> [Klaus-Dieter Kemp reference: 460R - A.Wright - Afon Leri, Defi Estuary Wales]
1774	Slide 0217/Ma by J.A. Wright Plankton at Dyfi March 1985 Includes <i>Ditylum brightwellii</i> [Atlas Page No.194]
1775	Ditch between Llandanwg sewage works and the Aber Artro 18 th April 1985 Mass of algae including <i>Oscillatoria</i>
1776	F/W seepage through gravel surface at side of Brixham Harbour, Devon Collected by K-D. Kemp 22 nd April 1985 [Klaus-Dieter Kemp reference: 452R - K.D. Kemp - Brixham Harbour, Devon England - F\W seepage onto Beach] [Klaus-Dieter Kemp reference: 564B - K.D. Kemp - Brixham, Devon England]
1777	Slide 0229/R by J.A. Wright River Dee at Llangollen 21 st April 1985
1778	Slide 0231/R by J.A. Wright River Weaver, Dutton 27 th April 1985
1779	Slide 0303/Br by J.A. Wright Pan at Blakeney, Norfolk <i>Navicula hamulifera</i> , <i>Pinnularia ergadensis</i>
1780	Slide 14380 by J.R. Carter Loch Laidon, Rannoch Moor <i>Neidium ladogensis</i> var. <i>densestriata</i> (Ostr.) Foged <i>Eunotia meisteri</i> var. <i>bidens</i> and a new <i>Pinnularia</i>

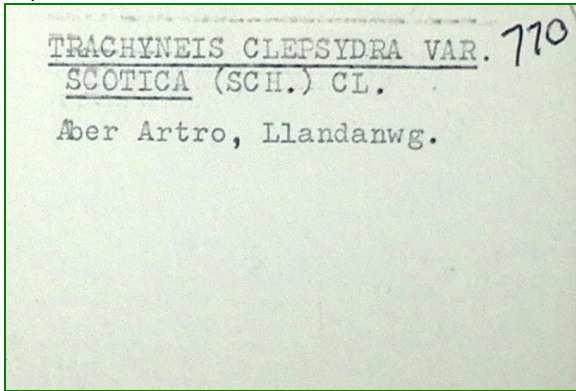
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Entry No.	Particulars
1781	Slide 0305/Br by J.A. Wright Salt pans in upper marsh at Stiffkey, North Norfolk on 29 th May 1985 <i>Nit. naviculiformis</i> , <i>P. cruciformis</i> , <i>Pl. strigosum</i> [Atlas Plate No.143, 210 & 247]
1782	Slide 0226/B by J.A. Wright Ruabon Bog <i>Pinnularia claviana</i> Ross
1783	River Ash, Easneye February 1985 Slide from Doug. Smith
1784	Slide by H.H. Gleave and later a small sample Groyne at Galley Hill, Bexhill, Sussex 6 th March 1985 <i>Cocconeis sublittoralis</i> (var. ? <i>minor</i> n.sp) = <i>C. sancto-paulii</i> [Atlas Plate No.54]
1785	Slide by H.H. Gleave from Northeys Prison at Bexhill-on-Sea, Sussex At foot of wall in car park 24 th April 1985 <i>Pinnularia commutata</i> etc. Later a small sample
1786	Slide 0310/Br by J.A. Wright Brackish dyke at Holme Dunes <i>Rhopalodia gibberula</i> etc. on 30 th May 1985 [Atlas Plate No.252]
1787	Slide 0311/Br by J.A. Wright Brackish dyke at Holme Dunes <i>Rhopalodia musculus</i> and <i>gibberula</i> See list and letter to E.G. Williams 1 st July 1985 [Atlas Plate No.252]
1788	Slide 0318/Br F/W and brackish poolson the beach at Bamburgh 29 th May 1985 Collected by J.A. Wright
1789	Slide 0322/Ma > 25 μ by J.A. Wright Rock pools, Cemlyn Bay, Anglesey 12 th July 1985 See list of species including <i>Campylodiscus ralfsii</i> and <i>C. innominatus</i> [Atlas Plate No.49]
1790	Small sample 0290/Br from J.A. Wright Channel at Godney Drove End, Lincolnshire May 1985 See list of diatoms
1791	J. A. Wright's sample 0291/Br Lower Marsh, Godney Drove End, Lincolnshire See list of diatoms
1792	Slide 13403 by J.R. Carter <i>Pinnularia brebissonii</i> Hust from the Surrey-Sussex border [Atlas Plate No.206]
1793	Slide 14259 by J.R. Carter purporting to contain <i>Pinnularia sylvatica</i> Lind (as Lund 1945) from Lurden Culvert, but it looks more like <i>P. subanceolata</i> (Pet.) A.Cl.Eul. As A.Cl.Eul. fig. 1030C [Atlas Plate No.233]
1794	Slide by J.R. Carter Norwich No. 14344 Many <i>Cyclostephanos dubius</i> [Atlas Plate No.57]
1795	Slide 14362 by J.R. Carter Ormesby <i>Stephanodiscus tenuis</i> which J.R. Carter says is <i>Stephanodiscus invisitatus</i> Hohn & Hellerman
1796	As 1784 but small sample from H.H. Gleave. Cleaned by B. Hartley

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Entry No.	Particulars
1797	South Cliff groynes, Bexhill-on-Sea 7 th February 1985 Sample from H.H. Gleave Cleaned y B. Hartley August 1985
1798	Northeye Prison, Bexhill-on-Sea Small sample from seepage puddle near wall in car park Collected and cleaned by H.H. Gleave 17 th May 1975
1799	As 1798 but dried sample from same puddle collected by H.H. Gleave on 26 th July 1985 and cleaned by B. Hartley August 1985
1800	Spring above King William House, Settle, Yorkshire 6 th July 1985
1801	From mixed seaweed, Island of Gugh, Isles of Scilly 7 th June 1985
1802	Stream in northern Nature Reserve, Isles of Scilly St. Mary's 1 st June 1985 Also in 2% formalin [Klaus-Dieter Kemp reference: 480R - B. Hartley 1802 - St.Mary's, Isle of Scilly Stream]
1803	Stream in Nature Trail, Old Town, St. Mary's, Isles of Scilly 12 th June 1985 Also in 2% formalin [Klaus-Dieter Kemp reference: 488R - B. Hartley 1803 - St.Mary's, Isle of Scilly Stream old tower - <i>Melosira</i>]
1804	From mixed seaweed, Island of Bryher, Isles of Scilly 11 th June 1985
1805	From mixed seaweed in the Isles of Scilly June 1985
1806	Hassengean, Roxburgh J.R. Carter's slide No. 14382 <i>Cylindrotheca gracilis</i> – rarely, <i>Nav. trivialis</i> , ? <i>Nav. phyllepta</i> Rainwater pool August 1985 [Atlas Plate No.60, 166 & 155]
1807	Lake Myvatn, Iceland Commercial deposit Ex J.R. Carter August 1985 Cleaned by B. Hartley
1808	Lake Myvatn, Iceland Raw, freshwater fossil material Ex J.R. Carter August 1985 Cleaned by B. Hartley [Klaus-Dieter Kemp reference: 472R - B. Hartley 1808 - Myvatn Lake, Iceland - F.F\W] [Klaus-Dieter Kemp reference: 948B - E.Marson - Myvatn Lake, Iceland - <i>Cymatopleura librile</i> , <i>Cymbella inaequalis</i> , <i>Epithemia</i>] [Klaus-Dieter Kemp reference: 478R - B. Hartley 1808 - Myvatn Lake, Iceland Coarse - <i>Cymatopleura librile</i>]
1809	Stourhead Lake Collected by K-D. Kemp 26 th August 1985 K-D. Kemp's slide and sample received 8 th September 1985 <i>Nitzschia amphibia</i> Grunow [Atlas Plate No.180]
1810	Waterfall in garden centre, Barrington Combe, Avon Collected by Mrs. Sheila Kemp September 1985 <i>Cyclotella menghiniana</i> etc. [Atlas Plate No.58]
1811	J.A. Wright's slide No. 0294/Br taken from tributary to River Haven, Cley, Norfolk 28 th May 1985
1812	J.A. Wright's Slide No. 0295/Br taken from River Haven, Cley, Norfolk (? Is this possibly the River Glaven)

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Entry No.	Particulars
1813	J.A. Wright's Slide No. 0341/Br Salt Pans, Crofty, Llanrhidian 14 th August 1985
1814	J.A. Wright's slide No. 0342/Br Channel, Werffrwd, Llanrhidian 14 th August 1985
1815	Recent marine diatoms Slijkplakt, Nederland Collected by Brian Darnton April 1985
1816	Mudflats at Keyhaven, Solent Collected by Brian Darnton July 1985
1817	Algae floating on stream and pond above Clapton Hill, Devon 15 th October 1985 (Part sample taken by J.R. Carter) The hill is owned by J. Lockyer Tel. (0460) 73124
1818	Tufts of Amphipleura rutilans in tubes on the inside of a disused dinghy on the mud at Lyme Regis harbour, Dorset on 15 th October 1985 (Part sample taken by J.R. Carter)
1819	Masses of fine marine algae floating in the harbour at Rab, an island in the Adriatic, part of Yugoslavia. Collected 12 th May 1985
1820	Burton Hill Pond, Petworth, Sussex July 1985 Collected from weed on lip of small dam.
1821	Slide 0353/St by J.A. Wright Stream entering Combermere on Cheshire/Salop border 20 th September 1985
1822	Slide 14403 and sample from J.R. Carter From roadside puddle at Hassendean, Roxburgh, Scotland September 1985
1823	Calcined sample of Radiolaria from unknown source Probably Barbados Marked 'Good'
1824	Soos, Bohemia Ex K-D. Kemp Classis material dealt with by Grunow in 1882 See also Tempere et Peragallo slide no.44 (see also samples 1056 and 1076)
1825	<i>Trachyneis clepsydra</i> var. <i>scotica</i> From Aber Artro beach, Llandanwg, near Harlech, North Wales Collected by K-D. Kemp on 10 th October 1979  [Atlas Plate No.288] <i>R.I. Firth index card</i>
1826	Dredgings collected on the voyage of the S.S. Discovery Received for cleaning from K-D. Kemp No.56 on 10 th October 1979
1827	Radiolaria from Springfield, Barbados Sample supplied to K-D. Kemp who put it into Canada Balsam as this sample is.

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Entry No.	Particulars
1828	<i>Triceratium antedeluvianum</i> from Hayling Island, Hampshire Collected by Brian Darnton, as did Frederick Kitton many years ago (see Hardwicke's Science Gossip 1 st December 1867) November 1985 [Atlas Plate No.289]
1829	Lake Coniston 16 th August 1984 Slide No. 0148/L by J.A. Wright
1830	Bog, Holkyn Mount, Clwyd 28 th October 1985 Slide 0361/B by J.A. Wright
1831	Loch Dry, Merrick, Scotland Slide 14421 by J.R. Carter <i>Tab. quadrisepata</i> , <i>Semiorbis hemicyclus</i> etc. <i>Brachysira serians</i> (N.E.R.C. Survey) [Atlas Plate No.284, 254 & 38]
1832	Loch Narrock, Merrick, Scotland Slide 14422 by J.R. Carter <i>Tab. binalis</i> , <i>Eunotia bactriana</i> , <i>Eu. pseudopectinalis</i> , <i>Nav. subtilissima</i> , <i>N. hofleri</i> (N.E.R.C. Survey) [Atlas Plate No.94 & 165]
1833	Trickle on the car park at Northeye Prison in Bexhill-on-Sea Collected by Mrs. H.H. Gleave on 11 th November 1985
1834	Slide by J.A. Wright from Llyn Goddloniant, Snowdonia, North Wales Collected 10 th November 1985
1835	Slide by J.A. Wright from Llyn Bychan National Grid Reference 752-593 1:50,000 OS Sheet 115 Snowdonia, North Wales Collected 10 th November 1985 On A5 3 miles west of Betws-y-Coed, then 1 mile north of A5 through forest Approach by footpath from Capel Cirig Army Training Camp
1836	Fossil marine sample from Oamaru, New Zealand Believed to be mainly "Bain's Farm" locality Cleaned by B. Hartley December 1985
1837	Slide by Keith Clark of diatoms from No.5 slow sand filter, Ormesby Works 8 th May 1985
1838	Slide by Keith Clark of diatoms from <i>Cladophora</i> on saltmarsh at Breydon Water Ref. TG 477-060 28 th November 1985
1839	'G' slow sand filter at the Lound Works 18 th April 1985 Slide by K. Clark
1840	Slide No. 14427 cleaned in acids, and slide No. 14427A incinerated <i>Cylindrotheca gracilis</i> from the estuary of the River Conwy, North Wales Collected November 1985 [Atlas Plate No.60]
1841	Slide by H.H. Gleave from a saltmarsh near the River Dingle between Dunwich and Walberswick in Suffolk (Date not stated)
1842	Slide by J.A. Wright 0388/L Lower Bostraze, Cornwall Contains <i>Pinnularia polyonca</i> (Breb.) W.Sm. November 1983 [Atlas Plate No.227]
1843	Slide by J.A. Wright 0389/B A boogy area near the top of Cader Idris 8 th October 1982
1844	Slide by J.A. Wright 0407/Mi ret. 25µ From the Breiddon Hill on the Shropshire/Powys border near White Well 1 st January 1986

Entry No.	Particulars
1845	<p>Minute sample ex R.I. Firth from Butte, Montana, United States of America Containing a variety of <i>Tetracyclus</i> including a very cruciform variety <i>T. cruciformis</i> (R.I. Firth 603) Complete sample sent to British Museum (Nat. Hist.) for David Williams, who will return any not used later.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> <p>BUTTE, MONTANA 602-3</p> <p><i>Tetracyclus cruciformis</i> Andrews</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> <p>TETRACYCLUS CRUSIFORMIS 602-3</p> <p>ANDREWS</p> <p>Butte, Montana</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
1846	<p>Fossil marine sample from Bain's Farm (North end), Oamaru, New Zealand Cleaned B. Hartley February 1986 Ex L.D. Coombes</p>
1847	<p>Fossil marine from Bain's Farm, Oamaru, New Zealand (Lower) Cleaned B. Hartley February 1986 Ex L.D. Coombes</p>
1848	<p>Cormack's Creek, Oamaru, New Zealand Fossil marine sample Cleaned B. Hartley February 1986 Ex L.D. Coombes</p>
1849	<p>Fossil marine sample Forrester's Hill, Oamaru, New Zealand Cleaned B. Hartley February 1986 Ex L.D. Coombes</p>
1850	<p>Fossil marine sample Cormack's Creek, Oamaru, New Zealand Ex L.D. Coombes 'Pink Label' Cleaned B. Hartley February 1986</p>
<p>The following five samples are from the H.G. Barber collection of uncleaned samples held at the British Museum (Nat. Hist.) All five to be cleaned by B. Hartley</p>	
1851	<p>Fossil F/W deposit from Gordon Head, New Zealand</p>
1852	<p>Fossil F/W deposit from Harper River, New Zealand</p>
1853	<p>Fossil F/W deposit from Lake Sumner, Canterbury, New Zealand Contains <i>Terpsinoe trifoliatum</i></p>
1854	<p>Lower Karina deposit, Tauranga, New Zealand</p>
1855	<p>Consett Bay, Barbados, (St. John) Fossil marine diatoms and radiolaria [Klaus-Dieter Kemp reference: 922B - B. Hartley 1855 - St. John, Barbados - Radiolaria]</p>

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Entry No.	Particulars
1856	Slide 0409/P by J.A. Wright School Lane, Mickle Trafford 68/1 <i>Neidium affine</i> var. <i>amphirhynchus</i> A village pond near Chester [Atlas Plate No.173]
1857	Slide by Doug. Smith National Grid Reference SH 380-137 River Ash, Easneye, Hertfordshire <i>Diatoma vulgare</i> etc. [Atlas Plate No.75]
1858	Slide by J.A. Wright 0412/St. From the Spout Water, a stream passing through Gorey, in South East Eire
1859	Slide 248c by K. Clarke From stones below railway culvert in Halley Stream, Klagenfurt 30 th January 1986
1860	Slide by K. Clarke No. 250c Epiphytes on <i>Spirogyra</i> Worthersee, Friedelsteg, Klagenfurt
1861	Slide by J.A. Wright of sample at Rhosgadfen, near Caernarfon in Gwynedd Collected May 1984 J.A. Wright slide No. 0429B
1862	A mixture of eleven very special samples containing diatoms which are useful for testing high and low power objectives. Samples included are: 2030 <i>Pl. formosum</i> 267 Cherryfield <i>Pinnularia</i> and <i>Neidium</i> 43a Cherryfield (large) 1248 <i>G. balticum</i> from Weston-supr-Mare 1517 <i>Nit. sigma</i> from West Bay 1256 <i>Pl. angulatum</i> from Uphill 1666 <i>St. phoenicentron</i> from Brent Knoll 2426 Hell Kettles 2590 <i>S. gemma</i> from Pilling 2594 <i>Pl. angulatum</i> from Pevensey 2772 <i>A. pellucida</i> etc., from Berrow This brew is similar to the former sample B. Hartley 1717 which is now exhausted.
1863	Slide by J.R. Carter of material gathered by Brian Howard of Orkney J.R. Carter No. 14440 Stream at Stronday, Orkney
1864	Slide by J.R. Carter as 1863 but Slide No. 14441 collected at Cattle grid, Stronsay, Orkney
1865	Slide by J.R. Carter as 1863 but Slide No. 14442 collected at Galashiels, Scotland (John says later – Gala Water) <i>Nav. schonfeldii</i> var. <i>minor</i>
1866	Slide by H.H. Gleave of brackish diatoms from the wooden sill of the outfall at Edgerton Park at low tide. Presumably near Bexhill-on-Sea, Sussex
1867	Small sample from J.R. Carter of his sample 14267 from River Wharfe, Kilnsey Collected May 1984 <i>Navicula</i> near <i>exiguiformis</i> or <i>N. ancisa</i> Hust. 4 slides made, all sample used
1868	Saltmarsh at Lafan Sands near Aber 7 th March 1986 Slide by J.A. Wright 0443/Br
1869	Saltmarsh pan at Foryd Bay, west of Caernarfon Slide by J.A. Wright 0441/Br [Klaus-Dieter Kemp reference: 607R - Foryd Bay, Gwynedd Wales]
1870	F/W stream, House Gill, Borrowdale, Cumbria Very small sample from J.A. Wright His No. 0435/St

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Entry No.	Particulars
1871	Brackish/Marine pool on the saltmarsh at Foryd Bay, west of Caernarfon Slide 0568/Br by J.A. Wright Sample collected 7 th March 1986
1872	Dyke at Cockshoot Estate, Horning, Norfolk TG 347-163 Slide 406c by K. Clarke Collected 5 th April 1986
1873	Bains Lower, Oamaru, New Zealand (Fossil Marine) Cleaned by K-D. Kemp 27 th March 1986
1874	J.R. Carter slide No. 14367 From River Wharfe, Kilnsey, Yorks May 1984 <i>Nav. exiguiformis</i> var. <i>capitata</i> Hust. 1944
1875	J.A. Wright slide 0577.Mi Outlet well to lake by Whitegate Vicarage, near Northwich, Cheshire
1876	15 th May 1986 Floating algae and diatoms on the river between Harlech and Ynys, Gwynedd, North Wales
1877	15 th May 1986 Tufts of algae, probably tube dwelling <i>Naviculae</i> ; on submerged branches in saltmarsh ditch at Talsarnau, Gwynedd, North Wales
The following five samples of mud were received from Brian Darnton on 17 th May 1986 (cleaned by B. Hartley)	
1878	Slijkplaat, near Braekens, Westerhelde, Holland Collected August 1985 On estuarine mud. <i>T. favus</i> , <i>Aulac. argus</i> etc., etc.
1879	Hayling Island, North Shore, Hants Collected March 1986
1880	One mile west of Lepe in the Solent (Lepe Quay) Collected April 1986 Cleaned by B. Hartley 1880A Cleaned by B. Darnton initially. Re-cleaned and caustic later by B. Hartley Now depleted
1881	Upstram of Eling Tide Mill, Totton, Southampton Collected April 1986
1882	Near Marchwood Power Station, Southampton Collected May 1986 Cleaned by B. Hartley 1882A Cleaned by B. Darnton initially. Re-cleaned and caustic by B. Hartley later
1883	Slide by H.H. Gleave Ditch by Herbrands Walk, Bexhill-on-Sea, Sussex Sample collected by H.H. Gleave 25 th April 1986
1884	Lake at Hatchmere, Cheshire Sampled 26 th April 1986 Slide by J.A. Wright
1885	Woodwalton Fen Slide by Keith Clarke of scum on dyke near house. Grid ref. TL 231-850 2 nd May 1986 His slide No. 428b
1886	24 th June 1986 Bryher, Isles of Scilly Film on sandy beach below sewer outfall [Klaus-Dieter Kemp reference: 520R - B. Hartley 1886A - Bryher, Scilly Isles - <i>Fragillaria</i>]
1887	24 th June 1986 Bryher, Isles of Scilly On seaweed at low tide in harbour bay opposite Hangman's Isle (<i>Fragillaria</i> chains) Similar sample also added from Rushy Bay seaweed. 1887A part in 2% formalin
1888	25 th June 1986 Bryher, Isles of Scilly Phytoplankton collected in Rushy Bay <i>Chaetoceros</i> and <i>Rhizosolenia</i> etc., but very sparse

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Entry No.	Particulars
1889	1 st July 1986 Tresco, Isles of Scilly Lug-worm casts and pink film on sandy beach
1890	1 st July 1986 Tresco, Isles of Scilly From mixed seaweed at low tide
1891	1 st July 1986 Tresco, Isles of Scilly Squeeze from algae in lake
1892	St. Martins, Isles of Scilly 2 nd July 1986 Sand and mud from lug-worm casts on beach
1893	Slide 0605/Mi by J.A. Wright Flooded entrance to abandoned Gold Mine at Cefn Coch near Dolgellau, Wales <i>Diatoma hiemale</i> var. <i>quadratum</i> and <i>Pinnularia commutata</i> [Atlas Plate No.75]
1894	Slide by J.R. Carter from Sphagnum bog Glen Mulladoch (No. 14455) 'contains <i>Pinnularia subcapitata</i> var. <i>hilsseana</i> [Atlas Plate No.233]
1895	2 slides by J.R. Carter (un-numbered) Fluid mounts of <i>Rhoicosphenia</i> and other epiphytes on <i>Cladophora</i>
1896	28 th June 1986 Bryher, Isles of Scilly Phytoplankton in Rushy Bay Mainly copepods
1897	Sample by K-D. Kemp (Cleaned) Epiphytic on <i>Zostera</i> in marine habitat off Poerto Pollensa, Mallorca, Spain 4 th June 1986 Rich in <i>Mastogloia</i> species
1898	Slide by J.A. Wright of a sample from Karen Serieyssel of Fossil F/W sample from Saint Saint Bauxile, France J.A. Wright ref 0609/Fo <i>Epithemia turgida</i> var. <i>margarita</i>
<p>The following seven samples were collected on 9th July 1986 from The Fleet near Weymouth in Dorset, as part of The Fleet Study Group</p> <p>[Klaus-Dieter Kemp reference: 768R - K.D. Kemp - The Fleet (Sediment), Chessil Beach Dorset - <i>Amphitetras antedeluvianum</i>, <i>Gyrosigma balticum</i>, <i>Plagiotropis</i>.] [Klaus-Dieter Kemp reference: 256R - B. Hartley - The Fleet, Chessil Beach Dorset - <i>Auliscus sculptus</i>, <i>Amphitetras</i>] [Klaus-Dieter Kemp reference: 769R - K.D. Kemp - The Fleet, Chessil Beach Dorset - Sediment] [Klaus-Dieter Kemp reference: 269R - K.D. Kemp - Chessil Beach, Portland Dorset] [Klaus-Dieter Kemp reference: 507R - K.D. Kemp - Chessil Beach, The Fleet Dorset - On <i>Zoostera</i>, Coarse] [Klaus-Dieter Kemp reference: 508R - K.D. Kemp - Chessil Beach, The Fleet Dorset - On <i>Zoostera</i>] [Klaus-Dieter Kemp reference: 512R - K.D. Kemp - Chessil Beach, The Fleet Dorset - On <i>Zoostera</i>] [Klaus-Dieter Kemp reference: 516R - K.D. Kemp - Chessil Beach, The Fleet Dorset] [Klaus-Dieter Kemp reference: 518R - K.D. Kemp - Chessil Beach, The Fleet Moonfleet Dorset - On <i>Zoostera</i>] [Klaus-Dieter Kemp reference: 519R - K.D. Kemp - Chessil Beach, The Fleet Moonfleet Dorset - Medium]</p>	
1899	Below Army Bridging Camp, Wyke Regis, Weymouth National Grid Reference 652-772 Large masses of <i>Sargassum</i> collected from below low tide mark
1900	As 1899 but scrapings from stones and mixed seaweeds
1901	Sample of seaweeds with Seasquirts preserved in formalin (not retained)
1902	Near jetty below Charlestown Camp National Grid Reference 637-791 Various algae and seaweeds at low tide
1903 (B)	Collection of <i>Zostera</i> from above location (1902)
1904	Plankton net sweep from same location as 1902 (in formalin)
1905	Plankton net sample from National Grid Reference 652-772

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Entry No.	Particulars
1906	Bottom sample collected by Neville Copperthwaite from midway out opposite the jetty below Charlestown Camp
1907	Slide 14478 from J.R. Carter of a brackish sample from Wheatfen Road, Norfolk A mudcore taken in October 1985
1908	Sample collected and cleaned by K-D. Kemp 13 th July 1986 from a water trough in the village of Axbridge, Avon; fed by water from the limestone Mendip Hills. <i>Mel. arenaria/teres</i> etc. Sample 1908A as above but 'lighter' portion with less <i>Melosira</i> chains. [Klaus-Dieter Kemp reference: 535R - K.D. Kemp - Axbridge, Avon Water trough - Fine] [Klaus-Dieter Kemp reference: 536R - K.D. Kemp - Axbridge, Avon Water trough - Medium] [Klaus-Dieter Kemp reference: 537R - K.D. Kemp - Axbridge, Avon Water trough - Coarse] [Klaus-Dieter Kemp reference: 538R - K.D. Kemp - Axbridge, Avon Water trough - Residue]
1909	Similar sample to 1908 but collected by B. Hartley with K-D. Kemp in the evening of 6 th August 1986 (Collected in Cu. Ni. Acetate)
1910	As 1909 but from the second adjacent trough Contains also many <i>M. varians</i> in auxospore, as well as the <i>M. arenaria/teres</i> and <i>Achnanthes lanceolata</i> in various forms. (also in Cu. Ni. Acetate) [Atlas Plate No.129 & 4]
1911	Sample containing <i>Auliscus sculptus</i> collected in early summer 1986 by Brian Darnton Locality not specified but probably from the Solent. (Later he says from Lymington) [Atlas Plate No.32]
1912	Plankton sample collected by Pieter Haupt from Goersee, west of Rotterdam, Holland. Received un Butyl Alcohol. Date of collection not stated.
1913	Plankton tow net sample collected by K-D. Kemp in Southampton waters from the sailing barge 'May' on 13 th August 1986 1913A uncleaned sample burnt on the coverslip 1913B fluid mount in 2% formalin and seawater <i>Lithodesmium undulatum</i> (3 and 4 sided specimens), also <i>Coscinodiscus</i> [Atlas Plate No.123] [Klaus-Dieter Kemp reference: 540R - K.D. Kemp - Southampton Waters, Plankton Haul S.B.May - <i>Coscinodiscus jonesianus</i> , <i>Lithodesmium undulatum</i>]
1914	Slide DE/3/82 by J.A. Wright Salt pans between Burton and Neston on the Dee Estuary 22 nd September 1982
1915	Slide by J.A. Wright 0629/Br Aberlady saltmarsh, Firth of Forth July 1986
1916	Slide by H.H. Gleave of diatoms collected from Bexhill beach on 29 th July 1986
1917	As 1916 but sparse sample gathered from the same locality on 13 th August 1986 and sent to B. Hartley uncleaned.
1918	Plankton sample. CPR Ref. No. 288G42 received from A.W.G. John of the institute for Marine Environmental Research Collected from the approximate area of 60°35'N, 5°34'W. 2 slides only made from this very small sample and the remainder returned to I.M.E.R.
1919	Sample squeezed from <i>Cladophora</i> floating neat the sluice gates on the Kings Sedgemoor Main Drain where it crosses under the Taunton Street Main road, on the Somerset Levels 10 th September 1986 1919A Part sample in 2% formalin after Copper Nickel acetate.
1920	Plankton net sample from Inst. Marine Environmental Research taken on 27 th March 1984 at the Eddystone Lighthouse about 12 miles south of Plymouth <i>Cosc. wailesii</i> first found off Plymouth in 1977 [Atlas Page No.130]
1921	Slide 0643/L by J.A. Wright from South East side of Crosemere, Shropshire

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Entry No.	Particulars
1922	<i>Fragilaria virescens</i> (forma) from roadside trough with moorland springwater passing through it. Waddington Fells above Clitheroe 19 th September 1986 [Klaus-Dieter Kemp reference: 605R - B. Hartley 1922 - Waddington Fells, Yorks - <i>Fragillaria virescens</i>]
1923	Sample from Brian Darnton scraped from a mooring pontoon at Lymington, Hampshire September 1986 <i>Pleurosigma intermedium</i> var. <i>nebeculum</i> , Ach. Longipes [Atlas Plate No.5]
1924	Brackish pond at Hurst Castle, Hampshire Sample by Brian Darnton received September 1986
1925	J.R. Carter slide 14498 Stream over rocks on beach, Torness, Scotland <i>Cymbella descripta</i> (Hust.) Krammer-Lange Bertalot 1985 <i>Nav. descripta</i> Hust. In Davos, and <i>C. broenlunensis</i> Foged [Atlas Plate No.66]
1926	Fluid Mount by J.R. Carter of <i>Melosira varians</i> . Fairly pure. [Atlas Plate No.129]
1927	Slide DE5/86 by J.A. Wright Rock pool, Hilbre Island# <i>Nav. delognei</i> and <i>Nav. ramosissima</i> [Atlas Plate No.138 & 159]
1928	Scrape from mooring pontoon on the marina at Lymington, Hampshire October 1986 Collected by Brian Darnton Cleaned by B. Hartley <i>Pleurosigma nubeculum</i> var. <i>intermedium</i> (W.Sm) Cleve
1929	Sand at Norman's Bay, Bexhill-on-Sea, Sussex 19 th May 1986 Collected by H.H. Gleave Cleaned by B. Hartley
1930	As 1929 but collected by H.H. Gleave on 12 th October 1986 Whole of this small sample treated with Cu.Ni. acetate and later preserved in 2% formalin for fluid mounts for the B.M. <i>Synedra closterioides</i> and <i>Tropidoneis</i> etc. [Atlas Plate No.282]
1931	Slide by Pieter Houpt of strewn (<i>Schizonema</i>) <i>Nav. smithii</i> (Ag.) Van Heurck., which Krammer and Lange-Bertalot say is <i>Navicula bottnica</i> Grun in Cl. Et Moller See also A.S.A. 399/4-7 and Perag. 12/34
1932	Slide DE7/86 by J.A. Wright Marine Lake, West Kirby 14 th September 1986
1933	Slide 1110- by J.R. Carter of selected <i>Amphipleura</i> n.sp. from New Caledonia
1934	Slide 14351 by J.R. Carter from Lound Waterworks filter bed 18 th March 1985
1935	Slide 13596 by J.R. Carter Loch Cranaig, Ardnamurchan in June 1976
1936	The Fleet at Wyke Regis Tufts of small red algae with a few sponges etc. 1936A same sample in 2% formalin 2 nd November 1986 [Klaus-Dieter Kemp reference: 546R - K.D. Kemp - Chessil Beach, Wyke Regis Dorset] [Klaus-Dieter Kemp reference: 505R - K.D. Kemp - Wyke Regis, Chessil Beach Dorset - Fine] [Klaus-Dieter Kemp reference: 506R - K.D. Kemp - Wyke Regis, Chessil Beach Dorset - Coarse]
1937	The Fleet below Charlestown Camp near the wooden jetty Squeeze from slightly decaying <i>Zostera</i> 2 nd November 1986 1937a also in 2% formalin

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Entry No.	Particulars
1938	The Fleet at Moonfleet Fine <i>Zostera</i> collected live with a small covering of dark jelly or dirt 2 nd November 1986
1939	Slide by Keith Clarke River Schwarzach, Rotz Stegen, Bavaria Artificial ox-bow 27 th September 1986
1940	Slide by K. Clarke Mud from false soak dyke near Berney Arms, Norfolk 7 th September 1986
1941	Slide by K. Clarke Mud from Kates Cottage, West Pond 8 th August 1986
1942	Slide 0649/L by J.A. Wright On vegetation Fenemere, near Baschurch, North West of Shrewsbury 26 th October 1986
1943	Slide by Keith Clarke Ponds or 'Pingos' formed by the freezing effects on ground water after the last glaciation Thompson Common, Norfolk
1944	Slide by J.A. Wright DE/10/86 Salt pan off Fisherman's Path, Parkgate, Cheshire
1945	Slide No. ----- by J.R. Carter F/W sample from Loch Urr, Scotland
The following 18 samples were supplied by Mr. Victor Porguen, 26411 Leafton, Magnolia, Texas 77355, United States of America to Bernard Hartley in December 1986 and the write-ups by him	
1946	VP-20 +400M 1984 Southwest Atlantic Ocean, off the Argentine coast 48°29'W - 51°40'S R/V Vema Cruise 18, Core 112, 2,429m depth, 1.5m sub-botton interval Eocene Material from this core but from a different depth was worked by Hendey with some new species published
1947	VP-32 +400M 1984 Davis Station (Australian), Antarctica Core or dredging taken under 17 metres of water near the base Contains some of the largest <i>Triceratium arcticum</i> and <i>Trachyneis (Navicula) aspera</i> Material ex R. Howard, Sidney, Australia
1948	VP-41 +400M/+12mins 1984 Mejillones, Antofagasta Province, Chile 23°06'S - 70°27'W Sample collected by one H. Cotapos in July 1978 "between the railroad encampment and the bulldozer installation; the latter is in a ravine northeast of Mejillones, where the waves break." Probably very close to classical locality of Mejillones Universidad de Concepcion Diatom Collection No. DIAT_CONC M-1209 Upper Miocene/Lowest Pliocene Nitzschia reinholdii Zone (Dating by J. Barron, USGS. Dating disputed by Chilean geologists who assign this material to the Middle Miocene)

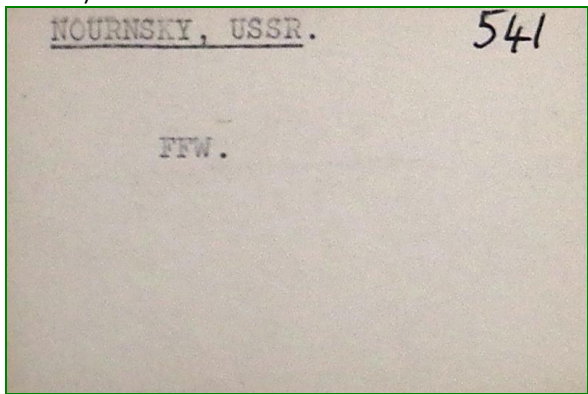
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Entry No.	Particulars
1949	VP-59 +400M 1985 Okushiri Island, South Hokkaido, Japan Tsurikake Formation, <i>Coscinodiscus kanayae</i> Zone Lower Miocene Surface outcrop Look for large and varied <i>Aulacodiscus</i> , <i>Triceratium</i> , <i>Rutilaria</i> and the extremely rare <i>Entogonia tripodiformis</i> Bergon [from the collection of the Japan Petroleum Exploration Company, their number #9710 (OK-84)]
1950	VP-72 000 1985 Alpha Ridge, West Flank, Arctic Ocean Core sample obtained by submarine Alvin at 85°50'N - 109°01'W under 1,365 metres of water CESAR Project Core 6, Unit 4, Section D3 150-152cm interval Upper Cretaceous Look for very rare diatom <i>Gladius</i>
1951	VP-92 +400M 1986 Island of Trinidad, British West Indies Hemitage Quarry, Dumfries Road Crude material from Rentz Collection, his No. 257, via Univers. Of California Museum of Palaeont., No. A-3754 Contains in abundance the otherwise very rare <i>Coscinodiscus excavatus</i> Grev. With 3 excavations, as well as other unusual species Lowe/Middle Miocene
1952	VP-94 +400M 1985 Grimes Canyon, Simi Valley, California, United States of America My own collection, taken in July of 1985 Outcrop at roadside, 20 miles east of Ventura County line on Highway 23; sampled at 5ft above road surface Look for <i>Aulacodiscus</i> , <i>Eupodiscus</i> , <i>Cerataulus</i> , <i>Auliscus</i> , etc. Although the 'Simi' and 'Grimes Canyon' localities are mentioned in some classical literature, no samples of them seem to have been preserved and this outcrop seemed unknown to local geologists. Miocene
1953	VP-95 +400 1985 Kellogg Shale, Camino, Diablo Road, West of Byron, California, United States of America Type locality for this Middle Eocene deposit. CD-23 Level. Collectors – Barron/Porguen, July 1985 Look for <i>Craspedodiscus oblongus</i> , very small <i>Triceratium</i> spp, <i>Hemiaulus</i> , <i>Pirgupyxis</i> spp.
1954	VP-101 +400 1985 Tongoy, Coquimbo Province, Chile Quebrada Salinas, brown-banded diatomite Crude from Universidad de Chile at Santiago, their number T-29-77 Has a wealth of <i>Aulacodiscus</i> and other forms, including <i>Glyphodiscus</i> , <i>Hemidiscus</i> , <i>Auliscus</i> Upper Miocene or Middle Miocene (age is in dispute)

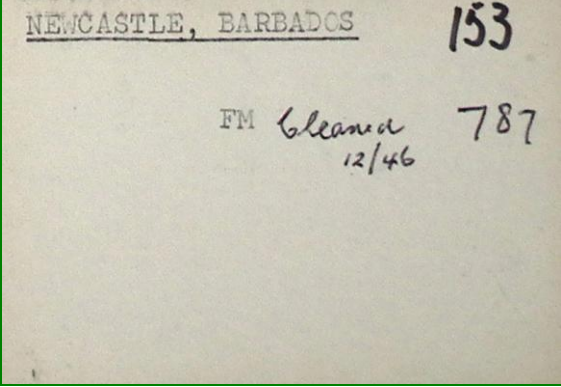
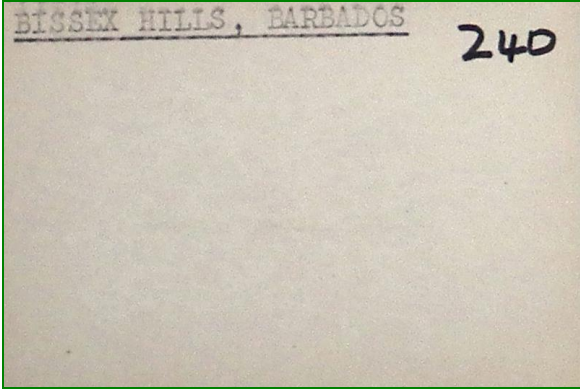
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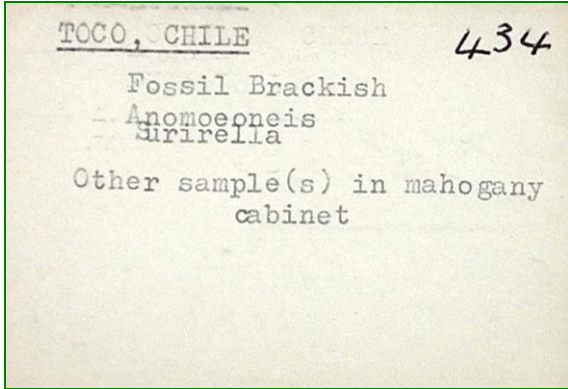
Entry No.	Particulars
1955	VP-105 +400M 1986 Mid-equatorial Pacific Ocean at approximately 3°N - 135°W DSDP Leg 85, Site 574C, Core 29, Section 2, Interval 31-32cm Early Oligocene Look for rare <i>Coscinodiscus excavatus</i> with 2 excavations. Also many Radiolaria and other Oligocene diatom species.
1956	VP-111 +400M 1986 Onslow Bay, North Carolina, United States of America DSDP Vibracore No. OB-34-5, sampled along a submarine fault found in the bay. Lower/Middle Miocene, <i>Actinoptychus heliopeneta</i> Zone From the DSDP Collections Look for <i>Aulacodiscus rogersii</i> and possibly some <i>A. crux</i> Other Calvert flora.
1957	VP-135 +400m 1986 VP-135 +400M 1986 Indian Ocean, near the Seychelles, Expedition DODO, Dredging No. 123D No.7 Recovered at 10°25'S - 63°15'E, under 3,163 metres of water Mid/Upper Eocene Look for several species of <i>Entogonia</i> characteristic of this locality as well as many <i>Triceratium</i> , a few <i>Aulacodiscus</i> and other Eocene diatoms. Many Radiolaria and sponge spicules. From the collections at the Scripps Institute of Oceanography, La Jolla, California [Klaus-Dieter Kemp reference: 925B - Indian Ocean, VP-135+40010o25S 63o15E - Depth 3163M Eocene] [Klaus-Dieter Kemp reference: 539R - Indian Ocean, Ex V.P135+400TW-86-05D Eocene]
1958	VP-142 +400M 1986 Jobs Point, New Jersey, United States of America Hydro well core, sampled at depth of 476/478 feet Lower Miocene, Kirkwood formation From Rutgers University Collection, no number Contains unusual percentage of <i>Aulacodiscus collittianus</i> and <i>A. crux</i> (the more common, multi-process form) Treasure this material....there will be no more of it. So far only four people, yourself included, have seen it.
1959	VP-152 +400M 1986 Road cut at km 343.3 on Pan American Highway near Ica, Peru. Sampled at base of cut. Miocene. Pisco formation Sampled by R.B. Hoover of NASA during recent trip to Peru to observe the Halley Comet. I have not searched this material exhaustively.
1960	VP-160 +400 1986 Uzes, France Material related to the Saint-Laurent-la-Vernede deposit From the Universite de Bretagne Occidentale, Brest Recent (1986) collection. Look for <i>Triceratium</i> (six and five sided) and for <i>Aulacodiscus reticulatus</i> and <i>A. lunyaceski</i> . Middle Miocene

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Entry No.	Particulars
1961	VP-163 +400 1986 Jerez de la Frontera, Spain Sampled in 1986 by A.L. Monjanel, France Good-looking material from this classical but hard-to-obtain locality. Miocene
1962	New undescribed material collected in 1986 Stone quarry, Turrucures, Alajuela Province, Costa Rica 10°05'N 84°20'W F/W diatomite
1963	New undescribed material collected in 1986 Arequipa, Peru Freshwater diatomite
1964	Slide by Keith Clarke 351b Mud surfaces at Salthouse, Norfolk Collected 7 th February 1971
1965	Cormack's Sidings, Oamaru, New Zealand (B.M.)
1966	Papakaio, Oamaru, New Zealand Lower top. Possibly early Oligocene 1966a as above but heavy sponge spicules etc.
1967	Jackson's middle bed, Oamaru, New Zealand
1968	Kamischev, Russia Two small samples combined 1. Ex B.M. 2. Ex Cheneviere
1969	Isanski, Russia Fossil Marine Very good sample
1970	Nournsky, Russia Fossil freshwater (ex. B.M.)  <i>R.I. Firth index card</i>
1971	Mixed Oamaru, New Zealand Dregs and sponge spicules mainly but also some large <i>Aulacodiscus</i>
1972	Slide by J.A. Wright from the bed of Llyn Cyfyngwy, a small reservoir on the moors of Llandegla near Rhydtalog, Clwyd, Wales
1973	Dick's Farm, Oamaru, New Zealand (Ex. B.M.)
1974	Slide by Keith Clarke from sand washings Harlech, Norfolk Collected June 1986 Marked specimen is <i>Cerataulus radiatus</i> (Roper) Ross 1986 = (<i>C. smithii</i> Ralfs in Pritch.) [Atlas Plate No.50]
1975	Slide by Keith Clarke from Fritton Lake Epiphytes on submerged reed stems 3 rd June 1985
1976	Allan's Farm, Oamaru, New Zealand Fossil Marine sample from old small corked tubes, re-cleaned and sieved again in January 1987

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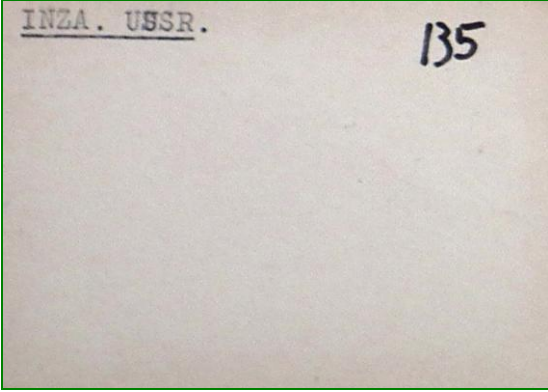
Entry No.	Particulars
1977	Fossil freshwater sample from Ukraine, Russia Ref (ICGC) Somewhat similar to Nournsky sample 1970 above
1978	Fossil marine from Carlovo, Russia ex. B.M. but contaminated with a small amount of sample 1977, Fossil F/W
1979	Fossil marine Radiolaria from Cambridge, Barbados Ex Sydney Chaffer collection [Klaus-Dieter Kemp reference: 184B - B. Hartley 1979 S.Chaffer - Cambridge, Barbados - Radiolaria]
1980	Fossil marine radiolaria, Mount Hillaby, Barbados Ex B.M. November 1944 [Klaus-Dieter Kemp reference: 892B - B. Hartley 1980 - Mount Hillaby, Barbados] [Klaus-Dieter Kemp reference: 349R - W.A.F - Mount Hillaby, Barbados] [Klaus-Dieter Kemp reference: 707B - J.A.Long H30 - Mt.Hillaby, Barbados - F.M] [Klaus-Dieter Kemp reference: 675B - Mt.Hillaby, Barbados - F.M]
1981	Joe's River, Barbados Fossil marine Radiolaria November 1943 [Klaus-Dieter Kemp reference: 897B - B. Hartley 1981 - Joes River, Barbados - F.M]
1982	Newcastle, Barbados Fossil Marine Radiolaria Ex Sydney Chaffer collection  <i>R.I. Firth index card</i>
1983	Bissex Hills, Barbados Fossil marine Radiolaria Ex J.F.B.  <i>R.I. Firth index card</i> [Klaus-Dieter Kemp reference: 900B - B. Hartley 1983 - Bissex Hill, Barbados - F.M] [Klaus-Dieter Kemp reference: 998B - R.I. Firth 240 - Bissex Hills, Barbados]
1984	As 1983 by ex. B.M. [Klaus-Dieter Kemp reference: 932B - B. Hartley 1984/B.M - Bissex Hill, Barbados]
1985	Kieselguhr <i>Coscinodiscus</i> for selected mounts. Source unknown
1986	<i>Arachnoidiscus ehrenbergii</i> and <i>Coscinodiscus</i> from Puget Sound, Washington, United States of America [Klaus-Dieter Kemp reference: 210R - J.F.B - Puget Sound - <i>Arachnoidiscus ehrenbergii</i>]

Entry No.	Particulars
1987	Fossil marine Radiolaria "Upper 1882" Barbados 'Heavy' Cleaned R.I. Firth May 1956
1988	Fossil marine Radiolaria, Conset, Barbados Mixed sample from R.I. Firth – S.H. Meakin – J.A. Long and Dr. Thain [Klaus-Dieter Kemp reference: 206B - Conset Bay] [Klaus-Dieter Kemp reference: 128B - Meakin - Conset, Barbados]
1989	Fossil marine Radiolaria, Springfield, Barbados Retained on 300 mesh sieve Cleaned by R.I. Firth in 1956 and by B. Hartley in 1987 1989A as above but passing 300 mesh sieve
1990	Fossil marine Radiolaria from Chimborazo, Barbados Ex R. Gosden
1991	Toco, Chile Brackish, fossil Ex Wards Very fine <i>Campylodiscus</i> 1991A As above but material passing 600 mesh sieve (by PH)  <p style="text-align: center;">R.I. Firth index card</p> <p>[Klaus-Dieter Kemp reference: 785R - J.A.Long C33 - Chile, Toco South America] [Klaus-Dieter Kemp reference: 208B - Toco, Chile]</p>
1992	Zwarte Gat <i>Campylodiscus clypeus</i> and <i>Surirella striatula</i> Ex Reinholdt
1993	Slide 0665/Fo by J.A. Wright of his cleaning of Fossil Freshwater earth from Toomebridge, Northern Ireland
1994	Slide by J.R. Carter. Earth at botton of rainwater pool, Hassenden, Roxburgh Marked specimen alleged to be <i>Pinnularia cuneola</i> Reichardt, but slide not very clear. Possibly new British record [Atlas Plate No.210]
1995	Sample of <i>Surirella</i> collected by K-D. Kemp from garage forecourt Brent Knoll, Somerset on 22 nd December 1986 [Klaus-Dieter Kemp reference: 551R - K.D. Kemp - Brent Knoll (Garage), East Brent Somerset - <i>Surirella ovalis</i>] [Klaus-Dieter Kemp reference: 563R - K.D. Kemp - Brent Knoll (Garage), East Brent Somerset - Fine]
1996	Slide by Frank D. Monson Saltpan, Fisherman's Path, Parkgate Collected 21 st November 1986
1997	Slide by F.D. Monson No. 16 Icelandic diatoms ex. N.B.S.
1998	Slide by F.D. Monson No. 22 Isle of Skye Fossil F/W diatoms from N.B.S

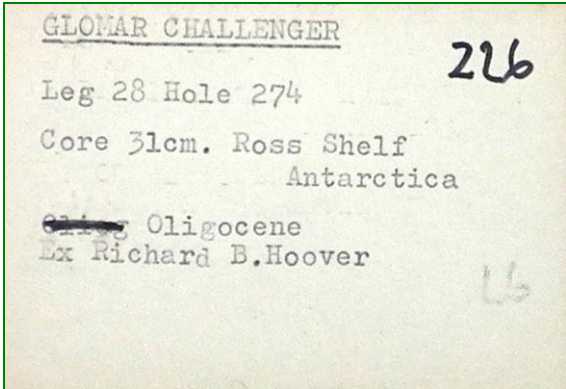
Entry No.	Particulars
1999	<p>Fossil marine diatomite sample from the Tortugas formation Probably Pliocene Vizcaino Peninsula (Punta Eugenia), Baja, California Sur, Mexico Received February 1987 from Victor Porguen of Magnolia, Texas, ex Manville collection January 1987 Sample No. 5</p> <p><u>MARINE FOSSIL</u></p> <p>Diatomite Samples Tortugas Formation Vizcaino Peninsula (Punta Eugenia) Baja California Sur, México.</p>
2000	As 1999 but Sample No. 7.
2001	<p>Stewart Lake, Powel River, British Columbia</p> <p>STEWART LAKE, POWELL RIVER, British Columbia Greater than 300</p> <p>121</p> <p>R.I. Firth index card</p>
2002	Greymouth, New Zealand

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Entry No.	Particulars
2003	Trinidad [Klaus-Dieter Kemp reference: 352B - J.A.Long T15 - Trinidad - F.M] [Klaus-Dieter Kemp reference: 804R - R.I. Firth 55 - Trinidad] [Klaus-Dieter Kemp reference: 990R - R.I. Firth 786 - Trinidad No2 - Diatoms & Radiolaria] [Klaus-Dieter Kemp reference: 810R - R.I. Firth 20 - Trinidad, Ex QMC - Ex Q.M.C] [Klaus-Dieter Kemp reference: 915R - R.I. Firth 241 - Trinidad, No2]
2004	Unknown locality. Probably Baltic Sea
2005	Lake deposit. Isle of Skye
2006	Xanthopyxis, etc. Trinidad
2007	Cormack's Creek, Oamaru, New Zealand (1 mile S.E.)
2008	Freshwater sample from Kenya Per V. Latham <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> [Klaus-Dieter Kemp reference: 833R - R.I. Firth 173\Latham - Kenya]
2009	Mejillones '< 300A' <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
2010	Kamischev, Russia Ex Cheneviere December 1937 [Klaus-Dieter Kemp reference: 835B - Cheneviere/B. Hartley2010 - Kamischev, Russia Ex Cheneviere - Triceratium]
2011	Kamischev, Russia Ex Sydney Chaffer Cleaned February 1948 [Klaus-Dieter Kemp reference: 207R - B. Hartley - Kamischev, Russia] [Klaus-Dieter Kemp reference: 790B - B. Hartley 2011 - Kamischev, Russia]
2012	Singiliewsky, Russia J.A. long JAL/S79 [Klaus-Dieter Kemp reference: 796B - B. Hartley 2012 - Singeliewsky, Russia]
2013	Fossil Marine – Russian Probably Simbirsk Cleaned by R.I. Firth [Klaus-Dieter Kemp reference: 795B - B. Hartley 2013 - Simbirsk, Russia]



Entry No.	Particulars
2014	<p>Inza, Russia (small unscreened) Cleaned by R.I. Firth July 1955</p> <div style="text-align: center;">  </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 840B - B. Hartley 2014 - Inza, Russia - <i>Triceratium</i>] [Klaus-Dieter Kemp reference: 809R - R.I. Firth 135 - Inza, Russia]</p>
2015	<p>Nournsky, Russia Fossil Freshwater [Klaus-Dieter Kemp reference: 791B - B. Hartley 2015 - Nournsky, Russia - F.F\W]</p>
2016	<p>Hakodate, Japan Fossil Marine Cleaned by B. Hartley and R.I. Firth February 1970 [Klaus-Dieter Kemp reference: 831B - B. Hartley 2016 - Hakodate, Japan - <i>Pinnunaris elegans</i>, <i>Nitzschia sigmoidea</i>, <i>Caloneis amphisboena</i>]</p>
2017	<p>Yesso, Netanai, Japan Fossil Marine ex B.M. [Klaus-Dieter Kemp reference: 793B - B. Hartley 2017 - Yesso, Netanai Japan]</p>
2018	<p>Radiolaria and fossil marine diatoms from Java (AY12) [Klaus-Dieter Kemp reference: 832B - B. Hartley 2018 - Java, Radiolaria]</p>
2019	<p>Atika, Japan Fossil Marine September 1945 Includes <i>Asteromphalus darwinii</i> Ehr. 1844 the type species. Also another <i>Aster</i>.</p>
2020	<p>West Africa Recent marine Ex. S. Chaffers [Klaus-Dieter Kemp reference: 797B - B. Hartley 2020 - West Africa - R.M]</p>
2021	<p>Oran, Algeria Fossil marine ex B.M.</p>
2022	<p>Algeria Ex Gregory Bottley 1946 [Klaus-Dieter Kemp reference: 788B - B. Hartley 2022 - Algeria]</p>
2023	<p>Williams Bluff, Oamaru, New Zealand Fossil marine. Early Oligocene</p>
2024	<p>Jackson's South End, Oamaru, New Zealand Fossil marine. Early Oligocene [Klaus-Dieter Kemp reference: 837B - B. Hartley 2024 - Jacksons Paddock, Oamaru N.Z.]</p>
2025	<p>Totara, Oamaru, New Zealand Fossil marine. Early Oligocene</p>
2026	<p>Totara, Oamaru, New Zealand Fossil marine. Early Oligocene Cleaned 25th November 1951</p>
2027	<p>Totara, Oamaru, New Zealand Fossil marine. Early Oligocene Cleaned January 1954 Ex S. Chaffers</p>

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Entry No.	Particulars
2028	Cormack's Siding, Oamaru, New Zealand Fossil marine Late Eocene
2029	Cormack's Siding, Oamaru, New Zealand Fossil marine Late Eocene (September 1947) [Klaus-Dieter Kemp reference: 836B - B. Hartley 2029 - Cormacks, Oamaru N.Z.]
2030	Papakaio (East side of gully), Oamaru, New Zealand Late Eocene (January 1946)
2031	Allan's Farm, Oamaru, New Zealand Ex L.D. Coombes 25 th April 1938 Cleaned R.I. Firth 1951
2032	Challenger Station 149d Royal Sound, Kerguelen Island 28 fathoms (fine) [Klaus-Dieter Kemp reference: 788R - Challenger 149D - Royal Sound, Kerguelen Isl.28 Fathoms]
2033	Challenger Station 22 North Pacific 2900 fathoms (B.M.)
2034	Glomar Challenger Station 274 Core 31cm Ross Shelf, Antarctica  <p><i>R.I. Firth index card</i></p>
2035	Challenger Station 271 Pacific Ocean (B.M.)
2036	Challenger Station 272 Pacific Ocean (B.M.)
2037	Challenger Station 369 Pacific Ocean (B.M.)
2038	VEMA Atlantic Core 17-107 51°08'S 34°22'W Core 1525 metres Position in core 200cm Courtesy: Lamont Doherty Geological Observatory March 1979 Retained 600 mesh (R.I. Firth) [Klaus-Dieter Kemp reference: 030G - B. Hartley 2038 - Vema, Atlantic core 17-107 51 08 S-34 22 w1525 Meters]
2039	Toco, Chile Brackish? Ex Wards
2040	Dredgings from the South Atlantic, off the Orange River mouth March 1939 ex E.J. Steer [Klaus-Dieter Kemp reference: 794B - B. Hartley 2040 - S.Atlantic, Dredgings]

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Entry No.	Particulars
2041	Slide by J.A. Wright 0666/D Ditch at Blythe Farm, Foryd Bay, Gwynedd, Wales Collected 7 th March 1986
2042	Slide by Keith Clarke Scum from pool near the new bridge at Breydon Water, Norfolk TG 516-081 24 th January 1987
2043	As 2042 but mud from same
2044	J.R. Carter sample No. 13707 of <i>Nitzschia sinuata</i> from a wet patch under a railway bridge (later demolished) in Scotland [Atlas Plate No.191]
2045	Slide by Hiromu Kobayasi Pond at Hinenuma – bottom mud Collected 24 th August 1984 <i>Stephanodiscus invisitatus</i> , and <i>St. minutulus</i> in Pleurax Also sample No. K1850 – <i>St. minutulus</i> etc. See also J. Phycol. Japan – Kobayasi et al Vol. XXXIII No.4 pp293-300
2046	Slide by Hiromu Kobayasi From pond at Waku'ike Collected 21 st September 1972 <i>Stephanodiscus invisitatus</i> , <i>St. hantzschii</i> fo. <i>tenuis</i> and <i>St. delicatus</i> Also sample K248 <i>St. hantzschii</i> fo. <i>tenuis</i> (Hust.) Hak. Et Stoerm. See also J. Phycol. Japan – Kobayasi et al Vol. XXXIII No.3 pp235-238
2047	Sample collected by Pieter Houpt in February 1987 from below the ice in brackish pools on the coast of Goerce Island in the Southern part of Holland <i>Navicula crucicula</i> (W.Sm.) Donk.
2048	Sample No. 337 collected by Pieter Houpt from the mudflats on the island of Schiermonnikoog, Holland 'The Wad-Islands' on 6 th May 1984 (? At Binnenkwelder)
2049	Sample No. 339 collected by Pieter Houpt from similar locality (2048) on 8 th May 1984
2050	Sample No. 338 collected by Pieter Houpt as 2048/2049
2051	The Fleet at Moonfleet, Dorset Collected with <i>Zostera</i> by K-D. Kemp (and cleaned by him) 2 nd November 1986 in company with B. Hartley
2052	Slide by J.R. Carter 14414 Of material from the F/W Loch Arthur, Galloway, Scotland (pH 7.5) See detailed list of species.
2053	Slide 540 from Keith Clarke Algal mats from Salhouse Broad, Norfolk TG 320-157 3 rd March 1987
2054	Slide 537g from Keith Clarke Sample from stones in the Bedford Level, at Earith, Norfolk TG 395-749 17 th February 1987
2055	Slide by Henry Gleave Roadside ditch, Herbrands Walk, Bexhill-on-Sea
2056	Slide by J.R. Carter No.14526 Stanhill railway bridge No.1. <i>Nav. gallica</i> (W.Sm.) Van Heurck [Atlas Plate No.142]
2057	Slide by J.R. Carter No. 14527 Stanhill railway bridge No.2. <i>Nav. mutica</i> , <i>Nav. contenta</i> fo., <i>Nav. mutica</i> ? [Atlas Plate No.151 & 135]
2058	Dunkirk, Maryland, United States of America <i>Actinoptychus heliopelta</i>

Entry No.	Particulars
2059	<p>Fucus and other mixed seaweeds growing on an old tyre in the shallow margins of Poole Harbour, Dorset at Arne. 28th March 1987</p>  <p style="text-align: center;"><i>Bernard Hartley</i></p>
2060	<p>Moss and algae from the waterfall at Dinington Ponds, near Ilminster, Somerset 29th March 1987</p>
2061	<p><i>Meridion circulare</i> growing in the roadside channel of High Street, Chard, Somerset on 29th March 1987 Part retained in 2% formalin [Atlas Plate No.127]</p>  <p style="text-align: center;"><i>Bernard Hartley collecting in Chard High Street</i></p>
2062	<p>Slide 0681/Br by J.A. Wright On dead <i>Zostera</i> washed up from The Fleet at Moonfleet 27th March 1987</p>
2063	<p>Slide 0682/Br on floating <i>Sargassum</i> in The Fleet opposite Charlestown Camp, Dorset 27th March 1987</p>
2064	<p>Slide by J.A. Wright No. 0683/Br on floating fucus in The Fleet at Charlestown Camp on 27th March 1987</p>
2065	<p>Puddle on Tarmac footway at car park in Northeye Prison, Bexhill-on-Sea, Sussex</p>
2066	<p>Floating algae in an ornamental pond at Inverewe Gardens in Ross and Cromarty, Scotland 22nd April 1987 Part in Cu.Ni.</p>

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Entry No.	Particulars
2067	Floating algae in the lily ponds at Kew Gardens, London on 25 th April 1987 Part in Ci.Ni. and later in 2% formalin
2068	Slide No. 14536 by J.R. Carter From Rutherford Road railway bridge Range of <i>Nav. fragilaroides</i> including the former <i>Nav. gallica</i> [Atlas Plate No.142]
2069	Slide by Keith Clarke Pure water tank at Sizewell Nuclear Power Station. Tank 'B' National Grid Reference TM 471-631 22 nd April 1987 <i>Navicula clementis</i> Grunow et al [Atlas Plate No.134]
2070	Slide by K.D. Clarke 544d Sand at spring line, Long Run Pound Small form of <i>Diploneis oblongella</i> (Naegeli) Cleve-Eul. [Atlas Plate No.85]
2071	Isles of Scilly. St. Agnes and Gugh Mixed seaweed 16 th May 1987
2072	Isles of Scilly. St. Agnes and Gugh From sand bar at low tide 16 th May 1987
2073	Isles of Scilly. St. Mary's, Porth Hellick Mixed seaweed 18 th May 1987
2074	Isles of Scilly. St. Martin's From seaweed, mainly fronds of <i>Fragilaria</i> 20 th May 1987
2075	Isles of Scilly. St. Martin's From seaweed, mainly fronds of <i>Fragilaria</i> 20 th May 1987 Preserved in Cu.Ni. and 100% fronds
2076	Bramshaw Telegraph, Hampshire Heathpond pH 6.0 Sample and slide from Brian Darnton
2077	Holmsley Bog, New Forest, Hampshire May 1987 pH 6.5 Sample and slide from Brian Darnton
2078	Holly Batch, New Forest, Hampshire pH 6.0 Slide by Brian Darnton
2079	Sonsbeek, Holland (near Arnhem) Waterfall splash zone Sample and slide from Brian Darnton
2080	Sonsbeek, Holland (near Arnhem) Below waterfall Sample and slide from Brian Darnton
2081	McMurdo Sound, Antarctica Slide by B. Darnton
2082	Exhibition slide of 26 diatoms in pattern by Brian Darnton
2083	Sample from a ditch at Speke Hall, Stockton Wood, Merseyside, Lancashire <i>Pinnularia subcapitata</i> Slide by Frank Monson June 1987 Also sample later and part in Cu.Ni. [Atlas Plate No.232] [Klaus-Dieter Kemp reference: 659R - F.Monson - Speke Hall dam, Floating algae] [Klaus-Dieter Kemp reference: 272R - F.D.Monson - Speke Hall Dam, Wipe off log]

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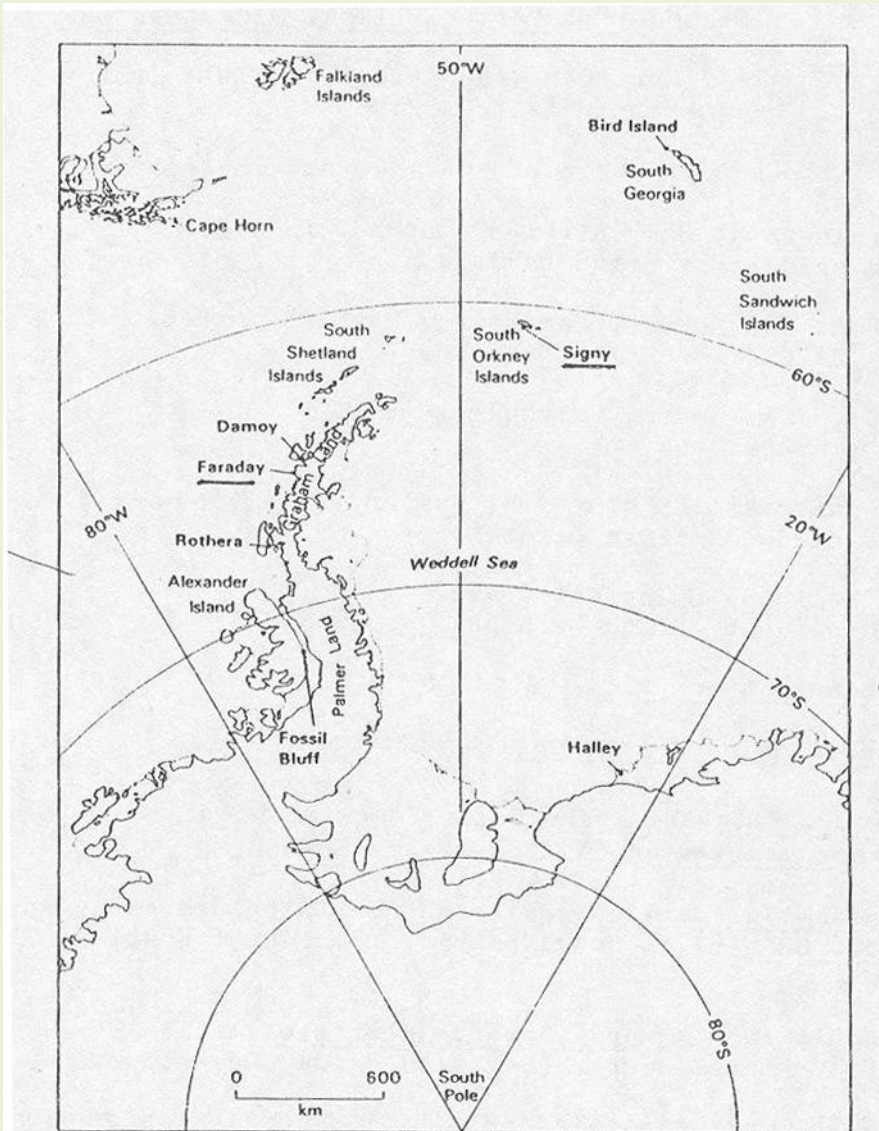
Entry No.	Particulars
2084	Mud and planktonic diatoms gathered near King George Island, Antarctica 62°S 57°W Small sample from Pieter Houpt of The Netherlands
2085	Minute sample from McMurdo Sound, Antarctica 165°W 77°S Benthic From Pieter Houpt (see also slide 2081) [Klaus-Dieter Kemp reference: 550R - P.Haupt - Mc.Murdo sound, Antarctica]
2086	Puerto de la Cruz Coastal sample from Tenerife containing <i>Mastogloia</i> Passed to Klaus Kemp after making a couple of slides [Klaus-Dieter Kemp reference: 557R - Poerto de la Cruz, Tenerife] [Klaus-Dieter Kemp reference: 558R - Poerto de la Cruz, Tenerife] [Klaus-Dieter Kemp reference: 559R - Poerto de la Cruz, Tenerife - Coarse]
2087	Sample of " <i>Stauroneis</i> " taken from the Clough at Speke Hall, Merseyside, Stockton Wood by Frank Monson of 37 Hillfoot Road, Woolton, Liverpool Also part in Cu.Ni. June 1987
2088	Partially cleaned sample collected from the Dee estuary and initially cleaned by F. Monson Rocks and some of the floc removed later by B. Hartley June 1987
2089	Slide by Keith Clarke Sand filter at Surbiton 15 th May 1987
2090	Slide by K. Clarke Rover Yare at Beauchamp Arms National Grid Reference TG 350-044 Norfolk
2091	Slide 0695/Br by J.A. Wright Stream entering Arne Bay, Poole Harbour, Dorset 23 rd March 1987
2092	Slide 0696/Br by J.A. Wright On sand at Studland Bay, Dorset 23 rd March 1987
2093	Slide by H.H. Gleave Ditch at rear on Norman's Bay, Sussex <i>Melosira nummuloides</i> 7 th February 1987 See also 2107 [Atlas Plate No.129]
2094	Slide by H.H. Gleave Ditch beyond level crossing at Herbrands Walk, Bexhill-on-Sea 4 th September 1987 See also 2108
2095	Slide by H.H. Gleave Ditch at Herbrands Walk, Bexhill 9 th May 1987
2096	Mud scraped from a tidal ditch on the Beaulieu River at Bucklers Hard, Hampshire 2 nd July 1987 [Klaus-Dieter Kemp reference: 594R - B. Hartley 2096 - Beauliea River, Bucklers Hard Hampshire]
2097	Filamentous green algae associated with <i>Melosira</i> at the tide line a mooring pontoon at Bucklers Hard, Hampshire in the tidal River Beaulieu 2 nd July 1987
2098	Chocolate coloured film scraped from a moist rut in the New Forest, Hampshire 3 rd July 1987
2099	Slide and sample from Brian Darnton of diatoms from the Spa spring water in the marine splash zone at Scarborough, Yorkshire Collected in Spring 1987 <i>Navicula bottnica</i> Grunow [Atlas Plate No.132]

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Entry No.	Particulars
2100	Sample by P.J. Smith and slide 0700/Br by J.A. Wright from the incoming tide at Minster, Isle of Sheppey 19 th April 1987 <i>Cerataulus radiatus (C. smithii)</i> , <i>Odontella aurita</i> , <i>O. mobiliensis</i> , <i>O. sinensis</i> etc., etc. [Atlas Plate No.50, 195 & 196]
2101	Slide by Keith Clarke Seaweed in harbour at Sete, France 20 th June 1987 <i>Actinocyclus octonarius</i> Ehr.
2102	Slide by K. Clarke On <i>Cladophora</i> in the tidal canal at Aigues Mort in the Camargue, France <i>Pleurosira laevis</i> (Ehr.) Compere

Entry No.	Particulars
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The following four samples were received from Dr. Debbie Oppenheim collected from the Argentine Islands off the Antarctic Peninsula at Faraday Station 65°S
(Map below)



British Antarctic Survey stations occupied in 1984–85

Permanent stations

Bird Island, South Georgia (biological station)	54°00'S, 38°03'W
Faraday, Argentine Island (geophysical observatory)	65°15'S, 64°16'W
Halley, Coats Land (geophysical observatory)	75°35'S, 26°40'W
Rothera, Adelaide Island (Earth Sciences air base)	67°34'S, 68°08'W
Signy, Signy Island, South Orkney Islands (biological laboratory)	60°43'S, 45°36'W

Field stations (summer only)

Damoy, Dorian Bay, Wiencke Island (air facility)	64°49'S, 63°31'W
Fossil Bluff, Alexander Island (Earth Sciences air facility)	71°20'S, 68°17'W

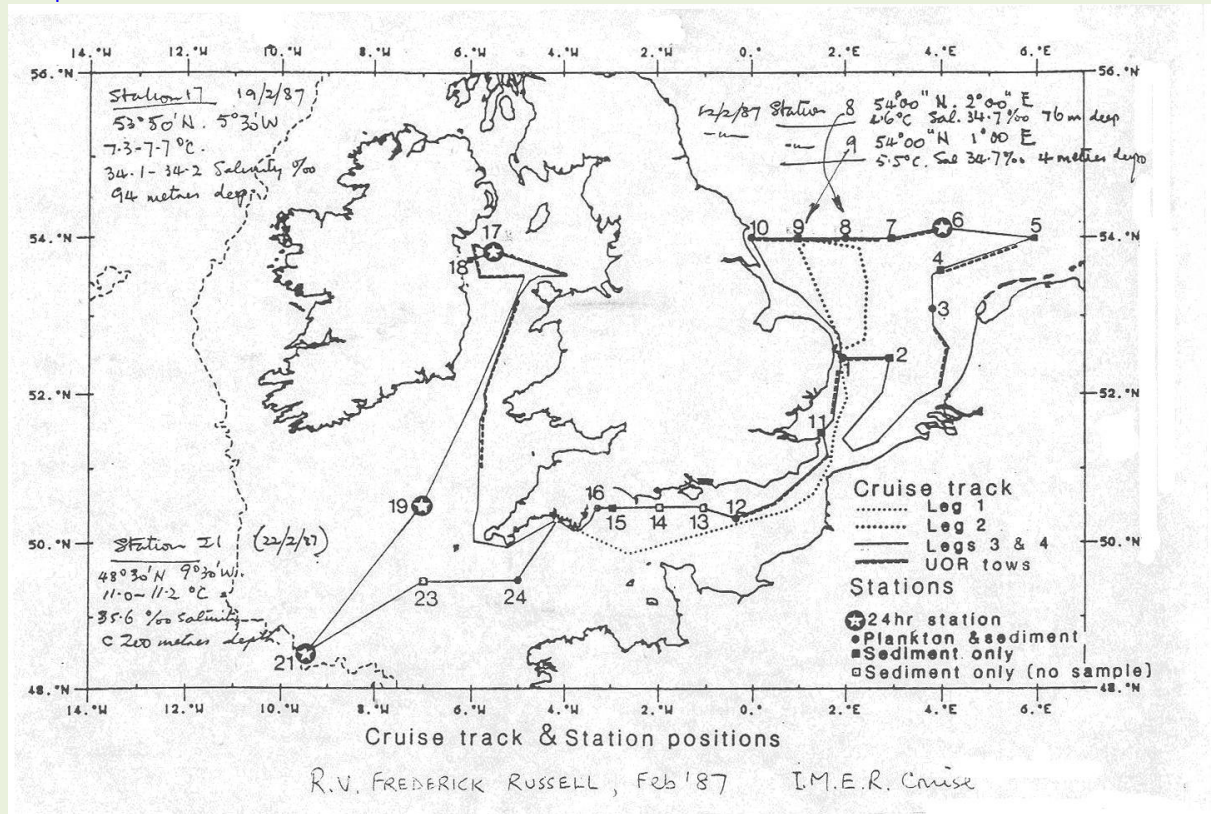
2103	Cleaned Sample from marine rock at Penguin Point at Galindez Island 20 th January 1987
2104	Uncleaned very small sample as above (?Penguin Point of Pigeon Point?)
2105	Uncleaned sample from Skua Island, Finger Point Rock pool under melting snow 16 th January 1987

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Entry No.	Particulars
2106	Uncleaned sample from Uruguay Island Littoral zone attached to rocks. 17 th January 1987
The following four samples received from Henry H. Gleave on 1 st August 1987	
2107	Ditch at rear of Norman's Bay, Sussex 7 th February 1987
2108	Ditch across level crossing, Herbrands Walk, near Cooden, Sussex 12 th April 1987 and 9 th May 1987 – combined sample
2109	Surface mud on beach to the east of Bexhill-on-Sea, Sussex 12 th July 1987
2110	Sands at Norman's Bay (outfall), Sussex 12 th July 1987
2111	<i>Fragilaria virescens</i> etc., from a roadside trough with moorland springwater passing through it. Waddington Fells, Yorks, above Clitheroe, Lancashire on 28 th July 1987 Sample in 2% formalin Part passed to K-D. Kemp "Wallop Well" See also sample 1922
2112	Sample collected by H.H. Gleave from Edgerton Park, ?Bexhill, Sussex in August 1987 Part sent to B. Hartley for cleaning
2113	Sample collected from a puddle in the car park at Northeye Prison in Bexhill-on-Sea, Sussex in August 1987. Part sent to B. Hartley for cleaning.

The following four samples received from A.W.G. John of the Institute for Marine Environmental Research. They were collected on the R.V. Frederick Russel Cruise on the North Sea, English Channel and the Irish Sea in February 1987.

Samples taken with hand tow net from about 20 metres to the surface.



2114	Station 8 54° 00'N 2° 00'E, 4.6°C, Salinity 34.7%, Depth 76 metres
2115	Station 9 54° 00'N 1° 00'E, 5.5°C, Salinity 34.7%, Depth 4 metres
2116	Station 17 53° 50'N 5° 30'W, 7.3-7.7°C, Salinity 34.1-34.2%, Depth 94 metres
2117	Station 21 48° 30'N 9° 30'W, 11.0-11.2°C, Salinity 35.6%, Depth circa 200 metres
2118	Slide by J.A. Wright Dripping rock face on Great Orme, Llandudno, North Wales 12 th August 1987

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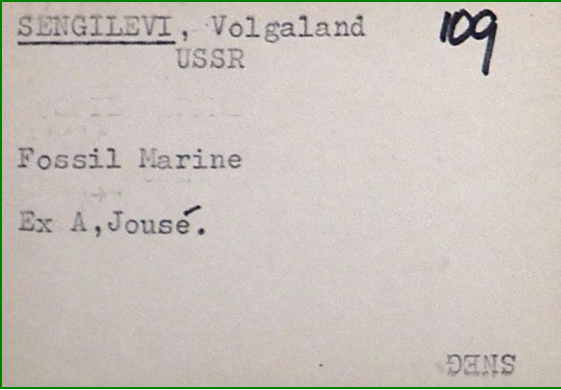
Entry No.	Particulars
2119	Sample collected on 25 th July 1987 by plankton haul, by Paul Smith Thames-Medway estuary, Isle of Sheppey OS TQ 995-738 Next size 50 microns Separated into 2119 retained on 600 mesh, 2119A passing 600 mesh
2120	Fossil marine sample from Oamaru, New Zealand which includes the following four small samples combined "B.M. Coarse", "B.M. Medium", "Toatara March 1944" and Hurst's Farm" 2120A contains the dregs and heavier diatoms etc. sponge spicules etc.
2120B	5 th September 1987 Puddle in footpath at Belstead House, Ipswich Collected by Colim Lamb 2120B(A) Part in formalin after Cu.Ni.
2121	6 th September 1987 <i>Rhizoclonium</i> from the garden pond at Belstead House, Ipswich In 2% formalin after Cu.Ni.
2122	7 th September 1987 Diatom film on the inside walls of the model boating pool at Aldeburgh, Suffolk
2123	Golden diatom film on the muddy banks of the River Blyth, near the ferry at Walberswick, Suffolk 7 th September 1987
2124	Brackish pond at Walberswick, Suffolk Mainly floating material epiphytes on stems of water plants including Sea Aster 7 th September 1987
2125	<i>Microcystis</i> floating on No.1 sedimentation tank at the Lound Works of the East Anglian Water Co. In 2% formalin after Cu.Ni. 8 th September 1987
2126	Lound Water Works, Suffolk Algae on overflow weir from No. 2. Sedimentation tank. 8 th September 1987
2127	Lound Water Works, Suffolk Algae on the cascade inlet to C & G filters Filamentous algae, possibly <i>Cladophora</i> 8 th September 1987
2128	8 th September 1987 Lound Water Works of the East Anglian Water Co., Suffolk Over-ride washwater from Filter Bed No. 3 at 13.30 hours "L.T.S. 17 L.O.H. 24" 2128 – Settled material 2128A – Floating material ? <i>microcystis</i>
2129	Brancaster Beach, North Norfolk 9 th September 1987 Green algae exposed at low tide on the gravelly surface below the sand In 2% formalin
2130	Brancaster beach, North Norfolk 9 th September 1987 From sand ripples and other parts of the beach
2131	Titchwell beach, North Norfolk 9 th September 1987 From sand ripples and worm casts
2132	Titchell Marsh, North Norfolk Surface scraped from dried salt pan behind the sand dunes 9 th September 1987

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Entry No.	Particulars
2133	Titchwell Marsh, North Norfolk 9 th September 1987 Large quantities of bubbling algae and diatoms floating on the saltmarsh pool 2133a Cleaned by K-D. Kemp [Klaus-Dieter Kemp reference: 619R - B. Hartley - Tichwell Marsh, N.Norfolk] [Klaus-Dieter Kemp reference: 589R - B. Hartley 2133 - Tichwell Marsh, N.Norfolk - Brackish pond] [Klaus-Dieter Kemp reference: 390R - B. Hartley - Tichwell Marsh, N.Norfolk Salt pan surface scum]
2134	As 2133 but in 2% formalin after Cu.Ni.
2135	Cley Marshes, North Norfolk 10 th September 1987 Bubbling algae floating on saltmarsh pool, inland of sea bank [Klaus-Dieter Kemp reference: 664R - B. Hartley 2135 - Cley next the sea, N.Norfolk East bank]
2136	10 th September 1987 Ditch alongside the road from Cley to Salthouse, North Norfolk Squeeze of duckweed. Later contaminated accidentally with part of sample 2135 above
2137	Sample collected in the Summer of 1987 by Brian Darnton from The Scheldt estuary at Hansweet, The Netherlands, the locality where Van Heurck collected, 31 miles from Antwerp in 1892. See the list of species then gathered in V.H. treatise pp.41
2138	Seawater inlet through high dunes on the Natural History Reserve at t'Zwin (also spelt Het Zwin). A 400 yardslong cut and tidal lagoon empties at low water. This is a sample from the sand flora and includes a wealth of <i>Actinocyclus roperi</i> etc. On the Netherland/Belgium border. [Klaus-Dieter Kemp reference: 449B - J.A.Long Z - Le Zwyn, Belgium - R.M]
2139	<i>Microcystis</i> found floating on the pond in the Chard garden of Mrs. Philp. It appears that this is fed from the nearby river September 1987 In 2% formalin after Cu.Ni.
2140	Slide 0708/L by J.A. Wright of sample skimmed from top layer of vegetation on lake bottom, from the lake by Lily's Wood, near Bala, Wales. 11 th September 1987 Sample received later
2141	Sample K-D. Kemp 581 9 th April 1987 <i>Cymbella tumidula</i> Seepage from field passing through stone wall alongside road at Ubley, Blagdon, Somerset [Atlas Plate No.72] [Klaus-Dieter Kemp reference: 581R - K.D. Kemp - Ubley, Blagdon Somerset]
2142	As 2141 but a second sample from the same site
2143	Slapton Ley, Kingsbridge, Devon 20 th April 1987 Collected by K-D. Kemp 3 slides prepared by him.
The following four samples were collected by K-D. Kemp on 20 th April 1987 from Slapton Ley, Kingsbridge, Devon. Individual localities or habitat as stated.	
2144	K-D. Kemp sample 756R. Outlet sill
2145	K-D. Kemp sample 785R. From reeds – No.2
2146	K-D. Kemp Sample 786R. From reeds
2147	K-D. Kemp Sample 787R. Surface scum
2148	Plankton net haul by Paul Smith on 12 th September 1987 on the incoming tide of the Thames/Medway estuary near the Isle of Sheppey National Grid Reference TQ 995-738
2149	Slide 0709/L from a small Lochan – Dubh Lochan, near the Field Station at Loch Lomond. Collected by J.A. Wright 16 th September 1987
2150	Slide by J.A. Wright No. 0710/L of material from Loch Chon in the Trossachs, Scotland

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Entry No.	Particulars
2151	Slide by Keith Clarke from Run Pond washwater taken from the Lound Water Works of the East Anglian Water Company 20 th October 1987 <i>Very good Cyclotellas</i>
2152	Slide 0715/Rf by J.A. Wright from wet rock face near summit of Snowdon, N. Wales Collected 29 th October 1987
2153	Slide 591 by Keith Clarke from riverside steps of the Moscka River opposite The Kremlin and the British Embassy in Moscow, U.S.S.R. Collected on 20 th September 1987 <i>Cymbella helvetica</i> and <i>C. helvetica</i> var. <i>compacta</i> with <i>D. vulgare</i>
2154	Slide 587B by K. Clarke from the flotation plant at the new reservoir of Alton Water some 5 miles south of Ipswich <i>Actinocyclus normanii</i> fo. <i>Subsalsa</i> [Atlas Plate No.9]
2155	Fluid mount by J.R. Carter of the 'Desmid' – <i>Cylindrocystis brebissonii</i> Menegh. From a peat pool at Not @' the Gate, Roxburgh, Scotland September 1987
2156	Floating diatoms collected by Brian Darnton in June 1987 from the central flow of Holmsley Bog, New Forest, Hampshire
2157	Sample collected in September 1987 from the north shore of Chew Valley Lake, Somerset (?Avon) by Brian Darnton, who says that the sample was inadvertently contaminated with marine material
2158	Sample collected by Brian Darnton in November 1987 from the feeder stream on the upper shore at Lepe Quay, Hampshire
2159	Further uncleaned sample of mud from mudflats at low tide, Hansweet, Westerschelde, Netherlands, collected by Brian Darnton in August 1987 from the same locality as that reported by H. van Huerck on Page 41 of the 'Treatise'. See also sample 2137 Passed to K-D. Kemp
2160	Sample collected in October 1987 by Brian Darnton from the North Shore of Hayling Island, Hampshire Received as uncleaned mud. Passed to K-D. Kemp
2161	Slide by K. Clarke from mud on village pond at Lound, Norfolk 20 th December 1987
2162	Slide 808c by K. Clarke from mud on pond at Blundeston 20 th December 1987
2163	Klammath Falls, Oregon, United States of America Fossil F/W via R.I. Firth probably ex R.F. Behan Sample split over 600 mesh. A combination of R.I. Firths 'Light' fraction of his samples Kf.4, Kf.5 and Kf.6
2164	Cormack's Creek, Oamaru, New Zealand Fossil marine Cleaned B. Hartley February 1988
2165	Spume on the incoming tide of an ocean beach south of the concrete ramp at 10.30am at Foxton Beach, Manawatu, New Zealand <i>Pure Aulacodiscus</i> Collected by S.R. Stidolph on 25 th November 1979 Received from B.M. March 1988
2166	Mors, Denmark -150 mesh W.S. ex Brigger collection Received B.M. March 1988
2167	Fur, Denmark 'Moler' strata sample 2 Kolbe Ex B.M. March 1988
2168	Mors, Denmark 'Moler' strata sample 4 Honklitt Ex B.M. March 1988

Entry No.	Particulars
2169	Kamischev, Russia +250 Ex. B.M. March 1988
2170	Volgaland, Sengiley, Russia -400 mesh Jouse Ex. B.M. March 1988 
	<i>R.I. Firth index card</i>
2171	Bernallilo, Santa Fe (Tertiary) Ex B.M. March 1988
2172	San Felipe, Mexico CAS No.39904 -250 +400 mesh Ex B.M. March 1988
2173 (B)	<i>Cymbella</i> etc. from Shirebrook Reservoir September 1928 Old sample received from H.H. Gleave 2173a Similar sample less clean [Klaus-Dieter Kemp reference: 837R - B. Hartley 2173 - Shirebrook, Reservoir - Cymbella sp.]
2174	Oberahe Luneburger Heide, Germany <i>Cymbellonitzschia</i>
2175	Saltpan between Neston and Burton, Cheshire Ref. DE/3/88 Sample collected by J.A. Wright 20 th February 1988 Cleaned by B. Hartley March 1988
2176	Brackish Channel at Neston Sample collected by J.A. Wright 20 th February 1988 Ref. DE/4/88 Cleaned by B. Hartley 1988
2177	Diatoms epiphytic on <i>Elodea</i> in Shalford Pond, Surrey January 1988 Slide initially and later uncleaned sample from Dr. Maurice Moss
2178	Mud from the River Ant at Istead Shoals in Norfolk National Grid Reference TG 366 – 204 10 th March 1988 Slide 851c from Keith Clarke
2179	Floating scum on ditch at Speke Hall, near Liverpool 16 th April 1988 Collected by Frank Monson Cleaned by B. Hartley
2180	Slide 14585 by J.R. Carter Puddle on slag heap at North Skelton February 1988
2181	Slide by J.A. Wright Ref. 0720/Rf Material gathered by F. Monson from dripping rock-face at Herculean Dock, Liverpool March 1988

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Entry No.	Particulars
2182	<i>Diatoma ehrenbergii</i> Kütz. (<i>D. tenue</i> var. <i>elongatum</i> Lyngb.) From River Ale, Roxburgh Naphrax slide and also fluid mount from J.R. Carter [Atlas Plate No.75]
2183	Slide No. 14600 from J.R. Carter Lumpsie iron stone pit heap p.h. 6.0 Sample ex B. Pickersgill April 1988
2184	Slide No.184 from Frank D. Monson Squeeze from the weed in a pond at Ainsdale slacks, near Southport, Lancashire. 23 rd April 1988 Very fine sample of F/W diatoms. Sample 30 th April 1988 sent later [Klaus-Dieter Kemp reference: 699R - F.Monson - Ainsdale, N.N.R.Lancs - Rhopodia gibba, Mastogloia]
2185	Weed squeeze, Kellyhall Tarn, Cumbria Collected by F. Monson 21 st October 1987
2186	Ditch at Braunton Burrows, N. Devon 11 th May 1988 Collected originally in Cu.Ni.
2187	Algae scraped from stones in a stream near Simonsbath on Exmoor 12 th May 1988
2188	Slide 0723/C from J.A. Wright Trent and Mersey Canal between Middlewich and Sandbach at Tetton Road, Sandbach Collected 26 th April 1988
The following samples numbered 2189 to 2202 were donated by Henry H. Gleave in May 1988 for inclusion in this collection.	
2189	<i>Scoliopleura tumida</i> Almost pure from Pilling Sands, Lancashire April 1937 [Atlas Plate No.254]
2190	<i>Scoliopleura tumida</i> Very clean along with <i>Odontella rhombus</i> and var. <i>trigona</i> , <i>Actinoptychus senarius</i> etc. Frieston shore, Lincolnshire August 1938 [Atlas Plate No.254]
2191	<i>Synedra ulna</i> Almost pure Stone trough, Hayfield, Derbyshire August 1938 [Atlas Plate No.283]
2192	<i>Synedra</i> etc. "Weir halfway up via Gellin, Derbyshire" June 1937
2193	Fossil marine Papakaio, Oamaru, New Zealand (Clean)
2194	<i>Actinocyclus octonarius</i> etc. (Clean) 'End of Groom Road, Maryland, United States of America' Loc. 353 (?Maryland)
2195	Walfish Bay, South West Africa Deep sea dredging <i>Coscinodiscus</i> etc. October 1923 (Walvis Bay)
2196	<i>Pinnularia viridis</i> , <i>Cymatopleura librile</i> , <i>Surirella spiralis</i> , <i>Stauroneis phoenicentron</i> etc. Roadside ditch, Sookholme May 1937 [Atlas Plate No.237, 62, 278 & 259]

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Entry No.	Particulars
2197	<i>Campylodiscus noricus</i> var. <i>hibernicus</i> (not very clean) Top slurry from bottom of reservoir near outlet pipe at South East Melling December 1943 [Atlas Plate No.48]
2198	Fossil marine Carlova, Russia (nicely cleaned)
2199	<i>Isthmia nervosa</i> From seaweed at Monterey, California
2200	Water Lane, Blewbury 21 st June 1931 F/W sample requires cleaning Cleaned 21 st May 1988
2201	Newbury Mill Lane, Pleasley April 1958
2202	<i>Campylodiscus echeneis</i> etc. Geelong, Melbourne.
2203	Weir scrape, Ness Gardens, Wirral 1 st April 1988 Collected by F.D. Monson
2204	On weeds at side of Carburton Dam (?) Mards E. July 1937
2205	Rock face, Festival Gardens, Liverpool 8 th April 1988 Collected by F.D. Monson
2206	Wipe from stone in River Alyn, North Wales 17 th April 1988 Collected by F.D. Monson
2207	<i>Fragilaria virescens</i> in 2% formalin after Cu.Ni. Walloper Well, Waddington Fells, Yorkshire 11 th June 1988
2208	<i>Diatoma vulgare</i> etc. scraped from stones in brook at Slaidburn, Yorkshire on 10 th June 1988 [Atlas Plate No.75]
2209	Scrape from stones in River Dunsop near Dunsop Bridge, Yorkshire 11 th June 1988
2210	J.R. Carter slide No. 14610 of material in old tyre on Skinigrove iron slag heap June 1988 Alleged to contain <i>Cymbella descripta</i> and very large specimens of <i>Nav. byrophila</i> [Atlas Plate No.66 & 133]
2211	Slide DE5/88 by J.A. Wright Dee Estuary upper marsh at Parkgate, Cheshire 5 th June 1988
2212	Slide 14498 by J.R. Carter Torness, stream on beach and rocks April 1986 <i>Cymbella descripta</i> (Hust.) Krammer and Lange-Bertalot Probably a new British record. [Atlas Plate No.66]
2213	Slide 14611 by J.R. Carter Loch Watten, Caithness Scum on wet earth June 1988
2214	Slide 0728/C by J.A. Wright On wooden wall, St. Helens Canal, Widnes Ref. 104/1 collected on 25 th June 1988 <i>Cyclotella meneghiniana</i> etc. [Atlas Plate No.58]

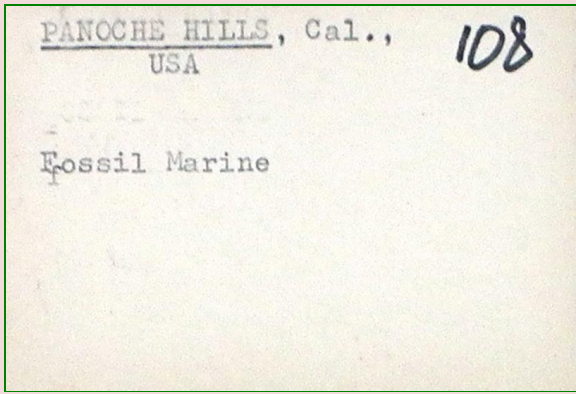
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Entry No.	Particulars
2215	Slide No. 11136 from J.R. Carter Weddel Sea plankton <i>Corethron, Rhizosolenia, Fragilariopsis, Nitzschia</i> and centrics
2216	Slide No. 14616 by J.R. Carter From stones in Loch Assynt June 1988 Mounted in modified Pleurax
The next three samples were donated by Henry H. Gleave from very small phials of unknown earlier diatomists.	
2217 (B)	Cromford Pond, Derbyshire June 1937
2218 (B)	<i>Amphiprora alata</i> From Wainfleet, Lincolnshire August 1938 [Atlas Plate No.12]
2219 (B)	' <i>Denticula</i> ' No other comment on the label
2220	Mud from Bexhill beach, Sussex <i>Pleurosigma</i> etc. 29 th June 1988 Collected by H.H. Gleave Cleaned by B. Hartley
2221	Extracted from sand on Bexhill beach, Sussex 29 th June 1988 Collected by H.H. Gleave Cleaned by B. Hartley
2222	Slide by Brian Darnton of diatoms from Girne in the Turkish Republic of Cyprus <i>Actinocyclus subtilis</i> (Greg.) Ralfs
2223	Mud surface from Ormesby Broad, near the intake TG 466 – 156 16 th May 1988 Slide by Keith Clarke
2224	'G' slow sand filter bed at the Lound Water Works 6 th July 1988 East Anglia Water Co. Slide 896d by K. Clarke Plankton diatoms
2225	Miocene fossil freshwater sample from K-D. Kemp Arii Kumanocho, Mina-minu-rogun, Japan [Klaus-Dieter Kemp reference: 039R - K.D. Kemp - Arii Kumanocho, Minamimuroga Japan - F.F\W(Coarse)] [Klaus-Dieter Kemp reference: 632R - Arii Kumanocho, Minamimurogun Japan Mic prefecture - Coarse] [Klaus-Dieter Kemp reference: 633R - Arii Kumanocho, Minamimurogun Japan Mic prefecture - Fine] [Klaus-Dieter Kemp reference: 045R - K.D. Kemp - Arii, Kumanocho Japan - F.F\W] [Klaus-Dieter Kemp reference: 038R - K.D. Kemp - Arii, Minamimuroga Japan - F.F\W(Fine)]
2226	Slide No. 14626 by J.R. Carter Mires of Linksetter Bo.6, Fetlar, Shetland June 1986 <i>Gomphonema</i> similar to <i>longiceps</i> var. <i>subclavata</i> but with five central 'stigma'
2227	6 th September 1988 Floating scum on a saltmarsh pool adjoining the River Blythe above Walberswick, Suffolk [Klaus-Dieter Kemp reference: 634R - B. Hartley 2227 - Walberswick, Salt marsh]
2228 (B)	6 th September 1988 Filamentous algae in large masses floating on the dyke between Southwold and the River Blythe in Sussex [Klaus-Dieter Kemp reference: 646R - B. Hartley 2228 - Blythe River, Suffolk England]

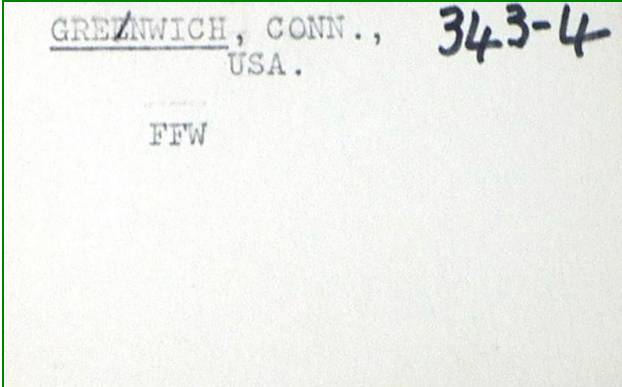
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Entry No.	Particulars
2229	9 th September 1988 Algae floating on a ditch with Lemna minor near Bittern hide on the marshes at Cley-next-the-sea, North Norfolk
2230 (B)	9 th September 1988 Brown film on the damp mud surface of a saltmarsh pool inland of East Bank, Cley-next-the-sea, N. Norfolk [Klaus-Dieter Kemp reference: 635R - B. Hartley 2230 - Cley next the sea, N.Norfolk East bank]
2231	Small sample of Antarctic plankton, received from Eric Marson in September 1988
2232	Sample of diatoms collected from the base of the fountain in the market square at Verona, Italy Sunday 9 th October 1988 <i>Diatoma</i> and <i>Melosira</i> etc.
2233	Surface mud near intake of Ormesby Broad, Norfolk Received from Keith Clarke, October 1988
2234 (B)	Sample on <i>fucus</i> from the seawater lake of Grevelingen, Holland; between the islands of Schowen and Goersee. Initially they made it into a freshwater lake by damming the seaward inlet, but this was not successful and it has now returned to seawater. Received from K. Clarke who collected it near Broswers Dam on 23 rd September 1988
2235	Haweswater filter Ex Brian Darnton October 1988
2236	Mill pond at Swanage Ex. B. Darnton October 1988
2237	Freshwater waterfall at Chapman's Pool Ex B. Darnton October 1988
2238	Village pond at Tynham Ex B. Darnton October 1988
2239	'Worth Matravers. Valley to sea/C' Ex B. Darnton October 1988
2240	Sample No. CAS 1650 from Mrs. Margaret Hanna of F/W diatomite Fitzhugh Creek. 12 miles south of Alturas, California. "Many fine species" according to G. Dallas Hanna
2241	<i>Neofragilaria</i> forma <i>viriscens</i> (Ralfs) William and Round in 2% formalin after Cu.Ni. From Walloper Well, Waddington Fells on the Lancashire/Yorkshire border Collected 19 th October 1988
2242	Sample from stones in the stream bed below Malham Cove, Yorkshire Collected by Frank E. Round on 22 nd October 1988 on the occasion of the Annual meeting of the British Diatomists. Sample originally preserved in Biofix No.1 and later cleaned normally in acids.
The following three samples of diatomaceous earth were received in November 1988 from Henry H. Gleave who had rescued them from the garage of the late Robert I. Firth	
2243	White un-ground diatomite Fossil F/W Source unknown Probably Oamaru
2244	Fossil F/W/ Infursrial earth, "Bill's Asbestos" Looks as though ti has been incinerated
2245	Fossil diatomite. Source Unknown
The following 25 samples of cleaned diatoms in small old corked tubes were donated by Henry H. Gleave, and subsequently restored from their dried up condition.	
2246	Fossil marine, Oamaru, New Zealand Ex Prof. Trueman
2247 (B)	Fossil marine, Oamaru 3, New Zealand
2248	<i>Himatidium</i> --- <i>Eunotia</i> Collected June 1938
2249	Mud from the bed of an old lake at Waratamu, New Zealand Sponge spicules and interesting diatoms including <i>Terpsinoe</i> , <i>Pinnularias</i> etc.

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Entry No.	Particulars
2250 (B)	<i>Gyrosigma balticum</i> (Ehr.) Rabh. River Deben [Atlas Plate No.112]
2251	Beckwater in Pleasley Vale June 1943 <i>Nitzschia linearis</i> etc. (?) [Atlas Plate No.186]
2252	Fossil F/W Kentmere, Westmorland
2253 (B)	Mud from the Wash near the mouth of the River Welland July 1938
2254	Kieselguhr from Boots the Chemist
2255 (B)	Fossil F/W Calama, near Antopagasta, Chile ("contaminated")
2256 (B)	Ditchfield Park, Mansfield June 1968
2257	Very small but interesting sample Mud from mangrove swamps of the River Warri Warri in Africa (probably Nigeria)
2258 (B)	Pond at Portobello aquarium, Denedin, New Zealand
2259 (B)	Mude from the Shirebrook Reservoir August 1944
2260 (B)	<i>Cymbella</i> Almost pure from a reservoir May 1929 (probably Shirebrook Reservoir, as 2259)
2261	Luneberge Heide, Norddeutchland The site sampled by Hustedt
2262	Electrosilicon Vallet, New York, United States of America
2263	Tripolino, Cobbevale, New South Wales
2264	Fossil marine Panoche  <i>R.I. Firth index card</i> [Klaus-Dieter Kemp reference: 006G - R.I. Firth 108 - Panoche Hills, California U.S.A.]
2265	Diatoms from Guano
2266	Fossil marine species from California, United States of America
2267	Palos Verdes, Monterey, California, United States of America
2268	F.W sample from Lompoc, United States of America 2,000 feet above sea level
2269 (B)	Unlabelled sample of Radiolaria
2270(b)	Sample labelled "120" No other identification! <i>Climacosphenia, Biddulphia, Synedra, Licmophora, Nitzschia</i>
2271	Natbungkay Beach, Lian Batangas, Philippines K-D. Kemp batch 2 November 1988
2272	Perley's Meadow, Maine, United States of America
2273	"Santa Cruz canal, Valle de Macres" <i>Epithemia, Cymbella</i> etc.

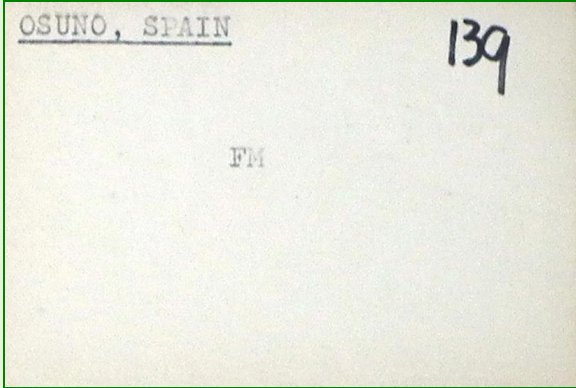
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Entry No.	Particulars
2274	Greenwich, Connecticut, United States of America  <i>R.I. Firth index card</i>
2275 (B)	Recent marine Point Firman, California, United States of America [Klaus-Dieter Kemp reference: 917R - Point Firman]
2276	Yarra River
2277	Fossil marine centrals from various localities, together with a few Radiolaria
2278	Bain's Lower, Oamaru, New Zealand Ex Copping
2279	Mud from Milson Lake, Kawkesbury River, Australia
2280	Fossil F/W Wemush, New York State, United States of America
2281	J.R. Carter Slide No. 14651 Sphagnum pool at Kinloch Bourn June 1988
2282	Slide 0732/B by J.A. Wright Boggy area by Malham Tarn, Yorkshire 21 st October 1988 <i>Amphipleura pellucida</i> etc. [Atlas Plate No.12]
2283	Slide by J.A. Wright Malham Tarn, Yorkshire 21 st October 1988
2284	Slide 203 by Frank Monson Surface scum on 'the Sands' at Ainsdale Slacks, Lancashire Collected 8 th April 1988
2285	Slide 234 by F. Monson Rockface at Liverpool garden centre 8 th April 1988
2286	Slide No. 243 and sample by Frank Monson of growth on a log in the dam at Speke Hall near Liverpool 24 th September 1988
2287	Slide by J.R. Carter Old Loch bed at Ormiston (dry since 1745) with a few relict forms such as the marked <i>Nav. amphibia</i> Cleve – <i>Nav. galikii</i> (Pant.) Cleve Collected by J. R. Carter on 1 st January 1989 [Atlas Plate No.142]
2288	Slide by H.H. Gleave Ditch near bridge at west side of Rye Harbour, Sussex 22 nd September 1981
<p>The following 22 samples were rescued from a parcel of old corked bottles of various sizes which were found in the garage of the late Robert I. Firth. It is believed that they were from earlier workers. Several of them required re-cleaning by B. Hartley</p>	
2289	Mixed and broken material from unsecified localities at Oamaru, New Zealand (Fossil marine)
2290	Fossil marine sample retained on 300 mesh sieve from Cormacks Creek, Oamaru, New Zealand

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Entry No.	Particulars
2291	Mainly centrics, sponge spicules and a few Radiolaria from Moron, Spain [Klaus-Dieter Kemp reference: 783R - S.Chaffer - Moron No1] [Klaus-Dieter Kemp reference: 282R - S.Chaffer - Moron, Cortyo de la Vega Spain] [Klaus-Dieter Kemp reference: 809B - S.Chaffer - Moron, Cortyo de la Vega Spain - Sin Analyzer] [Klaus-Dieter Kemp reference: 563B - J.A.Long M70 - Moron, Spain] [Klaus-Dieter Kemp reference: 153R - Moller - Moron, Spain] [Klaus-Dieter Kemp reference: 149R - S.Chaffer - Moron, Spain]
2292	Coarse fossil marine sample including large specimens from unspecified locality at Oamaru, New Zealand
2293	As 2292 but sponge spicules etc, and some large species
2294	Very fine <i>Stephanopyxis</i> . Probably marine plankton. Source unknown
2295	Sample simply labelled 'Congo' <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> [Klaus-Dieter Kemp reference: 300R - Leonard/Chaffer - Congo - Ex S.Chaffer] [Klaus-Dieter Kemp reference: 293B - Congo] [Klaus-Dieter Kemp reference: 978B - R.I. Firth 133 - Congo, CC10Ex QMC] [Klaus-Dieter Kemp reference: 805R - R.I. Firth 133 - Congo, CCIO]
2296	Sample labelled 'Kenya' --- V. Latham <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>

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Entry No.	Particulars
2297	<p>'Osuno, Spain' Retained 400 mesh</p> <div style="text-align: center;">  </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 722B - J.A.Long O51 - Osuna, Spain F.M. - <i>Surirella hastata</i>] [Klaus-Dieter Kemp reference: 973B - R.I. Firth 139 - Osuno, Spain - Ex QMC.]</p>
2298	<p>'Andalusia, Spain' Retained on 600 mesh</p>
2299	<p>St. Laurante la Vernede, France Retained on 300 mesh</p>
2300	<p>'Cambridge Estate, Barbados (A.M.J original)' [Klaus-Dieter Kemp reference: 541B - K.D. Kemp - Cambridge, Barbados] [Klaus-Dieter Kemp reference: 542B - K.D. Kemp - Cambridge, Barbados - Cleaned by K.D.K] [Klaus-Dieter Kemp reference: 540B - Cambridge, Barbados]</p>
2301 (B)	<p>Fossil freshwater, probably British Retained 600 mesh</p>
2302	<p>Lompoc, California, United States of America Fossil marine Retained 300 mesh</p>

Entry No.	Particulars
2303 (B)	<p>Palos Verdes, California, United States of America Malaga Cove Retained 300 mesh</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>MALAGA COVE, Cal., USA 98 Ex R.B.Hoover</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>MALAGA COVE, Cal., USA 100 Fossil Marine Ex Richard B.Hoover</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 068G - B. Hartley 2303 - Palos Verde, California U.S.A. - Retained 300 Mesh] [Klaus-Dieter Kemp reference: 824R - Brigger - Malaga Cove, California U.S.A. - Heavy]</p>
2304	McKittrick, California, United States of America
2305	<i>Melosira arenaria</i>
2306	From Terrebone, Oregon, United States of America
2307	<i>Eunotia</i> , <i>Stauroneis</i> etc. Source unstated
2308	<i>Synedra</i> Source unstated
2309 (B)	<i>Meridion circulare</i> Eastbourne [Atlas Plate No.127]
2310 (B)	<i>Meridion circulare</i> (to be recleaned) Source not stated [Atlas Plate No.127]
2311	<i>Amphiprora alata</i> Source unstated [Atlas Plate No.12]
2312	Slide by J.R. Carter Rich source of F/W diatoms from a Loch in the west of Scotland Possibly fed from limestone strata. <i>Achnanthes frigida</i> etc. etc. Slide 14566 un-named Loch near Tongue, Sutherland June 1987 [Atlas Plate No.4]
2313	St. Laurant la Vernede, Gard, France Ex Cheneviere 1937
2314	St. Laurant la Vernede, Gard, France Ex Cheneviere 1938

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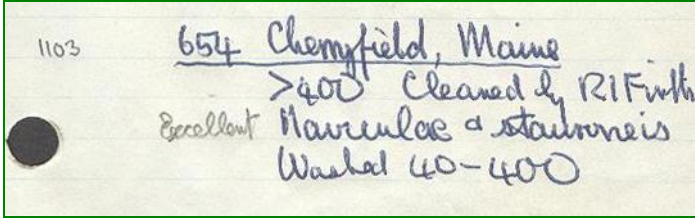
Entry No.	Particulars
2315 (B)	St. Laurant la Vernede, Gard, France Cleaned by R.I. Firth 1946
2316 (B)	St. Laurant la Vernede, Gard, France Ex B.M. Guthrie collection
2317	St. Laurant la Vernede, Gard, France Unknown cleaner
2318	Jeremie, Hayti Mainly Radiolaria [Klaus-Dieter Kemp reference: 898B - B.M.N.H - Jeremie, Hayti - F.M]
2319	J.R. Carter Slide No. 14665 <i>Synedra amphicephala</i> etc. From field trough at Roberton, Roxburgh April 1989 One Naphrax mount, one fluid mount
2320	Stream, The Dungeon, Thurstaton, Wirral Sample Collected by J.A. Wright 31 st March 1989 His sample 109/St Cleaned B. Hartley
2321	Slide 14669 by J.R. Carter The Haugh Stream, Denholm, Roxburgh <i>Thalassiosira weissflogii</i> and typical stream flora [Atlas Plate No.286]
2322	Rube Water at Bonchester, Roxburgh Slight pollution
2323	Slide No. 14692 by J.R. Carter Ditch at Ardistaig, Shildaig, Scotland June 1989
2324	Sloide 0734/L by J. Alan Wright <i>Stephanodiscus</i> etc. from Corsemere, Shropshire 22 nd June 1989
2325	Old sample ex. H.H. Gleave Port Townsend, Puget Sound, Washington, United States of America Recent marine Large broken Cosc. (Ex. B.M.) [Klaus-Dieter Kemp reference: 265B - Tempere - Port Townsend, Australia] [Klaus-Dieter Kemp reference: 720B - J.A.Long T7 - Port Townsend, U.S.A. - R.M <i>Auliscus</i>] [Klaus-Dieter Kemp reference: 726B - J.A.Long T8 - Port Townsend, U.S.A. - R.M] [Klaus-Dieter Kemp reference: 645B - Port Townsend, U.S.A.] [Klaus-Dieter Kemp reference: 696R - A.C.Wheeler/S.Chaffer - Port Townsend, Washington U.S.A. - R.M]
2326	Slide 0739/L by J.A. Wright Llyn Mymbyr, Snowdonia 8 th July 1989
2327	Rickford, Avon Near Burrington Coombe Collected by K-D. Kemp on 24 th July 1989 <i>Synedra capitata</i> Ehrenb. [Atlas Plate No.282] [Klaus-Dieter Kemp reference: 483R - S.Kemp - Burrington Coombe, Avon England] [Klaus-Dieter Kemp reference: 667R - K.D. Kemp - Rickford, Avon Nr.Burrington Combe - <i>Synedra capitata</i>]
2328	Plankton sample from West Runton, East Anglia 29 th March 1989 Ex B.M. (Pat Sims) <i>Odontella regia</i> etc. Uncleaned [Atlas Plate No.196]

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Entry No.	Particulars
2329	Slide by J.R. Carter Kyle of Durness Sand washings at low tide June 1977 (J.R. Carter No. 13752)
2330	Glen Mullodoch Stream oxbow June 1989 J.R. Carter No. 14701
2331	Slide No. 14700 by J.R. Carter Fluid mount of ' <i>Eunotia alpina</i> ' epiphytic on <i>Ullothrix</i> , from a waterfall at Loch Laxford in July 1989 Later slide B. Hartley 2331A in Pleurax supplied by J.R. Carter [Atlas Plate No.94]
2332	Slide No. 0741/F from J.A. Wright Elton Flashes, Sandbach, Cheshire 26 th July 1989
2333	Dry uncleaned sample of <i>Isthmia nervosa</i> Kütz. Supplied by the B.M. Collected in December 1867
2334	Pure gathering of <i>Diatoma hyemale</i> var. <i>quadratum</i> (Kütz.) Ross From a spring at the rear of King William House antique shop in Settle, Yorkshire on the 12 th September 1989 This colony of diatoms has been present at this site for many years and was sampled over 20 years ago by R.I. Firth Esq. Part of the sample preserved in Cu.Ni. acetate and later in 2% formalin --- 2334F [Atlas Plate No.75]
2335	Slide by Keith Clarke Dip sample from Horning Ferry, Norfolk 19 th June 1989 after high seas up the river <i>Stephanodiscus subsalsus</i> (A. Cleve) Hust. 1928
2336	Marine Lake Lothian at Lowestoft, Suffolk Net plankton 29 th March 1989 Slide by Keith Clarke
2337	Slide 0742/Br by J.A. Wright Red Wharf Bay, Anglesey 24 th August 1989
2338	South Naparima, Trinidad Fossil marine Ex Sydney Chaffer Cleaned by K-D. Kemp 1989 Type locality for <i>Azpeitia</i> [Klaus-Dieter Kemp reference: 814B - S.Chaffer - South Naparima, Trinidad Cleaned K.D. Kemp - <i>Actinocyclus ovalis</i>]
2339	Fluid mount of <i>Ankistrodesmus falcatus</i> prepared by J.R. Carter in October 1989 from moss around an old well at Annich in Northumberland
2340	Pleurax mount of 2339 after cleaning in acids J.R. Carter slide No. 15721 Trough at Annich in Northumberland
Two samples from Dr. David H. Jewson, Freshwater Lab., Univ. of Ulster, Traad Point, Ballyronan, Co. Derry, Northern Ireland, BT45 6LR	
2341	North end, New Ferry (Russel Collection) 100metres north of carp park, by building on west bank (Pale cream diatomite – looks good)
2342	Agivet diatomite Dark brown loamy material Looks doubtful This is located in the Bann Valley north of Toomebridge and nearer the sea

The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
2343	Sample from Frank D. Monson Collected 6 th October 1989 Slurry at edge of Malham Tarn, near Field Study Centre, Yorkshire
2344	Sample from Frank D. Monson, collected on 9 th September 1989 from dried up slack on the Ainsdale sand dunes of the Nat. nature reserve at Ainsdale, Lancashire
2345	Slide No. 0768/Str Stream entering Lilstock Bay, Somerset Collected 4 th November 1989 Excellent <i>Nitzschias</i>
2346	Sample from Dr. David Jewson, University of Ulster, Traad Point, as above but this sample from Port Glenone in the Bann Valley, Ulster, Northern Ireland Sample A, top sample cleaned by J.R. Carter in November 1989 One slide each of 'Heavy', 'Medium' and 'Small'
2347	As 2346 but Sample B – also cleaned by J.R. Carter
2348	As 2346 but Sample C – also cleaned by J.R. Carter
2349	Matabungkay Beach, Lian Batangas, Philippines Ex Hans Arber <i>Actinocyclus decusata</i> Mann [Klaus-Dieter Kemp reference: 622R - H.Arber - Matabungkay Beach, Lian Batangas Philippines - Fine] [Klaus-Dieter Kemp reference: 623R - H.Arber - Matabungkay Beach, Lian Batangas Philippines - Medium] [Klaus-Dieter Kemp reference: 624R - H.Arber - Matabungkay Beach, Lian Batangas Philippines - Coarse] [Klaus-Dieter Kemp reference: 258R - H.Arber - Matabungkay Beach, Philippines - Fine] [Klaus-Dieter Kemp reference: 259R - H.Arber - Matabungkay Beach, Philippines] [Klaus-Dieter Kemp reference: 760R - H.Arber - Matabungkay Beach, Philippines] [Klaus-Dieter Kemp reference: 843R - H.Arber - Matabungkay Beach, Philippines Lian Batangas - Batch2] [Klaus-Dieter Kemp reference: 517R - H.Arber - Philippines - R.F\W] [Klaus-Dieter Kemp reference: 766R - H.Arber - Philippines, On <i>Zoostera</i> - Uncleaned] [Klaus-Dieter Kemp reference: 767R - H.Arber - Philippines, On <i>Zoostera</i> - Uncleaned]
2350	Taiwan TN46 Ex T.B.B. Paddock via K-D. Kemp December 1989 No material. One strew slide only [Klaus-Dieter Kemp reference: 764R - T.B.B.Paddock - Taiwan 46] [Klaus-Dieter Kemp reference: 261R - T.B.B.Paddock - Taiwan 51] [Klaus-Dieter Kemp reference: 731R - T.B.B.Paddock - Taiwan 51] [Klaus-Dieter Kemp reference: 262R - T.B.B.Paddock - Taiwan 53] [Klaus-Dieter Kemp reference: 685R - T.B.B.Paddock - Taiwan TN 46 - Fine] [Klaus-Dieter Kemp reference: 686R - T.B.B.Paddock - Taiwan TN 46] [Klaus-Dieter Kemp reference: 720R - T.B.B.Paddock - Taiwan TN48] [Klaus-Dieter Kemp reference: 726R - T.B.B.Paddock - Taiwan TN49] [Klaus-Dieter Kemp reference: 712R - T.B.B.Paddock - Taiwan TN50] [Klaus-Dieter Kemp reference: 725R - T.B.B.Paddock - Taiwan TN53] [Klaus-Dieter Kemp reference: 721R - T.B.B.Paddock - Taiwan, TN48] [Klaus-Dieter Kemp reference: 718R - T.B.B.Paddock - Dan Shui at, Tsin Shu Lin County of Taipai - Taiwan 1] [Klaus-Dieter Kemp reference: 719R - T.B.B.Paddock - Dan Shui at, Tsin Shu Lin County of Taipai - Taiwan 3] [Klaus-Dieter Kemp reference: 727R - T.B.B.Paddock - Dan Shui at, Tsin Shu Lin County of Taipai - Taiwan 1] [Klaus-Dieter Kemp reference: 728R - T.B.B.Paddock - Dan Shui at, Tsin Shu Lin County of Taipai - Taiwan 3] [Klaus-Dieter Kemp reference: 732R - T.B.B.Paddock - Dan Shui at, Tsin Shu Lin County of Taipai - Taiwan 2] [Klaus-Dieter Kemp reference: 733R - T.B.B.Paddock - Dan Shui at, Tsin Shu Lin County of Taipai - Taiwan 4]

Entry No.	Particulars
2351	Port Townsend, Washington, United States of America <i>Pleurosira laevis</i> Ex. A.C. Wheeler via Sydney Chaffer (two spreads only)
2352	Poole Harbour, Dorset Collected by R.I. Firth 9 th July 1944 Cleaned B. Hartley April 1976 as sample B. Hartley 801
2353	Cherryfield, Maine, United States of America Cleaned by R.I. Firth in 1969  <i>L. N. Bramley (Cleaned Diatoms) Book 2</i>
2354 (B)	Cherryfield, Maine, United States of America Retained 400 mesh Cleaned April 1971 [Klaus-Dieter Kemp reference: 066G - B. Hartley 2354 - Cherryfield, Maine U.S.A.] [Klaus-Dieter Kemp reference: 858B - B. Hartley 2354 - Cherryfield, Maine U.S.A.]
2355	Somerset Levels Algae floating on rhyne on 3 rd March 1990
2356	Floating algae, rotifers and protozoa on a rushy flash following floods on Sedgemoor, Somerset on 3 rd March 1990
2357	Slide and sample DE/190 from J.A. Wright Collected 3 rd February 1990 Saltmarsh between Flint and Bagillt Interesting brackish flora
2358	Sample No. 109 from the Quekett Microscopical Club of Great Britain "Good mixed F/W gathering"
2359	Fluid Mount 14735 by J.R. Carter <i>Melosira arenaria</i> and <i>Diatoma heimale</i> var. <i>quadratum</i> Wet wall, Jedburgh March 1990 [Atlas Plate No.75]
2360	21 st March 1990 On sands at Berrow, Somerset Low tide in ripples
2361	21 st March 1990 On slender leaves of water plants in pond at Berrow Gold Course, Somerset
2362	21 st March 1990 Saltmarsh puddle on the axe estuary near Brean Down, Somerset
2363	21st March 1990 Floating in brackish ditch adjoining the Axe estuary near Brean Down, Somerset
2364	Slide 0996/D by J.A. Wright Ditch at Berrow Gold Course
2365	Slide 14054 by J.R. Carter Picts Well, Burghead, Scotland June 1981 <i>Denticula subtilis</i> Grun [Atlas Plate No.74]
2366	Algae scraped from boulders in the harbour at Alghero, N.W. Sardinia on 21 st April 1990
2367	Short seaweed growing on rocks just below high tide mark on the coast north of Calvi, Corsica on 24 th April 1990 [Klaus-Dieter Kemp reference: 756R - B. Hartley 2367 - North of Calvi, Corsica Coast of - Coarse]
2368	Slide 0997/Br by J.A. Wright Ditch by Plenstall Church near Chester 1 st April 1990

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Entry No.	Particulars
2369	Slide 0998/Br by J.A. Wright from a brine pit at Lower Wych. ? Cheshire 14th April 1990
2370	Rushey Bay, Bryer, Isles of Scilly 24 th May 1990 Amongst seaweed at low tide <i>Cocconeis scutellum</i> etc. Sample rejected [Atlas Plate No.55]
2371	On anchor ropes of oats moored near St. Martins, Isles of Scilly 31 st May 1990 <i>Fragilaria hyalina</i> etc.
2372	Algae floating stream in the nature reserve, St. Mary's, Isles of Scilly 1 st June 1990 <i>Melosira, Pinnularia</i> etc.
2373	Sample from Fred Loxton 89/12 Overflow sill of Portisham Pond, Dorset Collected April 1989 National Grid Reference 603-861 near Abbotsbury
2374	Sample from Fred Loxton 89/14 Scraped from stones in stream, Sydling Water, near Grimstone, Dorset April 1989 National Grid Reference 639-943
2375	Slide DE5/90 by J.A. Wright Salt pans at Burton Marsh, Dee Estuary 5 th May 1990 <i>Nitzschia punctata</i> etc. etc.
2376	Squeeze from Eel grass in The Fleet, Dorset near Moonfleet on 8 th August 1990
2377	Diatoms on algae and moss on the piers of the jetty near East Fleet, Dorset on 8 th August 1990
2378	Slide No. 1008/R from J.A. Wright of a sample collected by Paul Smith (also part of the sample) from River Warlegan near Temple in Cornwall June 1990
2379	Fluid mount by J.R. Carter of <i>Fragilaria</i> from 'Grey Mares Tail', Scotland August 1990
2380	<i>Tetracyclus emarginatus</i> (Ehrenb.) W.Sm. From Kielder, North Tyne August 1990 Slide 14765 by J.R. Carter 2380F ditto as fluid mount showing complete chains of <i>T. emarginatus</i> i.e. not in zig-zag chains [Atlas Plate No.284]
2381	Slide No. 1010/Br from J.A. Wright Saltmarsh by River Aln at Alnmouth, Northumberland Collected 31 st July 1990 <i>Nav. smithii/digito-radiata, Diploneis didyma</i> etc. [Atlas Plate No.163, 138 & 80]
2382	14 th September 1990 Algae on a fountain in the old town part of the island of Rodos (Rhodes) in Greece
2383	15 th September 1990 Algae in a fountain in the square near Mandraki Harbour on the island of Rodos, Greece
2384	16 th September 1990 Short green algae on the harbour wall of the island of Symi, Greece (2384A cleaned by K-D. Kemp) [Klaus-Dieter Kemp reference: 735R - B. Hartley 2384 - Symi Harbour, Greece - Coarse] [Klaus-Dieter Kemp reference: 734R - B. Hartley 2384 - Symi, Greece]
2385	Slide by Brian Darnton of diatoms from Agglestone Bog. <i>Brachysira serians, Frustulia rhomboides</i> var. <i>saxonica, Tabellaria flocculosa</i> and <i>Pinnularia appendiculata</i> . [Atlas Plate No.38, 104, 284 & 204]

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Entry No.	Particulars
2386	Sample of sludge from the River Ant, near How Hill, Norfolk Part cleaned by Alan Wright (J. A. Wright ref. 124/br) and part by B. Hartley (2386A) Collected 27 th October 1990
2387	El Golfo beach, Lanzarote Ex. F. Nicholson via K-D. Kemp 2387A Fine portion [Klaus-Dieter Kemp reference: 233R - F.Nicholson - El Golfo Beach, Lanzerote - Fine, <i>Orthoneis splendida</i>] [Klaus-Dieter Kemp reference: 234R - F.Nicholson - El Golfo Beach, Lanzerote - Coarse, <i>Orthoneis splendida</i>]
2388	Slide No. 14780 by J.R. Carter On tufa from Sunbiggin Tarn
2389	Slide 14705 by J.R. Carter Lago Scin Tre, Goci Pass, Ampennio in the Dolomites
2390	Selected slide by J.R. Carter of <i>Cymbella descripta</i> (Hust.) K. and L-B. From Drummodrochet, Scotland, in 1986 [Atlas Plate No.66]
2391	Slide 1017/Bd by J.A. Wright of diatoms on <i>Typha</i> in the Ormesby Broad, Norfolk, on the 27 th October 1990
2392	Green algae in a ditch near Catcott, on the Somerset Levels 26 th January 1991
2393	Diatoms associated with the algae in the above sample (2392) 26 th January 1991
2394	Slide No. 62 from J.R. Carter East of Roer, Shetlands <i>Melosira canadensis</i> Hust. and <i>Melosira arentii</i> ??? (not retained) [Atlas Plate No.128]
2395	Southampton Princess Pier, Bermuda Collected by K-D. Kemp in 1981
2396	Uncleaned sample from J.A. Wright DE3/91 Marine Lake, West Kirby, Cheshire Collected on 27 th March 1971
2397	Slide No. 14816 by J.R. Carter of a sample from Loch Duntelshaig collected in June 1990
2398	Slide No. 1024/D by Alan J. Wright Ditch near Picton, Gowy Valley Collected 1 st April 1991
2399	Slide No. 14829 by J.R. Carter Dried-up moorland peat ditch at Oxnam, Roxburgh May 1991
2400	Sample collected by K-D. Kemp on 14 th May 1991 from a tank of tropical marine fish from Indo-Pacific oceans located at Blagdon Water Gardens, Avon. <i>Triceratium formosum</i> Brighwell as ASA 79/4 and <i>T. zonatum</i> Grev. As ASA 77/37, also a 'new' ribbon forming araphid. [Klaus-Dieter Kemp reference: 235R - K.D. Kemp - Blagdon Water Gardens, Avon - Tropical Fish Tanks Fine, Fine] [Klaus-Dieter Kemp reference: 236R - K.D. Kemp - Blagdon Water Gardens, Avon Coarse – Tropical Fish Tanks Fine, Coarse]
2401	J.A. Wright sample No. DE/7/91 Collected from salt pan on the Fisherman's path, Parkgate, Cheshire 7 th June 1991
2402	<i>Amphipleura pellucida</i> collected on 19 th June 1991 with <i>Batrachospermum</i> from a stream at Lluc mountain pass in Mallorca Collected by K-D. Kemp [Klaus-Dieter Kemp reference: 251R - K.D. Kemp - Lluc Mountain pass, Mallorca Stream - <i>Amphipleura pellucida</i> on <i>Batrachospermum</i>]
2403	<i>Melosira varians</i> in the civic fountain in the city of Wells, Somerset 20 th July 1991 [Atlas Plate No.129]

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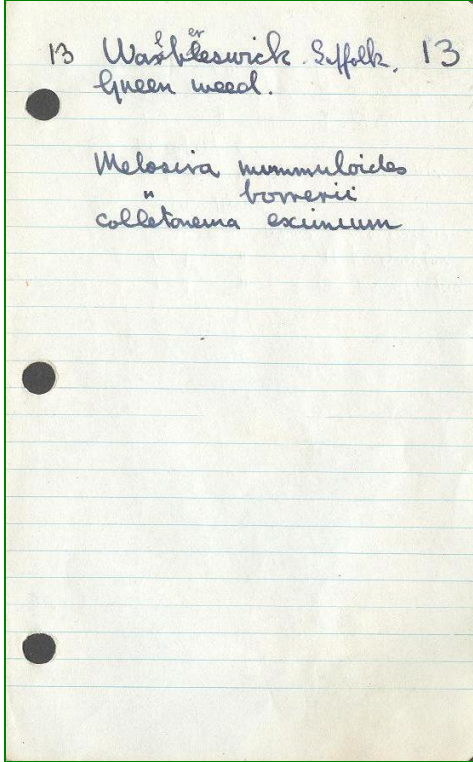
Entry No.	Particulars
2404	Slide by J.A. Wright of a sample from the pond at Wavertson, S. of Chester, on the Duke of Westminster's Estate. <i>Cymbella tumida</i> , <i>C. cornuta</i> etc. etc. [Atlas Plate No.72 & 65]
2405	Radiolaria, Barbados Slides by K-D. Kemp in synthetic resin.
2406	Spirogyra in lateral conjugation (not scalariform conjugation) Collected by K-D. Kemp from Werneth Low, Bromley, Cheshire
2407	Diatoms from fountain at Santa Margarita, Mallorca Collected by K-D. Kemp 23 rd June 1991 [Klaus-Dieter Kemp reference: 248R - K.D. Kemp - Santa Margarita, Mallorca Fountain]
2408	Cala de Sa Font, Mallorca 23 rd June 1991 Marine diatoms Collected by K-D. Kemp [Klaus-Dieter Kemp reference: 246R - K.D. Kemp - Cala De Sa Font, Mallorca - Fine] [Klaus-Dieter Kemp reference: 247R - K.D. Kemp - Cala De Sa Font, Mallorca - Coarse]
2409	<i>M. varians</i> and <i>Cocc. Pediculus</i> from stream at Fornilutz, Mallorca Collected by K-D. Kemp 23 rd June 1991 [Klaus-Dieter Kemp reference: 615R - K.D. Kemp - Fornilutz, Mallorca - F/W Stream] [Klaus-Dieter Kemp reference: 270R - K.D. Kemp - Fornilutz, Mallorca Stream - Cocconeis/Melosira]
2410	Slide 14608 by J.R. Carter <i>Diatoma mesodon</i> (Ehren.) Kütz. From a field trough at Crighton Castle J.R. Carter thinks that var. <i>mesodon</i> has finer striae than var. <i>quadratum</i> of <i>D. Hyemale</i> . ***!!! [Atlas Plate No.75]
2411	Cleaned and uncleaned samples of <i>Diatoma ehrenbergii</i> from a stream in Roxburgh Collected by J.R. Carter Date unstated [Atlas Plate No.75]
2412	Sample of uncleaned, preserved <i>Didymosphenia geminata</i> with epiphytes Collected by J.R. Carter in Roxburgh Date unstated [Atlas Plate No.76]
2413 (NC1)	<i>Encyonema caespitosa</i> Kützing preserved in mucous tubes by Nigel Charles Collected from stones in the lake at Slapton Ley Nature Reserve, S. Devon on the 12 th September 1991 Preserved initially in alcohol and later transferred to 2% formalin [Atlas Page No.196]
2414	Froth from the tidal zone of River Avon, near Averton, Gifford, South Devon Collected by N. Charles 12 th September 1991
2415	J.A. Wright sample 128/8/Br Saltmarsh, Auchencairn Bay, Dumphries, Galloway Collected 3 rd August 1991
2416	Radiolaria from Barbados Mounted by K-D. Kemp in his new mountant which gives a very bright image to these Polycistines
2417 (B)	Kenai Peninsula, Alaska Ex. R.B. McLaughlin Cleaned by R.I. Firth November 1967 Large fraction very good
2418 (B)	Dunkirk, Maryland, United States of America Cleaned by R.I. Firth in 1946 Re-cleaned in 1992 by B. Hartley
2419	Sample collected from squeeze of <i>Lemna Minor</i> in the ditch alongside the road from Catcott on the Somerset Levels, 11 th October 1991 Collected by B. Hartley with Nigel Charles <i>Epithemia adnata</i> [Atlas Plate No.91]

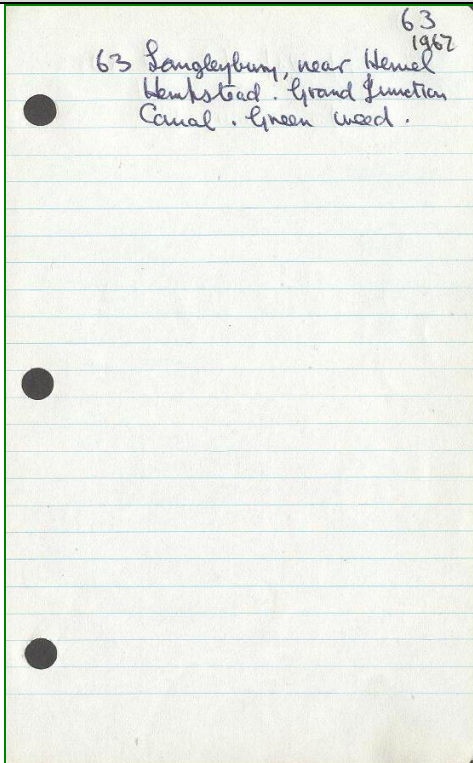
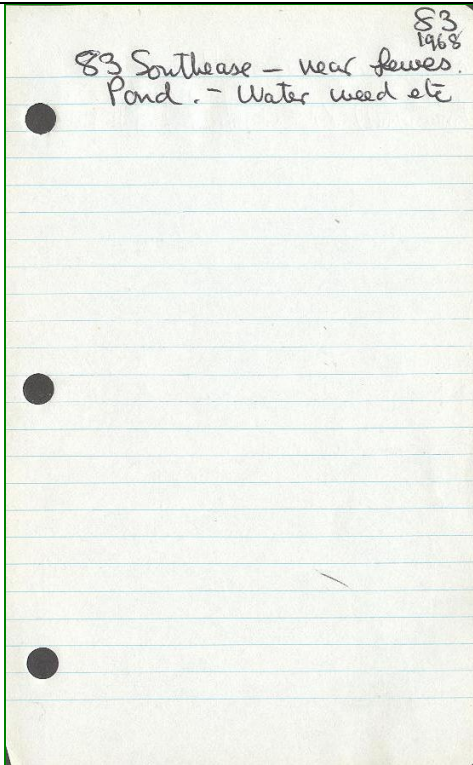
Entry No.	Particulars
2420	<p>Kenai Peninsula, Alaska Fossil F/W earth ex R.B. Mclaughlin Cleaned L.N. Bramley and R.I. Firth in in 1969/70</p> <div style="border: 1px solid green; padding: 5px;"> <p style="text-align: right;">Cleared 1967 ⁷⁴</p> <p>674 Alaska. Kenai Peninsula ex R.B. Mclaughlin. Fossil material RMcL</p> <p>674 Best sample properly cleaned <i>excellent</i> (LNB)</p> <p>674a Another good sample cleaned of agglomerate by Mr Firth. (LNB & RIF) <i>excellent</i></p> <p>674b. Panned residue from 74. Contains some agglomerate <i>excellent</i> (LNB)</p> <p>674c Sample < 400. Screened thru' nylon. Contains some agglom which could not be removed with NaOH. (Diatoms dissolved first). (LNB) <i>Very good</i></p> </div> <p style="text-align: center;">L. N. Bramley (Cleaned Diatoms) Book 2</p>
2421	<p>Slide by J.A. Wright Sample from Loch Trool, Galloway 2nd August 1991</p>
2422	<p>Slide by J.A. Wright Sample River Fleet at Gatehouse, Dumfries Collected 5th August 1991</p>
2423	<p>Slide from Frithjof Sterrenburg of a sample from a tidal pool in Bergen, N. Holland Containing <i>Nav. orthonoides</i> Hust. Et al.</p>
2424	<p>Sample of diatoms from E. Markham Sallygap, Co. Wicklow, Eire From turf at roadside ditch 10th April 1989 <i>Pinnularia rupestris</i> [Atlas Plate No.228]</p>
2425	<p>Sample from E. Markham Lower lake, Brittas Ponds, shallow pool May 1989 (H2O2) <i>Cyclotella glabriuscula</i> (Grun.) Hakansson [Atlas Plate No.58]</p>
2426	<p>Sample from E. Markham On milfoil in a sunken boat October 1989 Brittas Ponds (H2O2) Rich in <i>Cymbella cistula</i> [Atlas Plate No.66]</p>
2427	<p><i>Thalassiosira ? wongii</i> Mahoof from Malasia, Sumatra Selected mount by Dr. Bradley</p>
2428	<p>Sample from a stream in the upland valley of Borsa, Transylvania in the Caparthans, Romania Collected by Brian Darnton in October 1991 whilst on a relief organisation trip</p>

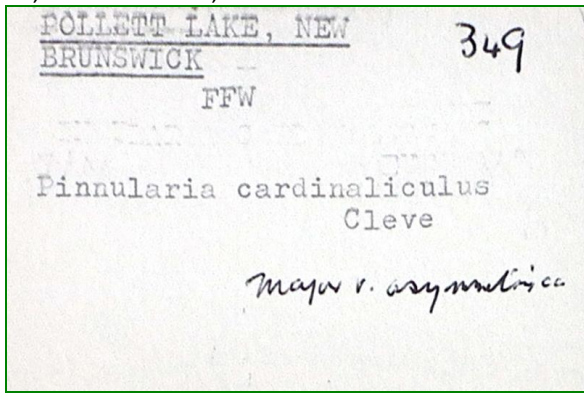
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Entry No.	Particulars
2429	<i>Arachnoidiscus ornatus</i> etc. from Santa Ana, California, United States of America K-D. Kemp sample 777R Collected by James Solliday Ex K-D. Kemp via Colin Lamb [Klaus-Dieter Kemp reference: 911B - J.Solliday - Santa Ana, California U.S.A. - F.W]
2430	Slide 507 by F.D. Monson Antarctica 57°S 39°W Core sample
2431	Slide 514 by F.D. Monson Antarctica 57°S 39°W Core sample
2432	Slide 1055/Br by J.A. Wright Saltmarsh channel, Dale, Pembrokeshire Collected 26 th October 1991 A good representative sample
2433	Slide 14855 by J.R. Carter Freshwater pool, River Orwell area October 1991
2434	Sample No. 129/6Br from J.A. Wright of diatoms from a lagoon at Dale, Pembrokeshire 26 th October 1991
2435	Sample from mud at low tide on the River Deben, near Woodbridge, Suffolk 11 th November 1991 Ex. E. Markham partially cleaned by him Later separated over a 600 mesh sieve by B. Hartley
2436	Slide by Dr. E. Markham Lower Lake, Brittas Ponds, Co. Dublin 3 rd November 1991
2437	Upper Liffey, Ballyward On stones June 1989 Slide by E. Markham
2438	Slide 14854 from J. R. Carter Fish tank filter Hawick water 1991
2439	Slide 1760 by J.R. Carter From <i>Cladophora</i> balls on Loch Watten, Caithness June 1991
2440	Slide from J.R. Carter Lake Heron, New Zealand Material supplied by Jim Broadhead (Heavy fraction)
2441	As 2440 but Light fraction
2442	F/M Dunkirk, Maryland, United States of America (Retained 75µ)
2443	As 2442 but passing 75µ
2444	Sample collected by Fred Loxton from the aerated edge of a concrete ford in Sydling Water, near Cerne Abbas in Dorset in August 1990 Cleaned by F. Loxton and later sieved over 600 mesh by B. Hartley (FCL90/16) National Grid Reference 31 635-003
2445	Minute <i>Achnanthes</i> sp. Collected from a rain butt at Glenaraneen, Brittas Co., Dublin, Eire January 1992
2446	Fossil material in rock form from J.A. Long passed to J.R. Carter in 1930 "Nevada dicalite" Passed to B. Hartley for breaking down etc.
2447	Marls west of Pyramid Lake, Nevada, United States of America White powder passed to J.R. Carter by E. James Solliday and then on to B. Hartley in 1992

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Entry No.	Particulars
2448	Soft white rock (Miocene F/W) middle section of Nightingale Quarry, West Nevada, United States of America Ex. E. James Solliday via J.R. Carter to B. Hartley for cleaning
2449	<i>Pterodictyon gemma</i> (Ehrenb.) D.G. Mann in a pure gathering by K-D. Kemp from Uphill boatyard, Avon Collected January 1991
2450	Sample of rock from Mors, Jutland, Denmark Supplied by E. Ives of Colchester. Broken down and subsequently cleaned in acids by B. Hartley, but the diatom content is disappointing
2451	Diatomaceous earth from unknown locality Large quantity of small centrals
2452	Recent diatoms from Bollinas Bay, Duxbury's Reef, California, United States of America Contains <i>Aulacodiscus</i>
2453	<p>Sample collected by Dr. L.N. Bramley in 1966 from weed washings in the estuary at Walberswick, Suffolk Sample '13' [Atlas Plate No.129]</p>  <p style="text-align: right;">L. N. Bramley (Cleaned Diatoms) Book 1</p>

Entry No.	Particulars
2454	<p>Sample '63' collected by Dr. L.N. Bramley in 1967 from the Grand Junction Canal at Langleybury, near Hemel Hempstead (<i>M. varians</i> auxospores) [Atlas Plate No.129]</p>  <p style="text-align: right;"><i>L. N. Bramley (Cleaned Diatoms) Book 1</i></p>
2455	<p>Sample No. 83 collected by Dr. L.N. Bramley in 1968 from Southease, near Lewes, Sussex</p>  <p style="text-align: right;"><i>L. N. Bramley (Cleaned Diatoms) Book 1</i></p>
2456	<p>Slide by F.E. Sterrenburg from La Rochelle, West coast of France Contains "the true <i>G. balticum</i>" Possibly the classic material from Tempere et Peragallo</p>
2457	<p>Slide from F.E. Sterrenburg Ditch at Sijbekarspel, N. Holland</p>
2458	<p>Slide by J.A. Wright No.1043/R River Gowey, Hockenhull, Cheshire 23rd November 1991 <i>Navicula capitoradiata</i> Germain [Atlas Plate No.133]</p>

Entry No.	Particulars
2459	Diatomaceous earth Bolin, Isle of Skye
2460	Fossil F/W rock Pollett Lake, Kings Co., New Brunswick, United States of America  <p style="text-align: center;"><i>R.I. Firth index card</i></p>
2461	Diatomaceous Earth, Black Moss, Aberdeenshire
2462	Sample containing <i>Epithemia</i> which needs re-cleaning Source unstated Sample discarded later as useless
2463	Gravel Pit, Langley Point 12 th April 1989
2464	Slide by Nigel W. Charles of diatoms from Civic fountain in the centre of Wells, Somerset Collected by B. Hartley in July 1991 Cleaned by N.W. Charles in April 1991 His first cleaning!!!!
2465	Selected slide by J.R. Carter of <i>Surirella roba</i> Le Clerq Collected from the River Dart in February 1992 [Atlas Plate No.278]
<p>The following 12 samples of Fossil Marine rock were given to J.R. Carter by Arthur Doig in about 1965. Shortly after this Mr. Doig was lost at sea in a round the world voyage. He had given a similar set of rock samples to Frank Hobbs who was then Librarian of the Quekett Microscopical Club. These latter samples of rock had already been passed on to B. Hartley following the death of R.I. Firth in 1982. In those cases marked with a * the samples are now being combined prior to freezing and breaking down in readiness for cleaning in acids etc. Also some samples from L.D. Coombes also combined. All 12 samples are from the Oamaru deposits in South Island, New Zealand ✓=part sent to J.R. Carter September 1992</p>	
2466✓	Bains Upper deposit
2467✓	Bains Middle deposit (diatoms few but interesting)
2468✓	Bains Lower deposit
2469✓	Cormack's Extension
2470✓	Forrester's Hill deposit (mainly sponge spicules) – No diatoms
2471✓	Jacksons Paddock (diatoms few but interesting)
2472✓	Upper Papakaio [Klaus-Dieter Kemp reference: 755B - K.D. Kemp - Upper Papakaio, N.Z. - Fine] [Klaus-Dieter Kemp reference: 955R - K.D.K\N.C.F177 - Upper Papakaio, Oamaru N.Z.] [Klaus-Dieter Kemp reference: 959B - K.D.K/N.Charles F177 - Upper Papakaio, Oamaru N.Zealand] [Klaus-Dieter Kemp reference: 956R - K.D.K\N.C.F177 - Upper Papakaio, Oamary N.Z.] [Klaus-Dieter Kemp reference: 754B - K.D. Kemp - Upper Papakaio, Oamaru N.Z. - Coarse]
2473✓	Lower Papakaio
2474✓	Totara
2475✓	William,s Bluff
2476✓*	Uncertain location (No label)
2477✓*	Uncertain location (No label)

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Entry No.	Particulars
2478✓	Allan's (Allen's) Farm Ex. L.D. Coombes
2479	Troublesome Gully Ex. L. D. Coombes (mainly sponge spicules) – No diatoms
2480	Horsnbury Mill Pond, near Chard, Somerset 24 th April 1992 Diatoms and filamentous algae in the overflow race from the pond Part cleaned by Nigel W. Charles Part preserved in Cu. Ni. And 2% formalin
2481	Little Norton Mill Pond, Norton-sub-Hamdon, Somerset 24 th April 1992 Algal squeeze from top pond Cleaned by N.W. Charles
2482	As 2481 but floating 'muck' on the main millpond 24 th April 1992 Separate parts cleaned by B. Hartley and N.W. Charles
2483	Brown algae floating on rhyme, w. of A361 on Kings Sedgemoor, Somerset 30 th April 1992
2484	Green filamentous algae on the walls of the boating pool near Knightstone Pier, Weston-super-Mare 2 nd May 1992 <i>Rhabdonema arcuatum</i> , <i>Melosira moniliformis</i> etc. [Atlas Plate No.249 & 128]
2485	Desmids and other algae separated by Nigel W. Charles from a sample of <i>Oscillatoria</i> taken from the weir at Dinnington Ponds, Somerset on 24 th April 1992 W.N. Charles sample No. 107. Preserved in 2% formalin after N.B.S. algal fixative
2486	Algae in small waterfall, Temperate House, Kew Gardens, London 18 th May 1992 Mainly blur-green algae with a few diatoms
2487	Floating algae in small stream within the Temperate House at Kew Gardens (Malaysian House) 18 th May 1992
2488	Algae scraped from the inside of a tropical fish tank at Blagden Water Gardens. 2 nd May 1992 W.N. Charles ref. No. 123 Part preserved in 2% formalin after Cu.Ni, other part cleaned in acids by Nigel W. Charles.
2489	Floating algae on the entrance stream South end of Sutton Bingham Reservoir, near Yeovil, Dorset Collected by W.N. Charles on the 15 th May 1992
2490	Slide No. 14883 from J.R. Carter Liverwort washings, Histon, Cambridgeshire Ex Hilary Belcher <i>Aulacosira circularis</i> (Ehren.) Crawford
2491	Slide No. 14885 from J.R. Carter Garden tub, Elm Bank, Denholm, Roxburgh May 1992 <i>Caloneis molaris</i> [Atlas Plate No.44]
2492	Fluid mount by J.R. Carter Synton Lock, Roxburgh, January 1992 Colonies of <i>Fragilaria</i> and <i>Diatoma</i>
2493	As 2484 but cleaned by W.N. Charles and sieved by B. Hartley

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Entry No.	Particulars
2494	Boating Pool, Weston-super-Mare, Avon 11 th May 1992 Collected and cleaned by K-D. Kemp <i>Rhabdonema adriaticum</i> (K-D. Kemp 293R) [Atlas Plate No.249] [Klaus-Dieter Kemp reference: 822R - K.D. Kemp - Boat Lake, Weston-S-Mare Avon] [Klaus-Dieter Kemp reference: 293R - K.D. Kemp - Boat Lake, Weston-Super-Mare Avon - 1st cleaning(coarse)] [Klaus-Dieter Kemp reference: 294R - K.D. Kemp - Boat Lake, Weston-Super-Mare Avon - 1st cleaning(fine)] [Klaus-Dieter Kemp reference: 295R - K.D. Kemp - Boat Lake, Weston-Super-Mare Avon - 2nd Cleaning(Coarse)] [Klaus-Dieter Kemp reference: 296R - K.D. Kemp - Boat Lake, Weston-Super-Mare Avon - 2nd cleaning(fine)] [Klaus-Dieter Kemp reference: 866R - K.D. Kemp - Boat Lake, Weston-Super-Mare Avon - Rhabdonema adriaticum]
2495	As 2494 but cleaned a second time by K-D. Kemp (K-D. Kemp 295R)
2496	Claremont, Florida, United States of America 1927 Coarse Ex Sydney Chaffer via Klaus D. Kemp K-D. Kemp 297R) [Klaus-Dieter Kemp reference: 298R - S.Chaffer - Claremont, Florida U.S.A. - Fine] [Klaus-Dieter Kemp reference: 299R - S.Chaffer - Claremont, Florida U.S.A. - Medium] [Klaus-Dieter Kemp reference: 297R - Ex.S.Chaffer - Claremont, Florida U.S.A. - <i>Neidium iridis</i>, Coarse] [Klaus-Dieter Kemp reference: 038B - Latham - Claremont, Florida U.S.A.]
2497	Castel, Hungary (Coarse) Ex Sydney Chaffer via Klaus D. Kemp [Klaus-Dieter Kemp reference: 974R - Castel, Hungary] [Klaus-Dieter Kemp reference: 057B - Castel, Hungary] [Klaus-Dieter Kemp reference: 186B - Castel, Hungary] [Klaus-Dieter Kemp reference: 283R - S.Chaffer - Castel, Hungary] [Klaus-Dieter Kemp reference: 284R - S.Chaffer - Castel, Hungary] [Klaus-Dieter Kemp reference: 023G - A.L.Brigger/R.I. Firth - Castel, Hungary - Heavy] [Klaus-Dieter Kemp reference: 024G - A.L.Brigger/R.I. Firth - Castel, Hungary - Light] [Klaus-Dieter Kemp reference: 080G - J.A.Long H176 - Castel, Hungary] [Klaus-Dieter Kemp reference: 716B - Castel M. Szurdock, Hungary - F.M] [Klaus-Dieter Kemp reference: 509B - J.A.Long H36 - Castel M. Szurdok, Puspoke Hungary - F.M]
2498	As sample 2494 but collected 21 st May 1992 and immediately fixed un Cu.Ni. solution and later prserved in 2% formalin by K-D. Kemp Part cleaned later by B. Hartley and separated above and below 25µ
<p>The following eight samples – Nos. 2499-2506 were collected by W.N. Charles on the 2nd May 1992 during an outing with Klaus Kemp and Bernard Hartley. All the samples were cleaned by W.N. Charles, and a part of each sample was fixed in Cu.Ni. acetate and later preserved in 2% formalin.</p>	
2499	W. N. Charles ref. 114 Pond on Berrow Golf Course Swepy from aquatic vegetation National Grid Reference ST 293-526
2500	W. N. Charles ref. 116 Outflow into River Axe, West of bridge at Breadon, Somerset National Grid Reference ST 340-564 ‘scraped off stones’
2501	W.N. Charles ref.117 Roadside ditch at Brean Somerset National Grid Reference ST. ????? Algae floating on rhyne

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Entry No.	Particulars
2502	W.N. Charles ref.118 National Grid Reference ST 312-619 Marin boating lake, Weston-super-Mare Picked off side of jetty
2503	W.N. Charles Ref.119 National Grid Reference ST 314-534 Scrape from mud in the creek at Uphill boat yard, Avon Diatoms later allowed to crawl out
2504	W.N. Charles ref.120 National Grid Reference ST 314-534 As 2503 but at a different place in the boatyard mud
2505	W.N. Charles ref.121 National Grid Reference 344-534 As 2504 but after crawling out, diatoms scraped off with a paint brush
2506	W.N. Charles ref.122 Algae collected from the waterfall in the gardens of Blagden tropical fish centre, Avon (sample discarded – few diatoms)
2507	Filamentous algae and epiphytic Licmophora on the foreshore at Dungarvan, Southern Ireland 10 th June 1992 Part fixed in Ci.Ni., and later preserved in 2% formalin
2508	Uncleaned sample Ni. JAW/131/1L Pickmere, Cheshire Few diatoms other than <i>Gyrosigma</i> , small <i>Surirella</i> and a few chains of <i>Fragilaria</i> Desmid – <i>Closterium</i> , and Green Algae – <i>Pediastrum</i> Single fluid mount
2509	Fluid mount of preserved diatom s from Craik Borthwick Water Collected by J.R. Carter on 30 th May 1992
2510	<i>Achnanthes pediculus</i> , epiphytic on filamentous algae in roadside small stream at Cerne Abbas, Dorset 29 th June 1992 Fixed in Cu.Ni and later preserved in 2% formalin
2511	Slide by Alan Hepworth of squeeze from sphagnum in small stream in River Ifron valley, Powys Collected 25 th May 1992 <i>Eunotia pectinalis</i> var. <i>ventralis</i> , <i>Tabellaria ventricosa</i> , <i>Diploneis ovalis</i> , etc. [Atlas Plate No.98 & 85]
2512	Calvert County, Maryland, United States of America [Klaus-Dieter Kemp reference: 047G - Brit.Museum/R.I. Firth - Calvert Co, Loc 292 Maryland U.S.A.] [Klaus-Dieter Kemp reference: 048G - Brit.Museum/R.I. Firth - Calvert Co, Loc 5 Maryland U.S.A.] [Klaus-Dieter Kemp reference: 738B - Calvert Co., Maryland U.S.A.] [Klaus-Dieter Kemp reference: 277R - B. Hartley - Calvert County, Maryland U.S.A.]
2513	<i>Melosira varians</i> and <i>Diatoma vulgare</i> from a stream in Exmoor, Somerset Uncleaned. Collected with Alan Hepworth 28 th July 1992 [Atlas Plate No.129 & 75]
2514	Slide by Alan Hepworth of diatoms from the outlet race at Hornsbury Mill, near Chard, Somerset Collected 28 th July 1992
2515	Diatoms floating amongst spirogyra on the roadside pond in Castle Carey, Somerset 6 th August 1992
2516	<i>D. vulgare</i> and <i>M. varians</i> etc., on stones at Larcombe Brook, Exmoor National Grid Reference SS 906-352 Collected by Alan Hepworth on 28 th July 1992 Slide by A. Hepworth of sample similar to 2513 [Atlas Plate No.75 & 129]
2517	<i>M. varians</i> floating at the above site on 28 th July 1992 by Alan Hepworth A. Hepworth slide 1084

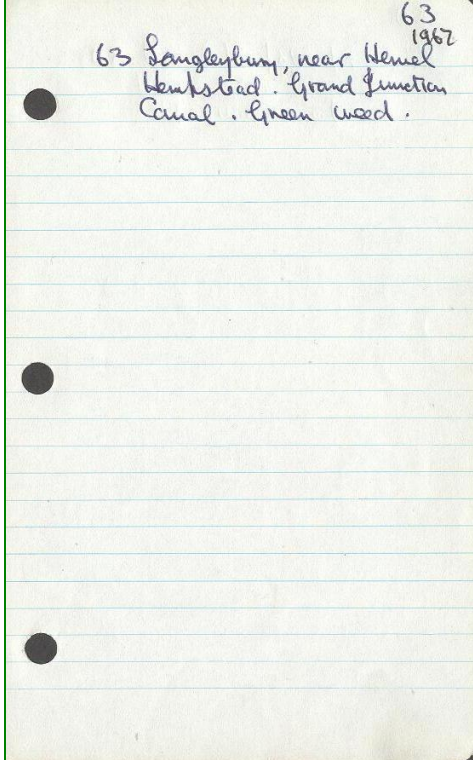
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Entry No.	Particulars
2518	Temporary mount of benthic diatoms floating in a patch on the South Main Drain at Catcott Bridge on the Somerset Levels. Collected by A. Hepworth on 5 th August 1992 One temporary mount only by A. Hepworth
2519	Diatoms extracted from mud and 'hornwort' in ditch N. of Crown Inn on Catcott Heath, Somerset 9 th August 1992 Cleaned by B. Hartley
2520	Diatoms extracted from stems and leaves of Yellow Water Lily and other reeds in the South Drain near the former Catcott Railway Station, Somerset A. Hepworth used his new drag to pull the weeds out of the river. Very successful!! Cleaned by B. Hartley
2521	Minute trickle from the 'Holy Well' at Edington, on the Somerset Levels Collected by Alan Hepworth Cleaned by B. Hartley
2522	Slide by A. Hepworth Stone Trough, Chatsworth Park, Derbyshire 6 th August 1992
2523	Sample from stream entering the top lake at Ford Abbey, Dorset 19 th August 1992
2524	Mixed sponge spicules and other heavy dregs from Oamaru, New Zealand Sample Nos. 2466 to 2479
2525	Kieselguhr Unknown locality Sample split – above and below 25 μ
2526	Newport Beach, California, United States of America Dated 30 th September 1974 Supplier unknown
2527	Slide 14910 by J.R. Carter Loch Morlich Stone at exit August 1992
2528	Sample 1044/D from J.A. Wright Ditches on North Frodsham Marshes in North Cheshire described as 'evil and foul smelling ditches' Collected 10 th August 1992
2529	Mixed Oamaru, New Zealand From samples boiled over during cleaning in 1992 Mainly from material ex Arthur J. Doig (sample not retained)
2530	<i>Eunotia gracilis</i> Meister [<i>E. gracilis</i> (Ehren.) Rabh.] From sphagnum in Priddy Pools, Mendips, Avon September 1992 Alan Hepworth slide No. 1067, very nicely cleaned
2531	Slide by J.R. Carter Field drain, Bognor Regis May 1942 Several <i>Synedra</i> sp.
2532	Slide 14917 by J.R. Carter From sphagnum roots, Moorfoot Hills J.R. Carter says <i>Eunotia paludosa</i> , but they are not typical [Atlas Plate No.97]
2533	Sample of moss etc., scraped from stones in the river Afon Irfan, near Llanwtrid Wells, Powys, Wales on 25 th September 1992 whilst on holiday at Cwm Irfon Lodge in 'Cockloft'
2534	Very slippery filamentous algae in shallow pond near Pig Bush in the New Forest, Hampshire 8 th October 1992
2535	Sample collected from Lily stems and leaves in Hatchet Pond, neat Beaulieu in Hampshire 8 th October 1992
2536	As 2535 but collected by Alan Hepworth on 20 th September 1992

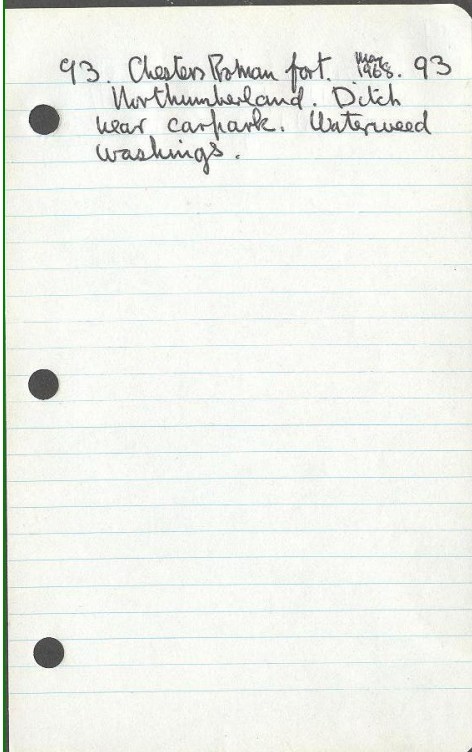
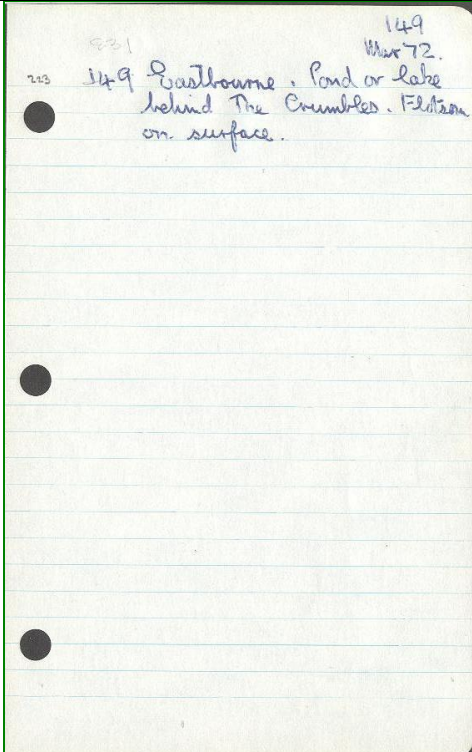
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Entry No.	Particulars
2537	Slide No. 14923 by J.R. Carter Wet rocks on Great Wherside September 1992
2538	Slide No. 14919 by J.R. Carter Kemmore on Loch Torridon September 1992
2539	Sample W.N. Charles F.001 cleaned by W. Nigel Charles Lake Myvatn, Iceland supplied by C.N. Walter
2540	Sample W.N. Charles F.004 cleaned by W. N. Charles Lompoc, California
2541	Slide 1045/Br by J.A. Wright Brackish stream, Marshside, Southport 1992 <i>Nav. avenacea</i> and <i>G. hippocampus</i> [Atlas Plate No.132 & 114]
2542	Slide No. 1047/Br Crosby Marina Collected by Frank Monson 11 th April 1992 Good <i>Achnanthes brevipes</i> and other brackish/marine sp. [Atlas Plate No.1]
2543	Sample W.N. Charles B026 8 th October 1992 Tidal gutter at a quay, about one mile west of Lepe, Hants, near The Solent
2544	Sample collected by Alan Hepworth from the mudflats at Inchmere, in Hampshire on 17 th October 1992 <i>Scoliotropis latestriata</i> etc. [Atlas Plate No.254]
2545	Slide by J.R. Carter No. 13711 of <i>Pinnularia transversa</i> from Balcombe, Sussex [Atlas Plate No.235]
2546	Slide no. 14927 <i>Pinnularia subcapitata</i> and vars. From Manor Water Bog, Peebles [Atlas Plate No.233]
2547	Slide no. 14928 by J.R. Carter Fluid mount of <i>Achnanthes minutissima</i> [Atlas Plate No.6]
2548	Sample from Lake Baikal, E. Russia obtained from Roger Flower, 1991 and cleaned by K-D. Kemp in 1992 [Klaus-Dieter Kemp reference: 312R - R.Flower - Lake Baikal, Russia - Sediment]
2549	Sample collected on 31 st October 1992 by Alan Hepworth from Uphill Boat Yard, Avon, and later cleaned very well by him. A pure gathering of <i>Pleurosigma angulatum</i> [Atlas Plate No.245]
The following slides were collected by W.N. Charles on 31 st October 1992	
2550	R030 Submerged stone at West-super-Mare boating pool
2551	R031 Scrape from puddle on pathway Weston-auper-Mare boating pool
2552	R032 Filamentous material from puddle on pathway, Weston-super-Mare boating pool (<i>Berkeleya rutilans</i> and <i>Tabularia fasciata</i>) [Atlas Plate No.34]
2553	R033 On seaweed at West-super-Mare boating pool
2554	R034 On rocks at outlet of Weston-super-Mare boating pool
2555	R036 Lime green patch (<i>Pl. angulatum</i>) on mud at Uphill boatyard [Atlas Plate No.245]
2556	R037 Olive green patch (<i>Gyrosigma</i>) on mud at Uphill boatyard

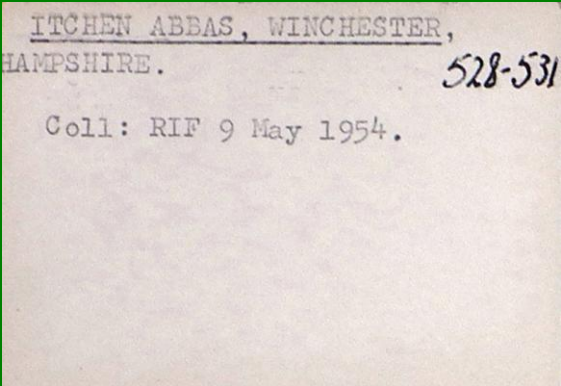
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Entry No.	Particulars
2557	R038 Drainage discharge at Uphill boat yard, Avon on 31 st October 1992
2558	R039 Main outlet discharge at Uphill boat yard, Avon on 31 st October 1992
2559	R040 Sandy beach at Uphill 31 st October 1992 (2559A sample by A. Hepworth)
2560	R041 Top pond, Berrow golf course 31 st October 1991 On dead vegetation
2561	Filamentous algae <i>Oedogonium</i> preserved in 2% formalin after Cu.Ni. acetate treatment Ex K-D. Kemp in November 1992
2562 (& 2562A)	Slides 14934 and 14935 by J.R. Carter Murray Nature Reserve, Dunbar coast
2563 (& 2563A)	Slides by J.R. Carter 14936 and 14937 Nuir Nature Reserve, Dunbar Coast
2564	<p>Sample No.63 from L. Bramley Junction Canal at Langlebury, Hemel Hempstead Washings from green weeds in 1967</p>  <p>L. N. Bramley (Cleaned Diatoms) Book 1</p>

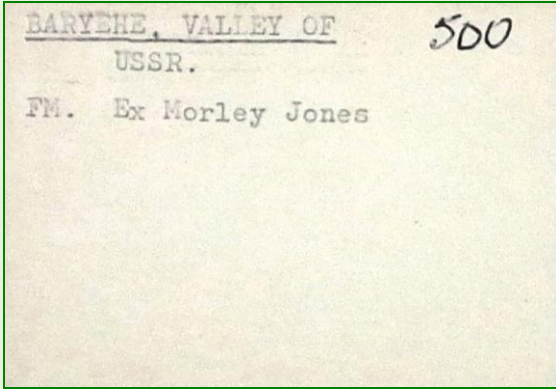
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Entry No.	Particulars
2565	<p>Sample No. 93 from L.N. Bramley Waterweed washings from ditch near the car park at Chesters Roman Fort, Northumberland May 1968</p>  <p><i>L. N. Bramley (Cleaned Diatoms) Book 1</i></p>
2566	<p>Sample No.149 from L.N. Bramley Marine lake at the Crumbles, Eastbourne March 1972 Flotsam on the surface</p>  <p><i>L. N. Bramley (Cleaned Diatoms) Book 1</i></p>
2567	<p>Slide by A. Hepworth Marine boating lake, Weston-super-Mare 1079-2</p>
2568	<p>Slide by A. Hepworth Mud surface , Uphill boatyard 31st October 1992 1074-1</p>
<p>The following 14 samples are taken from the collection of the late R.I. Firth</p>	

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Entry No.	Particulars
2569	R.I. Firth 459/460 Hinton Marsh, Hampshire Collected 10 th April 1955 Now separated over 25µ mesh as 2569 and 2569A <i>Pl. angulatum</i> [Atlas Plate No.245]
2570	R.I. Firth 462 Pagham Harbour, Sussex Collected June 1947 <i>Stauroneis</i>
2571	R.I. Firth 469 Ditch at Beddingham level crossing, near Lewes, Sussex Collected 1946 <i>Pleurosigma angulatum</i> and <i>Pleurosigma delicatulum</i> W.Sm. [Atlas Plate No.245]
2572	Ditch at Beddingham level crossing, Lewes, Sussex Now combined with similar samples collected from the same site R.I. Firth 488 Collected 6 th May 1946 and R.I. Firth 492 collected 1946 also <i>C. amphibaena</i> , <i>Su. striatula</i> , <i>Pl. elongatum</i> , <i>An. sculpta</i> , <i>Pleurosira laevis</i> [Atlas Plate No.39, 279, 246, 26 & Page 510]
2573	R.I. Firth 489/490/491/487 collected from the above Beddingham site, but in 1955 Now separated over 25µ sieve as 2573 and 2573A
2574	R.I. Firth 519/520 collected 9 th May 1954 From Chriton, Alresford, Hampshire Now separated over 25µ sieve as 2574 and 2574A
2575	R.I. Firth 529/530/531 Itchen Abbas, Winchester, Hants Collected 9 th May 1954 Now separated over 25µ sieve as 2575 and 2575A <div style="text-align: center;">  <p>ITCHEN ABBAS, WINCHESTER, HAMPSHIRE. 528-531</p> <p>Coll: RIF 9 May 1954.</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
2576	R.I. Firth 539 Lost Springs Ranch, California, United States of America F/FW ex R.F. Behan Cleaned by R.I. Firth in August 1955 [Klaus-Dieter Kemp reference: 452B - J.A.Long L32 - Lost Springs Ranch, California U.S.A. - F.F/W]

Entry No.	Particulars
2577	<p>Lochmills, Fife, Scotland R.I. Firth 534 Collected by Geo. West</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;"> LOCHMILLS, FIFE, SCOTLAND. 534 </p> <p style="text-align: center;">Coll: Geo. West</p> </div> <p style="text-align: center; margin-top: 5px;"><i>R.I. Firth index card</i></p>
2578	<p>R.I. Firth 544/545/546 Fishbourne Mill Pond, Chichester Collected 3rd September 1966 Now separated over 25μ sieve as 2578 and 2578A</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: right; margin-right: 20px;">29 00866</p> <p>29 Fishbourne Mill near Chichester Harbour</p> <p>● Surface scum near sluice</p> <p>Treated with Bio-lex.</p> <p>●</p> <p>29/A: Cleaned by Mr Firth Micro-diatoms.</p> <p>29/B: Cleaned by Mr Firth</p> <p>●</p> <p><i>Synechra capitata</i> <i>Cocconeis laucedatum</i> <i>Pleurosigma attenuatum</i> <i>Aphora ovalis</i> <i>Cocconeis</i> <i>Cymatopleura sola</i>.</p> </div> <p style="text-align: center; margin-top: 5px;"><i>L. N. Bramley (Cleaned Diatoms) Book 1</i></p>
2579	<p>R.I. Firth 547 Isle of Lewis, Scotland Cleaned January 1944 Detailed locality not stated</p>
2580	<p>R.I. Firth 556/7/8 West Dean, East Sussex Drainage channel Now separated over 25μ sieve as 2580 and 2580A <i>Thalassiosira weissflogii</i> [Atlas Plate No.286]</p>
2581	<p>R.I. Firth 658 Burton Pond, West Sussex Collected March 1980 Cleaned by A.G. Greenfield "Large"</p>

Entry No.	Particulars
2582	Valley of Baryche, U.S.S.R. Ex Morley Jones F/M <div style="text-align: center; border: 1px solid black; padding: 5px;">  <p>BARYCHE, VALLEY OF 500 USSR. FM. Ex Morley Jones</p> </div> <p style="text-align: center; font-size: small;">R.I. Firth index card</p>
2583	Sample from J. Alan Wright uncleaned DE2/92 Saltpan near Fisherman's path, Parkgate, Cheshire (Dee Estuary) 13 th December 1992 Good range of brackish/marine sp. <i>Pleurosigma</i> , <i>Amphiprora</i> , <i>Navicula</i> , <i>Amphora</i> , <i>Gyrosigma</i> , <i>Stauroneis</i> , <i>Diploneis</i> , <i>Nitzschia</i> , <i>Haslea</i> , <i>Surirella</i> , <i>Plagiotropis</i> etc.
2584	Number Not Recorded
2585	Fossil marine diatoms from Simbirsk, Soviet Russia
2586	Fossil marine diatoms from Carlova, Soviet Russia R.I. Firth 29 th January 1948
2587	Fossil marine diatoms from Kamischev, Soviet Russia A combination of samples from: J.A. Long K37 – Sydney Chaffer, cleaned R.I. Firth 1966 – Chaffer and Barker – Brigger, October 1941 – cleaned R.I. Firth 1966 – ex. Laporte All these were in old corked tubes. The material is now separated over a 25µ sieve and the passing material is numbered 2587A [Klaus-Dieter Kemp reference: 589B - J.A.Long K37 - Kamischev, Russia - F.M]
2588	Fossil F/W Ukraine, Russia Ex. Wards
2589	Ananino, Russia Combined sample from <ol style="list-style-type: none"> 1. J.A. Long A45 2. Ex B.M. 3. Ex Morley Jones via E.P. Herlihy [Klaus-Dieter Kemp reference: 830B - Ex S.Chaffer - Ananino, Russia - Triceratium, Aulacodiscus, Actinoptychus.] [Klaus-Dieter Kemp reference: 100B - Tempere - Ananino, Russia]
2590	Fossil marine samples from Inza, Russia Combined sample from: F.C. Wise – S.H. Meakin 1083 – Morley Jones via E.P. Herlihy – and R.I. Firth July 1955 Meakin Diatom Collection: 1083 Inza, Russia, thro 200 [Klaus-Dieter Kemp reference: 873B - B. Hartley 2590 - Inza, Russia F.M - F.M]
2591	Fossil marine samples from Singiliewsky, Russia Combined samples from: J.A. Long S/79 and 79X – S.H. Meakin – ex. B.M.
2592	Ambashiri, Japan Ex Tempere 10 th June 1915
2593	Atika, Japan J.A. Long JAL/A24 via S.H. Meakin [Klaus-Dieter Kemp reference: 321B - Steer - Atika, Japan] [Klaus-Dieter Kemp reference: 846B - Ex S.Chaffer - Atika, Japan N.Island - F.M Coarse] [Klaus-Dieter Kemp reference: 834B - S.Chaffer - Atika, Japan N.Island - Fine F.M. Broken Coscinodiscus]

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Entry No.	Particulars
2594	Endamura, Katta, Japan <i>Stephanodiscus niagarae</i>
2595	Shishibashi, Higadhi-dorunwra, Shimokuto peninsula, Aomori peninsula, Japan Miocene F/M [Klaus-Dieter Kemp reference: 878B - B. Hartley 2595 - Shishibashi, Japan - <i>Coscinodiscus robustus</i> , <i>Actinoptychus</i> .]
2596	Japanese fish stomach Combined JFB 172 and 179
2597	Japanese oysters Ex Tempere and also J.F.B.
2598	Hakodate, Japan B. Hartley February 1970
2599	Hakodate, Japan R.I. Firth 1945
2600	Nagasaki, Japan Tempere 2/10 – not retained [Klaus-Dieter Kemp reference: 013B - Tempere - Nagasaki, Japan 796]
2601	Yesso, Japan “Fossil F/W ex J.A. Doig” Contains marine centrics!!!!
2602	Yesso, Japan “Sea surface” ex Dingley Fuge Poor sample
2603	Unstated location Japan ? ex Schora 1916
2604	Ambouin, New Hebrides (alternative spelling Ambrim) Melanesia, Pacific [Klaus-Dieter Kemp reference: 113B - Ambrim Isl., New Hebrides] [Klaus-Dieter Kemp reference: 075G - J.A.Long A1 - Ambrim Island, New Hebrides]
2605	Celebes, Indonesia (Sydney Chaffers) [Klaus-Dieter Kemp reference: 323R - S.Chaffer - Celebes, Coast of On Mangrove roots - Fine] [Klaus-Dieter Kemp reference: 287R - S.Chaffer Coarse - Celebes, Coast of On mangrove roots] [Klaus-Dieter Kemp reference: 285R - S.Chaffer Fine - Celebes, Coast of On mangrove roots] [Klaus-Dieter Kemp reference: 286R - S.Chaffer Medium - Celebes, Coast of On mangrove roots]
2606	Java Combined sample AY12 – AX4 – ex. CS – Kaboso ex Reinhold – Goensing ex Reinhold [Klaus-Dieter Kemp reference: 030B - Swatman AY12 - Java]
2607	Tjakisong, Java Ex Wards F/W <i>Cymbella</i> etc.
2608	Jan Sing, Kupang, West Straits, Johore From seaweed <i>Rhabdonema</i> , <i>Coscinodiscus</i>
2609	Paama Island, New Hebrides Per Mr. Robertson of Glasgow [Klaus-Dieter Kemp reference: 657B - Paama Island, New Hebrides] [Klaus-Dieter Kemp reference: 430B - J.A.Long P2 - Paama Island, New Hebrides - R.M] [Klaus-Dieter Kemp reference: 698B - J.A.Long P79A - Paama Island, New Hebrides - R.M] [Klaus-Dieter Kemp reference: 560B - Swatman - Paama Island, New Hebrides[1] - Coarse]
2610	Slide 1086-E by Alan Hepworth Mud surface, tidal gutter, Sand Point, Weston-super-Mare 20 th December 1992 <i>Pt. gemma</i> , <i>Pl. angulatum</i> [Atlas Page No.41 & Plate No.245]

Entry No.	Particulars
2611	Slide 1083-3 by A. Hepworth Mud surface, Sand Point, Weston-super-Mare 20 th December 1992 <i>Gyrosigma-Nitzschia</i> -various brackish/marine sp.
2612	Dirty sample from A.J. Wright very well cleaned by A. Hepworth (Slide only) Saltpan, Dee Estuary, Parkgate – Fisherman's Path 13 th December 1992
2613	Slide 14943 from J.R. Carter Twinel, Berwick-on-Tweed cliffs Wet moss on River Till Good variety of sp. <i>Amphora normanii</i> , <i>Nitzschia sinuata</i> , <i>P. appendiculata</i> , tiny bacillum forms approximating to <i>C. silicula</i> or <i>C. alpestris</i> running into <i>C. bacillaris</i> Good variety of <i>Cymbellas</i> , <i>Denticula subtilis</i> and <i>D. elegans</i> , <i>Diploneis ovalis</i> with <i>D. oculata</i> , <i>Berkella linearis</i> and internal plates. Also ? <i>Nav. gallica/fragilaroides</i> or ? <i>Nav. perpusilla</i> [Atlas Plate No.20, 191, 204, 39, 40, 74, 85, 34, 142 & 155]
2614	Slide and sample from A. Hepworth Roadside rhyne near Catcott on the Somerset Levels 9 th January 1993 (In Pleurax) <i>Neidium productum</i> , <i>Stauroneis phoenicentron</i> and fa. <i>gracilis</i> , <i>N. slecvicensa</i> , <i>G. acuminatum</i> , <i>P. major</i> , <i>P. subsolaris</i> , <i>P. viridis</i> var. <i>fallax</i> , <i>N. oblonga</i> , <i>C. librile</i> , <i>Cal. amphisbaena</i> , <i>C. silicula</i> , <i>Anomo. sphaerophora</i> , <i>S. ulna</i> . [Atlas Plate No.179, 259, 238, 152, 62, 39, 45, 26 & 283]
2615	On bank weed of River Itchen, Winchester 15 th April 1991 Un-named collector <i>Nav. reinhardtii</i> , <i>Diatoma vulgare</i> , <i>Cymbella lanceolata</i> , <i>Melosira varians</i> , several <i>Gomphonemas</i> , <i>Synedra ulna</i> , <i>Achnanthes microcephala</i> , <i>Cocconeis</i> sp, <i>Rhoicosphenia</i> , <i>Fragilaria</i> etc. [Atlas Plate No.160, 75, 129, 283 & 6]
2616	Dunkirk, Maryland, United States of America Sample F35 cleaned by W.N. Charles January 1993 Portion retained on 100µ sieve. Mostly Cosc. Few only <i>Actinoptychus</i>
2617	Slide by A. Hepworth Roadside rhyne, neat Catcott Heath, Somerset Levels National Grid Reference ST 399-413 Slide ref. AH1093-1 <i>Cy. Librile</i> , <i>Ne. iridis</i> fa., <i>Nav. oblongella</i> , <i>Anomo. sphaerophora</i> etc. [Atlas Plate No.62, 177, 152 & 26]
2618	Slide by A. Hepworth Off duckweed in rhyne, Shapwick Heath, Somerset Levels 16 th January 1993 Ref. AH1092-1 <i>Epithemia turgida</i> and <i>E. sp.</i> , <i>Cocc. placentula</i> and vars., <i>Pinnularia</i> sp., <i>Nav. radiosa</i> , <i>Nav. slesvicensis</i> , <i>Cal. ventricosa</i> , <i>Eunotia</i> sp. etc. [Atlas Plate No.93, 53, 158, 163 & 45] [Klaus-Dieter Kemp reference: 381R - Shapwick Heath, Somerset] [Klaus-Dieter Kemp reference: 933R - K.D. Kemp - Shapwick Heath, Somerset - <i>Fragillaria</i> , <i>Eunotia</i>]
2619	Slide by A. Hepworth Ref. AH1095-2 Roadside rhyne, Seithe-Godney, Somerset Levels 23 rd January 1993 ST 468-447 <i>Nitzschia sigmoidea</i> , almost pure [Atlas Plate No.191]


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Entry No.	Particulars
2620	Slide by A. Hepworth Ref. AH1096-1 Roadside rhyne, Tealham Moor, Somerset Levels 23 rd January 1993 <i>Nitzschia tenuis</i> , almost pure [Atlas Plate No.192]
2621	Slide by A. Hepworth 1097-2 From water plants in lake at Fonthill Bishop, Wiltshire <i>Achnanthes</i> , <i>Cymbella</i> , <i>Cocconeis</i> , <i>Gomphonema</i> , <i>Synedra</i> , <i>Navicula</i> , <i>Pinnularia</i> , <i>Diploneis</i> etc.
8 slides of recent diatoms by the late George White, member of the Q.M.C.	
2622	<i>Scoliopleura</i> , <i>Gyrosigma</i> , <i>Surirella gemma</i> etc.
2623	<i>Tabellaria</i> , <i>Didymosphenia</i> , <i>Cymbella</i> , etc.
2624	<i>Cocconeis</i> , <i>Diatoma</i> , <i>Rhoicosphenia</i> etc.
2625	<i>Epithemia</i> , <i>Cocconeis</i>
2626	<i>Didymosphenia</i> , <i>Tabellaria</i> , <i>Cymbella</i>
2627	<i>Cocconeis</i> , <i>Thalassiosira</i>
2628	<i>Navicula</i> , <i>Cymbella</i> , <i>Cocconeis</i>
2629	<i>Cocconeis</i>
2630	Sample from Brian Barnton February 1993 Overflow from ornamental goldfish pond, sub-tropical gardens, Abbotsbury, Dorset [Klaus-Dieter Kemp reference: 944B - B. Hartley - Abbotsbury gardens, Dorset (<i>Melosira varians</i> frustules)]
2631	Sample from Brian Darnton in February 1993 From the outlet of a spring halfway up the village from Rievaulx Abbey, Yorkshire
Fourteen samples salvaged from the collection of the late R.I. Firth	
2632	Peso Fiores, Argentina (ex. J.F.B.) ? Behan
2633	Maria Madre Island, West coast of Mexico West coast of Arroyo Hondo island From the collection of G.D. Hanna and E.K. Jordan 1925 Miocene Cleaned R.I. Firth 1969
2634	Malaga Cove, California, United States of America Ex. B.M. 15B
2635	Joes River, Barbados Cleaned R.I. Firth December 1943
2636	Chicago, Illinois, United States of America Ex. V. A. Latham
2637	Nikiski, Kenai peninsula, Alaska Ex. J.B. McLaughlin in September 1968 [Klaus-Dieter Kemp reference: 948R - R.I. Firth 106 - Nikiski, Alaska Coarse] [Klaus-Dieter Kemp reference: 949R - R.I. Firth 164 - Nikiski, Alaska Fine]
2638	Juncace, Alaska Ex. Wards
2639	Monterey, California, United States of America Combined sample of F.M. material Ex. S. H. Meakin – A.L.B., Alm property – A.L.B. Jenö property – Wards – Tempere 1920 No. 358

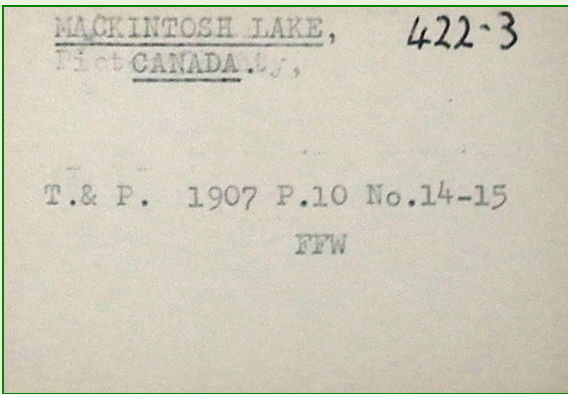
Entry No.	Particulars
2640	<p>San Pedro, California, United States of America Ex. Wards & J.J.G.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;">SAN PEDRO, Cal., USA 51</p> <p style="text-align: center;">Recent Marine</p> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 723R - H.C.Wheeler - San Pedro, California U.S.A. - 00/00/40, <i>Climacosphenia moniligera</i>, <i>Campyloneis grevilleyi</i>, <i>Arachnoidiscus</i>.] [Klaus-Dieter Kemp reference: 655B - J.A.Long P55 - San Pedro, California U.S.A. - <i>Coscinodiscus</i>, F.M] [Klaus-Dieter Kemp reference: 070B - Kuste - San Pedro, California U.S.A. - <i>Coscinodiscus</i>, <i>Triceratium</i>] [Klaus-Dieter Kemp reference: 829B - Miss S.P.Monks/S.Chaffer - San Pedro, California U.S.A. - On Algae, Very good, <i>Climacosphenia moniligera</i>, <i>Cocconeis</i>] [Klaus-Dieter Kemp reference: 192B - San Pedro, California U.S.A. - Good, <i>Coscinodiscus</i>, <i>Cocconeis</i>, <i>Asteromphalus</i>] [Klaus-Dieter Kemp reference: 977B - R.I. Firth 51 - San Pedro, California U.S.A.] [Klaus-Dieter Kemp reference: 273R - J.A.Long P59 - San Pedro, California U.S.A. R.M? - <i>Climacosphenia</i>, <i>Campyloneis</i>, <i>Triceratium</i>, <i>Arachnoidiscus</i>.] [Klaus-Dieter Kemp reference: 695B - J.A.Long p55 - San Pedro, California U.S.A. - F.M Poor]</p>
2641	<p>Newport, Virginia, United States of America Combined sample ex. A.L. Brigger and J.A. Long</p>
2642	<p>Sharktooth Hill, California, United States of America Combined sample ex. Wards – S.H. Meakin – B.M. No.85</p>
2643	<p>Santa Monica, California, United States of America 'Floating Fossil' 1889</p>
2644	<p>Maryland, United States of America Combined sample R.F.B. 1st September 1947 – R.F.B. No. 2 – R.I. Firth June 1963 Dunkirk and Samples 347 and 9.400</p>
2645	<p>Salamatof, Kenai peninsula, Alaska Ex. R. B. McLaughlin Cleaned by R.I. Firth</p>
2646	<p><i>Navicula lundii</i> Reichardt with <i>Pinnularia</i> marker from J.R. Carter From horse trough two miles from Denholm, Scotland</p>
2647	<p>Pond at High Street, Castle Cary, Somerset 14th February 1993 Slide by Alan Hepworth <i>Fragilariaforma virescens</i> ? and <i>Staurosirella pinnata</i> or <i>lapponica</i>. Also <i>Cymbella delicatula</i> Kütz. [Atlas Plate No.261 & 66]</p>
2648	<p>Howroyd Clough, near Todmorden, Yorks. 13th February 1993 Collected by John Bottomley from a grey/green gelatinous film attached to the dripping vertical rock face – on left bank immediately below the waterfall pH 7-7.3</p>
2649	<p>As 2648 but from an area of algae coloured red from under a projecting shelf</p>
2650	<p>Diatoms floating on rhyne in area 13f at the Gordano Valley Nature Reserve near Bristol Slightly brackish water Collected by A. Hepworth on 21st February 1993 Slide AH1103-2</p>

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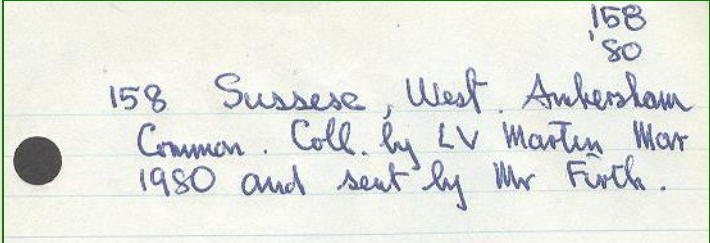
Entry No.	Particulars
2651	Sample W.N. Charles R42/1 retained 38µ From Skinners Hill Pond, East Coker, Somerset Collected by N. Charles 10 th March 1993 Squeeze from floating dead vegetation. Contaminated during processing with F/M material
2652	As 2651 but passing 38µ and retained on 20µ. W.N. Charles ref. R42/2
2653	Squeeze from algal mass on stones in the outlet from Paviot Mill Pond, East Coker, Somerset on 10 th March 1993 W.N. Charles ref. R43/1
2654	Diatoms on surface of rhyne at Gordano Valley Nature Reserve, near Bristol Collected by A. Hepworth on 7 th March 1993
2655	Sample W.N. Charles ref. 44/1&2 Paviot Mill, East Coker, Somerset 14 th March 1993 Ret. 20µ Outlet from lake
2656	Sample ref. W.N. Charles 45/1-3 Paviots Mill, East Coker, Somerset 14 th March 1993 Ret. 20µ Squeeze from dead vegetation in the small pond below lake.
2657	As 2656 but floating scum 14 th March 1993 <i>C. noricus</i> var. <i>hibernicus</i> and a good variety of <i>Surirellas</i> Ref. 46/1 and 2. W. N. Charles
2658	Pure gathering on <i>Amphipleura pellucida</i> from the Dorset Trust reserve at Powerstock, Dorset W. N. Charles ref. 47/1 on 14 th March 1993 Squeeze from living submerged waterweed (light coloured film) in pond at side of old railway. Part preserved in weak formalin and later NBS No.1 preservative. [Atlas Plate No.12]
2659	Slide 1106-2 by A. Hepworth Surface of rhyne at Staithe near Wells, Somerset 14 th March 1993
2660	Slide 14959 by J.R. Carter Diatoms from polluted agricultural sump, Craik, Roxburgh <i>Nitzschia palea</i>
2661	Sample 48/1 W.N. Charles Algae in stream below weir at Skinners Hill, East Coker, Somerset Ret. 20µ Collected 17 th March 1993 (all returned to W.N. Charles)
2662	Sample R49/1 by W.N. Charles Whittington Mill, Gloucestershire Weir below spring above pond Olive brown jelly filaments <i>Diatoma vulgare</i> 21 st March 1993 [Atlas Plate No.75] [Klaus-Dieter Kemp reference: 864R - N.Charles - Whittington Mill, Gloucestershire - Good <i>Cymbella lanceolata</i>]
2663	Sample No. W.N. Charles 50/1 and 2 Whittington Mill, Gloucestershire Stream from. Floating aggregates – well panned 21 st March 1993
2664	Sample no. W.N. Chalres 51/1 and 2 Whittington Mill, Gloucestershire Exit from mill pond, surface scum

Entry No.	Particulars
2665	Algae on stones in outlet from pond alongside B3054 North of Lymington 27 th March 1993 Preserved in Cu.Ni. and later formalin
2666	Algae stripped from mooring ropes in Lymington harbour 27 th March 1993 Part preserved in Cu. Ni. And later in formalin
2667	As 2666 but algae scraped from sides of mooring pontoon 27 th March 1993 [Klaus-Dieter Kemp reference: 826R - B. Hartley 2667 - Marine, Off mooring ropes - <i>Biddulphia aurita</i> , good]
2668	Slide by A. Hepworth From botton of peat cuttings near Catcott/Burtle on the Somerset Levels St 4326-4226 14 th March 1993
2669	<p>Jewel, Maryland Sample from old corked bottle</p>  <p style="text-align: center;"><i>Labelled – 7 Actinocyclus Jewels from Jewel</i></p> <p>[Klaus-Dieter Kemp reference: 368B - J.A.Long M80 D - Jewel, Maryland] [Klaus-Dieter Kemp reference: 283B - J.A.Long M80 C - Jewel, Maryland U.S.A. - [200]] [Klaus-Dieter Kemp reference: 376B - J.A.Long M80 F - Jewel, Maryland U.S.A.] [Klaus-Dieter Kemp reference: 718B - J.A.Long M80B - Jewel, Maryland U.S.A. - [150]] [Klaus-Dieter Kemp reference: 652B - Jewel, Maryland U.S.A.]</p>
2670	Slide A. Hepworth 1109-1 Of diatoms from the inlet pipe to the pond at Beaulieu, New Forst on 27 th March 1993
2671	Slide A. Hepworth 1111-4 Of diatoms on seaweed on the pontoons at the marina at Lymington on the 27 th March 1993
2672	Slide A. Hepworth 1113-3 On water plants at the river at Fonthill Bishop, Wilts. 11 th April 1993
2672	Slide A. Hepwoth 1114 Surface of rhyne at Butleigh moor, near Ashcott, Somerset Levels 12 th April 1993
The following 21 samples were salvaged from old tubes from the late Robt. I. Firth Collection after treatment by swirling to remove rocks and debris, and also sieving over a 25µ sieve.	
2674	Nottingham, Maryland, United States of America Fossil marine

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Entry No.	Particulars
2675	Chesapeake Beach, Maryland, United States of America (Loc.360) [Klaus-Dieter Kemp reference: 394B - Dr.Latham - Chesapeak Beach, California] [Klaus-Dieter Kemp reference: 054B - Chesapeak Beach, Maryland U.S.A. - Loc.360] [Klaus-Dieter Kemp reference: 584B - J.A.Long - Chesapeak Beach, Road from U.S.A.] [Klaus-Dieter Kemp reference: 595B - J.A.Long - Chesapeak Beach, Road from U.S.A.] [Klaus-Dieter Kemp reference: 607B - J.A.Long - Chesapeak Beach, Road from U.S.A.]
2676	Calvert County, Maryland, United States of America (Loc. 12, ex. B.M.)
2677	Dunkirk, Maryland, United States of America (ex. Bartholomew, May 1939)
2678	Captiga Island, Florida, United States of America (ex. Bartholomew, May 1939)
2679	Econ River, Florida, United States of America (ex. Bartholomew, May 1939) [Klaus-Dieter Kemp reference: 111B - Barth - Econ River, Florida U.S.A.]
2680	Richmond, Virginia, United States of America 25 feet from top of Skojoe Hill Collected by C.S. Peticolas 1876 (ex. R.F. Behan in 1947)
2681	Richmond, Virginia, United States of America (ex. B.M.)
2682	Westmorland, Virginia, United States of America
2683	Block Island, Great Salt Lake, United States of America [Klaus-Dieter Kemp reference: 794R - Block Island, U.S.A. Great Salt Lake]
2684	Panoche Hills, California, United States of America (No.455)
2685	Road from beach to Plum Point, Chesapeake, United States of America (Loc.357) [Klaus-Dieter Kemp reference: 049G - Brit.Museum/R.I. Firth - Calvert Co, Plum Point Loc 357 Maryland U.S.A. - Coarse] [Klaus-Dieter Kemp reference: 046G - Brit.Museum/R.I.F - Calvert Co, Plum Point Loc 358 Maryland U.S.A.]
2686	Moreno shale, California, United States of America (ex. B.M.)
2687	Panoche Hills, California, United States of America (No.43 ex Brigger)
2688	Mackintosh Lake, Nova Scotia, Canada (Large) Cleaned March 1950  <i>R.I. Firth index card</i> [Klaus-Dieter Kemp reference: 887B - Macintosh Lake, Nova Scotia Canada - <i>Pinnularia</i> , <i>Suirella</i> , <i>Epithemia</i>]
2689	Manila dregs
2690	Toco, Chile F.B. coarse (ex. B.M.)
2691	Mexilliones (Mejillones), Bolivia Ex Doig
2692	<i>Stephanodiscus</i> Mexico
2693	Trinidad borings (ex F.C. Wise)

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Entry No.	Particulars
2694	Massachusetts, United States of America (ex. Darlaston)
The following fifteen samples are made up from an assembly of diatoms collected by the late R.I. Firth together with samples from the same source collected by B. Hartley	
2695	From surface scum and weeds at Burton Pond, Petworth, W. Sussex Including R.I. Firth 734/1-21,26,27 together with B. Hartley 132, 132A, 235, 434 and 444A
2696	Scrapings from the spillway below the outlet from Burton Pond Including R.I. Firth 734/10,15,22,23,24 and 25 together with B. Hartley 236 and 832
2697	Subfossil F/W deposit at Kentmere, near Kendal, Cumbria Part as quarried by Cape Asbestos and part as R.I. Firth samples 295,563,564,639 and 670 also B. Hartley 33,270 and 574 [Klaus-Dieter Kemp reference: 838R - B. Hartley 2697 - Kentmere, Cumbria - F.F\W]
2698	Loch Cuithir, Isle of Skye Subfossil F/W deposit Part as R.I. Firth 50,311 and 298 but mainly B. Hartley 286 and 298 [Klaus-Dieter Kemp reference: 028R - B. Hartley - Loch Cuithir, Skye Scotland] [Klaus-Dieter Kemp reference: 813R - B. Hartley 2698 - Loch Cuithir, Skye Scotland - <i>Epithemia, Diatoma hiemale</i>]
2699	Thursley Common, Surrey National Grid Reference SU 903-414 Very acid bog Mainly B. Hartley 861, but one cleaned by A.G. Greenfield as R.I. Firth 699
2700	Ambersham Common, West Sussex Collected in 1978 and 1979 by L.V. Martin Near Midhurst, W. Sussex National Grid Reference SU 915-195 R.I. Firth Nos. 328,329,330,339,567,571,666  <i>L. N. Bramley (Cleaned Diatoms) Book 1</i>
2701	Ashburnham Park Lake (or Pond), Sussex Mainly B. Hartley 807,884 and 885
2702	Terrebone, Oregon, United States of America Fossil F/W diatoms Part ex. B.M., part from Jim Fidiham of San Francisco B. Hartley 534 and 536, R.I. Firth 270,272,273,276,277,715 and 717 [Klaus-Dieter Kemp reference: 886B - B. Hartley 2702 - Terrebonne, Oregon U.S.A. - <i>Surirella</i>]
2703	Six samples from R.I. Firth collection All of B. Hartley sample 303 from Loch na Cuilc, Bernera, Isle of Lewis, Hebrides, Scotland [Klaus-Dieter Kemp reference: 500R - B. Hartley - Loch Na Cuilc, Lewis Scotland - <i>PINNULARIA DACTYLUS</i>] [Klaus-Dieter Kemp reference: 814R - B. Hartley 2703 - Loch Na Cuilc, Lewis Scotland - Not good]
2704	Cherryfield, Maine, United States of America Samples cleaned by R.I. Firth in May 1969 and also samples B. Hartley 777 and 923 [Klaus-Dieter Kemp reference: 825R - B. Hartley 2704 - Cherryfield, Maine U.S.A. - <i>Stauroneis, Pinnularia</i>]
2705	Ballyscullion, Bann Valley, Northern Ireland Fossil F/W diatoms per Thos. Gibson Ltd, Dundonal, Belfast
2706	Toomebridge, Northern Ireland Fossil F/W deposit Mainly B. Harley 486
2707	New Ferry, Northern Ireland Fossil F/W diatoms cleaned by B. Hartley and R.I. Firth Including R.I. Firth 362 and 364

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Entry No.	Particulars
2708	Slide 14982 by J.R. Carter Surface mud from bog at Loch Muladoch
2709	Slide 14985 by J.R. Carter <i>Diatoma ehrenbergii</i> From headwaters of Rover Ale, Roxburgh
2710	29 th April 1993 Scrape from bedrock in stream at Gale Beck, near Hawes, North Yorkshire
2711	30 th April 1993 Epilithic diatoms on stones in moorland stream, Arkengarthdale, North Yorkshire
2712	1 st May 1993 Squeeze from filamentous algae in moorland pool on Holgate Moor, North Yorkshire
2713	Slide by A. Hepworth AH1116-5 On stones in tidal stream at Inchmere, near Lepe, Hampshire 18 th April 1993
2714	Slide A. Hepworth AH1117-1 On mud in tidal gitter, Sand Point, Weston-super-Mare, Avon 24 th April 1993
2715	Slide A. Hepworth AH1118-1 From filamentous algae on gravel at White Hole quarries, near Holcombe, Somerset 25 th April 1993
2716	Slide A. Hepworth AH1119-1 From underwater moss, at Pump House, Fonthill Bishop Lake, Wiltshire 3 rd May 1993
2717	Slide by A. Hepworth Also 1119-1!! On surface of peat workings, Burtle, Somerset
2718	Two slides by J.R. Carter 14971/2 Dun Donaldilla, Loch Hope, Sutherland June 1991 J.R. Carter says ' <i>Nav. pseudoforcipata</i> Hust. 1932 but ??
2719	Slide 14973 by J.R. Carter Ettric Pen, on wet rocks 2 nd May 1993
2720	Samples below the springs at Red Lane Flash, Sandbach, Cheshire Collected by J.A. Wright 12 th May 1993 and cleaned by B. Hartley (JAW133/3F) [Klaus-Dieter Kemp reference: 831R - A.J.Wright/B.H2720 - Red Lane Flash, Sandbach Cheshire] [Klaus-Dieter Kemp reference: 656R - A.Wright - Red Lane Flash, Sandbach Cheshire] [Klaus-Dieter Kemp reference: 657R - A.Wright - Red Lane Flash, Sandbach Cheshire] [Klaus-Dieter Kemp reference: 658R - A.Wright - Red Lane Flash, Sandbach Cheshire]
2721	Slide A. Hepworth AH1124-3 River Derwent, Bamford, Derbyshire 22 nd May 1993 <i>D. tenue</i> and other species showing distortion (by metallic solution?) See also similar sample B. Hartley 340 [Atlas Plate No.75]
2722	Slide of selected <i>Surirella ovata</i> var. <i>crumena</i> (as agreed with B.M. slides but not as Hustedt) by J.R. Carter From Denholm Dean, Roxburgh
2723	Slide 1130-2 by A. Hepworth From lily pads at Ceadle Bridge, Kings Sedge Drain, Somerset Levels 20 th June 1993
2724	Slide 1129-3 by A. Hepworth Surface of rhynes at Queens Sedgemoor Drain, north of Glastonbury, Somerset ST 514-413 25 th June 1993
2725	Sample of <i>Navicula palpebralis</i> from surface of clean sand under 5 feet of seawater at Molins Beach, Cala san Vicente, Mallorca July 1993 Collected by K-D. Kemp

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Entry No.	Particulars
2726	Spring water, Parnham House, Dorset 21 st July 1993
2727	Sample collected by Nigel Charles from the town fountain at Digne, Southern France on 4 th July 1993
2728	Sample collected by W.N. Charles on 27 th June 1993 from dripping rocks at Eaxchaude Val, near Digne, Southern France
2729	Sample collected by W.N. Charles on 11 th July near St. Cassien, south of Entreyaux on the N202, East of Digne, Southern France
2730	Slide 1131-4 by A. Hepworth Emborough pond, near Chilcompton, Somerset 18 th July 1993 <i>Epithemia sorex</i> etc. [Atlas Plate No.92]
2731	Slide 1132-3 by A. Hepworth Sphagnum squeeze, Upper Irfon Valley, Powys, Wales 28 th July 1993 <i>Eunotia gracilis</i> etc.
2732	Slide 1133-1 by A. Hepworth Sphagnum squeeze, Upper Irfon Valley, Powys, Wales 28 th July 1993 <i>Gomphonema acuminatum</i> var. <i>coronata</i> , <i>Eunotia serra</i> var. <i>diadema</i> etc. [Atlas Plate No.107 & 99]
2733	Slide 1134-2 by A. Hepworth Trackside ditch in coniferous woods, Irfon Valley, Powys, Wales 25 th July 1993 <i>Surirella linearis</i> [Atlas Plate No.275]
2734	Slide 12614 by J.R. Carter Mallasting quarry waterfall May 1963 <i>Cymbella affinis</i> [Atlas Plate No.63]
2735	Slide 14017 by J.R. Carter Durness Small loch on limestone pH8.5-9 <i>C. affinis</i> [Atlas Plate No.63]
2736	Grey Mares Tail Falls, Merick July 1963 Slide by J.R. Carter <i>Cymbella affinis</i> [Atlas Plate No.63]
2737	Slide 14888 by J.R. Carter Scum on pool, Minto Hills April 1992
2738	Slide by A. Hepworth 2235 From Water plants in chalk stream Fontell Magna, Dorset 8 th August 1993 <i>S. spiralis</i> , <i>S. bifrons</i> , etc. [Atlas Plate No.278 & 266]
2739	16 th August 1993 On <i>ulva</i> and other weed at the stream discharge into the estuary of the River Axe, Devon at Axmouth
2740	On small seaweed on the rocks exposed at low-tide at Beer, Devon on 16 th August 1993
2741	On stones in the fast running shallow River Coley at Colyion, Devon on 16 th August 1993
2742	Slide A. Hepworth 1136 Rhyne surface on Queens Sedgemoor, North of Glastonbury, Somerset. 21 st August 1993 <i>Gomphonema acuminatum</i> , <i>Eunotia linaris</i> var. <i>subarcuata</i> (Naeg.) Grun., and <i>Gyrosigma</i> [Atlas Plate No.107]

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Entry No.	Particulars
2743	Fossil marine sp. from Leestown, Virginia, United States of America Ex. B.M.
2744	J.R. Carter slide 15000 <i>Pinnularia appendiculata</i> from mossy floor of old lime kiln on Berwickshire coast August 1993 [Atlas Plate No.204]
2745	Slide A. Hempworth 1140-2 From water plants in peat workings, east of Westhay, Somerset Levels 6 th September 1993 <i>Synedra capitata</i> , <i>Ep. turgida</i> etc. [Atlas Plate No.282 & 93]
2746	Slide A. Hepworth 1139-1 18 th September 1993 From stones in shallow water at Chew Valley Lake, Avon <i>S. biseriata</i> var. <i>biforns</i> , <i>Steph. rotula</i> etc. [Atlas Plate No.263]
2747	Slide No. 13 from Ed Markham Loch Conn, Co. Mayo, Eire Collected 1 st September 1993 from Potamogeton
2748	As 2747 Slide No. 14 River Erriff, Leenane, Co. Galway Collected 30 th August 1993 On <i>Myriophyllum</i> at river's edge
2749	As 2747 Slide No. 15 Brittas ponds, Co. Dublin, Lower Lake Collected 8 th August 1993
2750	Wicklow Gap, Co. Wicklow Slide 16 from Ed Markham Collected from drainage stream
2751	Slide No. 17 from Ed. Markham Annaleka Bridge, Co. Wicklow Collected 15 th April 1993 Brown dried incrustation from rock in river
2752	Slide No.18 from Ed Markham Canal street loch of Grand Canal, Dublin Collected March 1992 from stone slab under storm drain
2753	Sample collected by John Bottomley from Howroyd Clough Grey/green jelly on rock face Collected 26 th August 1993 Almost pure <i>Cymbella parva</i> [Atlas Plate No.70]
2754	Slide No.20 by Ed. Markham Loch Sheelin, Eire
2755	Slide No.22 by Ed Markham River Erriff, Co. Mayo, Eire
2756	Sample collected on 30 th October 1993 by Paul Smith Scraped from mud on the beach at Portishead, Avon on the occasion of the annual meeting of the British Diatom Association <i>Pteridictyon gemma</i> and associated species [Atlas Plate No.199]
2757	Slide and sample by W.N. Charles of squeeze from Macrophytes in acid stream, 3 miles S.W. of Beaulieu, Hampshire, on 28 th March 1993 Bery fine F/W acid group of species. National Grid Reference SZ 351-990
The following ten samples are of Fossil marine rock which was reduced by freezing and later given a preliminary cleaning by W.N. Charles. Final polishing in caustic by B. Hartley	
2758	W.N. Charles ref. F19 Forresters Hill, Oamaru, New Zealand
2759	W.N. Charles ref. F16 Forresters Hill, Oamaru, New Zealand
2760	W.N. Charles ref. F20 Cormack's, Oamaru, New Zealand

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Entry No.	Particulars
2761	W.N. Charles ref. F17 Oamaru, New Zealand
2762	W.N. Charles ref. F13 Nalur Fur, Jutland
2763	W.N. Charles ref. F21 Jackson's, Oamaru, New Zealand
2764	W.N. Charles ref. F58 Kamischev, U.S.S.R.
2765	W.N. Charles ref. F60 Kamischev, U.S.S.R.
2766	W.N. Charles ref. F78 Kamischev, U.S.S.R.
2767	W.N. Charles ref. F57 Ananino, U.S.S.R.
Miscellaneous slides by other workers (selected and strewn)	
2768	Palos Verdes, United States of America (C.B.)
2769	Bory, Hungary (R.I. Firth)
2770	Bory, Hungary (Flatters and Garnett)
2771	Chernievski, Russia (Early N.B.S. slide)
2772	Carlova, Russia (C.N. Walter)
2773	Archangel, Russia (Thomas Hancock)

Entry No.	Particulars
14 selected mounts by L.N. Bramley of Arafura Sea diatoms from the Challenger Expedition	
<p>SOUTHERN OCEAN.</p> <p>10959 641. Challenger voyage. * Arafura Sea. Surface algae 10.9.1874. Some discs Rhyzosolenia & Bacteriastrium. Washed 40-550</p> <p>10963 642. Challenger voyage * Antarctic ooze. 18.11.19 Many small discs & tris. Washed 40-550 Lat 53° 55' S. 108° 35' E. 1450 Fathoms See Railway Octavocephalus. P. 148.</p> <p>10967 643. Challenger voyage (?) * Kerguelen. Coe fragments and a few cocconeis Washed 40-400</p>	<p>Challenger Voyage 2 G 641 Arafura Sea. Surface.</p> <p>1. Cymbellae 1 Amphora Potens</p> <p>2. Naviculae 7 Navicula aspera fusca prolexta v abundans</p> <p>22 Pleurosigma affine affine var? elegantissimum japonicum</p> <p>5. Cocconeidae 31 Orthoneis splendida</p> <p>16. Surirellae 78 Surirella (stenostrobila) intermedia</p> <p>17. Nitizschae 81 Nitizschia Brebissoni or insignis Smithii constricta</p>
L. N. Bramley (Cleaned Diatoms) Book 2	L. N. Bramley (Analyses) Book 3
<p>17 Nitizschae (contd) 2 G 641</p> <p>81 Nitizschia scaligera sociabilis spatulata spectabilis</p> <p>19. Chaetocereae</p> <p>84 Rhyzosolenia imbricata sima? styliformis ? forma spirangalis?</p> <p>89a Chaetoceros borealis Seychellarum</p> <p>89b (Bacteriastrium) brevispinum (Bact) delicatulum - end cell - intermed. + end cell elongatum - end cell spirellum - end cell 1a end cell 1b intermed cell intermed. + end cell 1a intermed. + end cell 1b varians var princeps end cell intermed. cell</p>	<p>19. Chaetocereae contd. 3 G 641.</p> <p>103 Stephanopyxis Palmeriana</p> <p>109 Melosira clavigera (Paralia) sulcata f. radiata</p> <p>21. Biddulphiaceae</p> <p>121 Hemiaulus (Comma) sinensis</p> <p>132 Biddulphia chinensis granulata</p> <p>141 Auliceus</p> <p>22. Euphodiaceae</p> <p>154 Costodiscus coronatus</p> <p>23. Heliopeltidae</p> <p>157 Actinoplychus undulatus ?</p> <p>24. Asterolampraeae</p> <p>167 Asteromphalus nov spec.</p> <p>170 Stictodiscus californicus</p> <p>171 Anachnoidiscus indicus</p> <p>25. Coscinodisceae</p> <p>186 Actinocyclus octonarius var?</p>

Entry No.	Particulars
187	<p>25 Coscinodiscaceae (cont'd) 4 G641</p> <p><i>Coscinodiscus arafurensis</i>, var. nov. <i>centralis</i> var. <i>concinuus</i> <i>curvatus</i> var. <i>recta</i> <i>debilis</i> <i>groseus</i> <i>Katzingii</i>, var.? <i>maragaritaceus</i> <i>micans</i> <i>mirificus</i> <i>Oculus-Indis</i>? var.? <i>Oculus-Indis</i> <i>pacificus</i> or <i>marginatus</i> <i>raffmanus</i> <i>subdivinus</i> <i>subtilis</i> var. ?</p> <p>188 <i>Ethmodiscus</i> <i>humilis</i> ?</p> <p>189 <i>Euodia</i> <i>Brigitwelli</i> <i>Hardmannianus</i> <i>strata</i> ?</p>
2774	<i>Stictodiscus californicus</i>
2775	<i>Bacteriastrum spirillum</i>
2776	<i>Bacteriastrum spirillum</i> (intermediate cell)
2777	<i>Bacteriastrum spirillum</i> (intermediate cell and end cells)
2778	<i>Bacteriastrum varians</i> var. <i>princeps</i> (intermediate cell)
2779	<i>Bacteriastrum varians</i> var. <i>princeps</i> (end cell)
2780	<i>Coscinodiscus arafurensis</i>
2781	<i>Coscinodiscus debilis</i>
2782	<i>Coscinodiscus centralis</i> var.
2783	<i>Coscinodiscus maragaritaceus</i>
2784	<i>Coscinodiscus obscurus</i>
2785	<i>Coscinodiscus</i> ? <i>pacificus</i> or <i>marginatus</i>
2786	Sample R206 by W.N. Charles On mud at quay west of Lepe, Hants 8 th October 1992
2787	Sample R207 by W.N. Charles Froth in stream at quay in west Lepe
2788	Unspecified locality in Oamaru, New Zealand Sample of rock supplied by Dr. Bracegirdle Broken down and cleaned by B. Hartley Separated into 2788 – Diatoms and 2788A – Sponge spicules and heavier matter
2789	Surface of rhyne, Westhay, Wedmore, Somerset 5 th December 1993 Slide by A. Hepworth No. AH1142
2790	Richmond, Virginia (ex Wards)
2791	Sample of <i>Melosira lineata</i> (Dillw.) Ag. Collected in Isle of Skye by F.E. Round in 1974 (Brackish locality) Ex. R.M.C – Sample 109 [Atlas Plate No.128]

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Entry No.	Particulars
2792	Deep sea dredge Orange River mouth, South Africa <i>Actinocyclus</i> etc. [Klaus-Dieter Kemp reference: 274R - Deep Sea Dredging, Off Orange River S.W. Africa - Coarse, <i>Actinocyclus</i>] [Klaus-Dieter Kemp reference: 275R - Deep Sea Dredging, Off Orange River S.W. Africa - Fine]
2793	Slide by A. Hepworth Ref. AF1143 From water plants in peat cutting, East of Catcott/Burtle, Somerset Levels 9 th January 1994 <i>E. lunaris</i> etc.
2794	Freshwater sample found in old bottle Source unrecorded
2795	Marine plankton sample collected from the filters of Heysham Power Station on 14 th January 1994 by F. Nicholson Dirty but interesting

Entry No.	Particulars
	<p>The following selected slides were made by Lionel Bramley from Antarctic ooze collected on the Challenger Voyage 1873-6</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p style="text-align: center;">SOUTHERN OCEAN.</p> <p>1063 641 Challenger voyage * Arafura Sea. Surface algae 10. 9. 1874. Some diases. Rhizosolenia & Bacteriosira. Washed 40-550</p> <p>1063 642 Challenger voyage * Antarctic ooze. 18. 11. 19 Many small diases & tris. Washed 40-550 Lat 53° 55' S. 109° 35' E 1950 Fathoms See Railway, Actinocyclus. p. 148.</p> <p>1067 643 Challenger voyage (?) * Kerguelen. Goc fragments and a few coccones Washed 40-400</p> </div>
	<p style="text-align: center;">L. N. Bramley (Cleaned Diatoms) Book 2</p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; width: 45%;"> <p>Challenger Voyage. 5 642 Antarctic ooze.</p> <p>17. Nitzschia.</p> <p>81. Nitzschia navicularis.</p> <p>21. Biddulphiae.</p> <p>121. Hemiaulus ? (Corinna)</p> <p>132. Biddulphia reticulosa</p> <p>24. Asterolampraeae</p> <p>167. Asteromphalus Humboldtii or Challengerensis</p> <p>25. Coscinodiscae</p> <p>186. Actinocyclus complanatus var?</p> <p>187. Coscinodiscus curvatus " griseus " lentiginosus " lineatus " margaritaceus " radiatus " subtilis var. " symbolophorus</p> </div> <div style="border: 1px solid black; padding: 5px; width: 45%;"> <p style="text-align: right;">6 642</p> <p>25. Coscinodiscae (contd)</p> <p>187. Coscinodiscus taberculatus</p> <p>187d. Ethmodiscus humilis</p> </div> </div>
	L. N. Bramley (Analyses) Book 3
2796	<i>Asteromphalus hookeri</i> Ehrenb. [<i>A. humboldtii</i> Ehrenb.]
2797	<i>Actinocyclus complanatus</i>
2798	<i>Coscinodiscus griseus</i>
2799	<i>Coscinodiscus lentiginosus</i>
2800	? <i>Coscinodiscus margaritaceus</i>
2801	<i>Coscinodiscus subtilis</i>
2802	<i>Hemiaulus</i> sp.
2803	Slide S126 by Ed Markham Jervis Street Hospital from moss growing on walls, in the centre of Dublin November 1993 <i>P. borealis</i> var. <i>rectangularis</i> Carlson

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Entry No.	Particulars
2804	Slide by Ed Markham from Brittas Ponds (pH6.0-6.5) January 1994 <i>Nav. tripunctata</i> Bory [Atlas Plate No.165]
2805	Sample W.N. Charles 035 Fossil marine sample from (Nottingham) Dunkirk, Maryland, United States of America 2805/1 > 100µ 2805/2 < 100µ > 50µ
2806	Somewhat mysterious sample labelled 'Clay from under an Irish Bog' Cleaned by W.N. Charles during 1993 as ref. No. F107 The sample turns out to be fossil marine and was amongst a parcel of fossil uncleaned material inherited from the late R.I. Firth
2807	Slide by A. Hepworth ref. AH1144 Water running over road surface at Buckland Dinham, near Frome, Somerset 21 st January 1994 <i>Encyonema prostrata</i> , <i>Gomphoneis olivaceum</i> etc. [Atlas Page No.196 & Plate No.106]
The following samples of Fossil Marine material were cleaned by W.N. Charles during 1993 (Warning! A few of these cleaned samples show contamination of F/M material in F/FW samples. Inadequate cleaning of beakers suspected.)	
2808	W.N. Charles F72 Popplina, Maryland, United States of America (K-D. Kemp says Poplain)
2809	W.N. Charles F74 Nottingham, Maryland, United States of America
2810	W.N. Charles F85 'Unusual', Maryland earth, United States of America
2811	W.N. Charles F125 Croom, Maryland, United States of America [Klaus-Dieter Kemp reference: 660B - J.A.Long M81C - Croom, Maryland U.S.A.] [Klaus-Dieter Kemp reference: 163B - J.A.Long M85 - Croom, Maryland U.S.A.] [Klaus-Dieter Kemp reference: 606B - J.A.Long M85 - Croom, Maryland U.S.A.] [Klaus-Dieter Kemp reference: 713B - J.A.Long M85C - Croom, Maryland U.S.A. - F.M [300]] [Klaus-Dieter Kemp reference: 027B - Croom, Maryland U.S.A. - -400]
2812	W.N. Charles F039 Lyons Creek, Maryland, United States of America 2812/1 > 200 2812/2 <200 > 50 2812/3 < 50
2813	W.N. Charles Kamischev, Russia Ref. 58,60 and 78
2814	W.N. Charles Simbirsk, Russia ref.57 (sample discarded – useless)
2815	W.N. Charles F103 Santa Cruz Island, United States of America [Klaus-Dieter Kemp reference: 927B - Santa Cruz Is, Smugglers Cove California U.S.A. - <i>Coscinodiscus</i> , <i>Auliscus</i> , <i>Grammatophora</i> , <i>Stictodiscus</i>]
2816	W.N. Charles F68 Richmond, Virginia <i>Good Parlaia sulcata</i>
2817	W.N. Charles F034 San Pedro, California, United States of America [Klaus-Dieter Kemp reference: 931R - B. Hartley 2817 Cleaned by N.Charles - San Pedro, California U.S.A. - <i>Silicoflagellates</i> , very good material]
2818	W.N. Charles F026 Palos Verdes, California, United States of America
2819	W.N. Charles F051 Lompoc, California, United States of America
2820	W.N. Charles F052 Lompoc, California, United States of America
2821	W.N. Charles F036 Popes Creek on the Potomac River, United States of America
2822	W.N. Charles F007 Tortugas, Baja Mexico
2823	W.N. Charles F004 Lompoc, California, United States of America (main sample) 2823/1 < 400 > 100µ 2823/2 < 100 > 25µ 2823/3 < 25µ
2824	W.N. Charles F133 Rotarua, New Zeland <200 > 20
2824	W.N. Charles F080 Gordon Road Deposit, Auckland, New Zealand
2826	W.N. Charles F028 Ongarato Valley, New Zealand
2827	W.N. Charles F081 Talbot, Victoria, Australia [Klaus-Dieter Kemp reference: 636B - J.A.Long T48 - Talbot, Victoria - F.F\W]
2828	W.N. Charles F16,17,19,20,21 Mixed Cormack's, Forrester's and Jackson's

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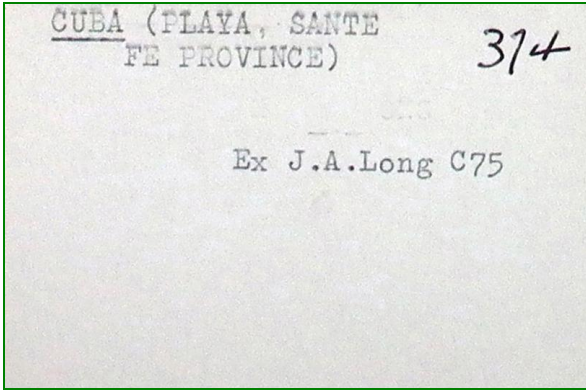
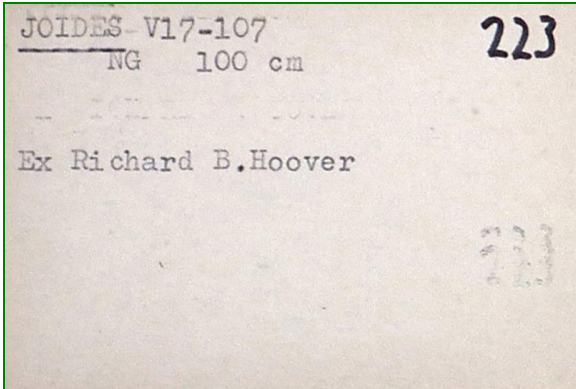
Entry No.	Particulars
2829	W.N. Charles F33 Springfield Estate, Barbados 1832
2830	W.N. Charles F101 Barbados 'FW'
2831	W.N. Charles F134 Oamaru Dregs
2832	W.N. Charles F029 Washington, United States of America
2833	W.N. Charles F031 Deschutes River, Oregon, United States of America
2834	W.N. Charles F129 Klamath Falls, Oregon, United States of America
2835	W.N. Charles F018 Earth from Nalur Fur, Jutland, Denmark
2836	W.N. Charles F076 Nykjoberg, Jutland, Denmark
2837	W.N. Charles F062 Nairobi, Kenya
2838	W.N. Charles F116 Chiloquin, Oregon, United States of America
2839	W.N. Charles F027 McKittrick, California, United States of America
2840	W.N. Charles F011 Loch na Cuilc, Bernara, Isle of Lewis 2840/1 > 50µ 2840/2 <50µ
2841	W.N. Charles F031 Loch na Cuilc, Kirkibost, Bernera, Isle of Lewis 2841/1 > 50µ 2841/2 <50µ
2842	W.N. Charles F044 Loch Cuithir, Isle of Skye. As sample B. Hartley 290 2842/1 > 50µ 2842/2 <50µ *contaminated with FM
2843	W.N. Charles F110 Score Horan, Waternish, Isle of Skye *contaminated with FM
2844	W.N. Charles F005 Toomebridge, Northern Ireland *contaminated with FM
2845	W.N. Charles F008 Toomebridge, Northern Ireland
2846	W.N. Charles F054 Un-named locality, Northern Ireland (See also B. Hartley 893) 2486/1 > 50µ 2486/2 < 50 > 20µ Looks like Toomebridge
2847	W.N. Charles F053 Toomebridge, Northern Ireland ? as B. Hartley 776
2848	W.N. Charles F013 Kentmere, Westmorland 2848/1 > 50µ 2848/2 < 50 > 20µ
2849	W.N. Charles F104 Kieselguhr, Fossil Mud 2849/1 > 50µ 2849/2 < 50 > 20µ [Klaus-Dieter Kemp reference: 929R - B. Hartley 2849 - Toome Bridge, Kieselguhr N.Ireland - Fossil mud.] [Klaus-Dieter Kemp reference: 930R - B. Hartley 2849 - Toome Bridge, Kieselguhr N.Ireland - Fossil mud.]
2850	W.N. Charles F001 Lake Myvatn, Iceland Ex. C.N. Walter 2850/1 > 50µ 2850/2 < 50 > 20µ
2851	W.N. Charles F059 Cherryfield, Maine, United States of America < 200 > 20µ
2852	W.N. Charles F122 Beaver Dam, Long Island, ? New York
2853	W.N. Charles F025 Middle Marsh, New Zealand Fossil F/W
2854	Slide A. Hepworth 1145 Waters edge of boating lake at Weston-super-Mare, Avon 3 rd December 1993 <i>Navicula arenaria</i> etc. [Atlas Plate No.131]

The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
2855	Slide by Ed Markham Lower lake on sphagnum, Brittas Ponds, Brittas Co., Dublin, Eire <i>Good Cymbellas, Eunotia, Gomphonema, Diploneis</i> etc.
2856	Slide A. Hepworth 1146 Roadside ditch, Conduit Lane, Near Mells, Frome, Somerset 18 th February 1994 <i>Nitz. linearis</i> etc. (some marine contamination) 2856A gathered 25 th February 1994 without contamination [Atlas Plate No.186]
2857	Marine boating lake, Weston-super-Mare, Avon <i>Rhabdonema arcuatum</i> Slide by A. Hepworth AH1148 [Atlas Plate No.249]
2858	Slide by Ed Markham Brittas Ponds inflow, Co. Dublin May 1989 Sample filtered through fine coffee strainer
2859	Slide A. Hepworth AH1149 Pond in field downstream of Uphill boat yard near Weston-super-Mare 6 th March 1994
2860	Surface of rhyne, Bason Bridge, neat Highbridge, Somerset
2861	From stones in river bed at Crockford Bridge near Beaulieu in the New Forest, Hants 20 th March 1994
2862	Marchwood, Southampton Winter 1993/4 Collected by Brian Darnton Re-boiled in H2SO4 by B. Hartley
2863	Hoofdplat, East of Breskens, Westerschelde, Holland 1993/4 Brian Darnton's 'shirt buttons'
2864	The Cut, Swanage at neap tide (Occasionally salt) Collected by B. Darnton June 1993
2865	Mill Stream, Corfe Castle, Dorset Collected by Brian Darnton August 1993
2866	Ter Duist, Flanders, Belgium Collected by Brian Darnton March 1993
2867	Waterfall, Virginia Water, Surrey Collected by B. Darnton March 1994
2868	<i>Arachnoidiscus ornatus</i> etc from Malaga Cove, Los Angeles Ex. B. Darnton
2869	<i>A. ornatus</i> etc. also from Malaga Cove, L.A.? United States of America Cleaned by K-D. Kemp
2870	<i>A. ornatus</i> and the League of Nations in diatoms – scraped from the garden shed floor with other over boilings at 195 Preston Road.
2871	As 2863 but from mud cleaned by B. Hartley in April 1994
2872	Atika, Japan Fossil Marine > 50µ 2872A < 50 > 25µ
2873	Slide A. Hepworth AH1152 On filamentous algae in a shallow pool at Catcott Lows, Somerset Levels 10 th April 1994
2874	Slide A. Hepworth AH1153 On water plants in rhyne, Shapwick Heath, Somerset Levels 16 th April 1994
2875	Newport Beach, California, United States of America (B.M. No. 108) This sample was later inadvertently mixed with sample 2875

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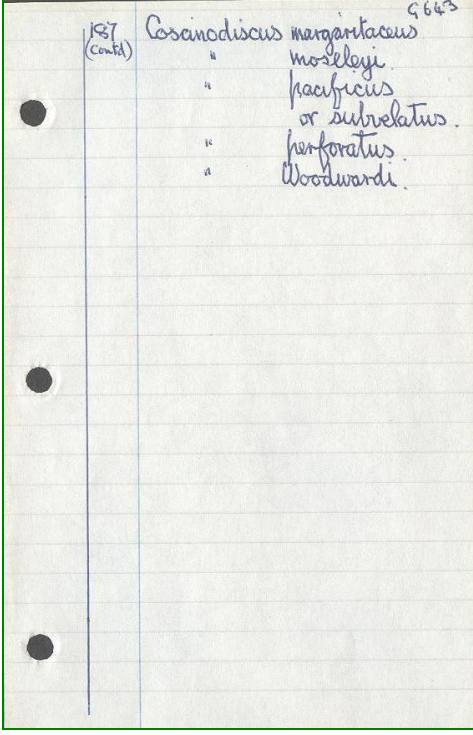
Entry No.	Particulars
2876	Fossil marine, Oamaru, New Zealand. Unspecified locality
2877	Old un-labelled sample which contains unusual F/W diatoms such as <i>Achnanthes inflata</i> and a serrate <i>Eunotia</i> . Suspect that it is of New Zealand origin
2878	Slide A. Hepworth AH1155 Surface of small pool at Shapwick Heath, Somerset Levels 24 th April 1994
2879	Sample from the River Trent, Nottinghamshire Collected by Patrick Everest on 24 th April 1994
2880	Floating algae on surface of Hornsbury Mill pond, near Chard, Somerset on 12 th May 1994. Part cleaned by A. Hepworth
2881	<i>Meridion circulare</i> on ? Chalkstream crowfoot in the river flowing through Cheddar village, Avon on 18 th May 1994 [Atlas Plate No.127] [Klaus-Dieter Kemp reference: 288R - B. Hartley - Cheddar Village, Somerset Upper Lake - <i>Meridion circulare</i>]
2882	Coarse gritty <i>Ellerbeckia arenaria</i> in the village spring at Axbridge, Avon on 18 th May 1994 [Atlas Plate No.90]
2883	Radiolaria from Barbados in 'Sparklex' June 1994 Prepared by K-D. Kemp and finished by B. Hartley
2884	Sample received from K-D. Kemp/E.Y. Haworth of <i>Asterionella formosa</i> from the North basin of Windermere 31 st May 1994
2885	F/W River Itchen, Hampshire <i>C. lanceolata</i> on <i>Valisneria</i> Collected 13 th June 1994 by K-D. Kemp
2886	Brackish River Test, Hampshire <i>Surirella smithii</i> collected by K-D. Kemp on 13 th June 1994 [Atlas Plate No.278]
2887	<i>Tabellaria flocculosa</i> Collected by M.E. Hartley on 13 th June 1994 from the dripping wet rockface, near the Clarwen reservoir dam, west of Rhayader, Wales [Atlas Plate No.284]
2888	A mass of <i>Diatoma quadratum</i> in the clear running water of a roadside trough at Battle, near Brecon, Wales on 17 th June 1994 [Atlas Plate No.75]
Three samples cleaned by W.N. Charles (on 18 th January 1993)	
2889	WNC.H122 Freshwater species from Chile, South America
2890	WNC.H119 Unspecified locality
2891	WNC.H123 Vera Cruz, Mexico [Klaus-Dieter Kemp reference: 095B - Wallich - Vera Cruz, Mexico - <i>Climacosphenia</i> , <i>Biddulphia pulchella</i>] [Klaus-Dieter Kemp reference: 462B - J.A.Long V6 - Vera Cruz, Mexico Recent marine - <i>Climacosphenia moniligera</i> , reclean.] [Klaus-Dieter Kemp reference: 469B - J.A.Long V7 - Vera Cruz, Mexico Recent marine - <i>Climacosphenia moniligera</i> , <i>Grammatophora</i> .] [Klaus-Dieter Kemp reference: 056B - Vera Cruz, Oldest material] [Klaus-Dieter Kemp reference: 147B - Vera Cruz, Oldest material[2]] [Klaus-Dieter Kemp reference: 177B - Vera Cruz, Washed from spread slide]
2892	<i>Asterionella formosa</i> with Desmids and rotifers and other plankton collected from Sutton Bingham reservoir, Yeovil on 27 th July 1994 by Nigel W. Charles [Atlas Plate No.28]
2893	Solomon's Island road. Loc. 207 Marker No.4 Fossil marine [Klaus-Dieter Kemp reference: 050B - Solomon Island, M.D Marker# 64 - Loc.207]

Entry No.	Particulars
2894	<p>Playa, Santa Fe Province, Habana, Cuba Interesting recent marine sample, including <i>Synedra undulata</i> etc.</p>  <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>[Klaus-Dieter Kemp reference: 286B - Playa de Sta Fe, Habana Cuba]</p>
2895	<p>Challenger Expedition 157 53°55'South 108°35'East 1950 fathoms Ex. B.M. <i>Fragilariopsis antarctica</i> etc.</p>
2896	<p>Fossil F/W diatoms 25µ Poorly cleaned Source unstated</p>
2897	<p>Joides V17-107, 100cm "N.G." Interesting fossil marine sample</p>  <p style="text-align: center;"><i>R.I. Firth index card</i></p>
2898	<p>Slide No.133 by Ed Markham Brittas Ponds, lower lake, Co. Dublin On sphagnum pH6.0-6.5 6th February 1994</p>
2899	<p>Slide No.140 by Ed Markham Brittas Ponds Bloom on lake surface 8th September 1994 pH6.5</p>
2900	<p>Joe's River, Barbados Radiolaria and diatoms cleaned by J.A. Long in October 1954 Received from H.C. Lister-Green in October 1994</p>
2901	<p>Slide by Keith Clarke No.1853c On saltmarsh leaf of Sea Purslane, at Stiffkey salt marsh, North Norfolk 31st July 1994</p>
2902	<p>Slide 1871c by Keith Clarke Sand washings, Gorleston, N. Norfolk Collected 6th August 1994</p>
2903	<p>Ambersham Common lake, Sussex A combined sample from the R.I. Firth collection in the 1970-80 period Separated in 1994 by B. Hartley into > and < 25µ</p>

The Bernard Hartley Sample and Strewn Slide Collection Index

Entry No.	Particulars
2904	Thursley Common, Sussex National Grid Reference SU 503-414 A combined sample from the R.I. Firth collection in the 1970-80 period Separated in 1994 by B. Hartley into > and < 25µ
2905	Ashburton Lake, Sussex A combined sample from the R.I. Firth collection in the 1976-77 period "Waterfall scrapings" Separated in 1974 by B. Hartley into > and < 25µ
2906	Burton Pond, Petworth, Sussex Combined sample as above from overflow weir Separated by B. Hartley into > and < 25µ
2907	Base of spillway, Burton Pond, Petworth, W. Sussex Combined sample as above from R.I. Firth samples Separated into > and < 25µ
2908	Balliscullion, Northern Ireland Sample B. Hartley 411 rescued from the R.I. Firth collection and now separated into > and < 25µ
2909	New Ferry, Northern Ireland Rescued from the R.I. Firth collection and now separated into > and < 25µ
2910	Antrim, Northern Ireland rescued from the R.I. Firth collection and now separated into > and < 25µ
2911	Slide 1881c by K. Clarke Sand from Stiffkey, Norfolk supplied R. Hammond With list of species present
2912	Slide 1883 by K. Clarke Sand washings, West Runton, Norfolk With list of species present
2913	"Boganoe, Aberdeenshire" Probably a wrongly named sample of United States of America Freshwater sample
2914	Fossil F/W sample from Siskiyou, United States of America Ex. B.M. <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p>
2915	Slide by J.A. Bottomley of fossil F/W material from Atiamuri, New Zealand Ret. 25µ Slide 2915A passing 25µ
2916	Slide by J.A. Bottomley of fossil F/W material from Morningside, New Zealand Ret. 25µ <i>Achnanthes inflata</i> and <i>Eunotia eruca</i> = [<i>Amphicampa mirabilis</i>]
2917	Slide by K. B. Clarke No. 1893c Scum on Wheatfen Parish water, Norfolk <i>Gyrosigma parkeri</i> etc = <i>G. distortum</i> var. <i>parkeri</i> [Atlas Plate No.113]

Entry No.	Particulars
2918	Selected mounts by Lionel Bramley of diatom species from the Challenger Voyage – Kerguelen 2918/1 <i>Aulacodiscus</i> 2918/2 <i>Cocconeis extravagans</i> 2918/3 <i>Coscinodiscus centralis</i> 2918/4 <i>Hyalodiscus radiatus</i> 2918/5 <i>Melosira interjecta</i> 2918/6 <i>Trachyneis</i> sp. 2918/7 <i>Rhabdonema japonicus</i> var. <i>sphericostata</i> or could this be <i>Entopylus oamaruensis</i> Schrader 2918/8 <i>Triceratium arcticum</i> var. <i>kerquelensis</i>
	<p style="text-align: center;"><u>SOUTHERN OCEAN.</u></p> <p>10559 641. Challenger voyage. * Araucaria Sea. Surface algae 10.9.1874. Some discs. <i>Rhizosolenia</i> & <i>Trachyneis</i>. Washed 40-550.</p> <p>10553 642. Challenger voyage * Antarctic Ooze. 18.11.19 Many small discs & tris. Washed 40-550 Lat 53° 35' S. 108° 35' E 1950 Fathoms See Railway. <i>Achnanthes</i>. 1.14.8.</p> <p>1057 643. Challenger voyage (?) * Kerguelen. Coc fragments and a fine cocconeis Washed 40-400</p>
	<p style="text-align: right;"><u>Challenger Voyage - Kerguelen.</u> G 643.</p> <p>1. <i>Cymbellace</i>. 2. <i>Cymbella lanceolata</i>.</p> <p>2. <i>Nannulace</i>. 7 <i>Nannula</i> (= <i>Pinnularia</i>) <i>flexuosa</i>. " (= <i>Didyma</i>) <i>manduca</i>. " (= <i>Trachoneis</i>) <i>aspera</i>. " " var. <i>oblonga</i>.</p> <p>22 <i>Gyrosigma attenuatum</i>.</p> <p>5. <i>Cocconeidae</i>. 34 <i>Cocconeis extravagans</i>. " <i>imparitrix</i>. " <i>paniformis</i>.</p> <p>6. <i>Epithemiace</i>. 36 <i>Bunctia pectinalis</i>.</p>
	<p>15 <i>Tabellariae</i> G643. 71 <i>Rhabdonema japonicum</i> var. <i>sphericostata</i>, or nov. spec.</p> <p>16. <i>Sunnelace</i>. 78 <i>Sunnella elegans</i>. 79 <i>Campyrodiscus Schlenitzii</i>.</p> <p>17. <i>Nitzschace</i>. 81 <i>Nitzschia</i> <i>Tyblionella</i>.</p> <p>20. <i>Melosineae</i>. 103 <i>Stephanophyscis turris</i> f. <i>arctica</i>. 109 <i>Melosira</i> (a. <i>Othosira</i>) <i>interjecta</i>. 114 <i>Hyalodiscus radiatus</i>. " <i>subtilis</i>. var. <i>japonica</i>.</p> <p>21. <i>Biddulphiace</i>. 132 <i>Biddulphia roperiana</i>. 132e <i>Triceratium arcticum</i> var. <i>kerquelensis</i>. " " " " " <i>Fusus</i>.</p>
	<p>22. <i>Euphodiaceae</i> G643 141. <i>Auloscus sculptus</i>. 149. <i>Aulacodiscus</i> ?</p> <p>23. <i>Heliohellicae</i>. 157. <i>Actinopterychus heliopelta</i>. " <i>undulatus</i>. " " var. ? " <i>senarius</i>. " " var. ?</p> <p>24. <i>Asterolampreae</i>. 167. <i>Asterolamprea challengensis</i></p> <p>25. <i>Coscinodisceae</i>. 186. <i>Actinocyclus subtilis</i> or <i>oceanarius</i>. 187. <i>Coscinodiscus atlanticus</i> var. <i>striatula</i>. " <i>centralis</i> var. nov. <i>angulatus</i>. " <i>curvatus</i> var. <i>recta</i>.</p>

Entry No.	Particulars
2918 (cont.)	 <p style="text-align: center;">L. N. Bramley (Analyses) Book 3</p>
2919	Freshwater sample from Lac de Zwat, Ethiopia January 1918 ex. Tempere

Although not included in the index the following compilation by Bernard Hartley from his letters to J.W. Barker is interesting and informative.

***Triceratium Hardmanianum* (Greville) and *radiatum* (Brightwell).
(from letters to Mr.J.W.Barker).**

Some years ago Mr. C.C. Swatman sent to the writer a frustule of *Triceratium Hardmanianum* requesting him to try and split the frustule into its component valves, thus obtaining material for two slides of this rather rare diatom. There was no doubt about it being a frustule with the dome of each valve on the outer surface.

After considerable trouble the splitting was accomplished resulting in two perfect valves which were duplicates of each other. They were duly mounted and the two slides sent to Mr.Swatman. This experience caused the writer to disbelieve the statement by J.Brun on p.62 of "Diatomees fossiles du Japon" that *T. acceptum*, *Hardmanianum*, *radiatum* and *trilineatum* are only the external and internal membranes of one and the same species. Having proved that a frustule consisted of nothing but two valves of *T. Hardmanianum* it was impossible to accept Brun's statement.

Recently, however, among some Barbadoes material, a dark-coloured block of material was found. It was quite black and too dense for its precise nature to be made out except that the end view was triangular, and by employing intense illumination it could be seen that the valve at one end had a bulge or dome exactly like *T. Hardmanianum*, the other end being quite flat. The block was dissected in the expectation of obtaining several valves of *T. Hardmanianum*. Operations were commenced at the flat end of the block and the writer was surprised to obtain of *T. radiatum*. Attention was then given to the other end of the block, and the end valve broken off after carefully examining the girdle between this end valve and the next valve to make absolutely sure that the girdle joined the two valves, leaving no doubt that the block in this respect was exactly as it grew when alive. This end valve proved to be *T. Hardmanianum*. The valve at the other end where the valve of *T. radiatum* was obtained- was then broken off and this third valve proved also to be *T. radiatum*. This left a piece which obviously contained two more valves of *T. radiatum* firmly joined together by their palisades so that the outer surfaces of these two valves were adjacent to each other. As it was obvious that these two valves would disintegrate before they would separate, it was decided to leave them joined together. The four pieces into which the block had been dissected were then mounted side-by-side in their original order on one slide.

The writer then raises an interesting question whether a complete block consists of two *T. Hardmanianum* valves at the outer ends with a series of *T. radiatum* valves in between.

A description then follows of the peculiar construction of the dome of *T. Hardmanianum*. This, he maintains, is not indicated in Greville's original description of the diatom in T.M.S., 1865,p.55. The valve is thin, flat and triangular with a raised transparent dome in the centre. The outer edge of the dome, which is roughly hexagonal to circular, joins the flat surface of the valve on its side, leaving three large corners which are covered with large dots arranged in an irregular manner. The lower flat surface of the valve beneath the transparent dome has finer dots arranged in regular radial lines, which can be seen through the dome, and if not specially looked for by focussing up and down it may easily be assumed that these finer dots are on the surface of the dome.

On the dome there is a roughly triangular to circular collar or ring about half the diameter of the dome. Inside this ring there are large dots irregularly arranged. The lower flat surface of the valve curves up to join the dome at this ring, thus forming a hollow annular space between the dome and the lower surface of the valve. beneath the dome are radial ribs which serve to stiffen its surface. These ribs probably stretch between the dome and the underlying lower surface of the valve, acting as distance pieces or stiffeners to both surfaces, but confirmation of this is not so far, forthcoming.

Also informative is a letter detailing the selecting of diatoms for mounting:

"Teasel Cottage",
195 Preston Road, I
Yeovil,
Somerset BA20 2EG.
16th October 1985

Dear Billy,

It was good to see you all on Saturday, but I thought that the room was like a Turkish bath and far too hot for comfort. John Carter and his wife have been staying here with us since the Exhibition but he set off home for Scotland yesterday. That little bit of news is to show you why I have delayed a little in sending you the dry spreads of diatoms which I promised, together with the adhesive.

You will see that I have fixed part of a tooth pick in the stopper of the adhesive tube. As you withdraw this there will be ample on the tip to apply to the centre of a cleaned 3" x 1" slide. You then rub this well in and around with the tip of a clean finger. Finally with another clean finger tip lightly rub off the adhesive several (three or four) times until there is just a thin film left. You will have to judge this by experience until you finally decide to come down here for a private demonstration!!!.

I suggest, however, that long before you start using the adhesive you should spend a few nights on trying to pick up the diatoms from the dry mounts which I have enclosed. You will not have a mechanical manipulator at this stage, I assume, so you will have to operate by hand. Do not be alarmed however, as many of the old boys just used a mounted pigs eyelash.

If you can get some of these from the butcher or from the abattoir you are in business. Mount an eyelash on the tip of a toothpick with a dab of glue, and then using this as a tool, poke about amongst the dry diatoms viewed under the microscope using a 16mm., i.e. X10 objective. Do not touch the whole diatoms at first, but practise on the broken ones and when you can pick one up and be sure which side up it is, then you can have a go at the whole ones.

The slide of material from Newport contains many *Coscinodiscus* which are fairly easy to handle as they are just like pan lids. On the other slide from Lyons Creek there are many more valuable and interesting species including that lovely thing *Actinoptychus heliopelta* with its distinctive segments.

Once you have placed a diatom (or more if you like) onto the adhesive and shoved it round to where you want it to remain, the next thing is to heat the slide until all the adhesive has evaporated off. Then cool it down, and when cool apply a drop of solvent (Toluene) carefully onto the diatom and inspect it under a low power to make sure that no bubbles are entrapped. If all is well, then apply the NAPHRAX or whatever mountant you prefer and heat this gently at first then more strongly until all the solvent is evaporated. Cool it down, clean off any surplus mountant and finally ring and label it. Then sit back and smile!!!

I wish you every success. If at first you have some problems then drop me a line and perhaps I will be able to help.

You might also like to lend the dry slides and the adhesive to John so that he could have a go some weekend, or even Ken. I would not, however, like you to dispose of the Lyons Creek spread to anyone else, as those *Heliopeltas* - well cleaned -- are fairly scarce to come by. Don't be too disheartened if you find it difficult at first -- The old boys last century managed it with much simpler equipment than we have.

All the best,


A handwritten signature in cursive script that reads "Bernard". The signature is written in dark ink and has a horizontal line underneath the name.

END OF INDEX

Appendix A

Diatomists/Collectors mentioned as providing material or slides

Details of those Diatomists/Collectors where information is available or forthcoming.

<p>Hans Arber</p>	
<p>Emile Bailleux</p>	<p>Elected to the Quekett Microscopical Club 14th December 1971 In the Quekett Microscopical Club Membership list of 1974: Bailleux, E. M., 47 Rue de l'Equateur, 1180 Bruxelles, Belgium. 02/74.2743 Interests: Diatoms General, Electron Microscopy, Photomicrography</p> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>Emile Bailleux (1898-1986)</p> <p>The following announcement appeared in LE SOIER concerning the death of On nous prie d'annoncer le décès de Le Soier Bruxelles mardi 19 août 1986</p> <p>MONSIEUR Emile BAILLEUX Ingénieur Chimiste A.I.C.M. Ancien Directeur Technique à la Division SIDAC Films de U.C.B. à Gand Chevalier de l'Ordre de Léopold Chevalier de l'Ordre de la Couronne Médaille de la Résistance 1940-1945 Médaille du Volontaire de Guerre 1940-1945 Médaille commémorative de la Guerre 1914-1918 Médaille interallée 1914-1918 Epoux de Dame Gabriella LADON né à Charleroi le 5 mai 1898 et décédé à Uccle le 13 août 1986.</p> <p>The late Emile BAILLEUX being Honorary Member of the Quekett Microscopical Club and having greatly appreciated this distinction. He was an exceptional microscopist indeed, very meticulous of detail, and contributed several papers to <i>Microscopy</i>. Henri De Saedeleer, prof.emer. Université Libre Bruxelles.</p> <p>484 MICROSCOPY 35 July - December 1986</p> </div> <p>Diatom Bibliography Bailleux, E. / Plancke, J. (Steyaert) - <i>Eucampia antarctica</i> (Castr.) Mangin. Taxonomy and Nomenclature : Microscopy, The Journal of the Quekett Microscopical Club - Vol. 33 No. 3 pp.162-163, 1 fig. (Jan-Jun 1977) [Pub. 1977] Bailleux, E.M. / Plancke, J. - The structure of <i>Amphiprora Oestrupii</i> H.V.H. : Microscopy, The Journal of the Quekett Microscopical Club - Vol. 33 No. 4 pp.244-245, 1 text fig. (Jul-Dec 1977) [Pub. 1977] Bailleux, E.M. - Malformation in <i>Neidium iridis</i> (Ehr) Cl.[Microscopy. -Pub.1979 : Vol.33(8):544-547]</p>
<p>C. H. Ball</p>	
<p>Horace George Barber</p>	<div style="text-align: center;">  </div> <p>Elected to the Quekett Microscopical Club 14th May 1946 In the Quekett Microscopical Club Membership list of 1974: Barber, H.G., Hafan, 91 Mancetter Road, Nuneaton, Warwickshire Interests: Diatoms General, Diatoms Freshwater</p>

OBITUARY



Horace G. Barber

(1908-1982)

THE UNTIMELY death of Horace Barber has left a gap in the ranks of microscopists which will be difficult, if not impossible, to fill. Particularly amongst the diatomists will his loss be felt for he represented the type of amateur worker, who, with unremitting zeal, studied his subject in great depth and produced work of an excellence seldom exceeded.

Born in Crewe, he joined the staff of the old London and Midland Railway in 1922 and remained with them until his retirement in 1966 having held various positions in their Control Office. In his younger days he was a keen long-distance cyclist and mountaineer and he retained his interest and activity in cycling until the day of his death when he was out riding in the morning. In 1930 he became a microscopist largely because of his interest in the local natural history society. Very quickly his work crystalized round the study of diatoms and he joined the Club in 1946.

After his retirement this study deepened and culminated in one of the most comprehensive Diatom Atlas's extant in the preparation of which he used his very considerable talents as an artist. The Atlas comprises at least 200 plates and several thousand individual drawings of British diatoms and, fortunately, this work will be available to all serious students at the British Museum (Natural History). Besides his many papers published in the Club Journal his latest contribution in association with Dr E. Y. Haworth and issued by the

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Freshwater Biological Association as Scientific Publication No. 44, *A Guide to the Morphology of the Diatom Frustule with a Key to the British Freshwater Genera*, produced to help the non-specialist find his way in the diatomists world.

His interests were catholic and included membership of the Nuneaton Photographic Society of which he became President. He was a magnificent artist specialising in line drawing. He produced pottery of superlative beauty and in any spare time he had he cultivated a garden which was the admiration of his many friends.

He will be remembered as a diatomist, as an artist and, above all, as a generous friend. To his widow we extend our deepest sympathy.

H.H.G.

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Diatom Bibliography

Barber, H.G. / Carter, J.R. - An account of fossil fresh water diatomaceous earth from Gordon Road Site, : Microscopy, The Journal of the Quekett Microscopical Club - Vol. 31 No. 10 pp.271-277, 2 pls. (May

	<p>1970) [Pub. 1970]</p> <p>Barber, H.G. / Carter, J.R. - An account of fossil fresh water diatomaceous earth from Gordon Road Site, : Microscopy, The Journal of the Quekett Microscopical Club - Vol. 32 No. 1 pp.24-28 (Feb 1971) [Pub. 1971]</p> <p>Barber, H.G. / Carter, J.R. - An account of fossil fresh water diatomaceous earth from Gordon Road Site, : Microscopy, The Journal of the Quekett Microscopical Club - Vol. 32 No. 3 pp.82-89, 3 figs. (Aug 1971) [Pub. 1971]</p> <p>Barber, H.G. / Carter, J.R. - An account of fossil fresh water diatomaceous earth from Gordon Road Site, : Microscopy, The Journal of the Quekett Microscopical Club - Vol. 32 pp.141-147, text figs. (Jan-Jun 1972) [Pub. 1972]</p> <p>Barber, H.G. / Haworth, E.Y. - A guide to the morphology of the diatom frustule. With a key to the Britis : Freshwater Biological Association, Scientific Publication - Vol. 44 pp.5-112, figs. 1-144 (1981) [Pub. 1981]</p> <p>Barber, H.G. - A note on the genus <i>Mastogloia</i> occurring in Southern Anglesey : Microscopy, The Journal of the Quekett Microscopical Club - Vol. 29 No. 6 pp.144-146, 1 pl. (May 1963) [Pub. 1963]</p> <p>Barber, H.G. - A note on the taxon <i>Pinnularia microstauron</i> var. <i>brebissonii</i> (Kutz) Hustedt : Microscopy, The Journal of the Quekett Microscopical Club - Vol. 33 No. 4 pp.242-243, 1 pl. (Jul-Dec 1977) [Pub. 1977]</p> <p>Barber, H.G. - A note on unusual diatom deformities : Microscopy, The Journal of the Quekett Microscopical Club - Vol. 5 No. 13 pp.365 (Feb 1961) [Pub. 1961]</p> <p>Barber, H.G. - An account of the diatom flora on a cooling tower, central electricity gene : Microscopy, The Journal of the Quekett Microscopical Club - Vol. 34 No. 7 pp.500-503, 2 pls. (Jan-Jun 1983) [Pub. 1983]</p> <p>Barber, H.G. - Fossil freshwater diatoms from a deposit on the Harper River, South Island, : Microscopy, The Journal of the Quekett Microscopical Club - Vol. 29 pp.193-195, 1 pl. (1963) [Pub. 1963]</p> <p>Barber, H.G. - Freshwater diatoms from Cass, South Island, New Zealand : Journal of the Quekett Microscopical Club. - Vol. 29 pp.17-20 (1962) [Pub. 1962]</p> <p>Barber, H.G. - The collection and preparation of recent diatoms : Microscopy, The Journal of the Quekett Microscopical Club - Vol. 29 No. 1 pp.21-25 (Feb 1962) [Pub. 1962]</p> <p>Barber, H.G. - The fossil freshwater diatoms of the Ongaroto Valley deposit, North Island, : Microscopy, The Journal of the Quekett Microscopical Club - Vol. 5 No. 14 pp.387-391, 74 figs. (May 1961) [Pub. 1961]</p> <p>John Barber m. ? ~possibly the parents above — Charles Barber b. circa 1821 Churchill, Worcestershire Almost certainly the following 1851 Census record though the ages are a bit of an anomaly In the 1851 Census @ Enville, Staffordshire: Charles Barber, aged 25?, an Agricultural Labourer, b. Abberley, Worcestershire Sarah Barber, aged 24, b. Grimley, Worcestershire John Barber, aged 2, b. Grimley, Worcestershire In the 1861 Census @ Norton, Upper Swinford, Worcestershire: Charles Barber, aged 39, a Groom, b. Churchill, Worcestershire In the 1871 Census @ 44 Moor Street, Kingswinford, Staffordshire: Charles Barber, aged 50, a Groom, b. Old Swinford, Worcestershire m. Sarah Tyler b. circa 1829? (b. 25th November 1827?) Grimley, Worcestershire parents John Tyler and Jane Smith m. 17th January 1848 Old Swinford, Worcestershire BMD Marriage March Quarter 1848 Stourbridge Vol.18. pg.489. In the 1861 Census @ Norton, Upper Swinford, Worcestershire: Sarah Barber, aged 31, a Laundress, b. Grimley, Worcestershire In the 1871 Census @ 44 Moor Street, Kingswinford, Staffordshire: Sarah Barber, aged 44(41?), b. Old Swinford, Worcestershire In the 1881 Census @ Ellis Street, Amblecote, Staffordshire: Sarah Barber, aged 50, a widow, b. Gremley In the 1891 Census @ 39 Bressell Lane, Kingswinford, Staffordshire: Sarah Barber, aged 63, a widow, a Laundress, b. Grimley, Worcestershire In the 1901 Census @ 39 Bressell Lane, Kingswinford, Staffordshire: Sarah Barber, aged 73, a widow, a Laundress, b. Grimley, Worcestershire Probably BMD Death, aged 77, December Quarter 1904 Stourbridge Vol.6c. pg.106. — John Barber b. circa 1849 Kinfare, Staffordshire Probably BMD Birth June Quarter 1849 Wolverhampton Vol.17. pg.383. In the 1861 Census @ Norton, Upper Swinford, Worcestershire: John Barber, aged 11, a Farm Labourer, b. Kinfare, Staffordshire In the 1871 Census @ 44 Moor Street, Kingswinford, Staffordshire: John Barber, aged 21, a Horse Driver b. Old Swinford, Worcestershire — Henry Barber b. 29th May 1851 Enville, Staffordshire BMD Birth June Quarter 1851 Wolverhampton Vol.17. pg.402. In the 1861 Census @ Norton, Upper Swinford, Worcestershire: Henry Barber, aged 9, no occupation, b. Enville, Staffordshire In the 1871 Census @ 44 Moor Street, Kingswinford, Staffordshire: Henry Barber, aged 19, a Puddler b. Old Swinford, Worcestershire In the Register of Uniformed Staff No.1b. Great Western Railway Station – Netherton, Service Date – November 1876 (aged 25), a signalman (Commencing Wage 18/-) Station – West Bromwich. Service Date – April 1880, a signalman Station – Wolverhampton, Service Date - February 1891, a signalman Wage history: 13th May 1877 – 19/- 13th May 1878 – 20/- 10th May 1879 – 21/- May 1880 – 22/- 17th November 1889 – 23/-</p>
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		<p>17th November 1890 – 24/- 1st October 1891 - 26/- 1st October 1892 – 27/- 1st October 1893 - 28/- 12th April 1897 – 30/- 1st March 1900 – 31/- 1st March 1901 – 32/- 5th August 1902 – 35/- Offences: 10th August 1890 – Infringing Rule 7 10th November 1900 – Derailing Engine (bonus lost for 1 month) 20th March 1911 – Failed to stop a down train dead at his stop signal when station ahead was foul (cautioned and bonus deferred one month) Commended August 1911 30th December 1913 – Turned points in error, caused engine to leave rails 3rd March 1915 – Pulled wrong lever and caused coach to be derailed In the 1881 Census @ 15 Baker Street, West Bromwich, Staffordshire: Henry Barber, aged 29, a Railway Signalman, b. Brierley Hill, Staffordshire In the 1891 Census @ 96 Inkerman Street, Wolverhampton, Staffordshire: Henry Barber, aged 39, a Railway Points Man, b. Envil, Staffordshire In the 1901 Census @ 24 Alma Street, Wolverhampton, Staffordshire: Henry Barber, aged 49, a Railway Signalman, b. Enville, Staffordshire In the 1911 Census @ 24 Alma Street, Wolverhampton, Staffordshire: Henry Barber, aged 59, a Signalman G.W.R., b. Enville, Staffordshire d. 8th August 1930 BMD Death, aged 79, September Quarter 1930 Wolverhampton Vol.6b. pg.506. Probate: Barber, Henry, of 24 Alma Street, Wolverhampton, died 8th August 1930. Administration London 11th September 1930 to Mary Annie Barber, widow. Effects £435 12s 3d.</p> <p>m. Hannah Lane b. circa 1850 Brierley Hill, Staffordshire parents – George Lane (b. circa 1816) and Shara? (Sarah) Cox (b. circa 1819) BMD Marriage September Quarter 1877 Stourbridge Vol.6c. pg.269. In the 1881 Census @ 15 Baker Street, West Bromwich, Staffordshire: Hannah Barber, aged 30, b. Brierley Hill, Staffordshire In the 1891 Census @ 96 Inkerman Street, Wolverhampton, Staffordshire: Hannah Barber, aged 40, b. Brierley Hill, Staffordshire In the 1901 Census @ 24 Alma Street, Wolverhampton, Staffordshire: Hannah Barber, aged 50, b. Brierley Hill, Staffordshire In the 1911 Census @ 24 Alma Street, Wolverhampton, Staffordshire: Hannah Barber, aged 60, b. Brierley Hill, Staffordshire BMD Death, aged 67, June Quarter 1918 Wolverhampton Vol.6b. pg.603.</p> <p>— Charles Harry Barber b. 14th August 1879 Dudley, Worcestershire BMD Birth September Quarter 1879 Dudley Vol.6c. pg.135. In the 1881 Census @ 15 Baker Street, West Bromwich, Staffordshire: Chas. Harry Barber, aged 1, b. Dudley, Worcestershire In the 1891 Census @ 96 Inkerman Street, Wolverhampton, Staffordshire: Charles H. Barber, aged 11, a Scholar, b. Dudley, Worcestershire In the Register of Uniformed Staff No.2b. Great Western: Station – Bilston W.M. Service Date – November 1896, Porter Station – Princes End. Service Date – July 1899, Signalman Station – Stourbridge Town – May 1900, Signalman Station – Harts Hill – May 1901, Signalman Station – Bilston W.M. – September 1901, Signalman Station – Birmingham – December 1903, Relief Signalman Wage History: Started – 10/- 13th October 1897 – 16/- 13th October 1898 – 17/- 20th July 1899 – 18/- May 1900 – 20/- 15th April 1901 – 22/- 15th April 1902 – 23/- 15th April 1903 – 24/- January 1907 - 25/- January 1908 – 26/- January 1909 – 27/- 25th December 1910 – 28/- August 1911 – 30/- 25th December 1912 – 31/- 25th December 1913 – 32/- 25th December 1914 – 33/- Offences: 13th October 1899 – Engine derailed 9th June 1909 – Omitted to place signal at all right before switching out cabin – bonus lost one month Commended August 1911 In the 1901 Census @ Parkfield, Stourbridge, Worcestershire: Charles H. Barber, aged 21, a boarder, a Railway Signalman, b. Dudley, Worcestershire In the 1911 Census @ 4 Prince Street, Netherton, Dudley, Staffordshire: Charles Harry Barber, aged 31, a Railway Signalman, b. Dudley, Staffordshire d. 3rd November 1958 BMD Death, aged 79, December 1958 Totnes, Devon Vol.7a. pg.807. Probate: Barber, Charles Harry, of 32 Windmill Hill, Brixham, Devon, died 3rd November 1958. Probate Exeter 15th January 1959 to Charles Barber, railway signalman and Harry Ernest Barber, draughtsman. Effects £2276 14s. 5d.</p>
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		<p>m. Mary Ellen Martin b. circa 1877 Bilston, Staffordshire Probably BMD Birth March Quarter 1878 Wolverhampton Vol.6b. pg.663. BMD Marriage September Quarter 1900 Stourbridge Vol.6c. pg.329. In the 1911 Census @ 4 Prince Street, Netherton, Dudley, Staffordshire: Mary Ellen Barber, aged 33, b. Bilston, Staffordshire</p> <p>— Charles Barber b. 3rd December 1900 Netherton, Worcestershire Probably BMD Birth March Quarter 1901 Dudley, Vol.6c. pg.110. In the 1911 Census @ 4 Prince Street, Netherton, Dudley, Staffordshire: Charles Barber, aged 10, at School, b. Netherton, Worcestershire BMD Death, aged 77, June 1978 Banbury Vol.20. pg.2181.</p> <p>m. Nellie G. B. Davies b. circa 1896 Probably BMD Birth, Nellie Gladys Davies, September Quarter 1896 Dudley Vol.6c. pg.105. BMD Marriage June Quarter 1926 Dudley Vol.6b. pg.1878. BMD Death, aged 72, December 1968 Banbury Vol.6b. pg.1014.</p> <p>— Harry Ernest Barber Possibly BMD Birth Harry E. Barber, December Quarter 1928 Wolverhampton Vol.6b. pg.822. Mother's maiden name - Davies</p> <p>possibly m. Diana M. Rawley BMD Marriage March Quarter 1955 Banbury Vol.6b. pg.1765.</p> <p>— Ethel Barber b. circa 1905 West Bromwich, Staffordshire BMD Birth December Quarter 1905 West Bromwich Vol.6b. pg.844. In the 1911 Census @ 4 Prince Street, Netherton, Dudley, Staffordshire: Ethel Barber, aged 5, at School, b. West Bromwich, Staffordshire</p> <p>— Ernest George Barber b. 5th June 1882 @ 15 Baker Street, West Bromwich BMD Birth June Quarter 1882 West Bromwich Vol.6b. pg.853. In the 1891 Census @ 96 Inkerman Street, Wolverhampton, Staffordshire: Ernest G. Barber, aged 8, a Scholar, b. West Bromwich, Staffordshire In the 1901 Census @ 24 Alma Street, Wolverhampton, Staffordshire: Ernest G. Barber, aged 18, a Railway Goods Porter, b. West Bromwich, Staffordshire In the 1911 Census @ 19 Somerville Street, Crewe, Cheshire: Ernest George Barber, aged 28, a Railway Goods Checker, b. West Bromwich, Staffordshire d. 4th January 1954 @ National Union of Railwaymen's Institute, Nantwich Road, Crewe BMD Death, aged 71, March 1954 Crewe Vol.10a. pg.275. Probate: Barber, Ernest George, of 8 St. Andrews Avenue, Crewe, died 4th January 1954 at National Union of Railwaymen's Institute, Nantwich Road, Crewe. Probate Chester 27th April 1954 to Horace George Barber, railway clerk and Ronald Ernest Barber, rope splicer. Effects £1263 10s.</p> <p>m. Florence Maud (Lily) Amor(e) b. 8th April 1882 Horninglow, Staffordshire) parents Isaac Amor (1854-1918) and Elizabeth Watkins (d. circa 1911) BMD Birth June Quarter 1882 Burton Vol.6b. pg.421 (recorded as Amore) BMD Marriage June Quarter 1905 Wolverhampton Vol.6b. pg.943. In the 1911 Census @ 19 Somerville Street, Crewe, Cheshire: Florence Maud Barber, aged 28, performing Household Duties, b. Burton-on-Trent, Derbyshire Possibly BMD Death, aged 84, March 1967 Bucklow Vol.10a. pg.135.</p> <p>— Horace George Barber b. 1st September 1908 Nantwich, Cheshire BMD Birth Horace George Barber, December Quarter 1908 Nantwich Vol.8a. pg.288. In the 1911 Census @ 19 Somerville Street, Crewe, Cheshire: Horace George Barber, aged 2, b. Crewe, Cheshire London, Midland and Scottish - Salaried Staff Scale Advances (Adults in Classes other than 5th): H. G. Barber – Grade – Assistant Controller, Station – Nuneaton 23rd September 1942 – Salary - £220 + 10 23rd September 1944 – Salary £230 Entry in The Microscope Vol. VI No. 1 of 1945 states 'Mr. H. G. Barber, Bletchley, Bucks, writes to say that he is very interested in the study of Diatoms and wishes to correspond with someone of similar tastes who would also be willing and able to assist him in the identification of species.' Elected to QMC 14th May 1946. Living, according to December 1948 Members list, at 'Hafan', 91 Mancetter Road, Nuneaton, Warwickshire. Employed by London, Midland and Scottish Railway (subsequently merged into British Rail) until 1966. BMD Death, aged 74, December 1982 North Warwickshire Vol.31. pg.0048.</p> <p>m. Gweneth Elizabeth Jones b. 10th August 1904 parents – John Jones (1877-1953) and Elizabeth Williams (1877-1964) m. 25th August 1936 Llangoed, Isle of Anglesey, Wales BMD Death, aged 86, July 1991 Nuneaton and Bedworth Vol.31. pg.143.</p> <p>— Alan George Barber b. 7th October 1940 Nantwich, Cheshire BMD Birth December Quarter 1940 Crewe Vol.8a. pg.871.</p> <p>m. Judith Ann Brogden b. 21st September 1944 Nuneaton, Warwickshire parents – Alfred Arthur Brogden (b. circa 1913) and Vera Handley (b. circa 1919) BMD Birth December Quarter 1944 Nuneaton Vol.6d. pg.1290. Mother's maiden name - Handley</p>
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				<p>m. 24th February 1968 Weddington, Nuneaton, Warwickshire BMD Marriage March Quarter 1968 Nuneaton Vol.9c. pg.2525.</p> <p>~possibly these children</p> <p>—Nicholas Timothy Barber BMD Birth December Quarter 1970 Leicester Vol.3a. pg.2131. mother's maiden name - Brogden</p> <p>—Robin Giles Barber BMD Birth June Quarter 1976 Leicester Central Vol.4. pg.2097. mother's maiden name - Brogden</p> <p>—Ronald Ernest Barber b. January 1917 BMD Birth March Quarter 1917 Nantwich Vol.8a. pg.489. mother's maiden name - Amor BMD Death, aged 68, November 1985 Congleton and Crewe Vol.35. pg.529.</p> <p>possibly m. Edith M. M. Ratcliff BMD Marriage September Quarter 1941 Crewe Vol.8a. pg.1216. This is probably Edith Mildred M. Ratcliff b. 4th March 1918 BMD Death, aged 57, March 1975 Congleton and Crewe Vol.35. pg.0480.</p> <p>—Jean L. Barber BMD Birth December Quarter 1926 Nantwich Vol.8a. pg.442. mother's maiden name - Amor</p> <p>—Walter Barber b. circa 1887 West Bromwich, Staffordshire BMD Birth June Quarter 1888 West Bromwich Vol.6b. pg.812. In the 1901 Census @ 24 Alma Street, Wolverhampton, Staffordshire: Walter Barber, aged 13, b. West Bromwich, Staffordshire In the 1911 Census @ 24 Alma Street, Wolverhampton, Staffordshire: Walter Barber, aged 23, a Warehouseman, b. West Bromwich, Staffordshire</p> <p>—Frank Barber b. circa 1890 West Bromwich, Staffordshire BMD Birth June Quarter 1890 West Bromwich Vol.6b. pg.821. In the 1891 Census @ 96 Inkerman Street, Wolverhampton, Staffordshire: Frank Barber, aged 11 months b. West Bromwich, Staffordshire In the 1901 Census @ 24 Alma Street, Wolverhampton, Staffordshire: Frank Barber, aged 10, b. West Bromwich, Staffordshire In the 1911 Census @ 24 Alma Street, Wolverhampton, Staffordshire: Frank Barber, aged 20, a Clerk, b. West Bromwich, Staffordshire</p> <p>m. Mary Annie Chambers BMD Marriage June Quarter 1920 Wolverhampton Vol.6b. pg.1831.</p> <p>—Mary Barber b. circa 1855 Upper Swinford, Worcestershire In the 1861 Census @ Norton, Upper Swinford, Worcestershire: Mary Barber, aged 5, no occupation, b. Upper Swinford, Worcestershire</p> <p>—James Barber b. circa 1856 Upper Swinford, Worcestershire Bp. 15th February 1857 Old Swinford, Worcestershire Parents – Charles and Sarah Barber In the 1861 Census @ Norton, Upper Swinford, Worcestershire: James Barber, aged 4, no occupation, b. Upper Swinford, Worcestershire In the 1871 Census @ 44 Moor Street, Kingswinford, Staffordshire: James Barber, aged 14, a Scholar, b. Old Swinford, Worcestershire Possibly In the 1881 Census @ Virgins End, Kingswinford, Staffordshire: James Barber, aged 24, a Bricklayer, b. Kingswinford, Staffordshire Sarah Barber (nee Wall/Skidmore), aged 23, b. Kingswinford, Staffordshire In the household of her widowed mother Sarah Ann Skidmore Possibly BMD Marriage March Quarter 1878 Stourbridge Vol.6c. pg.157.</p> <p>—Thomas Charles Barber b. circa 1859 Upper Swinford, Worcestershire BMD Birth September Quarter 1859 Stourbridge Vol.6c. pg.157. Bp. 24th July 1859 Old Swinford, Worcestershire Parents – Charles and Sarah Barber In the 1861 Census @ Norton, Upper Swinford, Worcestershire: Thomas C. Barber, aged 1, b. Upper Swinford, Worcestershire In the 1871 Census @ 44 Moor Street, Kingswinford, Staffordshire: Thomas Barber, aged 11, a Scholar, b. Old Swinford, Worcestershire In the 1881 Census @ Ellis Street, Amblecote, Staffordshire: Thomas Barber, aged 19, a Shunter on Railway, b. Old Swinford, Worcestershire In the 1891 Census @ 39 Bressell Lane, Kingswinford, Staffordshire: Thomas C. Barber, aged 31, a Railway Porter, b. Oldswinford, Worcestershire In the 1901 Census @ 39 Bressell Lane, Kingswinford, Staffordshire: Thomas C. Barber, aged 43, a Labourer in an Ironworks, b. Old Swinford, Worcestershire Possibly d. 25th November 1927 Possibly BMD Death, aged 68, December Quarter 1927 Stourbridge Vol.6c. pg.51. Possibly Probate: Barber, Thomas Charles, of 26 Potter Street, Brierley Hill, Staffordshire, died 26th November 1927. Probate Birmingham 16th December 1927 to Edith Byram (wife of Thomas Byram). Effects £113 13s.</p> <p>—Sarah Ann Barber b. circa 1859 Upper Swinford, Worcestershire BMD Birth September Quarter 1859 Stourbridge Vol.6c. pg.157. Bp. 24th July 1859 Old Swinford, Worcestershire Parents – Charles and Sarah Barber</p>
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	<p>In the 1861 Census @ Norton, Upper Swinford, Worcestershire: Sarah A. Barber, aged 1, b. Upper Swinford, Worcestershire</p> <p>In the 1871 Census @ 44 Moor Street, Kingswinford, Staffordshire: Sarah Ann Barber, aged 11, a Scholar b. Old Swinford, Worcestershire</p>
—	<p>Eliza Ellen Barber BMD Birth September Quarter 1861 Stourbridge Vol.6c. pg.169. Bp. 6th October 1861 Old Swinford, Worcestershire Parents – Charles and Sarah Barber Probably BMD Death June Quarter 1863 Stourbridge Vol.6c. pg.83.</p>
—	<p>George Alfred Barber b. circa 1863 Old Swinford, Worcestershire BMD Birth December Quarter 1863 Stourbridge Vol.6c. pg.178. Bp. 22nd November 1863 Old Swinford, Worcestershire Parents – Charles and Sarah Barber</p> <p>In the 1871 Census @ 44 Moor Street, Kingswinford, Staffordshire: George Barber, aged 7, a Scholar b. Old Swinford, Worcestershire</p> <p>In the 1881 Census @ Ellis Street, Amblecote, Staffordshire: George Barber, aged 16, a Slipper Boy on Railway, b. Old Swinford, Worcestershire</p> <p>In the 1891 Census @ Amblecote Road, Kingswinford, Staffordshire: George Alfred Barber, aged 26, a Railway Shipper, b. Amblecote, Staffordshire</p> <p>In the 1901 Census @ 39 Bower Lane, Quarry Bank, Staffordshire: Geo. Alfred Barber, aged 36, a Railway Goods Shipper, b. Amblecote, Staffordshire</p> <p>In the 1911 Census @ 2 West Street, Quarry Bank, Staffordshire: George Barber, aged 46, a Railway Foreman, b. Kingswinford, Staffordshire</p> <p>Also present Ruth Mabel Backe (neice), aged 30, a Sheet Tin Worker, b. Kingswinford, Staffordshire d. 15th December 1929 BMD Death, aged 66, December Quarter 1929 Stourbridge Vol.6c. pg.58. Probate: Barber, George Alfred, of 2 West Street, Quarry Bank, Staffordshire, died 15th December 1929. Probate London 17th February 1930 to Norman Alfred Barber, carter, William Meredith, platelayer and James Edward Shaw, plumber. Effects £441 17s. 3d.</p>
m.	<p>Sarah Annie Bache (Backe) b. circa 1867 Mount Pleasant, Staffordshire BMD Marriage December Quarter 1890 Stourbridge Vol.6c. pg.332. In the 1891 Census @ Amblecote Road, Kingswinford, Staffordshire: Sarah Annie Barber, aged 24, b. Mount Pleasant, Staffordshire</p> <p>In the 1901 Census @ 39 Bower Lane, Quarry Bank, Staffordshire: Sarah A. Barber, aged 35, b. Brierley Hill, Staffordshire</p> <p>In the 1911 Census @ 2 West Street, Quarry Bank, Staffordshire: Sarah Annie Barber, aged 44, b. Kingswinford, Staffordshire BMD Death, aged 57, September Quarter 1923 Stourbridge Vol.6c. pg.28.</p>
—	<p>Gertrude Annie Barber b. circa 1891 Stourbridge, Staffordshire Probably BMD Birth June Quarter 1891 Stourbridge Vol.6c. pg.201. In the 1901 Census @ 39 Bower Lane, Quarry Bank, Staffordshire: Gertrude A. Barber, aged 9, b. Stourbridge, Worcestershire In the 1911 Census @ 2 West Street, Quarry Bank, Staffordshire: Gertrude Annie Barber, aged 19, no occupation, b. Stourbridge, Worcestershire</p>
	<p>probably m. Sidney B. Parkes BMD Marriage December Quarter 1916 Stourbridge Vol.6c. pg.103.</p>
—	<p>Alice May Barber b. circa 1894 Brierley Hill, Staffordshire BMD Birth September Quarter 1895 Stourbridge Vol.6c. pg.164. In the 1901 Census @ 39 Bower Lane, Quarry Bank, Staffordshire: Alice May Barber, aged 6, b. Brierley Hill, Staffordshire</p>
—	<p>Norman Alfred (Alfred Norman) Barber b. 11th July 1899 Kingswinford, Staffordshire BMD Birth September Quarter 1899 Stourbridge Vol.6c. pg.206. In the 1901 Census @ 39 Bower Lane, Quarry Bank, Staffordshire: Alfred N. Barber, aged 2 months, b. Brierley Hill, Staffordshire In the 1911 Census @ 2 West Street, Quarry Bank, Staffordshire: Norman Alfred Barber, aged 11, at school, b. Kingswinford, Staffordshire BMD Death, aged 71, June 1971 Stourbridge Vol.9d. pg.401. (Alfred Norman Barber)</p>
	<p>probably m. Sarah A. Homer BMD Marriage June Quarter 1923 Stourbridge Vol.6c. pg.63.</p>
—	<p>Harry William Barber b. circa 1903 Kingswinford, Staffordshire In the 1911 Census @ 2 West Street, Quarry Bank, Staffordshire: Harry William Barber, aged 7, at school, b. Kingswinford, Staffordshire Possibly b. 31st October 1902 Possibly BMD Death, aged 71, September 1974 Surrey Mid Eastern Vol.17. pg.0100.</p>
—	<p>Walter David Barber b. 2nd May 1907 Kingswinford, Staffordshire BMD Birth June Quarter 1907 Stourbridge Vol.6c. pg.219. In the 1911 Census @ 2 West Street, Quarry Bank, Staffordshire: Walter David Barber, aged 3 (13?), b. Kingswinford, Staffordshire BMD Death, aged 67, March 1975 Dudley Vol.33. pg.0785.</p>
	<p>probably m. Florence Proctor BMD Marriage March Quarter 1932 Stourbridge Vol.6c. pg.43.</p>
—	<p>Phoebe Ellen Barber b. circa 1869 Kingswinford, Staffordshire BMD Birth March Quarter 1870 Stourbridge Vol.6c. pg.241.</p>

	<p>Bp. 10th April 1870 St. Mary, Kingswinford, Staffordshire Parents – Charles and Sarah Barber In the 1871 Census @ 44 Moor Street, Kingswinford, Staffordshire: Phoebe (sic) Ellen Barber, aged 1, b. Kingswinford, Staffordshire In the 1881 Census @ Ellis Street, Amblecote, Staffordshire: Phoebe Barber, aged 11, a Scholar, b. Kingswinford, Staffordshire</p>
<p>J. Barron</p>	<p>Diatom Bibliography</p> <p>Barron, J., Poore, R. / Dowsett, H. - Middle Pliocene sea surface temperatures: a global reconstruction : Marine Micropaleontology - Vol. 27 pp.13-25 (1996) [Pub. 1996]</p> <p>Barron, J. - Pliocene paleoclimatic interpretation of DSDP Site 580 (NW Pacific) using d : Marine Micropaleontology - Vol. 20 pp.p. 23-44 (1992) [Pub. 1992]</p> <p>Barron, J.A. / Baldauf, J.G., Barrera, E., Caulet, J.P., Huber, B.T., Keating, B.H., Lazar - Biochronologic and magnetostratigraphic synthesis of Leg 119 sediments from t : Proceedings of the Ocean Drilling Program, Scientific Results - Vol. 119 pp.813-847 (1991) [Pub. 1991]</p> <p>Barron, J.A. / Baldauf, J.G. - <i>Actinocyclus ingens</i> var <i>nodus</i>: a new, stratigraphically useful diatom of the circum-North Pacific. [Micropaleontology. -Pub.1980 : Vol.26(1): pg.103-10]</p> <p>Barron, J.A. / Baldauf, J.G. - Cenozoic marine diatom biostratigraphy and applications to paleoclimatology : C.D. 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The Bernard Hartley Sample and Strewn Slide Collection – Appendix A

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R.F. Behan	
Dr. Michael S. Bingley	Dr. Michael Stanley Bingley



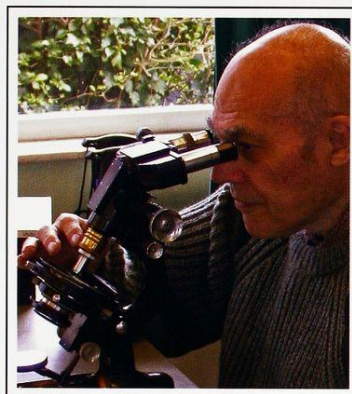
Elected to the Quekett Microscopical Club 10th December 1970
 In the Quekett Microscopical Club Membership list of 1974:
 Bingley, Br. M. S., Eaton Farm, Miles Lane, Cobham, Surrey. 266-2483

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Obituary

Michael Stanley Bingley: 1932-2008



Michael was born in Lydney on 11 February 1932, but the family soon moved back to Surrey and in 1938 to Eaton Farm where he would live for the rest of his life. He went to Harrow School in 1945, and after National Service went up to Trinity College Cambridge. He took botany at part I and genetics [under Sir Ronald Fisher] in part II, and graduated BA in 1954.

After a few other jobs he moved to King's College London Biophysics Department [under Professor Danielli] to work for a PhD in electrophysiology. He was able to take a course in electronics at Chelsea Poly while working on his doctorate, and used this knowledge and his considerable mechanical engineering ability to help build his apparatus, working with John Wells [later of Biosil] as Head Technician. He was awarded his doctorate in 1962, and continued to work at King's: he published a number of papers over the years, including one in *Nature* in 1964. He left King's when Danielli and most of his staff moved to the United States.

In the years 1966-1968 he held a research fellowship at the Institute of Aviation Medicine, and learned to fly. He also became an expert rifle shot, and expert also in

high-quality ammunition. His distinctive personality did not fit easily into academic posts, and he had spells in teaching and consultancy while working in his own workshop at home on several themes. One was to develop a patented silicone-based additive for petrol engines: he didn't make much money from this but was elected to membership of the Institute of Mechanical Engineers.

He taught the classes in microscopy at Morley College for some years in the late 1970s and early 1980s, taking over from Bernard Hartley who did the optics while John Wells did the mounting. Some present members of the Quekett originally joined as a result of these courses. In 1970 Michael joined the RMS and also the Quekett, spurred on by his interest in a good microscope for microelectrode work. He became known for his dedication to the pursuit of maximum resolution.

At about this time he met Joan: surprisingly perhaps, as he had taken her to a Quekett meeting in Tudor Street for their second date, they married in her native Dublin in 1974. She herself joined the Club in 1993, and has played a prominent part in its activities. She is a chartered secretary, and during her period of office as president of her professional body they travelled the world together.

Michael never retired as such, continuing his work on both engines and electrophysiology into his 70s. He attended meetings of the Society of Experimental Biology [running one of the sessions at their 1995 Conference], and of the RMS and the Quekett, until 2006.

Unfortunately he broke his hip in a fall on New Year's Day 2007, and the resulting poor health took him to a succession of hospitals and nursing homes. He died on 16 October 2008. Our profound sympathies go to Joan: he was one of a kind, and his absence from our meetings will be regretted by all of us.

Brian Bracegirdle

<p>Dr. Brian Bracegirdle</p>	<p>Elected to the QMC 9th January 1973 In the Quekett Microscopical Club Membership list of 1974: Bracegirdle, B., 157 Shooters Hill, London, SE18 3HS. 01-856-1968</p> <p>Bibliography: An advanced atlas of histology / W.H.Freeman, Brian Bracegirdle. London: Heinemann Educational Books, 1976. ISBN 0435603175 The archaeology of the Industrial Revolution / by Brian Bracegirdle with ... [others]. London: Heinemann Educational, 1973. (1st ed. reprinted with corrections. 1974.) ISBN 0435329901 An atlas of chordate structure / Brian Bracegirdle and Patricia H. Miles. London : Heinemann Educational, 1978. ISBN 0435603167 An Atlas of Embryology. Heinemann: London, 1963. (2nd ed. 1967.) 2nd ed. London : Heinemann Educational, 1975 [i.e. 1978] ISBN 0435603108 An atlas of histology. Freeman, W. H. (William Harvey) & Bracegirdle, Brian London: Heinemann, 1966. (2nd ed. 1967.) An atlas of invertebrate structure. Freeman, W. H. (William Harvey) & Bracegirdle, Brian. London: Heinemann Educational, 1971. (1976) ISBN 0435603159 An atlas of plant structure / [by B. Bracegirdle and P. H. Miles]. Heinemann Educational Books, 1971-73. ISBN 0435603124 An atlas of plant structure / Brian Bracegirdle, Patricia H. Miles. Vol.2. London : Heinemann Educational, 1973. ISBN 0435603140 The Darbys and the Ironbridge Gorge. / BRACEGIRDLE, Brian, and MILES (Patricia Helen) Newton Abbot, etc.: David and Charles, [1974]. ISBN 0715364553 Engineering in Chester: 200 years of progress. Eaton Road, Handbridge. / BRACEGIRDLE, Brian. Chester: College of Further Education, [1966]. Experimental work in biology / D.G. Mackean. 3, Soils / photographs by Brian Bracegirdle. Publisher/year London : J. Murray, 1971. ISBN 0719520797 A history of microtechnique : the evolution of the microtome and the development of tissue preparation / Brian Bracegirdle. Publisher/year London : Heinemann Educational, 1978. ISBN 043554120X Edition 2nd ed. Lincolnwood, IL : Science Heritage, 1987, c1986. ISBN 0940095009 Introduction to light microscopy / Savile Bradbury, Brian Bracegirdle. Oxford : BIOS Scientific in association with the Royal Microscopical Society, 1998. ISBN 1859961215 The microscopic photographs of J. B. Dancer / by Brian Bracegirdle and James B. McCormick ; with illustrations from original Dancer negatives from the collection of A. L. E. Barron ; descriptive notes to the catalogue listings by Hilary Bracegirdle. Chicago : Science Heritage, 1993. ISBN 0940095106 Microscopical mounts and mounters / Brian Bracegirdle. [S.l.] : Quekett Microscopical Club, 1998. ISBN 0951444131 Modern photoMICROgraphy / Brian Bracegirdle, Savile Bradbury. Oxford : BIOS Scientific in association with the Royal Microscopical Society, 1995. ISBN 1859960901 Notes on modern microscope manufacturers / Brian Bracegirdle. Quekett Microscopical Club, 1996. ISBN 0951444174 Photography for books and reports / by Brian Bracegirdle. Newton Abbot : David & Charles, 1970. ISBN 0715348019 Scientific photoMACROgraphy / Brian Bracegirdle Oxford : BIOS Scientific, 1995. ISBN 187274849X Thomas Telford / Brian Bracegirdle, Patricia H. Miles. Newton Abbot : David and Charles, 1973. ISBN 0715359339</p>
<p>Dr. Bradley</p>	<p>Possibly Elected to the QMC 8th May 1973 In the Quekett Microscopical Club Membership list of 1974: Bradley, G.W., 38 Northumberland Avenue, Aylesbury, Bucks. HP21 7HJ. Aylesbury 86436.</p>
<p>Dr. Lionel N. Bramley</p>	<p>Elected to the Quekett Microscopical Club 11th May 1964 In the Quekett Microscopical Club Membership list of 1969: Bramley, Dr. L. N., 39 Ringwood Gardens, Roehampton Vale, London, S.W.15 In the Quekett Microscopical Club Membership list of 1974: Bramley, Dr. L. N., 6 Napoleon Avenue, Farnborough, Hampshire, GU14 8LY</p> <p>BMD Birth, Lionel Napier Bramley, June Quarter 1908 Lewisham Vol.1d. pg.1129</p> <p>In the 1911 Census @ 13 Cranford Avenue, Sale, Cheshire Thomas Arthur Bramley, aged 37. An Electrical Engineering Draughtsman, b. Shalford, Middlesex Florence Elizabeth Bramley, aged 34, b. Islington, London Minnie Florence Bramley, aged 5, b. Lee, Kent Lionel Napier Bramley, aged 3, b. Lee, Kent Also present – Caroline Bramley (mother), aged 73, b. Bethnal Green, London</p> <p>In New Scientist 7th September 1961:</p> <div style="border: 1px solid black; padding: 5px;"> <p>Lionel Napier Bramley (<i>Information handling in the steel industry</i>) is 53. He was educated in engineering at the City and Guilds College and, after working at the Henley Research Laboratories and in the Electrical Department of the Royal Aircraft Establishment, became in 1946 the Head of the Electrical Section of the Plant Engineering Division of the British Iron and Steel Research Association. He is now concerned, for the Digital Engineering Co. Ltd., with making studies on the automation of steelworks plant and the associated information handling. Since 1952 he has lectured on automatic control at the Northampton College of advanced Technology. For recreation he likes hi-fi music and fast motoring.</p> </div>
<p>J. Canne</p>	

John R. Carter



Elected to the Quekett Microscopical Club 11th April 1961
 In the Quekett Microscopical Club Membership list of 1969 & 1974:
 Carter, J. R., Elm Bank, Denholm, Roxburghshire. Denholm 246
 Interests: Diatoms General, Diatoms Freshwater

BMD Birth, John Ripley Carter, September Quarter 1908 Bradford Vol.8b. pg.79.
 BMD Marriage, John R. Carter to Marjorie Dyson, June Quarter 1935 Bradford Vol.9b. pg.609.

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- Carter, J.R. - The genus *Achnanthes* as it occurs in British fresh waters : The Microscope - Vol. 13 No. 2 pp.37-45 (May/June 1961) [Pub. 1961]
- Carter, J.R. - The genus *Achnanthes* as it occurs in British fresh waters : The Microscope - Vol. 12 No. 12 pp.320-326, 25 figs. (Jan/Feb 1961) [Pub. 1961]
- Carter, J.R. - The genus *Achnanthes* as it occurs in British fresh waters : The Microscope - Vol. 13 No. 1 pp.15-22, 54 figs. (Mar/Apr 1961) [Pub. 1961]
- Carter, John R. / Denny, Patrick - Freshwater algae of Sierra Leone : III. Bacillariophyceae : Part (i) diatoms from the River Jong (Taia) at Njala.[Beiheft zur Nova Hedwigia, 73, 1982 : 281-331.]
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- Carter, John R. - Diatom notes : Loch na Cuilc : a preliminary notice.[The Microscope, 13(3), 1961 : 74-78.]
- Carter, John R. - Diatom notes : More unusual British forms.[The Microscope, 13(9), 1962 : 231-237.]
- Carter, John R. - Diatom notes : Some minute forms of the genus *Navicula*.[The Microscope, 12(11), 1960 : 283-289.]
- Carter, John R. - Diatom notes : The genus *Achnanthes* as it occurs in British fresh waters.[The Microscope, 12(1), 1961 : 15-22.]

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 Carter, John R. - On the identity of *Navicula cincta* Ehrenberg.[Bacillaria -Pub.1979 : Vol.2 : pg.73-84]
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 Carter, John R. - Some new diatoms from British waters.[Journal of the Quekett Microscopical, 29, 1963/64 : 199-203 ; 225-228.]

OBITUARY

John Ripley Carter

1908 — 1993

JOHN CARTER was born and educated in Bradford, Yorkshire, where he studied botany and zoology at the technical college evening classes. Malins Smith, the algologist, introduced him to the use of the microscope and to ecological studies.

Early in life his sports were cycle-racing and cricket, and he was awarded a gold medal for bowling, and a second gold medal for breaking the 24 hour cycle racing speed record.

The famous diatomist the Revd Dingley Fuge lived locally, and under his influence and encouragement he soon became interested in diatoms.

John Carter's early career was in the Bradford City Treasurer's department. During the 1939-1945 war he served in the Fleet Air Arm of the Royal Navy as a photographer on active service, and attained the rank of Sub-Lieutenant.

Shortly after the war, he and his wife Marjorie, moved to Denholm in Scotland, and remained there all their lives. He established a business as a professional photographer in Dumfries and later in Hawick which included a studio as well as a commercial developing and printing department.

John was an accomplished pianist and a talented teacher of music, and in the early days he played for silent movies at the cinema and later gave public performances on the piano.

For most of the past fifty years his leisure hours were devoted to the collection of diatoms, the preparation of microscope slide and the detailed examination and recording of these plants as seen under the light

microscope. His main interest was with the freshwater species, and he collected over a wide area of Scotland and the outer islands, and to a lesser extent in the north of England. In all he prepared many thousands of slides from some 5,000 samples.

He was a gifted artist and developed the ability to draw diatoms with all their intricate detail to perfection. He made thousands of such drawings, many of which have appeared in the technical and scientific journals to which he was a frequent contributor. A list of his articles in the *Journal of the Quekett Microscopical Club*, and a list of his other main works are set out in the Appendix. His slide collection and his collection of preserved diatoms is to be donated to the Natural History Museum for our future use.

In recognition of his contribution to Science he was elected an Honorary Member of the Quekett Microscopical Club in 1961, and an Honorary Member of International Society for Diatom Research in 1992.

John's death is a great loss to all diatomists in this country and overseas, but his contribution to Science will always remain.

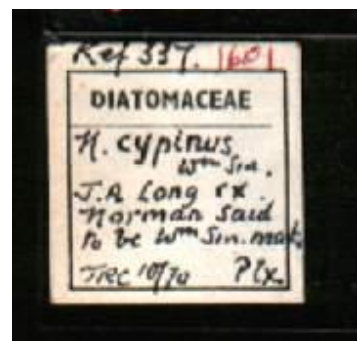
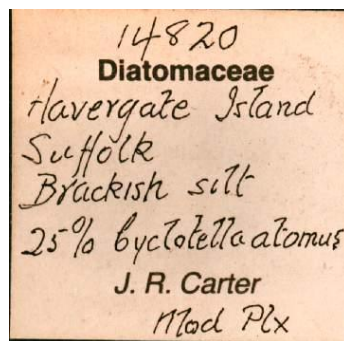
John will, however, be remembered for many years by those Quekett members to whom he gave so freely from his vast experience, and by all of us who had the privilege of knowing him, and in my case of having him as a life-long friend.

J. Eric Marson.

I must thank Bernard Hartley, and Vaughan Dodge for their help in producing the lists included in the Appendix.


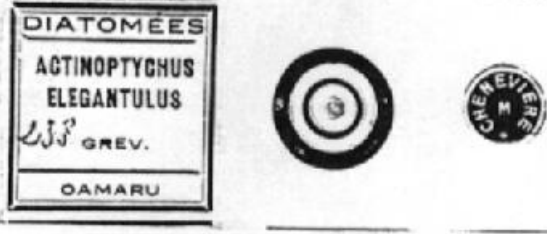
	Obituary	257
	<i>The Journal of the Quekett Microscopical Club.</i>	
1963	CARTER, J. R. Some new diatoms from British waters. <i>29</i> , (8). 199-203.	1961 (b). Diatom notes. Loch na Culc, a preliminary notice. <i>Microscope</i> , <i>12</i> , 74-78.
1964	CARTER, J. R. Some new diatoms from British waters. Part II. <i>29</i> , (9). 225-228.	1962 (a). Diatom notes. Some unusual British forms. <i>Microscope</i> , <i>13</i> , 156-162.
1970	BARBER, H. G. and CARTER, J. R. An account of fossil fresh water diatomaceous earth from Gordon Site, Auckland, New Zealand. (Part 1). <i>31</i> , (10). 271-277.	1962 (b). Diatom notes. More unusual British forms. <i>Microscope</i> , <i>13</i> , 231-237.
1970	CARTER, J. R. Observations of some British forms of <i>Achnanthes saxonica</i> Krasske. <i>31</i> , (12). 313-316.	1966. Some freshwater diatoms of Tristan da Cunha and Gough Island. <i>Nova Hedwigia</i> <i>XI</i> (1-4). 433-483.
1971	BARBER, H. G. and CARTER, J. R. An account of fossil fresh water diatomaceous earth from Gordon Road site, Auckland, New Zealand. (Part 2). <i>32</i> , (1). 24-28.	1970 (a). Observations on some British forms of <i>Achnanthes saxonica</i> . <i>Microscopy</i> , <i>31</i> , 313-316.
1971	BARBER, H. G. and CARTER, J. R. An account of fossil fresh water diatomaceous earth from Gordon Road site, Auckland, New Zealand. (Part 3). <i>32</i> , (3). 82-89.	1970 (b). Diatoms from Andorra. <i>Nova Hedwigia</i> , Heft, <i>31</i> , 605-632.
1972	BARBER, H. G. and CARTER, J. R. An account of fossil fresh water diatomaceous earth from Gordon Road site, Auckland, New Zealand. (conclusion). <i>32</i> , (5). 141-147.	1971 Diatoms from Devils Hole Cave, Fife, Scotland. <i>Nova Hedwigia</i> , <i>21</i> , 651-681.
1972	CARTER, J. R. Some observations on the diatom <i>Pinnularia acoricola</i> Hustedt. <i>32</i> , (5). 162-165.	1972 (a). Diatoms of Slapestone Syke, Upper Teesdale. <i>Vasculum</i> , <i>58</i> , 35-41.
1978	BARBER, H. G. and CARTER, J. R. <i>Pinnularia carminata</i> N.Sp. <i>33</i> , (5). 305-307.	1972 (b). Some observations on the diatom <i>Pinnularia acoricola</i> . <i>Microscopy</i> , <i>32</i> , 162-165.
1981	BARBER, H. G. and CARTER, J. R. Observations on some deformities found in British diatoms. <i>34</i> , (3). 214-226.	1979 On the identity of <i>Navicula cincta</i> Ehrenb. <i>Bacillaria</i> , <i>2</i> , 73-84.
1984	CARTER, J. R. A new diatom <i>Navicula belsesiensis</i> . <i>35</i> , (2). 134-136.	1981 Joint report with A. E. Bailey-Watts. A Taxonomic study of the diatoms from the standing freshwater in Shetland. <i>Nova Hedwigia</i> , <i>33</i> , 513-630.
1986	CARTER, J. R. Some little-known diatoms newly recorded in Britain. <i>35</i> , (5). 356-367.	1983 Joint report with P. Denny. Freshwater algae of Sierra Leone:— Part 1, <i>Nova Hedwigia</i> , <i>73</i> , 281-331. Part 2, 1987 <i>Nova Hedwigia</i> , <i>44</i> , (1-2), 229-275. Part 3, 1992 <i>Nova Hedwigia</i> , <i>54</i> , (1-2), 159-211.
1987	CARTER, J. R. <i>Navicula claytoni</i> , a new diatom. <i>35</i> , (8). 633-635.	1986 Joint report with R. C. Preece and K. D. Bennet. Quarternary paleobotany of an inaccessible island — Tristan da Cunha group. <i>J. Biogeography</i> , <i>13</i> , 1-33.
	CARTER, J. R. An unusual diatom community from ironstone waste heaps in Cleveland. <i>36</i> , (3). 216-220.	1988 Joint report with R. J. Flower. A new species of <i>Eunotia</i> . <i>Diatom Research</i> , <i>3</i> , (1), 1-8.
1991	CARTER, J. R. Observations on some newly described diatoms in the genus <i>Cocconeis Ehrenberg</i> now found to be members of the British flora. <i>37</i> , (1). 39-41.	DENYS, L., CARTER, J. R. (1989). The diatom <i>Navicula genustriata</i> Hustedt: Valve morphology variability and notes on its ecology. <i>Diatom Research</i> , <i>4</i> , No. 1.
	Contributions to other journals and books	
1960	(a). Diatom notes. British freshwater forms of the genus <i>Gomphonema</i> . <i>Microscope</i> , <i>12</i> , 255-264.	1993 (a). A note on the genus <i>Berkella</i> Ross and Sims. <i>Nova Hedwigia</i> , <i>106</i> , 101-107.
1960	(b). Diatom notes. Some minute forms of the genus <i>Navicula</i> . <i>Microscope</i> , <i>12</i> , 283-289.	1993 (b). Joint report with F. E. Round. Studies on freshwater <i>Amphora</i> species — <i>A. montana</i> and <i>A. normanii</i> . <i>Diatom Research</i> , <i>8</i> , 1-11.
1961	(a). Diatom notes. The genus <i>Achnanthes</i> as it occurs in British waters. <i>Microscope</i> , <i>12</i> , 320-326; <i>13</i> , 15-22; and <i>13</i> , 37-45.	
	Completed and to be published shortly: <i>Atlas of British Diatoms</i> , illustrating over 6,000 species as seen through the light microscope. Joint authors — H. G. Barber, J. R. Carter and B. Hartley.	

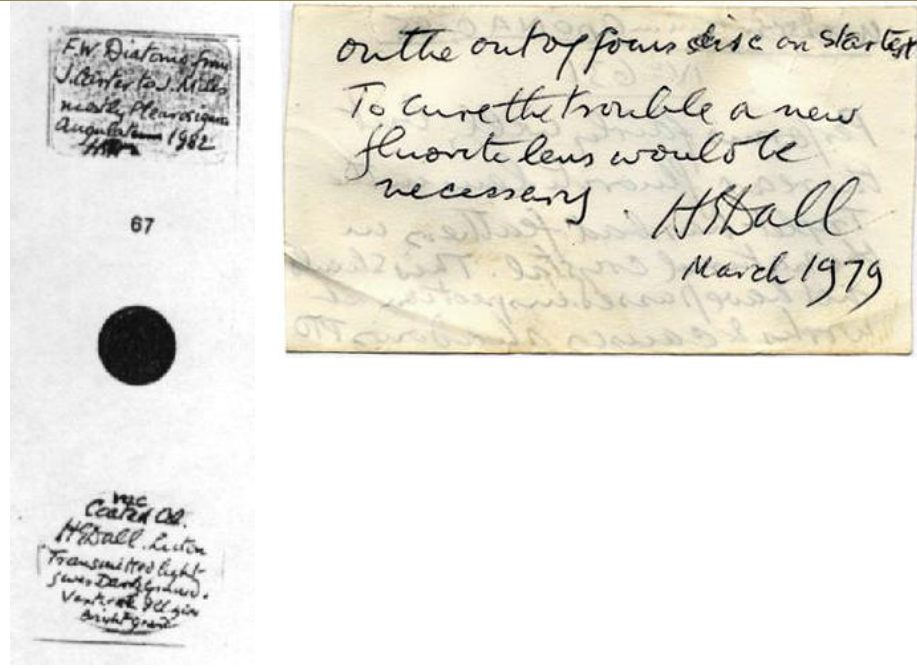
The Journal of the Quekett Microscopical Club
VOLUME 37, 1993-1996, Part 3, Pages 256 & 257



Sydney Chaffers

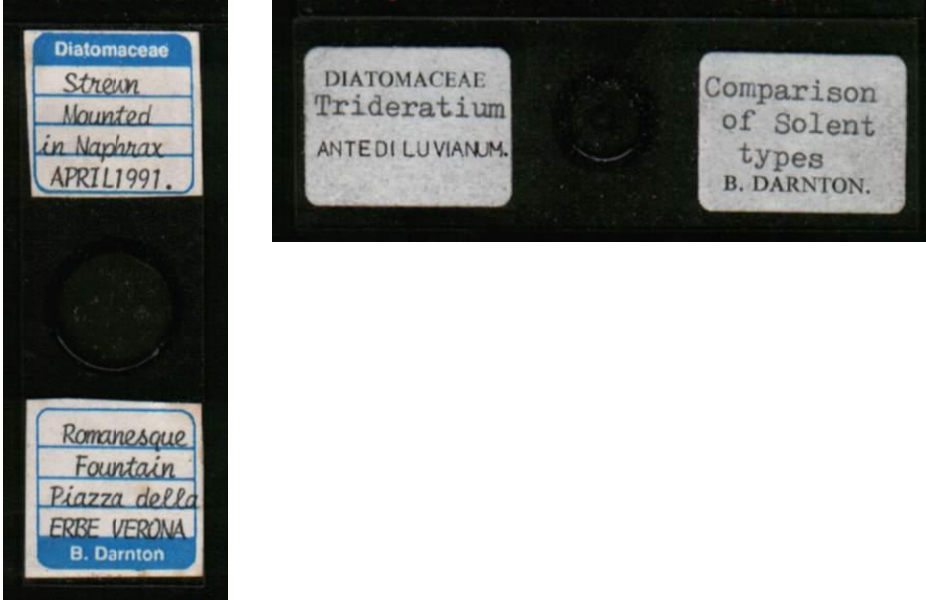
- William Chaffer(s) b. circa 1795 Lancashire
In the 1841 Census @ Chancery Street, Burnley, aged 45+, a Cooper m. ?
- Margaret Chaffer(s) b. circa 1821 Lancashire
In the 1841 Census @ Chancery Street, Burnley, aged 20+
- Ann Chaffer(s) b. circa 1826 Lancashire

	<p>In the 1841 Census @ Chancery Street, Burnley, aged 15+</p> <p>—William Chaffers b. circa 1825 Burnley, Lancashire</p> <p>In the 1841 Census @ Chancery Street, Burnley, aged 15+</p> <p>In the 1851 Census @ 51 Church Street, Burnley, aged 25, a lodger, an Ornamental Carver</p> <p>In the 1861 Census @ 4 Higher York Street, Chorlton-upon-Medlock, Lancashire, aged 34, a Wood Carver</p> <p>In the 1871 Census @ 2 Rumford Place, Chorlton On Medlock, Lancashire, aged 44, a Wood Carver</p> <p>In the 1881 Census @ 2 Rumford Place, Chorlton On Medlock, Lancashire, aged 55, a Wood Carver</p> <p>In the 1891 Census @ 17 Embden Grove, Hulme, Manchester, aged 65, a Wood Carver, a widower</p> <p>In the 1901 Census @ 17 Embden Grove, Hulme, Manchester, aged 75, a Wood Carver, a widower</p> <p>BMD Death, aged 80, December Quarter 1906 Chorlton Vol.8c. pg.611.</p> <p>m. Sarah Foulkes b. circa 1825 Manchester, Lancashire</p> <p>BMD Marriage December Quarter 1859 Manchester Vol.8d. pg.506.</p> <p>In the 1861 Census @ 4 Higher York Street, Chorlton-upon-Medlock, Lancashire, aged 34</p> <p>In the 1871 Census @ 2 Rumford Place, Chorlton On Medlock, Lancashire, aged 45</p> <p>In the 1881 Census @ 2 Rumford Place, Chorlton On Medlock, Lancashire, aged 55</p> <p>BMD Death, aged 58, September Quarter 1884 Chorlton Vol.8c. pg.509.</p> <p>—Florence Mary Chaffers b. 1860 Manchester</p> <p>BMD Birth June Quarter 1860 Chorley Vol.8e. pg.594.</p> <p>In the 1861 Census @ 4 Higher York Street, Chorlton-upon-Medlock, Lancashire, aged 12 months</p> <p>BMD Death September Quarter 1867 Chorlton Vol.8c. pg.404.</p> <p>—S(i)(y)dney Chaffers b. 1861 Manchester</p> <p>BMD Birth December Quarter 1861 Chorlton Vol.8c. pg.538.</p> <p>In the 1871 Census @ 2 Rumford Place, Chorlton On Medlock, Lancashire, aged 9, a Scholar</p> <p>In the 1881 Census @ 2 Rumford Place, Chorlton On Medlock, Lancashire, aged 19, a Student</p> <p>In the 1891 Census @ 68 Darymple Road, Barton upon Irwell, Lancashire, aged 28, a widower, a ? Secretary, a boarder</p> <p>In the 1901 Census @ Grange Farm, Worsley, Lancashire, aged 38, a Widower, a Registrar, a boarder</p> <p>In the 1911 Census in Barton upon Irwell, aged 49</p> <p>m. Agnes Louise Goude b. circa 1865</p> <p>BMD Birth March Quarter 1865 Leicester Vol.7a. pg.234.</p> <p>BMD Marriage September Quarter 1887 Chorlton Vol.8c. pg.991.</p> <p>BMD Death, aged 24, June Quarter 1889 Chorlton Vol.8c. pg.538.</p> <p>—Helen Louise Chaffers b. 1888 Manchester</p> <p>BMD Birth September Quarter 1888 Chorlton Vol.8c. pg.860.</p> <p>In the 1891 Census @ 68 Darymple Road, Barton upon Irwell, Lancashire, aged 2, a boarder</p> <p>In the 1901 Census @ Grange Farm, Worsley, Lancashire, aged 12, a boarder</p> <p>In the 1911 Census in Barton upon Irwell, aged 22</p>
<p>W. N. (Nigel W.) Charles</p>	
<p>M. Cheneviere</p>	 <p>Diatom Bibliography</p> <p>Cheneviere, E. / Lefebure, P. - Description et Iconographie de Diatomees rares ou nouvelles.[Bulletin de la Societe Francaise de Microscopie -Pub.1938 : Vol.VII(1) : pg.12-Jul]</p> <p>Cheneviere, E. / Lefebure, P. - Description et Iconographie de Diatomees rares ou nouvelles. : Bulletin de la Societe Francaise de Microscopie. - Vol. 7 No. 1 pp.8-12, pl. 1. (1938) [Pub. 1938]</p> <p>Cheneviere, E. / Lefebure, P. - Descriptions et iconographie de Diatomees rares ou nouvelles. II : Bulletin de la Societe Francaise Microscopie. - Vol. 8 No. 1 pp.21-25, 1 pl., 1 fig. (1939) [Pub. 1939]</p> <p>Cheneviere, E. - Note sur le depot de terre a diatomees fossiles (Miocenesuperieur) recemment decouvert pres de Szurdokpuespoeki.[Bulletin de la Societe Francaise de Microscopie, III(1), 1934: 1 -]</p> <p>Cheneviere, E. - Note sur le depot de terre a diatomees fossiles (Miocene superieur) recemme : Foldtani Kozlony. - Vol. 63 pp.216-218. (1934) [Pub. 1934]</p> <p>Cheneviere, E. - Note sur le depot de terre a Diatomees fossiles (Miocene superieur) recemme : Bulletin de la Societe Francaise de Microscopie. - Vol. 3 No. 1 pp.33-36, pl. 3-4. (1934) [Pub. 1934]</p>

	<p>Cheneviere, E. - Sur un depot fossile marin a diatomees situe a Kamischev (Russie centrale)[Bulletin de la Societe Francaise de Microscopie, III(3), 1934: 1 -]</p> <p>Cheneviere, E. - Sur un depot fossile marin a diatomees situe a Kamischev (Russie centrale). : Bulletin de la Societe Francaise de Microscopie, Paris. - Vol. 3 No. 3 pp.103-107, pl. 5-8. (1934) [Pub. 1934]</p>
C. Chesterman	<p>Diatom Bibliography</p> <p>Chesterman, C. - Obsidian : Mineral Information Service - Vol. 4 No. 10 pp.1-4 (1 Oct 1951) [Pub. 1951]</p>
M. Chiouvia	
Keith Clarke	<p>Possibly</p> <p>Elected to the QMC 14th June 1966</p> <p>In the Quekett Microscopical Club Membership list of 1974:</p> <p>Clark, K.B.G., 45 Westmorland Way, Newton Aycliffe, Darlington Co., Durham DL5 4NN. 0325-71-2508</p> <p>Diatom Bibliography</p> <p>Clarke, K.B. - <i>Pelagodictyon</i> a new genus of centric diatom from the Norfolk Broads. : Diatom Research - Vol. 9 No. 1 pp.17-26 (1994) [Pub. 1994]</p>
G. Cleaveland	<p>Probably</p> <p>George B. Cleveland, Geologist, California Division of Mines and Geology, Los Angeles, California, U.S.A.</p>
L. D. Coombs	<p>From Transactions and Proceedings of the Royal Society of New Zealand (Vol.81, 1953):</p> <p>"Mr. L. D. Coombs, a prominent city architect, was a man of broad interests and one of the last of the amateur naturalists. His special field of interest was the Diatomaceae, and for some years he had been collecting an extremely fine reference library on the subject and compiling a photographic atlas of the species of diatoms found in the fossil deposits at Oamaru. Mr. Coombs served on the Governmental Advisory Board for the Control of the Portobello Fish Hatchery and Marine Biological Station from 1932 to 1951, when the station was handed over to the University of Otago. Under his supervision, existing buildings were repaired and reorganised and the new laboratory added, and largely through his efforts the Aquarium was kept open to the public."</p>
Neville Copperthwaite	
Copping	
H. Cotapos	
Horace E. Dall	 <p>Dall, H. E. S. Horace Edward Stafford Dall (1901-1986) Was a physicist whose professional life was concerned with the flow characteristics of gasses and liquids. As a hobbyist he experimented in the design of optical instruments, his main interests being astronomy and microscopy. To enhance the contrast, when viewing diatoms, he designed and constructed his own vacuum coating apparatus. Some of the slides he produced using this technique crop up from time to time. He also experimented with a diamond writing machine with some considerable success.</p> <p>John Dall b. circa 1820 Shadwell, Middlesex In the 1861 Census @ 3 Back Church Lane, St. George in the East: John Dall, a lodger, unmarried, aged 41, a Carpenter, b. Ratcliffe, Middlesex In the 1871 Census @ 126 Back Church Lane, St. George in the East: John Dall, aged 50, a Carpenter, b. Shadwell, Middlesex In the 1881 Census @ 122 Back Church Lane, St. George in the East: John Dall, aged 60, a Carpenter, b. Shadwell, Middlesex</p> <p>m. Esther ? b. circa 1831 Bethnal Green, London In the 1871 Census @ 126 Back Church Lane, St. George in the East: Esther Dall, aged 39, Shadwell, Middlesex In the 1881 Census @ 122 Back Church Lane, St. George in the East:</p>

	<p>Esther Dall, aged 49, b. St. Geo. East. In the 1891 Census @ 561 Commercial Road, Mile End Old Town, London: Esther Dall, aged 59, a widow, living on owns means, b. Bethnal Green, London also present granddaughter Esther E. Lee, aged 6, a Scholar, b. St. George. E. (BMD Birth March Quarter 1885 Lambeth Vol.1d. pg.376) BMD Death, aged 96, March Quarter 1928 Luton Vol.3b. pg.486.</p> <p>— Laura J. Dall b. circa 1858 St. Geo. East. In the 1871 Census @ 126 Back Church Lane, St. George in the East: Laura P. Dall, aged 12, a Scholar, b. St. George in the East In the 1881 Census @ 122 Back Church Lane, St. George in the East: Laura J. Dall, aged 22, living at home, b. St. Geo. East, Middlesex</p> <p>— John Dall b. circa 1864 St. George East, London probably BMD Birth December Quarter 1864 St.Geo.East Vol.1c. pg.396. In the 1871 Census @ 126 Back Church Lane, St. George in the East: John Dall, aged 6, a Scholar, b. St. George in the East In the 1881 Census @ 122 Back Church Lane, St. George in the East: John Dall, aged 16, an Errand Boy, b. St. Gep. East. In the 1891 Census @ 561 Commercial Road, Mile End Old Town, London: John Dall, aged 26, a Telegraph Instrument Maker, b. St. George E. In the 1901 Census @ 2 Hope Cottages, Springfield, Chelmsford, aged 36, a Scientific Instrument Maker</p> <p>m. Millicent Stafford b. circa 1870 Chelmsford BMD Marriage December Quarter 1896 Nottingham Vol.7b. pg.653. In the 1901 Census @ 2 Hope Cottages, Springfield, Chelmsford, aged 30 BMD Death, aged 33, December Quarter 1903 Chelmsford Vol.4a. pg.321.</p> <p>— Florence Annie Dall b. circa 1897 Nottingham BMD Birth June Quarter 1897 Shardlow Vol.7b. pg.494. In the 1901 Census @ 2 Hope Cottages, Springfield, Chelmsford, aged 3 possibly m. Ronald H. Whiteside BMD Marriage December Quarter 1940 Crosby Vol.8b. pg.1565.</p> <p>— John Ernest Dall b. circa 1898 Islington, London BMD Birth September Quarter 1899 Islington Vol.1b. pg.410. In the 1901 Census @ 2 Hope Cottages, Springfield, Chelmsford, aged 2 probably m. Alice M. Savage BMD Marriage March Quarter 1929 Islington Vol.1b. pg.388.</p> <p>— Horace Edward Stafford Dall b. 5th January 1901 Chelmsford, Essex BMD Birth March Quarter 1901 Chelmsford Vol.4a. pg.687. In the 1901 Census @ 2 Hope Cottages, Springfield, Chelmsford, aged 3 months In the 1911 Census in Stepney, aged 10 BMD Death, aged 85, May 1986 Luton Vol.9. pg.529.</p> <p>m. Dorothy Vivien Andrews b. circa 1903 BMD Birth June Quarter 1903 Samford Vol.4a. pg.1046. BMD Marriage September Quarter 1934 Bury. St. Edmunds Vol.4a. pg.3104. BMD Death, aged 62, September Quarter 1965 Luton Vol.4a. pg.136.</p> <p>— Ada Millicent Dall BMD Birth December Quarter 1903 Chelmsford Vol.4a. pg.685. BMD Death, aged 38, December Quarter 1941 Ilkeston Vol.7b. pg.736. m. Edward Good BMD Marriage September 1924 Shardlow Vol.7b. pg.1319.</p> <p>— Jessie Dall b. circa 1867 St. Geo. East In the 1871 Census @ 126 Back Church Lane, St. George in the East: Jessie Dall, aged 3, a Scholar, b. St. George in the East In the 1881 Census @ 122 Back Church Lane, St. George in the East: Jessie Dall, aged 13, a Scholar, b. St. Geo. East In the 1891 Census @ 293 Mile End Road, Mile End Old Town: Jessie Schwinge, aged 23, b. St. George's, London</p> <p>m. Carsten Schwinge b. circa 1861 Stepney, London BMD Birth, June Quarter 1861 Mile End Vol.1c. pg.552. m. 22nd November 1887 St. Peter, Stepney, after Banns Carsten Schwinge, aged 26, a Bachelor, a Clerk, of 204 Globe Road father - Richard Diederich Schwinge, deceased Jessie Dall, aged 19, a spinster, of 200 Globe Road father - John Dall, a Builder Both signed their name Witnesses: Susannah Mounes and Joseph Till BMD Marriage December Quarter 1887 Mile End Vol.12c. pg.964. In the 1891 Census @ 293 Mile End Road, Mile End Old Town: Carsten Schwinge, aged 29, a Shipping Clerk, b. Stepney, London</p> <p>— Emily Dall b. circa 1869 St. George East, London In the 1871 Census @ 126 Back Church Lane, St. George in the East: Emily Dall, aged 1, b. St. George in the East In the 1881 Census @ 122 Back Church Lane, St. George in the East: Emily Dall, aged 11, a Scholar, b. St. Geo. East In the 1891 Census @ 561 Commercial Road, Mile End Old Town, London:</p>
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	<p>Emily Dall, aged 21, No occupation, b. St. George. E.</p> <p>— Sidney Frank Dall b. circa 1871 St. George East, London BMD Birth March Quarter 1872 St. Geo. East Vol.1c. pg.439. In the 1881 Census @ 122 Back Church Lane, St. George in the East: Sidney Dall, aged 9, b. St. Geo. East In the 1891 Census @ 561 Commercial Road, Mile End Old Town, London: Sidney F. Dall, aged 19, a Plumber's Apprentice, b. St. George. E.</p> <p>m. Willemina Matilda Markall BMD Marriage June Quarter 1896 St. Geo. East Vol.1c. pg.610. m. 24th May 1896 St. George in the East, after Banns Sidney Frank Dall, aged 24, a bachelor, a Plumber, of 124 Back Church Lane father - John Dall (deceased), a Carpenter and Joiner Willemina Matilda Markall, aged 21, a spinster, of 25 Samuel street father - Robert Thurgood Markall, a Carpenter and Joiner Both signed their name Witnesses: John Dall, John Keppel, Mary Markall and Ada Dall</p> <p>— Ada Dall b. circa 1874 St. George East, London BMD Birth September Quarter 1874 St. Geo. East. Vol.1c. pg.380. In the 1881 Census @ 122 Back Church Lane, St. George in the East: Ada Dall, aged 6, a Scholar, b. St. Geo. East In the 1891 Census @ 561 Commercial Road, Mile End Old Town, London: Ada Dall, aged 17, no occupation, b. St. George. E.</p> <p>m. George William Allen m. 25th December 1897 All Hallows, Tottenham, after Banns George William Allen, aged 25, a bachelor, an Electrical Engineer, of 14 Elsdon Road father - William Henry Allen, an Accountant Ada Hall, aged 23, a Spinster, of 14 Elsdon Road father - John Dall, a Carpenter Both signed their name Witnesses: John Dall and Matthew Henry Allen</p>
<p>Ron Darby</p>	<p>Elected to the Quekett Microscopical Club 13th August 1963 In the Quekett Microscopical Club Membership list of 1969 & 1974: Darby, R. T., Springside, York Lane, Langho, Blackburn, Lancashire, BB6 8EH. Blackburn 48905 Interests: Acarology, Biology, Petrology, Pond Life, Photomicrography</p> <div> </div> <div> </div> <p>Ronald T. Darby. Postal Microscopical Society secretary in 1956. At 34b Rossall Road, Fulwood (1949) Blackburn (1959)</p>

<p>Brian Darnton</p>	 <p>Darnton, Brian b. 1935 Foraminifera mounted on printed grids currently being sold. 1994 @ Garden Cottage, Melchet Court, Sherfield English, Romsey, Hants. Joined Quekett Microscopical Club 11th April 1984. - stated interests - Diatoms, Marine Biology.</p> <p>BMD Birth Brian Darnton, March Quarter 1936 Scarborough Vol.9d. pg.531. (mothers maiden name - Hargreaves) Queen Elizabeth Hospital, Barbados</p>
<p>Dr. Thomas Llewelyn Davies</p>	<p>Elected to the Quekett Microscopical Club 10th May 1955 In the Quekett Microscopical Club Membership list of 1969 & 1974: Doig, A. J., 59 Sligo Terrace, Roslyn, Dunedin, N.W.1, New Zealand Diatom Bibliography Doig, A.J. - Further notes on the Oamaru diatomite : Microscopy, The Journal of the Quekett Microscopical Club - Vol. 30 pp.289-295 (1967) [Pub. 1967] Doig, A.J. - The Oamaru Diatomite Deposits, 1961 : The Microscope - Vol. 13 No. 6 pp.142-149 (Mar-Apr 1962) [Pub. 1962] Doig, A.J. - The Oamaru Diatomite Deposits, 1961 : The Microscope - Vol. 13 No. 7 pp.169-175 (May-Jun 1962) [Pub. 1962]</p>
<p>Arthur J. Doig</p>	<p>Elected to the Quekett Microscopical Club 24th September 1968 In the Quekett Microscopical Club Membership list of 1969 & 1974: Fidiam, J. F., 773, Euclid Avenue, Berkeley, California 94708, United States of America (415) 524-5417 Interests: Petrology, Diatoms General In 1995 - James F. Fidiam, 773 Euclid Avenue, Berkeley, CA 94708, U.S.A. Diatom Bibliography Fidiam, J.F. / Chambers, J.E. - Robert I. Firth's Notes on Mounting Diatoms : - pg.12 pp., 5 figs. (1976) [Pub. 1976] Fidiam, J.F. - Brief history of mounting specimens for the microscope : Balsam Post - No. 21 pp.p. 5-9 (1993) [Pub. 1993]</p>
<p>J. F. Fidiam</p>	

Robert Isaac Firth



Interests: Diatoms General, Diatoms Freshwater

b. 8th October 1902

BMD Birth December Quarter 1902 Haslingden Vol.8e. pg. 130

BMD Death, aged 80, December 1982 Lewes Vol.18. pg.1198

In the 1911 Census @ 54 Avenue Parade, Accrington, Lancashire

Isaac Firth, aged 53, an Iron Moulder (Iron Foundry), b. Newmillerdam, Yorkshire

Margaret Ann Firth, aged 50, b. Hamilton, Canada

Annice Firth, aged 21, a Sewing Machinist (Blouse Manufactory), b. Accrington, Lancashire

Sidney Yates Firth, aged 15, an Apprentice Plumber, b. Accrington, Lancashire

Robert Firth, aged 8, b. Accrington, Lancashire

Also present a boarder, Thomas Isaac Yates, aged 52, a Book Keeper (Cotton Manufactory), b. Hamilton, Canada

Firth, R. I. - 1966

Robert Isaac Firth. (1902-1982)

Education Officer.

Diatomist.

In conjunction with Bernard Hartley prepared over 2000 slides of British Diatoms. This collection now resides in the British Museum and is appropriately called the Firth-Hartley Collection. The raw material from which R. I. Firth made his mounts was bequeathed to Bernard Hartley who has conserved the stock. It is now in the capable hands of Klaus D. Kemp.

Honorary Member Quekett Microscopical Club, elected 15th November 1977

Elected to the QMC 8th June 1969

In the Quekett Microscopical Club Membership list of 1974:

Firth, R.I., 6 Windover Crescent, Lewes, Sussex BN7 1DP. Lewes 4068

Papers etc.-

1977 - The diatoms of Broad Oak Water, Accrington. Journal of the Accrington Naturalists and Antiquarian Society Volume 7 pages 22-24.

1981 - The diatoms of the tarmac runway of 5 Albany Road, Seaford Sussex. Journal of the Accrington Naturalists and Antiquarian Society. Vol. 11. Pages 34-36

In conjunction with Bernard Hartley -

In the Quekett Journal

In conjunction with Bernard Hartley

1971 - A Pennine Diatom Site Vol. 32, pages 108-113

1981 - A collection of Microscope Slides of British Diatoms, including 1,000 Slides of Selected and Named Species, and over 500 Strewn slides from British localities. (London:Department of Botany, British Museum (Natural History).

Advertisement in The Microscope October 1938, March 1939, May 1939 - 'Diatom slides in exchange for cleaned and uncleaned Diatomaceous Earths, Slides, etc. - R. I. Firth, 52 Queens Road, Accrington, Lancs.'

Advertisement in The Microscope November 1939 - 'For Sale: Choice mounts of *Actinoptychus heliopeneta* in Styra, 1s. 3d. post free. Firth, 52 Queens Road, Accrington.'

Advertisement in The Microscope January/February 1940 - 'Diatomaceae: 15 beautiful diatoms perfectly arranged in rosette 2s. 6d. List of localities and species slides post free. Firth, 52 Queens Road, Accrington.'

In January of 1946 saw R. I. Firth giving two demonstrations at meetings of the Brighton and Hove Natural History Society at the Booth Museum, Brighton. One demonstration was on the cleaning and preparation of Diatoms and the other on Mounting Spread Slides.

Attended a Conversazione of the Brighton and Hove Natural History Society at the Royal Pavilion, Brighton on October 13th 1951 with an exhibit.

An advertisement in The Microscope Vol. VI. No. 3 1946 - 'For Sale: American Monthly Microscopical Journal (1880-3), 4 Vols., 45/-; American Journal of Microscopy (1876-8), 5 vols. In 2, 42/-; Spitta: Microscopy, 1909, 21/-; Taylor:

Notes on Diatoms, 12/6; Index to Schmidts Atlas, £1; Diatom Species and Localities Index, 10/-; Leitz Bench Microtome, £4; Eyepieces, Camera Lucidas, Dissecting Lens, Botanical, Entomological and Foram Slides, Dancer Microphotographs, etc. Stamp for particulars and list. FIRTH, 6 Windover Crescent, Lewes, Sussex.
In the Small Advertisements column of The Microscope November/December 1953 Vol. 9. No. 10. 'Van Heurck Circuit Stage, stand only: £37 10s. Objectives, eyepieces, slides, books, etc.: S.A.E. list. Firth, 6 Windover Crescent, Lewes.'
An advertisement in The Microscope Vol. 12, No. 1 July/August 1958 - 'P. & L. Grand Model Microscope, fully mechanised, stand only: £25. Swift "Universal", 3 objectives, 2 eyepieces, etc. : £35. Leitz Low-power binocular, 4 objectives, 2 pairs eyepieces: £27 10s. 0d. Objectives, eyepieces, condensers, etc. : List. Firth, 6 Windover Crescent, Lewes, Sussex.'

OBITUARY





Robert Isaac Firth
(1902-1982)

ROBERT I. FIRTH was born and educated in Accrington where in his early years he worked in the office of the local education authority. In later years he moved to Lewes in Sussex and held the post of Education Officer to the East Sussex County Council, and he was also the head of the Evening Institute.

As a member of the Accrington Naturalists' and Antiquarians' Society he was a keen student of natural history for over 60 years; and the Society made him an Honorary Member in 1965. He was also a member of the Bacup and Rawtenstall Naturalists Society, and the Seaford Natural History Society. It was the curator of the Accrington Museum, Mr W. R. Eastwood, who first kindled his interests, and revealed to him the wonders of the microscope, using a Watson Edinburgh H instrument. He joined the club in 1969 and greatly valued the friendship which he found amongst its members. Following an early enthusiasm for general freshwater biology, he developed a particular interest and made a special study of diatoms. He collected and prepared samples of live and fossilised diatoms from all over the world, but in later years he became especially interested in the British diatom flora; following in the footsteps of the great diatomist, the Rev William Smith, who had lived in Lewes a century earlier.

He collaborated with the California Academy of Sciences in San Francisco; and on two occasions he visited that Institution in connection with his diatom studies. In 1977 his work was recognised by the State Microscopical Society of Illinois in the United States, who made him an Honorary Member.

During the past 20 years he worked closely in cooperation with his colleague, Bernard Hartley of Yeovil in Somerset in the collection, preparation and identification of British diatoms. Together, they prepared some 1,500 microscope slides of selected named diatoms and other strewn examples from individual habitats. As recently as September 1982 this collection of slides was presented to the British Museum (Natural History) where it is now known as

	<p>“The Firth-Hartley Collection”, to be available for future reference by all genuine workers in this branch of science.</p> <p>Mr Firth made many thousands of beautifully prepared microscope slides of diatoms, and in this field he was recognised throughout the world as an expert. These will remain as a permanent tribute to his skill and knowledge. He presented a valuable collection of Cleve and Moller diatom slides to the Club before his death.</p> <p>He had many diatom and microscopy friends in this country and overseas and he will be greatly missed by them all.</p> <p style="text-align: right;">B.H.</p> <p>562 MICROSCOPY 34 January - June 1983</p> <p>Diatom Bibliography Firth, R.I. / Hartley, B. - A pennine diatom site : Microscopy, The Journal of the Quekett Microscopical Club - Vol. 32 No. 4 pp.108-113, 2 figs. (1971) [Pub. 1971]</p>
<p>W. D. Fleming</p>	<div style="text-align: center;">  </div> <p>In 1954 – William D. Fleming, F.R.M.S. (Col. U.S. Army [retired]) @ 1380 Bluebell Avenue, Boulder, Colorado, U.S.A. Elected to the QMC 11th June 1963 In the Quekett Microscopical Club Membership list of 1974: Fleming, Col. W.D., 626 13th Street, Boulder, Colorado 80302, U.S.A. (303) 442-1265</p> <p>Diatom Bibliography Fleming, W.D. / 0- - The making of picked slides of diatoms - Part II : The Microscope and Crystal Front - Vol. 13 No. 12 pp.350-353 (Mar/Apr 1963) [Pub. 1963] Fleming, W.D. - A narrow band-pass colour filter for microscopy : Microscopy, The Journal of the Quekett Microscopical Club - Vol. 30 pp.105-108 (1966) [Pub. 1966] Fleming, W.D. - Naphrax: A synthetic mounting medium of high refractive index New and imp : Journal of the Royal Microscopical Society - Vol. 74 No. 1 pp.42-44 (Jun 1954) [Pub. 1954] Fleming, W.D. - The enigma of <i>Annellus californicus</i> Tempere - A statistical study : Microscopy, The Journal of the Quekett Microscopical Club - Vol. 31 pp.20-23 (1968) [Pub. 1968] Fleming, W.D. - The making of picked slides of diatoms : The Microscope and Crystal Front - Vol. 13 No. 11 pp.4 pp. (1963) [Pub. 1963]</p>
<p>Roger Flower</p>	<div style="text-align: center;">  </div> <p>Roger J. Flower Associate editor of the scientific journal Diatom Research. Currently: Professorial Research Fellow Department of Geography UCL – University College London Pearson Building, Gower Street London WC1E 6BT, UK</p> <p>Diatom Bibliography Flower, R.J. / Battarbee, Richard W. / Stevenson, A.C. / Rippey, B. / Fletcher, C. / Natkanski, J. / Wik, M. - Causes of lake acidification in Galloway, south-west Scotland: a palaeoecological evaluation of the relative roles of atmospheric contamination and catchment change for two acidified sites with non-afforested catchments.[J Ecol. -Pub.1989 : Vol. 77: 651-672] Flower, R.J. / Hakansson, H. - <i>Crateriportula</i> gen. nov., a new genus with close affinities to the genus <i>St</i> : Diatom Research - Vol. 9 No. 2 pp.259-264 (1994) [Pub. 1994] Flower, R.J. / Jones, V. / Van Dam, H. / Arzet, K. / Liukkonen, M. / Kingston, J.C. / Camburn, K.E. / Anderson, D. / Round, F. / Simola, H. / Battarbee, Richard W. - Diatoms and acid lakes: proceedings of a workshop.[Palaeoecology Research Unit, Department of Geography, University College London. -</p>

	<p>Pub.1985 : Vol.Working Paper No 11] Flower, R.J. / Stevenson, A.C. / Jones, V.J. / Harriman, R. / Appleby, P.J. / Battarbee, Richard W. - Diatom and chemical evidence for reversibility of acidification of Scottish lochs.[Nature. -Pub.1988 : Vol.332(6164):530-532] Flower, R.J. - A taxomic re-evaluation of endemic Cyclotella taxa in Lake Baikal, Siberia : Nova Hedwigia, Beiheft 106 - pg.203-220 (Mar 1993) [Pub. 1993]</p>
<p>Ed. Frison</p>	<div> </div> <p>Frison, Ed., Antwerpen Karel Edouard Frison (1888-1973) Belgian. Author of van Heurck biography. Elected Honorary member Quekett Microscopical Club in 1960. In the QMC MeList 1969: Frison, Ed. (H), 62 Juliaan Dillensstraat, Antwerp, Belgium</p>



Karel Edouard Frison
1888 - 1973

ON 4 DECEMBER 1973 Karel Edouard Frison died in Antwerp. He was born in Meerhout (province of Antwerp) on 24 November 1888. After completing college studies, in 1907 he joined a large concern in Antwerp. In 1915 he was appointed Assistant in Natural History in the Antwerp Normal School for Teachers. From his young days he was attracted to botany, starting to study it by himself and soon buying a Nachet students' microscope, which started the orientation of his whole life.

In 1919 he was appointed chemist-micrographer in the Municipal Laboratories of the city and remained there until 1947. In this position he had the opportunity for becoming still more acquainted with the microscope and its applications, in which he displayed a tremendous interest. He had not had the fortune to receive a university education but his untiring curiosity, his thirst for knowledge, the receptiveness of his mind, enabled him to acquire an immense amount of theoretical and practical experience in microscopy and which was soon to range him with the authorities in that science. As a microscopist he successfully developed his activity in various fields: Algology (1910 - 1914), plant anatomy and vegetable foodstuffs (1914 - 1918) and later on (1918 - 1925) he took up the study of vegetable drugs (*materia medica*) mostly by reference to the important van Heurck drugs collection. Meanwhile he had devoted some time to mastering the art of photography (1921 - 1924) with a view to the future building up of a collection of photomicrographs of the slides he made. From 1926 to 1930 he engaged in the study of paper and textile fibres and from 1930 onwards devoted himself entirely to the microscopical anatomy of woods, soon becoming an expert of world renown in this branch. At that time all private and scientific communications regarding the different Congo (now Zaïre Republic) woods were made with the help of microscopical slides prepared by him. He had devised a personal method for making wood sections which absolutely preserved the integrity of the tissues. He provided some 22,000 slides to scientific organisations and had, for himself, built a collection of more than 30,000 slides, covering a total of some 2,000 different species of woods and which is the largest collection of this kind in Belgium. His great experience led to his being consulted by both official and private bodies for the examination of fossil woods and also of archeological specimens.

Besides his interest in botany and natural history, he had developed a taste for the history of science—of course centred on microscopes and microscopy. He was also greatly interested in the optics of the last century. For many years he was busy gathering information regarding the great diatomist Henri van Heurck, his fellow-citizen, who was also a self-taught man. Thanks to his position in the city's official services he succeeded in gaining access to archives, correspondence and other papers which, together with van Heurck's rich collections, had been partly bequeathed to and partly bought by the city. In 1959 Frison was able to publish a complete and elaborate monograph of the life of van Heurck and his work. He

had long since appraised the inestimable value of the collections, aiming to rescue them from the oblivion into which they had sunk during World War II and its aftermath. His wishes were acceded to and he finally obtained permission to have the collections transferred to the Parks and Plantations Services of the city. This was in 1958 and Frison then started to devote to these collections all the care they deserved. He cleaned and re-adjusted all the microscopes and their accessories, he tested the optical parts and had everything refitted as far as was possible. He drew up a complete and detailed inventory of all this material. At the same time he started to classify, identify and set in order the priceless slide collections made by or having belonged to learned diatomists such as Kützing, Cleve, Thum, Eulenstein, Grünow, Möller, Weissflog, Wm Smith, Rabenhorst, de Brebisson and others together with, obviously, those of van Heurck himself. In 1968 these collections together with van Heurck's 60,000 item library, were transferred to the Museum of the Royal Zoological Society, in the Zoological Garden, Antwerp. The microscope collections are accessible to the public, but the library and slide collections are available only to qualified scientists and upon request. All this work obviously took a number of years and Frison, who was working as an honorary co-operator, was, of course, assisted in his task. It is to be recognised that by this work Frison rendered inestimable service to all microscopists, present and future, and he certainly deserves their gratitude. In 1966 he published a complete illustrated catalogue describing in four languages the microscopes having belonged to van Heurck, whose collection included an original genuine Leeuwenhoek microscope. In 1972 he issued a supplement giving the optical characteristics of the non-achromatic microscopes of the 18th and early 19th centuries, mostly based on van Heurck's instruments. For this work he went so far as making photomicrographs with the optics and in particular, some remarkable ones with the Leeuwenhoek microscope.

During his lifetime Frison published a considerable number of scientific papers and monographs, the diversity of which demonstrates the vast range of his knowledge. He was extremely critical towards his own statements, not putting down anything he had not personally ascertained, even sometimes requesting a second worker to check his results. He had a very deep sense of scientific truth.

Frison was elected Correspondent of the Rijksmuseum voor de Geschiedenis der Natuurwetenschappen te Leiden (National Museum for the History of Natural Sciences at Leiden) in 1956. This was a decision of the Netherlands Ministry of Arts and Science. He was elected to Honorary Membership of the Quekett Microscopical Club in 1960.

Edouard Frison was a modest man, kind, very friendly and amiable, always ready to lend help and assistance when required and delighted in having long and fruitful conversations on his favourite topic: the microscope. His departure is a great loss to the microscopical world. He was in every sense a distinguished gentleman.

Rev. Dingley P. Fuge



Fuge, Reverend Joseph Dingley Palmer (1874-1944)
 Fellow of the Royal Microscopical Society
 addresses - 24 Melrose Street, Great Hosten, Bradford
 20 Scarborough Road, Shipley.
 Royal Microscopical Society Members List 1934:
 Elected 1934 Fuge, Dingley P., 20 Scarborough Road, Shipley, Yorks.
 Portrait in The Microscope page 267 Vol. V. No. 10 May 1945
 Died at Shipley aged 70 Years 13th December 1944. Methodist Minister for 45 years. Served in Boer War as Chaplain. Most of his working life spent in Yorkshire on circuits including, Great Horton, Keighley, Shipley and Wakefield. A serious illness left him a semi-invalid at about the age of 52 at which point he was transferred to the supernumerary list of Pastors. The increase in leisure time associated with this event led him more and more to microscopy which served to take his mind off his infirmity. He was, in early years, interested in Botany but gradually

specialised in Diatomaceae. This interest led him to communicate with many of the leading diatomists of the day and he contributed many articles to journals (The Microscope and Watsons Microscope record). He was a Fellow of the Royal Microscopical Society. And a member of the Postal Microscopical Society.

Articles in The Microscope

Coscinodiscus - A diatom Note - September 1938
 Marine Diatoms - August 1937
 The Genus 'Cymbella' with special reference to Two of its Common Species - September 1937
 Botany and the Microscope - An introductory note - October 1937
 The Genus 'Pleurosigma' - November 1937
 The Mounting of Selected Diatoms - January 1938

Articles in Watsons Microscope Record

Note on the Reserve Cellulose or Hemi-Cellulose in the Wood Fibres of the Black Poplar - September 1924 (no. 3)
Navicula viridis - September 1928 (No. 15)
Coscinodiscus. An Introductory note to the Genus - January 1929 (No. 16)
Pleurosigma angulatum - May 1929 (No. 17)
 The Collection and Preparation of Diatoms - September 1929 (No. 18)
 Unusual Diatom Forms - May 1930 (No. 20)
 Three Diatoms from Yorkshire - May 1931 (No. 23)
Triceratium - May 1931 (No. 26)
 Two New *Kittonias*: A Diatom Note - May 1936 (No. 38)
Kittonia (?) *virgata* G. & S. With a Note on the Genus *Hemiaulus* and its 'Mucro' - January 1937 (No. 40)

Article in Journal of The Royal Microscopical Society Series III - 1937 pages 183-185 - '*Nitzschia firthii* spec. nov., a Diatom from Chinese Canned Fish.'

Article in The Journal of the Barbados Museum and Historical Society February 1934 pages 1-5 'A note on diatoms in general and the fossil diatoms of Barbados in particular'

'Diatom notes: Part 3. Concerning *Pinnularias* and others' - Fuge, D.P. in: Practical Microscopy Jul/Aug 1935 PG: 6-7 and 33

'Diatom notes: No. 4. How to examine a diatom and introductory to classification' - Fuge, D.P. in: Practical Microscopy PG: 4-5 and 32-33

'Diatom notes: No. 6. The genus *Navicula*' - Fuge, D.P. in: Practical Microscopy PG: 4-5 and 35-36

'Diatom notes: No. 5. Concerning details of valve structure' - Fuge, D.P. in: Practical Microscopy PG: 6-8 and 34-35

'Diatom notes: A natural history study' - Fuge, D.P. in: Practical Microscopy Sep/Oct 1935 PG: 8-9 and 34

'Diatom notes: Part II. Collection and preparation' - Fuge, D.P. in: Practical Microscopy May/Jun 1935 PG: 12-14, and 35-36

'Diatom notes: I. Introductory diatoms and the amateur microscopist' Fuge, D.P. in: Practical Microscopy Mar/Apr 1935 PG: 6-8, and 33

William Fuge b. circa 1813 Ashburton, Devon

In the 1861 Census @ London Inn, Buckland Monachorum, Devon, aged 47, a Mason

In the 1871 Census @ Horrabridge, Sampford Spinney, Devon, aged 57, a Mason

In the 1881 Census @ Cottage, Buckland Monachorum, Devon, aged 67,

a Master Mortar Mason, employing 2 men, a widower

In the 1891 Census @ Sampford Road, Sampford Spinney, aged 77, a Retired Builder

In the 1901 Census @ Front Town, Walkhampton, aged 87, a Retired Wall Mason

BMD Death, aged 95, September Quarter 1909 Tavistock Vol.5b. pg.200

m. Mary Ann ? b. circa 1815 Buckland Monachorum

In the 1861 Census @ London Inn, Buckland Monachorum, Devon, aged 45

In the 1871 Census @ Horrabridge, Sampford Spinney, Devon, aged 55

BMD Death, aged 60, June Quarter 1876 Tavistock Vol.5b. pg.272.

Henry Burn (or Borne) Fuge b. circa 1842 Buckland Monachorum

BMD Birth March Quarter 1842 Tavistock Vol.9. pg.476.

In the 1861 Census @ London Inn, Buckland Monachorum, Devon, aged 19, a Mason

In the 1871 Census @ Horrabridge, Sampford Spinney, Devon, aged 29, a Mason

In the 1881 Census @ Horrabridge, Sampford Spinney, Devon, aged 39, a Master Builder, employing 1 man and 1 boy

In the 1891 Census @ Sampford Road, Sampford Spinney, aged 49, a Builder

(next door to sister Temperance and father William)

Also living there one Jane Palmer (sister-in-law), aged 61 b. Horrabridge

BMD Death, aged 58, June Quarter 1900 Tavistock Vol.5b. pg.273.

m. Naomi Palmer b. 22nd April 1833 Buckland Monachorum

(parents Joseph and Jane Palmer)

bp. 5th May 1833 Wesleyan, Tavistock, Devon

BMD Marriage June Quarter 1873 Stoke Damerel Vol.5b. pg.605.

In the 1881 Census @ Horrabridge, Sampford Spinney, Devon, aged 47

In the 1891 Census @ Sampford Road, Sampford Spinney, aged 57

In the 1901 Census @ West Park, Whitchurch, Tavistock, aged 67, a widow, living on own income

(also there her sister Jane Palmer, aged 71

niece Elizabeth Veale, widow, aged 42

nephew Albert P. Veale, aged 20, a Carpenter

nephew John R. Veale, aged 9)

BMD Death, aged 74, September Quarter 1907 Tavistock Vol.5b. pg.198.

Joseph Dingley Palmer Fuge b. circa 1874 Sampford Spinney, Devon

BMD Birth (Joseph Dingley P. Fuge) June Quarter 1874 Tavistock Vol.5b. pg.361.

In the 1881 Census @ Horrabridge, Sampford Spinney, Devon, aged 6, a Scholar

(recorded as Joseph D. P. Fuge)

In the 1891 Census @ 32 Cobourg Street, Plymouth, aged 16,

an Apprentice to a Chemist, a boarder,

	<p>in the household of Henry Lawry, an Ironmonger (recorded as Joseph D. P. Fuge) In the 1901 Census @ 20 Acre Place, Devonport, aged 26, a Wesleyan Minister, a boarder, in the household of James Blane, a Royal Navy Musician (recorded as Dingley Fuge) In the 1911 Census in Stoke-upon-Trent, aged 36 (recorded as Dingley Palmer Fuge) d. 13th December 1944 Shipley</p>
	<p>m. Amy Roseveare b. 1874 Plymouth BMD Birth December Quarter 1874 Plymouth Vol.5b. pg.261. BMD Marriage (Dingley Palmer Fuge) September Quarter 1903 Plymouth Vol.5b. pg.645. In the 1911 Census in Stoke-upon-Trent, aged 36</p>
	<p>Henry Roseveare Fuge b. circa 1904 Reading BMD Birth June Quarter 1904 Reading Vol.2c. pg.383. In the 1911 Census in Stoke-upon-Trent, aged 6</p>
	<p>Frieda Mary Fuge b. circa 1909 Stoke-upon-Trent BMD Birth June Quarter 1909 Stoke-upon-Trent Vol.6b. pg.289. In the 1911 Census in Stoke-upon-Trent, aged 1</p>
	<p>m. John L. Rawnsley BMD Marriage June Quarter 1939 Keighley Vol.9a. pg.738.</p>
	<p>Allan Rawnsley BMD Birth March Quarter 1943 Bradford Vol.9b. pg.30.</p>
	<p>Frederick Fuge b. circa 1843 Buckland Monachorum BMD Birth September Quarter 1843 Tavistock Vol.9. pg.454. In the 1861 Census @ London Inn, Buckland Monachorum, Devon, aged 17, a Mason</p>
	<p>Albert Fuge b. circa 1845 Buckland Monachorum In the 1861 Census @ London Inn, Buckland Monachorum, Devon, aged 15, a Scholar</p>
	<p>Sarah (Ann) Fuge b. circa 1846 Buckland Monachorum BMD Birth March Quarter 1847 Tavistock Vol.9. pg.495 In the 1861 Census @ London Inn, Buckland Monachorum, Devon, aged 14, a Scholar In the 1871 Census @ Horrabridge, Devon, aged 25 In the 1881 Census @ Cottage, Buckland Monachorum, Devon, aged 34, a Masons Wife (husband not present)</p>
	<p>m. Henry William Toop b. circa 1841 Whitchurch, Devon BMD Marriage June Quarter 1865 Tavistock Vol.5b. pg.668. In the 1871 Census @ Horrabridge, Devon, aged 29, a Mason</p>
	<p>Henry William Toop b. circa 1866 Horrabridge, Devon BMD Birth December Quarter 1866 Tavistock Vol.5b. pg.373. In the 1871 Census @ Horrabridge, Devon, aged 4, a Scholar In the 1881 Census @ Cottage, Buckland Monachorum, Devon, aged 14, a Scholar</p>
	<p>m. Rosina Blackler or Elizabeth Luscombe BMD Marriage September Quarter 1892 Stoke Damerel Vol.5b. pg.632.</p>
	<p>Cicely Jane Toop b. circa 1868 Walkhampton, Devon BMD Birth September Quarter 1868 Tavistock Vol.5b. pg.364. In the 1871 Census @ Horrabridge, Devon, aged 2 In the 1881 Census @ Cottage, Buckland Monachorum, Devon, aged 12, a Scholar</p>
	<p>m. Herbert Henry Netherton BMD Marriage March Quarter 1895 Tavistock Vol.5b. pg.543.</p>
	<p>Richard William F. Toop b. circa 1870 Horrabridge, Devon BMD Birth March Quarter 1871 Tavistock Vol.5b. pg.376. In the 1871 Census @ Horrabridge, Devon, aged 1 month In the 1881 Census @ Cottage, Buckland Monachorum, Devon, aged 10, a Scholar</p>
	<p>Alfred Toop b. circa 1874 Horrabridge, Devon BMD Birth March Quarter 1875 Tavistock Vol.5b. pg.351. In the 1881 Census @ Cottage, Buckland Monachorum, Devon, aged 6, a Scholar</p>
	<p>Archelaus Toop b. circa 1880 Horrabridge, Devon BMD Birth September Quarter 1879 Tavistock Vol.5b. pg.359. In the 1881 Census @ Cottage, Buckland Monachorum, Devon, aged 1, a Scholar</p>
	<p>m. Maude Alice Crocker or Mary Hancock Toop BMD Marriage December Quarter 1907 Tavistock Vol.5b. pg.763.</p>
	<p>Jane Fuge b. circa 1846 Buckland Monachorum BMD Birth March Quarter 1847 Tavistock Vol.9. pg.495 In the 1861 Census @ London Inn, Buckland Monachorum, Devon, aged 14, a Scholar</p>
	<p>Temperance Fuge b. circa 1861 Buckland Monachorum (Horrabridge) BMD Birth June Quarter 1861 Tavistock Vol.5b. pg.354. In the 1871 Census @ Horrabridge, Sampford Spinney, Devon, aged 10 In the 1881 Census @ Cottage, Buckland Monachorum, Devon, aged 19, a Housekeeper In the 1891 Census @ Sampford Road, Sampford Spinney, aged 29</p>

	<p>In the 1901 Census @ Front Town, Walkhampton, aged 39 In the 1911 Census in Tavistock, aged 49</p> <p>m. George Veale b. circa 1857 Walkhampton, Devon BMD Birth March Quarter 1858 Tavistock Vol.5b. pg.333. BMD Marriage March Quarter 1884 Plymouth Vol.5b. pg.428. In the 1891 Census @ Sampford Road, Sampford Spinney, aged 33, a Wheelwright In the 1901 Census @ Front Town, Walkhampton, aged 43, a Wheelwright In the 1911 Census in Tavistock, aged 53</p> <p>— Frank William Veale b. 1885 Sampford Spinney BMD Birth December Quarter 1885 Tavistock Vol.5b. pg.359. In the 1891 Census @ Sampford Road, Sampford Spinney, aged 5, a Scholar In the 1901 Census @ Front Town, Walkhampton, aged 15, a School Boy In the 1911 Census in Tavistock, aged 25</p> <p>— Elsie Mary Veale b. circa 1886 Sampford Spinney, Devon BMD Birth March Quarter 1887 Tavistock Vol.5b. pg.354. In the 1901 Census @ Front Town, Walkhampton, aged 14, a School Girl In the 1911 Census in Tavistock, aged 24</p> <p>— Lilian M. Veale b. circa 1888 Sampford Spinney, Devon In the 1891 Census @ Sampford Road, Sampford Spinney, aged 2 In the 1901 Census @ Front Town, Walkhampton, aged 12 a School Girl</p> <p>— Gladys Emma Veale b. circa 1891 Sampford Spinney, Devon BMD Birth March Quarter 1891 Tavistock Vol.5b. pg.370. In the 1891 Census @ Sampford Road, Sampford Spinney, aged 2 months In the 1901 Census @ Front Town, Walkhampton, aged 10, a School Girl In the 1911 Census in Tavistock, aged 20</p> <p>— Mary Eleanor Veale b. 1894 Walkhampton, Devon BMD Birth June Quarter 1894 Tavistock Vol.5b. pg.326. In the 1901 Census @ Front Town, Walkhampton, aged 7, a School Girl In the 1911 Census in Tavistock, aged 17</p> <p>— Emma (Emmie) Temperance Veale b. circa 1897 Walkhampton, Devon BMD Birth September Quarter 1897 Tavistock Vol.5b. pg.346. In the 1901 Census @ Front Town, Walkhampton, aged 3, a School Girl In the 1911 Census in Tavistock, aged 13</p> <p>— Win(n)ifred Fuge Veale b. circa 1899 Walkhampton, Devon BMD Birth March Quarter 1900 Tavistock Vol.5b. pg.343. In the 1901 Census @ Front Town, Walkhampton, aged 1 In the 1911 Census in Tavistock, aged 11</p> <p>Diatom Bibliography Fuge, D.P. and Smith, J. / Long, J.A. - Diatoms of the Moreno Shale. : Journal of Paleontology. - Vol. 20 No. 2 pp.89-118, pl. 13-19. (Mar 1946) [Pub. 1946] Fuge, D.P. - A note on diatoms in general and the fossil diatoms of Barbados in partical : Journal of the Barbados Museum and Historical Society - Vol. 1 No. 2 pp.1-5 (Feb 1934) [Pub. 1934] Fuge, D.P. - Diatom notes: A natural history study : Practical Microscopy - pg.8-9 and 34 (Sep/Oct 1935) [Pub. 1935] Fuge, D.P. - Diatom notes: I. Introductory diatoms and the amateur microscopist : Practical Microscopy - pg.6-8, and 33 (Mar/Apr 1935) [Pub. 1935] Fuge, D.P. - Diatom notes: No. 4. How to examine a diatom and introductory to classifica : Practical Microscopy - Vol. 2 No. 3 pp.4-5 and 32-33 () [Pub.] Fuge, D.P. - Diatom notes: No. 5. Concerning details of valve structure : Practical Microscopy - Vol. 2 No. 4 pp.6-8 and 34-35 () [Pub.] Fuge, D.P. - Diatom notes: No. 6. The genus <i>Navicula</i> : Practical Microscopy - Vol. 2 No. 5 pp.4-5 and 35-36 () [Pub.] Fuge, D.P. - Diatom notes: Part 3. Concerning <i>Pinnularias</i> and others : Practical Microscopy - pg.6-7 and 33 (Jul/Aug 1935) [Pub. 1935] Fuge, D.P. - Diatom notes: Part II. Collection and preparation : Practical Microscopy - pg.12-14, and 35-36 (May/Jun 1935) [Pub. 1935] Fuge, D.P. - <i>Kittonia</i> (?) <i>virgata</i> G. & S. with a note on the genus <i>Hemiaulus</i> and its 'mu : Watson's Microscope Record. - No. 40 pp.12-15. (1937) [Pub. 1937] Fuge, D.P. - Marine diatoms : The Microscope - Vol. 1 pp.23-24, and 28 (Aug 1937) [Pub. 1937] Fuge, D.P. - <i>Nitzschia firthii</i> spec. nov., a Diatom from Chinese Canned Fish. : Journal of the Royl Microscopical Society, Ser. 3 - Vol. 57 pp.183-185. (1937) [Pub. 1937] Fuge, D.P. - Two new <i>Kittonias</i>: A Diatom note. : Watson's Microscope Record, London. - Vol. 38 pp.3-4, fig. 1-2. (1936) [Pub. 1936] Fuge, Dingley P. / Smith, James / Long, John A. - Diatoms of the Moreno Shale.[Journal of Paleontology - Pub.1946 : Vol.20(2) : pg.89-118] Fuge, Dingley P. - <i>Nitzschia firthii</i> spec. nov., a diatom from chinese canned fish.[Journal of the Royal Microscopical Society -Pub.1937 : Vol.LVII : pg.183-185]</p>
<p>Dr. George Furet</p>	
<p>A.L. Galliford</p>	<p>Elected to the QMC 9th October 1945 In the Quekett Microscopical Club Membership list of 1974: Galliford, A.L., Portinscale, 46 Trevor Drive, Crosby, Liverpool, L23 2RW</p> <p>Arthur Leslie Galliford b. 30th March 1911 BMD Birth, Arthur L. Galliford, June Quarter 1911 Greenwich Vol.1d. pg.1007. BMD Death, aged 88, Arthur Leslie Galliford, March 1999 Seforon South SS46/0321/161</p>

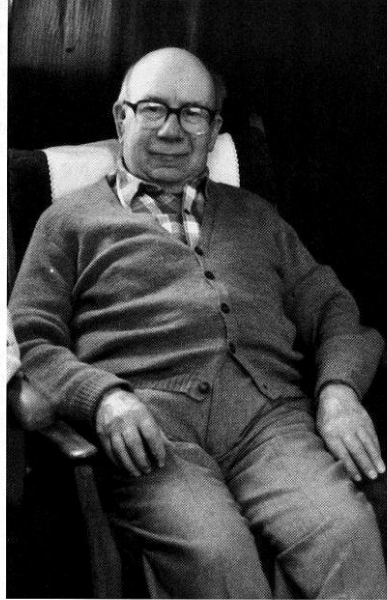
In the 1911 Census @
Sydney Arthur Galliford, aged 26, an Excise and Customs Officer (H.M. Civil Service), b. Egham Parish, Surrey
Harriet Eliza Galliford, aged 26, b. St. George's, Bristol, Somerset
Un-named Galliford (Arthur Leslie), aged under one month, b. Greenwich, London

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Obituary

Arthur Leslie Galliford, 1911–1999




Born on 30 March 1911, Arthur acquired a great interest in natural history during his childhood in his native Kent, with insects his first fascination. When he was twelve he was given a small microscope, which he used for pond life. Surviving notebooks from his mid-teens show that he had already specialised in rotifers, making serious attempts to identify and draw various species. He wanted to follow a career in biology, and was qualified to go up to university to do so, but in the days of the great slump his father persuaded him to follow in his footsteps and take up a career in HM Customs and Excise. In this service he remained for the rest of his working life, being stationed at Liverpool.

His work left little time for serious microscopy, but he did manage to continue with his music, for he was a proficient clarinetist. When his local orchestra joined with the local choral society he met his future wife Joan, and married

her in 1938. Working for promotion and setting up a home still prevented his working much with the microscope. He was precluded from military service on medical grounds and did civil defence work, but in 1941 did take up rotifer studies once more. In 1943 both he and the writer had letters published in *The Microscope*, and then made contact with each other. This friendship was to last for over half a century.

Arthur joined the QMC in 1945, a year after the writer, but was already in correspondence on rotifers with Sidney W Marston, who had been a member since 1937. From the mid-40s on, Arthur made extensive faunistic studies of the rotifers and micro-crustacea of Lancashire, Cheshire, and North Wales. This work produced a series of papers in the *Proceedings of the Liverpool Naturalists Field Club*, *The North-Western Naturalist*, *The Countryside* [journal of the British Naturalists Association], and in the

	<p>publications of the Lancashire and Cheshire fauna Committee.</p> <p>In 1947 Arthur met H G S Wright, a fellow member of the Liverpool Microscopical Society, and another rotifer authority. Wright translated Josef Donner's <i>Rädertiere</i> into English, and asked Arthur to write the foreword. He did much more than that, for he was thanked by both translator and publisher for "much valuable help in the preparation of this book."</p> <p>Perhaps the most important of Arthur's own published work was the seven-part series on 'How to Begin the Study of Rotifers' in <i>The Countryside</i>, 1961–1963. The series allowed the beginner to identify all the then known rotifers to genus level, before Donner was available in English. Another QMC member, Leslie Mullinger, provided flash photographs of living rotifers to complement Arthur's clear line drawings.</p> <p>Living on the coast allowed him to pay particular attention to brackish-water and marine rotifers, especially of the genus <i>Synchaeta</i>. His papers on microscopic organisms of some brackish pools in the Wirral [<i>North Western Naturalist</i>, 1948], and on the ecology of salt-marsh pools in the Dee estuary [<i>Proceedings of the Liverpool Naturalists Field Club</i>, 1956] are classic examples of his meticulous faunistic work.</p> <p>In addition to his expertise in Rotifera, he was equally knowledgeable in the field of microcrustacea, and almost all his papers dealt with both groups. He may be the only British amateur since D J Scourfield to deal with Copepoda, and his work on these and on Cladocera [as they were then termed] won international esteem.</p> <p>Arthur had the idea that his work, being mainly of a local nature, would interest only microscopists in the north-west of the country, and hence his papers were published in rather obscure journals of that area. It is probably for this reason that only one of his papers appeared in the Quekett Journal [Notes on the fauna of Dozmary Pool, Bodmin Moor, Cornwall, 30, 277–280, 1967].</p> <p>A field trip with Arthur Galliford made one realise that he was a good all-round naturalist, conversant with sedges and other botanical groups, and later also with ornithology. With his death on 1st March this year, aquatic microscopy in general and the particular study of rotifers and microcrustacea have sustained a great loss.</p> <p style="text-align: right;">Eric Hollowday</p> <p style="text-align: center;"><i>The Journal of the Quekett Microscopical Club</i> VOLUME 38, 1997-2000, Part 5, Pages 401 & 402</p>
<p>G. W. Giffen</p>	<p>Possibly BMD Birth George W. Giffen, June Quarter 1911 Dorking Vol.2a. pg.186</p>
<p>H. H. Gleave</p>	<p>Henry Hardin Gleave (13th April 1909 – 17th March 1990) BMD Birth, Henry Hardin Gleave, June Quarter 1909 Yeovil Vol.5c. pg.347. BMD Death, aged 80, Henry Hardin Gleave, March 1990 Hastings and Rother Vol.18. pg.849. Elected to the Quekett Microscopical Club 11th September 1962 In the Quekett Microscopical Club Membership list of 1969: Gleave, H.H., 42 Ridgemount Avenue, Shirley, Croydon, Surrey. 645-7409 In the Quekett Microscopical Club Membership list of 1974: Gleave, H. H., 61 Terminus Avenue, Bexhill-on-Sea, Sussex. 0424-21-3465 Interests: Algae, Diatoms General, Diatoms Freshwater, Microscope optics Diatom Bibliography Gleave, H.H. / Sartory, P.K. - A note on the diatom <i>Amphora laevis</i> Gregory var. <i>perminuta</i> Grunow : Microscopy, The Journal of the Quekett Microscopical Club - Vol. 33 No. 3 pp.158-159 (Jan-Jun 1977) [Pub. 1977] Gleave, H.H. - <i>Hydrosera triquetra</i>, a diatom new to European waters : Microscopy, The Journal of the Quekett Microscopical Society - Vol. 32 No. 6 pp.208 (1972) [Pub. 1972] Gleave, H.H. - Obituary. Horace G. Barber (1908-1982) : Microscopy, The Journal of the Quekett Microscopical Club - Vol. 34 pp.557-558 (Jan-Jun 1983) [Pub. 1983]</p>
<p>Richard (Dick) Gosden</p>	<div style="text-align: center;">  </div> <p>Elected to the Quekett Microscopical Club 8th November 1960 In the Quekett Microscopical Club Membership list of 1969: Gosden, R., 99 Gorse Avenue, Felpham, Bognor Regis, Sussex</p>

	<p>In the Quekett Microscopical Club Membership list of 1974: Gosden, R., 17 Gorse Avenue, Felpham, Bognor Regis, Sussex, PO22 6AY. Middleton-on-Sea 3729 Interests: Diatoms General Apparently from Coventry circa 1957. The following articles were done in conjunction with E.C. P. Bone. 1967 – New Fossil Marine Diatoms from Oamaru, New Zealand Vol. 30, pages 268-272 1968 – New Fossil Marine Diatoms from Oamaru, New Zealand (2nd Series) Vol. 31, pages 70-78 Diatom Bibliography Gosden, R. / Bone, E.C.P. - New Fossil Marine Diatoms from Oamaru, New Zealand : Microscopy, The Journal of the Quekett Microscopical Club - Vol. 30 pp.268-272, 1 pl. (1967) [Pub. 1967] Gosden, R. / Bone, E.C.P. - New Fossil Marine Diatoms from Oamaru, New Zealand (Second Series) : Microscopy, The Journal of the Quekett Microscopical Club - Vol. 31 pp.70-78, 2 pls. (1968) [Pub. 1968]</p>
<p>A. G. Greenfield</p>	<p>Elected to the Quekett Microscopical Club 9th May 1972 In the Quekett Microscopical Club Membership list of 1974: Greenfield, A.G., Westlands Farm, Russ Hill, Charlwood, nr. Horley, Surrey, RH6 0EL. Norwood Hill 470. Interests: Diatoms General and Algae</p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <div> </div> <p style="text-align: center;"><i>R.I. Firth index card</i></p> <p>Diatom Bibliography Greenfield, A.G. - Method for preparing diatom samples : Unpublished - pg.5 pp. (unpublished) [Pub.]</p>
<p>Gregory, Bottley</p>	<div> </div> <div> </div> <p>Gregory Bottley – London worth looking at an article 1970 in Quekett Journal by E. P. Bottley entitled ‘Historical Notes on Rock and Fossil sections for use with the Microscope’ Vol. 31, pages 285-291 in the early 1990’s Gregory, Bottley, & Lloyd based in London, England purchased the collection of the Scottish aristocrat and politician Robert Ferguson (1767-1840). In May of 1998 a large proportion of the collection was purchased from Gregory, Bottley, & Lloyd by Trinity Mineral Company and the Arkenstone.</p>
<p>F.W. Griffin</p>	

<p>J.J. Grover</p>	 <p>John J. Grover, F.R.M.S., A.R.P.S. Elected to Quekett Microscopical Club 21st February 1942. Address in 1945 Members list given as 'Tideswell', 41 Hill Top Lane, Kimberworth, Rotherham, Yorks. Stated interests – Diatoms and Entomology. From The Microscope May 1938 – 'Mr. John J. Grover, Tideswell, Hill Top Lane, Kimberworth, Rotherham, offers good pond-life, various Diatoms for mounting and occasionally sections of stems, and Marine Algae.' Article by John J. Grover, A.R.P.S. in The Microscope November 1937 – Notes on the Podura. On the 18th July 1945 presented a ¼ inch objective signed A. Ross 1852 to the RMS (The Great Age of the Microscope by G. L'E. Turner 161) Address in 1965 – 66 Broom Road, Rotherham.</p>
<p>Thomas Hancock</p>	<p>possibly</p> 

Dr. G. D. Hanna

G DALLAS HANNA

(1887 - 1970)

THE death of Dr G Dallas Hanna in San Francisco, California, on November 20 1970 brought to an end a distinguished career of 51 years as Curator of Palaeontology (later Geology) of the California Academy of Sciences. The broad field of endeavour which made his work unique is indicated by his long list of published papers. This impressive list, however, does not adequately cover his many other achievements as an expert machinist, inventor of scientific instruments and optical worker par excellence.

His first job after graduation at the University of Kansas in 1909 was with the United States Bureau of Fisheries. He was assigned to the Bristol Bay area of Alaska where his job was to report on the fisheries, the aquatic biology and the wild life in general of this remote territory.

Following the Bristol Bay work he was assigned to the management of the fur seal herds on the Pribilof Island in Bering Sea. In 1919 Dr Barton W. Evermann, then Director of the California Academy of Sciences, who was impressed with Dr Hanna's work on the Pribilofs, offered him the position of Curator of Palaeontology (later Geology) at the Academy, which he accepted.

At the Academy Dr Hanna began a systematic study of the microfossils, diatoms, silicoflagellates and foraminifera. Believing that these small fossils would be useful in the correlation of geologic sediments, Dr Hanna made an arrangement with the Pacific and Associated Oil Companies to do experimental work on oil well samples to determine the feasibility of using the small fossils in oil well correlation and exploration.

In the 51 years he was at the Academy he published papers on a wide range of subjects and was a recognized authority on living and fossil molluscs, both land and marine, introduced species of molluscs, optics, fossil and living diatoms, silicoflagellates and foraminifera. Of these the diatoms claimed the larger share of his time and attention. In pursuing this subject he compiled a very comprehensive catalogue, 'An Index to West American Diatoms'. This work has never been published but has served as an invaluable reference for many workers. Another major work was his Index to Schmidt's Atlas of Diatoms, published by J. Cramer in Germany in 1969. For his contributions to the science of microscopy he was made an Honorary Fellow of the Royal Microscopical Society.

In recognition of his contributions to Geology, the University of Kansas conferred upon him the Erasmus Haworth Distinguished Alumni Award in 1959.

In 1962 the Academy of Sciences dedicated volume 32 of the Proceedings to him on his 75th birthday and in 1967 bestowed on him the Fellow's Medal, the most distinguished award and recognition of scientific achievement the Academy can bestow.

On May 18 1970 an Honorary Degree of Doctor of Sciences was conferred upon him by the University of Alaska. In the citation Dr Hanna was described as an 'Eminent and dedicated scientist, revered friend and pioneer scientific researcher of Alaska'.

—With acknowledgments to C. C. Church and the *Journal of Palaeontology*,
November 1971


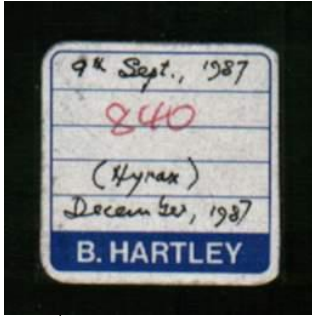
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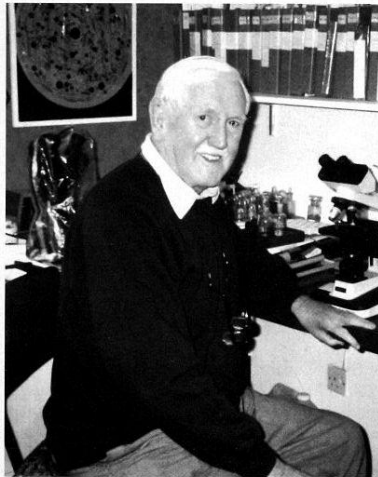
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<p>Bernard Hartley</p>	<div style="text-align: center;">   </div> <p>Elected to the Quekett Microscopical Club 14th April 1970 In the Quekett Microscopical Club Membership list of 1974: Hartley, B., 5 Wythwood Close, Pedmore, Stourbridge, Worcestershire, DY9 0SZ. Hagley 4314. Interests: Diatoms Freshwater, Diatoms General, Algae, Protozoa, Photomicrography b. 1917. Preston Road, Yeovil, Somerset. Still preparing diatom slides into the 2000s though his output had been much reduced by failing eyesight. Began work on Diatomaceae in about 1960 when he met and began co-operation with R. I. Firth. Between them they set about identifying and cataloguing the British Diatomaceae. This work was eventually to culminate in the publication of An atlas of British Diatomaceae (published by BioPress in 1996), which also included the work of Horace G. Barber, J. R. Carter and P. A. Sims. He has also taken an interest in the Oamaru diatomite deposits. Honorary Member Quekett Microscopical Club, elected 20th February 1983. In the Quekett Journal In conjunction with R. I. Firth 1971 – A Pennine Diatom Site Vol. 32, pages 108-113 In conjunction with R. I. Firth – 1981 – A collection of Microscope Slides of British Diatoms, including 1,000 Slides of Selected and Named Species, and over 500 Strewn slides from British localities. (London:Department of Botany, British Museum (Natural History). 1981 – Flora: diatoms. In Steep Holm, A Survey (Taunton:Somerset Archaeological and Natural History Society, Taunton Castle pages 66-68) BMD Birth Bernard Hartley, June Quarter 1917 Burnley Vol.8e. pg.275. – mothers maiden name – Harrison</p>

Obituaries

Bernard Hartley: 1917–2007



Bernard Hartley was born in Burnley on 12 May 1917, and was educated at Burnley Grammar School and Burnley Municipal College: he took an external London BSc degree in engineering before being articled to a municipal engineer.

He served in the RAF from April 1940, working as an aeronautical engineer, becoming a squadron leader and serving on the technical staff of HQ Flying Training Command.

As a civil engineer after WW2 he worked in Bridlington, in Norwich, and in Westminster before serving as Borough Engineer in Accrington for ten years, and for a further ten years as chief engineer of a drainage authority. During all this time he was keenly interested in natural history, and especially botany and ornithology, and joined the local natural history societies wherever he worked.

It was a fascination with pond life which first led him into microscopy, and it was a chance meeting with R I Firth in 1960 which introduced him to algae and above all to diatoms. Over the next twenty years they worked together on

collecting, preparing, and identifying British diatoms. They mounted more than 1500 slides of individual and strewn diatoms: the collection was presented to the Natural History Museum in 1982. Other collections of Hartley mounts and samples of diatoms are held by the California Academy of Science and by the Royal Botanic Garden in Edinburgh.

Bernard also knew and worked with Horace Barber, who was a most capable diatom artist. After Barber's death, John Carter, Barry Paddock and Klaus Kemp discussed with Bernard what might best be done with all the drawings, and Bernard agreed to assemble this resource, with John Carter filling in some gaps. The outcome was the large work *Atlas of British diatoms* [1996], which remains of the greatest importance to diatomists.

The family moved to Somerset about 1977, and Bernard collected extensively on the Levels. He continued to be a most meticulous preparer of diatom mounts, and was always totally ready to give all possible help to those who sought it.

His own collection of cleaned samples of diatoms and strewn mounts exceeded 3000, plus a further 1000 other kinds of slides. In later years he worked with Klaus Kemp in extracting fossil marine diatoms from the Oamaru deposits, to provide more than 330 individually-mounted species and many strewn mounts from the several localities. His personal collections have been left to Klaus, who has kindly provided the portrait of Bernard and additional information on his work.

He had many friends in the Club, as well as in the Postal Microscopical Society. I personally found Bernard a delight to work with on the occasions that we met on courses and at exhibitions, and I treasure the mounts he so kindly gave me.

In 1940 he married Margaret Elizabeth Dickinson: they had children David and Elizabeth. Betty always made the many visitors most welcome, joined him in collecting trips, and shared his love of music.

In Bernard's later years glaucoma robbed him of his eyesight, and of the interest he followed so productively: in spite of all, he never lost his sense of humour. Most sadly, Betty died on 26 March 2007, just a few weeks before Bernard's own death on 22 April. Our sincere condolences go to his children: Bernard was a most unassuming and kindly practical scholar, and we shall certainly miss him.

Brian Bracegirdle

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Betty Hartley

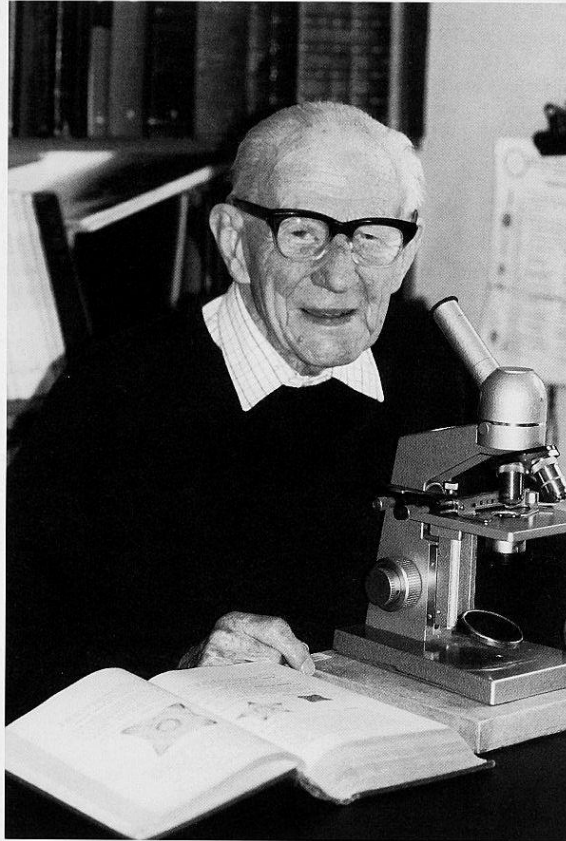
Wife of Bernard Hartley

M.E. Hartley

The Bernard Hartley Sample and Strewn Slide Collection – Appendix A

<p>Elizabeth Haworth</p>	<p>Diatom Bibliography</p> <p>Haworth, E.Y. / Barber, H.G. - A guide to the morphology of the diatom frustule. With a key to the Britis : Freshwater Biological Association, Scientific Publication - Vol. 44 pp.5-112, figs. 1-144 (1981) [Pub. 1981]</p> <p>Haworth, E.Y. / Clegg, J. - Diatoms of the Kentmere diatomite deposits : Microscopy, The Journal of the Quekett Microscopical Club - Vol. 35 No. 4 pp.285-290 (Jul-Dec 1985) [Pub. 1985]</p> <p>Haworth, E.Y. / Sabater, S. - A new Miocene <i>Aulacoseira</i> species in diatomite from the ancient lake in La : Nova Hedwigia, Beiheft 106 - pg.227-242 (Mar 1993) [Pub. 1993]</p> <p>Haworth, E.Y. - Comparison of continuous phytoplankton records with the diatom stratigraphy : Limnological Oceanography - Vol. 25 No. 6 pp.1093-1103, 7 figs. (1980) [Pub. 1980]</p> <p>Haworth, E.Y. - Diatom succession in a core from Pickerel Lake, Northeastern South Dakota : Geological Society of America Bulletin - Vol. 83 No. 1 pp.157-172 (Jan 1972) [Pub. 1972]</p> <p>Haworth, E.Y. - Some problems of diatom taxonomy in Scottish Lake sediments : British Phycological Journal - Vol. 9 pp.47-55 (13 Mar 1974) [Pub. 1974]</p> <p>Haworth, E.Y. - The distribution of a species of <i>Stephanodiscus</i> in the recent sediments of : Abstract of paper given at the Fifth Symposium on the Living and Fossil Dia - pg.1 pp. (unpublished) [Pub. 1978]</p> <p>Haworth, E.Y. - The recent diatom history of Loch Leven, Kinross : Freshwater Biology - Vol. 2 pp.131-141 (1972) [Pub. 1972]</p> <p>Haworth, Elizabeth Y. / Allen, Peter V. - Pemporary changes in the composition of a postglacial diatom profile from Ullswater.[Proceedings of the Seventh International Diatom Symposium -Pub.1982 : pg.431-442]</p> <p>Haworth, Elizabeth Y. - A note concerning Grunow's <i>Stephanodiscus hantzschii</i>.[STRIAE -Pub.1981 : Vol.14 : pg.119-121]</p> <p>Haworth, Elizabeth Y. - Some problems of diatom taxonomy in Scottish lake sediments.[Br.phycol.J -Pub.1974 : Vol.9 : pg.47-55]</p> <p>Haworth, Elizabeth Y. - The distribution of a species of <i>Stephanodiscus</i> in the recent sediments of Belham Tarn, English Lake District.[Beihefte zur Nova Hedwigia -Pub.1979 : Vol.64 : pg.395-410]</p>
<p>Pieter Houpt (Haupt)</p>	
<p>Thomas Haythornthwaite</p>	<p>Chief Engineer on a steamer trading with the West Coast of Africa (1930s)</p>
<p>Norman Ingram Hendey</p>	<p>Norman Ingram Hendey b. 31st January 1903 BMD Birth, Norman Ingram Hendey, March Quarter 1903 New Forest Vol.3b. pg.684 BMD Marriage, Norman I. Hendey to Nellie Doughty, December Quarter 1927 Hendon Vol.3a. pg.821</p> <p>In the 1911 Census @ Bank Buildings, High Street, Lyndhurst, Hampshire: Harry Hendey, aged 34, a Manager in an outfitters, b. Lymington, Hampshire Elizabeth Hendey, aged 33, b. Southampton Norman Hendey, aged 8, b. Lyndhurst, Hampshire Doris Hendey, aged 6, b. Lyndhurst, Hampshire Joan Hendey, aged 2, b. Lyndhurst, Hampshire</p> <p>BMD Death, aged 101, Norman Ingram Hendey, September 2004 Cambourne-Redruth D61/355/1/104</p>

Obituary
Norman Ingram Hendey: 1903–2004



Hendey was born in Lyndhurst on 31 January 1903, the eldest child of Harry and Elizabeth Hendey. He attended King Edward VI Grammar School in Southampton, and then Southampton University College where he qualified in pharmacy. He had already become interested in the local flora, made up his own herbarium, and fell under the sway of the microscope through meetings of the local natural history society. At one meeting he saw displayed a mount of *Arachmodiscus*, using darkground illumination. This marked the beginning of his lifelong interest in diatoms, and once he had found a copy of

van Heurck's book on these, he developed his own knowledge. In 1929 he was asked to assess the value of a sample of diatomaceous earth as a filter aid, and this led him to wider horizons.

He now used a Watson Edinburgh H fitted with apochromats, and with this he reviewed the phytoplankton taxa of the South Atlantic and Antarctic oceans, publishing his results in vol. 16 of *Discovery Reports* in 1937.

He became FRMS in 1931, serving on Council 1936–1946, and 1949–1951, and being curator of slides 1934–1947. He joined the Quekett in 1932, and in both membership lists is shown as N I Henley. He served on Committee, but allowed his membership to lapse during WW2. He was readmitted as an Honorary member in 1982, by when he was listed as N Ingram Henley.

In 1938 Henley assisted J E McCartney in evaluating fluorochromes, and thence applied fluorescence techniques to his work on Algae. He worked in naval intelligence in WW2, seeing service in the Far East, and then joining the Royal Naval Scientific Service at Portsmouth, working on algal slimes and biodeterioration in a wide variety of materials.

In the 1950s Henley began work on his monograph on diatoms of the intertidal zone, published as *An introductory account of the smaller Algae of British coastal waters* in 1964. He worked on a number of projects overseas and at home, including some original forensic work in the 1960s and later.

He retired in 1968, to St Agnes, where he continued to work professionally on diatoms for the next 30 years, using a Wild M.20 with phase contrast, but by about 1985 his eyesight was beginning to fail, and ten years later he passed his equipment and most of his slides to Patricia Sims [his collaborator, formerly of the Natural History Museum]. He continued to exhibit at and support his local microscopical society until 2001, and was always ready to encourage others.

Henley established three new families of diatoms, and described more than 100 taxa new to science: eleven were named after him. He wrote a stream of papers and shorter notes, more than sixty in all, and will be remembered as one of the most important diatomists of the twentieth century.

In 1927, Henley married Nellie Doughty: they had one child, a daughter Janice, who became a biologist. Nellie died at the age of 95 in 1997, a few months short of what would have been their 70th wedding anniversary. He himself died on 30 August 2004, after a short illness, and is survived by his younger sister, aged 96, and by Janice, to whom the Club's sympathies are extended, and who has kindly provided the photograph of her father, made in his study at St Agnes when he was 98!


Brian Bracegirdle

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<p>Alan Hepworth</p>	
<p>E.P. Herlihy</p>	<p>Elected to the QMC 10th June 1941 In the Quekett Microscopical Club Membership list of 1974: Herlihy, E.P. (Honorary), 30 Stile Hall Gardens, Chiswick, London W4 3BU. 01-994-5301</p> <p>BMD Birth, Eileen P. Herlihy, December Quarter 1922 Brentford Vol.3a. pg.161 Mother's maiden name - Day</p>
<p>Frank Hobbs</p>	<p>Elected to the Quekett Microscopical Club 10th June 1924 In the Quekett Microscopical Club Membership list of 1969 & 1974: Hobbs, F., (H), 28 Kingsthorpe Road, Sydenham, London, SE26 4PG. 01-778-8473 Interests: Diatoms General, Diatoms Freshwater, Microscope Optics</p> <p>In The 1911 Census @ 24 Ravenscroft Road, Beckenham, Kent William Hobbs, aged 66, a Joiner, b. Hillingdon, Middlesex Mary Ann Hobbs, aged 52, b. Beckenham, Kent Frank Hobbs, aged 17, a Clerk in a Furriers Office, b. Herne Hill, London Walter Hobbs, aged 15, a Ticket Printer at the Railway Company, b. Herne Hill, London</p> <p style="text-align: center;">OBITUARY</p> <div style="text-align: center;">  </div> <p style="text-align: center;">Frank Hobbs (1893 - 1981)</p> <p>BY THE death of Frank Hobbs in October 1981 the Club lost one of its most devoted, well-known and respected members. Elected in 1924, he was the longest-serving member of the Club.</p> <p>He was born at Herne Hill in October 1893 and later lived with his parents at Beckenham, Kent, where he attended the local county school, and later, Beckenham Technical College. He started work as a wireman with the National Telephone Company, which later became part of the Post Office Engineering Department. Rising to the rank of Assistant Engineer, he became responsible for Sydenham Telephone Exchange and several other exchanges in the area. He retired after 43 years with the Post Office.</p> <p>Microscopy was a life-long interest and the Quekett became part of his life. For many years he was Excursion Secretary, and on the retirement of Mr Best in 1947 he took over as Librarian, a post he held for 30 years. He also acted as Registrar for 12 years which brought him into contact with many country and overseas members with whom he carried on a continuing correspondence.</p> <p>Frank was profoundly religious without ostentation and worked with his usual thoroughness for his church.</p> <p>He is sadly missed, but most gratefully remembered, by those who came into contact with him, none more so than the writer, who was privileged with his friendship for some forty years. He is survived by his second wife, and three sons and four daughters of a previous marriage, to whom we offer our sincere sympathy.</p> <p style="text-align: right;">H.S.H.</p> <p style="text-align: center;">398</p>
<p>R.B. Hoover</p>	<p>Diatom Bibliography Hoover, R. B. / Hoyle, F., Wickramasinghe, N. C., Hoover, M. J., Al-Mufti, S. - Diatoms on Earth Comets, Europa and in Interstellar Space : Earth, Moon, and Planets - Vol. 35 pp.19-45, 2 tpls., 13 figs. (1986) [Pub. 1986] Hoover, R.B. / Harris, F.S., Jr. - Die beugungerscheinungen: a tribute to F.M. Schward's monumental work on</p>

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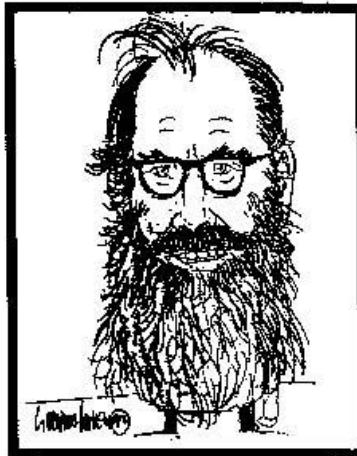
R. Howard

B. Hussey

Ernie Ives



Ives, Ernie – 63 Church Lane, Sproughton, Ipswich, Suffolk, IP8 3AY



Born 8th February 1934 in Burnham on Crouch, Essex.

Ernie originally apprenticed as a boat builder in those halcyon days when boats were still being made of wood. This formal training instilled him with a love of wood. He set out on a new career in teaching where his subject was woodwork, in 1960. This was later broadened to include Metalwork, with an interest in Model Engineering. The years 1960 thru 1969 saw him living in various locations within Surrey and Kent. Marquetry became an interest during these years and sometime later he became Editor of The Marquetarian, a post he has now held for over twenty years.

His interest in Microscopy began with the purchase of a microscope from Brunnings in 1963. However, any serious work using the instrument didn't materialise until his move to his current address in Ipswich in 1969 when he first attended one of Eric Marson's courses (see Northern Biological Supplies) where he became interested in insect mounts (one of Eric Marson's specialities and some say his best work). Ernie joined the Quekett Microscopical Club but became disillusioned but fortunately for us all he joined the PMS which he says 'suits me better'. In this Society he became influential becoming the Editor and Originator of the Balsam Post in 1984, a post he held for a number of years thereafter, indeed he still writes a column for the current volumes, usually on the subject of wood or insect mounting techniques.

Via his involvement with marquetry (an international pastime and profession) Ernie became aware of The International Wood Collectors Society, a group dedicated to the collection of wood samples from all over the world, and after meeting one of its members he was introduced to wood sections. This all occurred in 1990. Since then he has developed techniques and resurrected old ones for producing wood sections of 'reasonable size and quality'.

The words in quotes are his own, his mounts are in fact extremely good and the techniques he applies to the sections are varied to enhance the particular features of the subject timber.


Early in 1998 the International Wood Collectors Society have awarded him a grant, to be used to write a booklet on the sectioning and mounting of wood. At the time of writing this is well underway.

The wood section slides are issued in sets of 24 to subscribers at approximately two month intervals. The subject woods cover a huge variety from all over the world, including his and his neighbours back gardens. Some subjects are extremely rare and under normal circumstances would not be available to the ordinary mounter. With his contacts, his reputation, together with the fact that he only requires 'off cuts' he has built a considerable collection only a small portion of which he has issued to date.

His mounts of Beetles are beautifully executed but the most striking are his dissected insects, rivalling the best that Watson produced some 50 years ago.

His labels are produced on a computer printer onto gummed paper. There are normally two labels (where there is

The Bernard Hartley Sample and Strewn Slide Collection – Appendix A

	<p>room on the slide), one giving his full details of name and address and the other, usually bearing his name and a date, with a very creditable amount of data relating to the subject.</p> <p>Articles in Quekett Journal 1984a – Whole mounts of insects Vol. 35, pages 45-51 1984b – Further notes on whole mounts of insects Vol. 35, pages 114-116 Specializes in wood sections and insect mounts. Still making slides which he sends out in sets to those who register an interest with him. Honorary Member Postal Microscopical Society</p> <p>BMD Birth Ernest H. Ives, March Quarter 1934 Maldon Vol.4a. pg.1103. (mothers maiden name – Cardnell)</p>
D. Jamieson	
Dr. David Jewson	
A.W.G. John	
<p>A. Morley Jones</p>	

Arthur Morley Jones

1885 - 1964

President 1948 - 1949. Honorary Member 1951

ARTHUR MORLEY JONES who died on the 8 March 1964, was the son of Henry Chapman Jones, whose name is remembered, particularly in the photographic world, as the author of a popular manual of photography and as the discoverer of the mercuric chloride—ferrous oxalate process for intensifying negatives. He lectured in Chemistry at the Royal College of Science and the Birkbeck Institute, and contributed numerous articles to technical journals. He became President of the Royal Photographic Society.



With such a background, it is not surprising that in 1899, when Arthur won a five pounds prize for his success at school, he asked for it to be used towards the cost of a microscope, instead of buying the books it was intended to provide. A supplement from his father resulted in the purchase of a Swift 'Discovery' and, throughout his long and active life, he used this stand as his working instrument.

His membership of the Club dates from 1905 and he was fortunate in having for his friend and instructor John Milton Offord who, like Morley's

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family, lived in Ealing, which at that time was within easy cycling distance of many good ponds. With many members, pond life was then a dominant interest and probably half of the exhibits at the Gossip meetings were living specimens.

He co-operated with Mr Offord for a number of years in the running of the Ealing Scientific and Microscopical Society but, like so many other societies, it did not survive the first war.

He was also at this time on visiting terms with Henry Morland and N. E. Brown. Both of them were keen diatomists and Morland helped him with his first efforts at mounting, while Brown was busy collecting and collating the material he used for his little book 'Arachnoidiscus' which, however, did not appear till long after, in 1933.

One of his earliest pursuits was the study of the radulae of the mollusca, of which he made many mounts. Probably he was influenced in this direction by a long series of articles on the subject in the later issues of 'Science Gossip'. Then for a time insects became his main interest. He showed how the Blowfly proboscis should best be mounted and by his preparations of Fairy Flies, he gradually developed the unique skill which afterwards became so remarkable in his later mounts.

Diatoms then claimed his attention and they became his life work. He never used a mechanical finger and his unaided hand produced results which in others could only be attained by the use of the finger. He became an acknowledged expert and was consulted by many workers abroad, which involved him in a heavy correspondence. One member who was recording the diatoms of an unworked territory asked him to express an opinion on his conclusions, which Morley did, in ten foolscap pages of helpful criticism and appreciation.

In the early days of the century, the 'English Mechanic' was a popular and intelligent journal and carried a regular feature on microscopy, to which many famous people contributed, like E. M. Nelson and Commander Ainsley. One of Morley's first Club activities was the writing of accounts of the meetings for the 'E.M.' and many prospective members were introduced to the Club by this means.

He was always a regular attender at Club meetings. In his usual place on Gossip evenings, he always had something interesting and of his own mounting, to show. Apart from the excellence of his exhibits, the condition of the Swift Portable which he used at the Club was evidence of the care he took to preserve his equipment. He had several instruments, including the Powell and Lealand shown in the photograph, and they all showed his care and attention.

Among his many pursuits was a lifelong interest in Botany, which was furthered by several large floras that had come to him from his grandfather, and a school prize of Johns' 'Flowers of the Field'. He was a competent artist and Mrs Morley Jones and he did water colours of hundreds of plants and flowers. The Dodders held his attention for some years, particularly the listing of plants not recorded as hosts of the parasite.

His private life was very active. He started work in a bank but after twelve years decided to change to a large optical firm, where he later became manager of the Welbeck Street branch. He retired in 1950 and this provided an opportunity for widening and deepening his interests. He became a supporter of the Workers' Educational Association and for many years attended their classes on Art and Music Appreciation, Literature, and Architecture.

For eight years, he was Secretary of the Ealing Arts Club and regularly submitted a couple of landscapes for the Club's annual exhibition. Each holiday became a sketching expedition and both he and Mrs Morley Jones usually returned with sketch-books full.

Altogether, he was a kindly man of many parts, rather inclined to hide his light under a bushel, and with a background of quiet domestic felicity. He was a Quaker, with compulsive moral principles, and he will be remembered with respect and affection. The photograph shows him as he was about twelve years ago, though he had changed little since.

A list of his microscopical communications follows and, as his father made some useful contributions to microscopy, likely to be of interest to Club members, they have also been listed.

ARTHUR MORLEY JONES

J.Q.M.C. Series 2, XIV; 184	<i>Aulacodiscus grandis.</i>
" " 3, I; 179	Obituary of John Milton Offord.
" " 4, III; 1	Presidential Address. History and Reminiscences of the Q.M.C.
" " 4, III; 144	Setting up the Microscope and Notes on the Mounting of Fairy Flies.
" " 4, IV; 26	General Notes on Mounting and a Particular Technique of Mounting Diatoms.
Watsons Microscope Record No. 7; 20	Note on the Blowfly's Proboscis.
" " " No. 17; 28	Test Objects for Beginners.

HENRY CHAPMAN JONES

J.Q.M.C. Series 2, XIII; 107	Secondaries or Dotted Structures (Communicated by Arthur Morley Jones).
Watsons Microscope Record No. 5; 11	Piperine as a Mounting Medium.
" " " No. 16; 22	A Microscopist's Method of Testing Objectives.
" " " No. 26; 10	On the Stability of Mounting Media.
" " " No. 26; 12	His Obituary.

E.P.H.

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Hon. Reporter for Quekett Microscopical Club in 1936-37, 1937-38, 1938-39, 1939-1940-1941-1942, 1942-1943 also Hon. Assist. Treasurer 1939-1940-1941-1942, 1942-1943 also President elected Feb. 1948-1949.

Present at the Quekett Microscopical Club Conversazione on Tuesday 12th October 1937 at the Rooms of The Royal Society of London, Burlington House, Piccadilly, W.1. showing – Diatom: Triceratium pentacrinum.

Present at the Quekett Microscopical Club Conversazione on Tuesday 11th October at Burlington House, demonstrating The Mounting of Diatoms.

Present at Quekett Microscopical Club Gossip Meeting 26th October 1937 exhibiting – Selected diatoms from Singiliewsky, Russia.

Elected to Quekett Microscopical Club Nov 17th 1905.

In 1939 Quekett Microscopical Club members list at – 102 Argyle Road, West Ealing, W.13.

Paper read 20th February 1943 – Diatom Movement – in conjunction with A, A. Eliot Merlin (1860-1946).

QMC meeting Burlington House 15th January 1944 exhibiting diatoms.

Arthur Morley Jones.

Elected to QMC 17th November 1905.

In 1948 QMC members list at address – 102 Argyle Road, West Ealing, W.13. Tel:- Perivale 4694. Stated interests – Critical Microscopy; Biology; Botany, including diatoms; Entomology.

BMD Birth, Arthur Morley Jones, June Quarter 1885 Chelsea Vol.1a. pg.331.

BMD Death, aged 78, Arthur Morley Jones, March 1964 Ealing Vol.5e. pg.76.

In the 1891 Census @ 7 Gardenia Road, Chelsea, London

Henry C. Jones, aged 36, a Demonstrator of Chemistry in Royal College, b. City, London

Phoebe S. Jones, aged 36,, b. Lincolnshire

Arthur M. Jones, aged 5, a Scholar, b. Chelsea, London

Sydney L. Jones, aged 2, b. Chelsea, London

Ernest M. Jones, aged 1, b. Chelsea, London

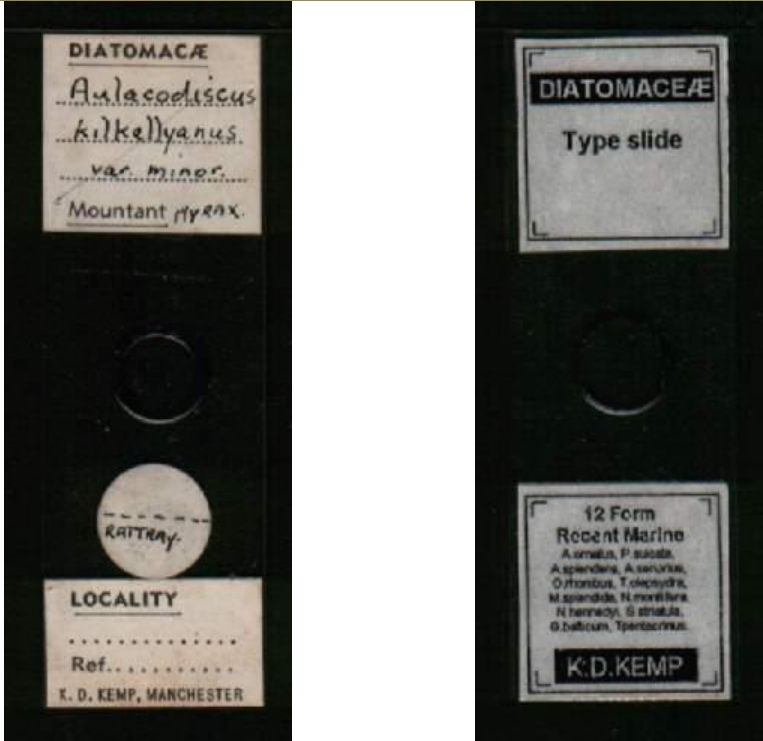
Also present

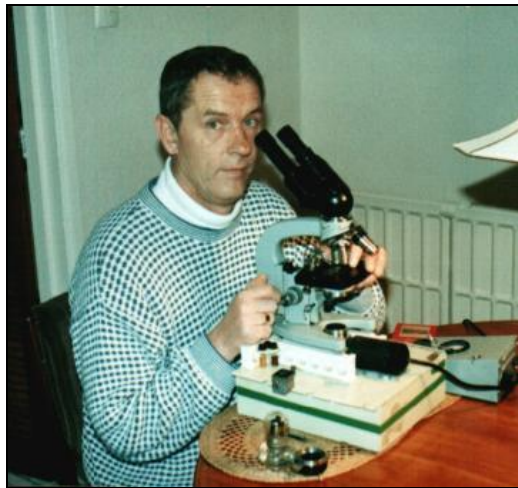
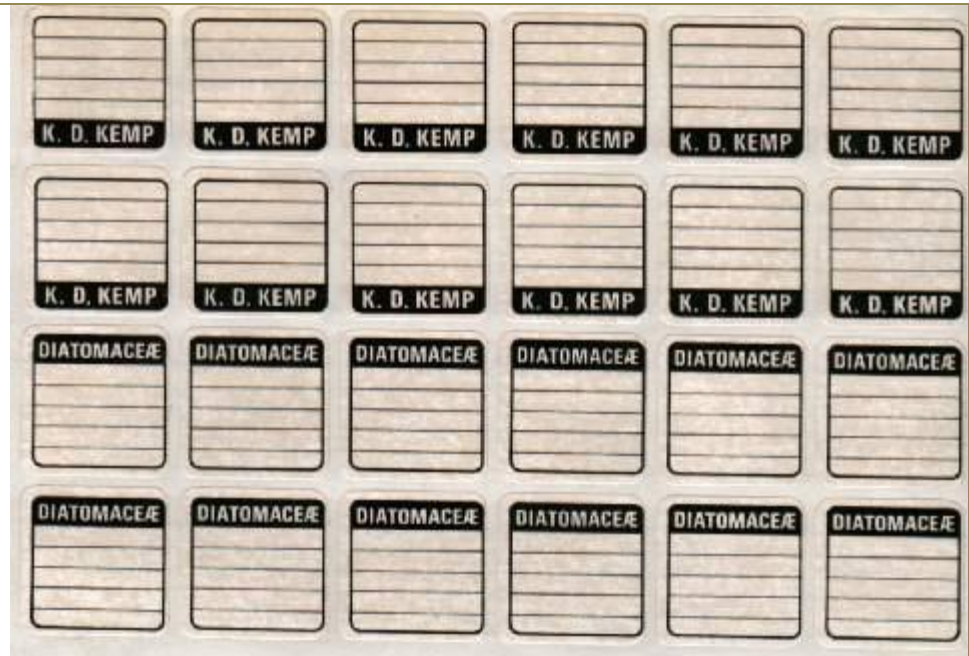
Francis C. Jones (mother), aged 76, a widow, b. City, London

Mary A. Jones (sister), aged 40, a Teacher of Music, b. City, London

Emma L. Jones (sister), aged 34, b. City, London

Fanny C. Morley (sister-in-law) aged 50, living on own means, b. Lincolnshire

	<p>In the 1901 Census @ 11 Eaton Rise, Ealing, Middlesex Henry Chapman Jones, aged 46, a Professor of Chemistry, b. City, London Phoebe Simmons Jones, aged 46, b. Barton-on-Humber, Lincolnshire Arthur Morley Jones, aged 15, b. Chelsea, London Sidney Langton Jones, aged 12, b. Chelsea, London Ernest Malcolm Jones, aged 11, b. Chelsea, London</p> <p>In the 1911 Census @ 11 Eaton Rise, Ealing, W. Henry Chapman Jones, aged 56, a Lecturer in Chemistry and Photography at Imperial College of Science and Technology, b. City of London, Middlesex Phoebe Simmons Jones, aged 56, b. Barton-on-Humber, Lincolnshire Arthur Morley Jones, aged 25, a Bank Clerk for London County and Westminster Bank, b. Chelsea, Middlesex Sydney Langford Jones, aged 22, an Art Student, b. Chelsea, Middlesex</p>
<p>Francis T. Jones</p>	<p>Diatom Bibliography Jones, F.T. / Bean, M.M. - A light and SEM look at enzyme-damaged wheat starch : The Microscope - Vol. 20 pp.333-340, 18 figs. (1972) [Pub. 1972] Jones, F.T. / Wong R. - The optical and crystallographic properties of Strontium Dipicolinate Tetra : The Microscope - Vol. 20 pp.327-331, 4 figs., 1 tbl. (1972) [Pub. 1972] Jones, F.T. - Density separation apparatus : Journal of Sedimentary Petrology - pg.324-325, 2 figs. (Mar 1971) [Pub. 1971] Jones, F.T. - Is it a diatom? (Specimen from Mono Lake, California) : The Microscope - Vol. 35 pp.303-309 (1987) [Pub. 1987] Jones, F.T. - List of publications and patents by Francis T. Jones : Unpublished - pg.7 pp. (Mar 1975) [Pub.] Jones, F.T. - Shutter shadow in photomicrography : Journal of the Biological Photographic Association - Vol. 15 No. 4 pp.193-194 (Jun 1947) [Pub. 1947] Jones, F.T. - Some observations made with a spectrum projected into the plane of the obje : The Microscope - Vol. 20 pp.319-326, 8 figs. (1972) [Pub. 1972] Jones, F.T. - Two apparent exceptions to Abbe's theory on resolution : The Microscope - Vol. 16 No. 1 pp.4-11, 4 pls. (Jan 1968) [Pub. 1968]</p>
<p>E.K. Jordan</p>	<p>Diatom Bibliography Jordan, E.K. / Hertlein, L.G. - Expedition to the Revillagigedo Islands, Mexico, in 1925, VII. Contributio : Proceedings of the California Academy of Sciences, Fourth Series - Vol. 15 No. 14 pp.409-464, pls. 27-34 (22 Jul 1926) [Pub. 1926]</p>
<p>Alan Joyce</p>	
<p>Klaus-Dieter Kemp</p>	<div style="display: flex; justify-content: space-around; align-items: center;">  </div> <p>Kemp, Klaus-Dieter Papers:- Chambers within the Valve of <i>Diadema</i>, Gen. Nov. – In conjunction with T. B. B. Paddock (Department of Botany, British Museum [Natural History], Cromwell Road, London, S.W.7 5BD) – Diatom Research 1989 Volume 4(1), pp39-45. A description of some new species of the Genus <i>Mastogloia</i> with further observations on <i>M. elegans</i> and <i>M. goessii</i> – In conjunction with T. B. B. Paddock (Department of Botany, British Museum [Natural History], Cromwell Road, London, S.W.7 5BD) – Diatom Research 1988 Volume 3(1), pp109-121. An illustrated survey of the morphological features of the diatom genus <i>Mastogloia</i> – In conjunction with T. B. B. Paddock (Department of Botany, British Museum [Natural History], Cromwell Road, London, S.W.7 5BD) – Diatom Research 1990 Volume 5(1), pp73-103. A description of two new species of the diatom Genus <i>Mastogloia</i> with further observations on <i>M. amoyensis</i> and <i>M. gieskesii</i> – In conjunction with T. B. B. Paddock (Department of Botany, British Museum [Natural History], Cromwell Road, London, S.W.7 5BD) – Diatom Research 1990 Volume 5(2), pp311-323.</p>



Born 10th December 1937 in Spandau Berlin Klaus-Dieter Pohl

With the threat of war evacuated to my grandparents in Strigau, Silesia (Polish border) mother remained in Berlin. Captured by the Russians when escaping from Strigau and placed on farms as POW in Czechoslovakia and worked as unpaid workers to the end of the war.

Repatriated to East Berlin (Russian Zone) to a concentration camp I believe it was near Neubrandenburg. Contact was made with mother who had survived but was in the British Zone. Mother ventured in to the Russian Zone to get me out quoting the Geneva convention that mother and child should not be separated, however this was declined as there were serious medical problems mainly malnutrition, however she was able to visit us but only by bribing the guards with cigarettes. We were eventually released to live in Falkensee (East zone) Mother met an English Airman (Eric Kemp) and came to England 1947 she managed to arrange that I should cross the border from East to West with a paid guide, this was before the wall was built with only a strip of no mans land to negotiate, but still a serious problem as those who were seen crossing were not taken prisoners but shot. I was fortunate as the group of seven and guide crossed without incident. The British Red Cross now took over and arranged escorts from there to England, first having to fly out from West Berlin (British Zone) in a DC 10.

Arrived in 48 Barlow Street Bradford Manchester 1948 and started School St. Aidens junior School for the first time in my life. This was not the happiest times with my being unable to speak English and sending me to School in Lederhosen was not one of mother's best ideas. Went from St. Aidens to Grange Street Senior Boys School. I am forever indebted to the Science master who thought I was very interested in the Sciences and tutored me and five other boys to take up Analytical Chemistry, after a short while he recognised I was never going to make it as a chemist and guided me to Biology, arranging on my leaving School to join Flatters and Garnetts Ltd., (Fallowfield) at the age of 16. Wilfred Garnett in some ways took me under his wing and placed me in the preservation department (as a worker rather than an exhibit), this turned out to be one of the life changing events as I was now surrounded by all interesting and fascinating animals and plants, which made me find out as much information as I could get. The workforce at Flatters and Garnetts became an extended family to me and these were some of the best times in my life.

Within three years two heads of department left and with suggestions from the workforce I was given the position of head of the preservation department. I spent lunch times learning much about the other departments, such as Osteology, Dissection, Entomology and the slide department. It was the latter that interested me and the Head of Department (Gordon McKechnie) a true old fashioned British gentleman would sit in the lunch hours producing

	<p>slides of all manner of things, it was inevitable that two slides shaped where I would finish up, One was a Johan Dietrich Moeller arrangement in the form of a star and the other was a John Dalton slide of a Rooster, Hen and Chicks, these raised the question with me, how could the Victorians possibly manipulate such tiny objects into the images?</p> <p>It was at this point that Wilfred Garnett informed me that a large collection of sample tubes from the Reverend Calloway containing Diatoms from the J.A. Long collection were to be conserved by me as the Reverend had developed some eye problems. With boxes of sample tubes of varying sizes sat in front of me I just had to have a dip into one and find out what were Diatoms, from that point my life has been focused on all things Diatoms. I was encouraged to try and make some mounts by Wilfred Garnett, he and Gordon McKechnie gave me as much information and help as they could even getting me access to the Manchester University Botany Department run by Dr. Friend, he arranged for me to have a 35mm photo copy of Schmidt's Atlas, which I still use. I would spend every Saturday morning in the Department looking at the Diatom collection and identifying what I had mounted with what was in the cabinets or literature of the library. It was after some eight years trying out the various formulas given by the Victorians that I made my first real type slides, but was frustrated by the number of failures I was getting, I decided to experiment and develop my own adhesive. This has proved successful and there are now very few failures.</p> <p>The Van driver for Flatters and Garnetts was Frank Mountford and suggested that I might wish to come to his house and meet his sister Sheila, after a seven year courtship (saving up to buy a house) we married on 29th June 1963. We moved to Romiley in Cheshire. Deborah Kirsten Jane Kemp was born 11th June 1967.</p> <p>Sadly Flatters and Garnetts went into liquidation and I was now out of work in a discipline that was not generally required in the outside world and for a while I was unemployed. In 1970 a phone call from Eric Leary Chief technician at Salford University asked me if I would be interested in joining them in the Environmental Resources Department in Garside Street Salford as a technician? This was an interesting insight for me as to the methods and techniques in laboratories. In 1976 having seen a job advertised for a Production Manager with Philip Harris Biological I applied and I joined the Company in Oldmixon Westo-Super-Mare. This was as close as I could get to my initial vocation with Flatters and Garnetts Ltd. Due to political correction and changes in the School curriculum there was an inevitable decline in the way Biology would be taught and once again I was made redundant. It is now at the age of 50 that I realised what a narrow street I had been walking and knew that I had to change my career, I had now a small number of clients who would order slides from me, but the fortunate thing was a slide I made as a request from a friend in the U.S.A. who bought an arrangement of Diatoms making up a Christmas tree, photographed it and sent it as a Christmas card to all of his Microscopy friends, this caused many of them asking where did the arrangement come from? Since then I have supplied the major Companies Turtox, Carolina Biological, Zeiss Jena, Olympus with slides, the most popular being the eight form test plate. With the advent of Computers and the Internet I have been able to contact many people throughout the world and very much helped by Steven Gill who has created a web page for me and provided many gems of information.</p> <p>On moving from Manchester to Somerset I accidentally on a trip to Steephelm met up with a lovely couple Betty and Bernard Hartley, we became the very best of friends and were immediately treated as family. Bernard coming from the North of England had a wicked sense of humour and yet a real gentleman,. We spent many hours on the subject of Diatoms and shared our knowledge, collecting from the wild, it was with great sadness I watched his deteriorating eyesight due to his Diabetes. His last wish was that I should have his Diatom collection which also contained the R.I. Firth collection.</p> <p>Diatom Bibliography Kemp, K.-D. / Paddock, T.B.B. - Chambers within the valve of <i>Diadema</i>, gen. nov. : Diatom Research - Vol. 4 No. 1 pp.p. 39-45 (1989) [Pub. 1989] Kemp, K.-D. / Paddock, T.B.B. - <i>Diademoides</i> nom. nov., a new generic name for <i>Diadema</i> Kemp & Paddock : Diatom Research - Vol. 5 No. 1 pp.199 (1990) [Pub. 1990] Kemp, K.-D. / Paddock, T.B.B. - An illustrated survey of the morphological features of the diatom genus <i>Mas</i> : Diatom Research - Vol. 5 No. 1 pp.73-103 (1990) [Pub. 1990]</p>
<p>Sheila Kemp</p>	 <p>Wife of Klaus-Dieter Kemp (above) – often assisting during collecting trips and a collector in her own right. Sheila found an extremely rare Diatom from the genus <i>Auricula</i> while on holiday in Gran Canaria which is quoted in the following publication Diatom Research and the sample was donated to the British Museum</p> <p>Reference: Paddock, T.B.B., and Sims, P.A., 1980, Observations on the marine diatom genus <i>Auricula</i> and two new genera, <i>Undatella</i> and <i>Proboscidea</i>: <i>Bacillaria</i>, v. 3, p. 161-196.</p>

Frederick Kitton



Diatomist and Microscopist.

A biography of Frederic Kitton was published in *Le Diatomiste*. I'm not sure which number it is but is on page 201 - entitled 'Notice biographique sur M. Frederic Kitton' by Dr. Henri van Heurck. It contains a full list of all his publications.

Published set of Norfolk diatoms, 1881. NORFOLK DIATOMS. Series I-IV, numbers 1-100. 1885. Specimens are strewn mounts on microscope slides. A set as above exists in the Farlow Herbarium - Harvard University.

References - G. A. Walker-Arnott correspondence (Department of Botany, Natural History Museum ; Catalogue of Scientific Papers compiled and Published by the Royal Society VII, 83; X, 407; XII, 387; XVI 299.; Memoir by his son (portrait and bibliography included), 1895; 'Diatomiste', II, 201 (portrait and bibliography included); *Journal of Botany* 1895, 312.; *Journal of the Quekett Microscopical Club* 1895, 152. *Transactions of the Norfolk and Norwich Naturalists Society* VI, 201; *Kittonia* - Grove and Sturt.

Hon. F.R.M.S. (*Science Gossip* January 1882)

Article *Science Gossip* January/February 1882 - Early History of the Diatomaceae.

Science Gossip February 1882 Article reviewing a review - Fineness of Striation as a specific Character of Diatoms.

Science Gossip April 1882 Article - On the Origin of Hair-bell, Foxglove &c. also in the same issue 'Cutting Sections of Coal'.

Science Gossip July 1882 Microscopy Section - another 'Cutting Sections of Coal' article.

Science Gossip August 1882 Microscopy Section - a note explaining the meaning of the sign x in relation to magnification. Also another note on Cutting Coal Sections

Science Gossip September 1882 - Another Article in the on-going saga of 'Cutting sections of coal.'

Science Gossip September 1882 Botany section - Ladies Traces.

Science Gossip October 1882 - A rather terse missive concerning the figure x when used as a magnification term and also a note on the term 'talc' as used in sliders.

Many articles in *Science Gossip* with the initials F.K.

Science Gossip November 1882 - Article 'Preparation of Diatoms.'

Part II of An Essay on the Classification of the Diatomaceae by M. Paul Petit (Translated by F. Kitton, Hon. F.R.M.S.) was read before the Royal Microscopical Society June 6th 1877 and is published in the August 1877 Part CIV of the *Monthly Microscopical Journal* [Transactions of the Royal Microscopical Society]

F. Kitton wrote a chapter on the Polariscopes for Half-hours with the Microscope by E. Lankester, M.D., F.R.S. (1877) Co-Author with J. Deby - A bibliography of the microscope and micrographic studies, part III - The diatomaceae (For private distribution) - 1882

Co-Author - DIATOMS : Directions for collecting, preserving, transporting, preparing and Mounting Specimens of the Diatomaceae. By Prof. Arthur Mead Edwards, M.D.; Prof. Christopher Johnston, M.D. ; Prof. Hamilton L. Smith. LL.D. ; and Frederic Kitton, Esq. - Published by the Industrial Publication Company, New York. 1878 (Note at this time that Arthur Mead Edwards, Prof. Hamilton L. Smith and Frederick Kitton were all honorary members of the QMC. There were so many articles and pieces of correspondence in the pages of *Science Gossip* that the rest of this volume would be taken up by enumerating these.

In 1883 was a Corresponding Member de la Societe Belge de Microscopie.

Samuel Kitton b. circa 1792 Cambridge

In the 1851 Census @ William Street, Heigham, Norwich, aged 58, a Journeyman Tobacconist

In the 1861 Census @ 5 Golding Street, Heigham, Norwich, Norfolk:

Samuel Kitton, aged 69, a Tobacconist, b. ?, Norfolk

In The Bury and Norwich Post, and Suffolk Herald of Tuesday 18th February 1879:

Deaths

On the 10th inst., at 2 Bedford Street, Unthank's Road, Norwich, in his 86th Year, Samuel Kitton.
(2 Bedford Street was Frederic's address in 1871)

m. Eleanor Mileham b. circa 1789 Norwich

In the Bury and Norwich Post: Or Suffolk and Norfolk Telegraph, Essex, Cambridge and Ely Intelligencer of Wednesday 7th December 1825:

Marriages

(Monday 5th December), in St. Peter's Mancroft, Mr. Samuel Kitton, of Cambridge, to Miss E. Mileham, of the above mentioned parish.

In the 1851 Census @ William Street, Heigham, Norwich, aged 61

In the 1861 Census @ 5 Golding Street, Heigham, Norwich, Norfolk:

Eleanor Kitton, aged 71 , b. ? Norfolk

In the Bury and Norwich Post, and Suffolk Herald of Tuesday 22nd February 1870:

Deaths

	<p>On the 11th inst., at Heigham, aged 80, Eleanor, wife of Samuel Kitton possibly BMD Death, aged 78, March Quarter 1870 Norwich Vol.4b. pg.125.</p> <p>— Frederic(k) Kitton b. 24th April 1827 Cambridge, Cambridgeshire bp. 13th May 1827 All Saints, Cambridge parents - Samuel Kitton and Eleanor In the 1851 Census @ William Street, Heigham, Norwich, aged 23, a Clerk to a Tobacconist In the 1861 Census @ Bedford Street, Heigham, Norwich: Frederick Kitton, aged 33, a Tobacconist, b. Cambridge In the 1871 Census @ 2 Bedford Street, Heigham, Norwich, aged 43, a Tobacco Manufacturer In the 1877, 1878, 1879, 1880, 1881 QMC Honorary Members list - Frederick Kitton, Hon. F.R.M.S., &c., 10 Haymarket, Norwich. - elected September 22nd 1876. In the 1881 Census @ Bedford Cross Street, Heigham, Norfolk, aged 53, a Preparer of Microscopic Objects In the 1891 Census @ 8 West Kensington Terrace, Fulham, London: Fred. Kitton, aged 63, a Bookseller and Stationer, b. Cambridge, Cambridgeshire d. 22nd July 1895 London BMD Death, aged 68, September Quarter 1895 Fulham Vol.1a. pg.184. Probate: Kitton, Frederic, of 8 West Kensington Terrace, Middlesex, died 22nd July 1895. Probate London 31st July 1895 to Frederic George Kitton, Artist and Arthur Kitton, accountant. Effects £250.</p> <p>m. Mary Spence b. circa 1832 Alrewas, Staffordshire BMD Marriage September Quarter 1855 Norwich Vol.4b. pg.184. In the 1861 Census @ Bedford Street, Heigham, Norwich: Mary Kitton, aged 27, b. Alrewas, Staffordshire In the 1871 Census @ 2 Bedford Street, Heigham, Norwich, aged 38 In the 1881 Census @ Bedford Cross Street, Heigham, Norfolk, aged 48, a Preparer of Microscopic Objects In the 1891 Census @ 8 West Kensington Terrace, Fulham, London: Mary Kitton, aged 58, b. Alrewas, Staffordshire In the 1901 Census @ Bacton Road, North Walsham, Norfolk: Mary Kitton, aged 68, a widow, a visitor to the household of Frederick Randell (an Ironmonger), b. Alrewas, Staffordshire BMD Death, aged 71, December Quarter 1903 Smallburgh (Norfolk) Vol.4b. pg.40.</p> <p>— Frederic(k) George Kitton b. circa 1855 Norwich, Norfolk BMD Birth June Quarter 1856 Norwich Vol.4b. pg.158. In the 1861 Census @ Bedford Street, Heigham, Norwich: Frederick G. Kitton, aged 4, b. Norwich In the 1871 Census @ 2 Bedford Street, Heigham, Norwich, aged 15, a Scholar In the 1881 Census @ 33 Oakley Crescent, Chelsea, aged 24, a Draughtsman and Engraver on Wood In the 1901 Census @ The Mill House, St. Michaels, St. Albans, Hertfordshire, aged 44, an Author and Artist d. 10th September 1904 @ 49 Beaumont Street, Middlesex BMD Death, aged 48, September Quarter 1904 Marylebone Vol.1a. pg.341. Probate: Kitton, Frederic George, of The Mill House, St. Albans, Hertfordshire, died 10th September 1904 at 49 Beaumont Street, Middlesex. Administration London 20th May 1905 to Emily Eliza Kitton, Widow. Effects £583.</p> <p>m. Emily Clara Eliza Lawford b. circa 1859 Castlemaine, South Australia BMD Marriage March Quarter 1890 Woolwich Vol.1d. pg.1129. In the 1901 Census @ The Mill House, St. Michaels, St. Albans, Hertfordshire, aged 41 d. 19th February 1943 @ Oster House, St. Albans BMD Death, aged 83, March Quarter 1943 St. Albans Vol.3a. pg.1479. Probate: Kitton, Emily Clara Eliza, otherwise Emily Eliza, of 19 Roestock Garden, Colney Heath, St. Albans. Probate Winchester 17th March to Harry John Selborne Boome, Stockbroker. Effects £402 17s.</p> <p>— Arthur Kitton b. circa 1857 Norwich, Norfolk BMD Birth March Quarter 1858 Norwich Vol.4b. pg.166. In the 1861 Census @ Bedford Street, Heigham, Norwich: Arthur Kitton, aged 3, b. Norwich In the 1871 Census @ 2 Bedford Street, Heigham, Norwich, aged 13, a Scholar In the 1881 Census @ Bedford Cross Street, Heigham, Norfolk, aged 23, a Tobacconist</p> <p>— Walter Samuel Kitton b. circa 1861 Norwich, Norfolk BMD Birth September Quarter 1861 Norwich Vol.4b. pg.158. In the 1871 Census @ 2 Bedford Street, Heigham, Norwich, aged 9, a Scholar In the 1881 Census @ Bedford Cross Street, Heigham, Norfolk, aged 19, an unemployed Surveyor (Merchants Clerk) In the 1891 Census @ Goat Street, Haverfordwest, Pembrokeshire, aged 29, a Surveyor of Taxes In the 1901 Census @ 451 Great Western Road, Aberdeen, Scotland, aged 39, a Surveyor of Taxes</p> <p>m. Alice Mary Cook b. circa 1862 Stanmore, Middlesex probably BMD Birth March Quarter 1863 Hendon Vol.3a. pg.93. BMD Marriage March Quarter 1888 Wolverhampton Vol.6b. pg.587. In the 1891 Census @ Goat Street, Haverfordwest, Pembrokeshire, aged 28 In the 1901 Census @ 451 Great Western Road, Aberdeen, Scotland, aged 38</p> <p>— Edith Mary Kitton b. circa 1890 England BMD Birth December Quarter 1890 Wolverhampton Vol.7b. pg.478. In the 1891 Census @ Goat Street, Haverfordwest, Pembrokeshire, aged 6 months In the 1901 Census @ 451 Great Western Road, Aberdeen, Scotland, aged 10, a Scholar</p> <p>— Freda Kitton b. circa 1896 England BMD Birth March Quarter 1897 Atcham Vol.6a. pg.659. In the 1901 Census @ 451 Great Western Road, Aberdeen, Scotland, aged 4</p>
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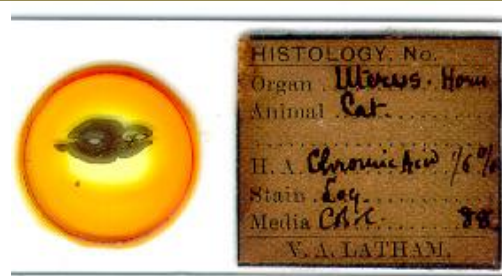
- Edith Kitton b. circa 1863 Norwich, Norfolk
 BMD Birth March Quarter 1864 Norwich Vol.4b. pg.177.
 In the 1881 Census @ Bedford Cross Street, Heigham, Norfolk, aged 17, a Governess
 In the 1891 Census @ 8 West Kensington Terrace, Fulham, London:
 Edith Kitton, aged 27, a Stationer's Assistant, b. Norwich, Norfolk
- George Crownfield Kitton b. circa 1867 Norwich, Norfolk
 BMD Birth December Quarter 1867 Norwich Vol.4b. pg.154.
 In the 1871 Census @ 2 Bedford Street, Heigham, Norwich, aged 3, a Scholar
 In the 1881 Census @ Bedford Cross Street, Heigham, Norfolk, aged 13, a Scholar
 In the 1891 Census @ 8 West Kensington Terrace, Fulham, London:
 George Kitton, aged 24, an Architect and Designer Draughtsman, b. Norwich, Norfolk
 d. 13th May 1947
 BMD Death, George C. Kitton, aged 79, June Quarter 1947 Isle of Wight Vol.6b. pg.657.
 Probate: Kitton, George Crownfield, of North View, Seaview, Isle of Wight, died 12th
 May 1947 at St. Marys Hospital, Newport, Isle of Wight. Probate London
 12th August 1947 to Daisy Rose Kitton, widow. Effects £1272 11s.
- m. Daisy Rose Heeley b. circa 1885 Acton, Hampshire
 BMD Birth September Quarter 1885 Alton Vol.2c. pg.157.
 BMD Marriage September Quarter 1905 Westminster Vol.1a. pg.1192.
 In the 1911 Census @ 103 Riverview Gardens, Barnes, Surrey:
 Daisy Rose Kitton, aged 25, b. Acton, Hampshire
 BMD Death, Daisy R. Kitton, aged 65, March Quarter 1949 Willesden Vol.5f. pg.236.
- Lionel George Kitton b. 29th July 1906 Fulham, London
 BMD Birth September Quarter 1906 Fulham Vol.1a. pg.325.
 In the 1911 Census @ 103 Riverview Gardens, Barnes, Surrey:
 Lionel George Kitton, aged 4, b. Fulham, London
 BMD Death, aged 70, December 1976 Biggleswade Vol.9. pg.0249.
- m. Janet Kathleen Shephard b. 22nd October 1905
 BMD Birth December Quarter 1905 Hendon Vol.3a. pg.241.
 BMD Marriage September Quarter 1935 Hendon Vol.3a. pg.1514.
 BMD Death, aged 71, March 1977 Biggleswade Vol.9. pg.0255.
- Douglas (Cranfield) (Crownfield) Kitton b. 1st August 1910 Barnes, Surrey
 BMD Birth September Quarter 1910 Richmond, Surrey Vol.2a. pg.521.
 In the 1911 Census @ 103 Riverview Gardens, Barnes, Surrey:
 Douglas Cranfield Kitton, aged 8 months, b. Barnes, Surrey
 BMD Death, Douglas Crownfield Kitton, aged 80, February 1991 Harrow Vol.12. pg.1740.
- m. Patricia Mary Docker b. 27th March 1912
 BMD Birth June Quarter 1912 Barnet Vol.3a. pg.836.
 mother's maiden name - Jarvis
 BMD Marriage June Quarter 1940 Yeovil Vol.5c. pg.1228.
 BMD Death, aged 79, February 1992 Brent Vol.11. pg.605.
- Frank Kitton b. circa 1869 Norwich, Norfolk
 BMD Birth March Quarter 1870 Norwich Vol.4b. pg.178.
 In the 1871 Census @ 2 Bedford Street, Heigham, Norwich, aged 1
 In the 1881 Census @ Bedford Cross Street, Heigham, Norfolk, aged 11, a Scholar
 In the 1891 Census @ 8 West Kensington Terrace, Fulham, London:
 Frank Kitton, aged 21, a Draughtsman, b. Norwich, Norfolk
 In the 1901 Census @ 22 Melrose Gardens Hammersmith, London:
 Frank Kitton, aged 31, a boarder, an Artist (Sculptor), b. Norwich, Norfolk
 In the 1911 Census @ 21 Thornton Avenue, Chiswick, W., Middlesex:
 Frank Kitton, aged 41, a boarder, a Scientific Draughtsman, b. Norwich, Norfolk
 d. 5th September 1934
 BMD Death, Frank Kitton, aged 64, September Quarter 1934 Hendon Vol.3a. pg.357.
 Probate: Kitton, Frank, of 61 Warrington Road, Harrow, Middlesex, died 5th September 1934.
 Probate London 4th October 1934 to George Crownfield Kitton, art designer and
 Daisy Rose Kitton (wife of the said George Crownfield Kitton).
 Effects £4696 10s. 11d.
- Florence Kitton b. circa 1871 Norwich, Norfolk
 BMD Birth March Quarter 1872 Norwich Vol.4b. pg.175.
 In the 1881 Census @ Bedford Cross Street, Heigham, Norfolk, aged 9, a Scholar
 In the 1891 Census @ 8 West Kensington Terrace, Fulham, London:
 Florence Kitton, aged 19, a Stationer's Assistant b. Norwich, Norfolk
- Emma Kitton b. circa 1829 Cambridge
 In the 1861 Census @ 5 Golding Street, Heigham, Norwich, Norfolk:
 Emma Roberts (daughter), aged 31, b. Cambridge
- m. John ?Bunn? Roberts b. circa 1828 Norwich, Norfolk
 possibly BMD Marriage September Quarter 1848 Norwich Vol.13. pg.418.
 In the 1851 Census @ Golden Ball Street, St. Michael at Thorn, Norwich, Norfolk:
 living with his parents
 William Roberts, aged 53, a Tailor, b. Necton, Norfolk
 Hannah Roberts, aged 50, b. ? Thorne, Norfolk
 John Roberts (son), aged 22, a Tailor, b. Norwich
 Adonnis Roberts (daughter), aged 16, a Dressmaker, b. Norwich
 Josiah Roberts (son), aged 12, b. Norwich
 Hannah Roberts (daughter), aged 10, a Scholar, b. Norwich
 Emma Roberts (daughter in law), aged 21, a Dressmaker, b. Cambridge, Cambridgeshire

	<p>Emma Roberts (Grand Daughter), aged 6, b. Norwich William Roberts (Grand son), aged 4, b. Norwich In the 1861 Census @ 5 Golding Street, Heigham, Norwich, Norfolk: John Roberts (son-in-law), aged 32, a Tailor, b. Norwich, Norfolk</p> <p>Diatom Bibliography</p> <p>Kitton, F. - "Perley's Meadow" deposit. : Science Gossip - Vol. 4 pp.131-133 (1868) [Pub. 1868] Kitton, F. - A description of some new species of Diatomaceae. : Monthly Microscopical Journal. London. - Vol. 10 pp.205-207, pl. 38. (1873) [Pub. 1873] Kitton, F. - A description of some new species of Diatomaceae. : Grevillea. London (1873). - Vol. 2 pp.110, 8 figs. (1873) [Pub. 1873] Kitton, F. - A new <i>Surirella</i> : Hardwicke's Science Gossip - Vol. 5 pp.61 (1869) [Pub. 1869] Kitton, F. - Conspectus of Diatomaceae. The genus <i>Amphora</i> by Prof. H.L. Smith. : Grevillea. London. - Vol. 2 pp.24, 8 figs. (1873) [Pub. 1873] Kitton, F. - Description of a New Genus of Diatomaceae and observations on the costae of : Quarterly Journal of Microscopical Science, new series. - Vol. 8 pp.16-17. (1868) [Pub. 1868] Kitton, F. - Description of some New Diatomaceae found in the stomachs of Japanese Oyste : Journal of the Quekett Microscopical Club, series 2. - Vol. 2 pp.16-23, pl. 4. (1884) [Pub. 1884] Kitton, F. - Diatomaceae in slides of Santa Monica deposit : Monthly Microscopical Journal - Vol. 16 pp.232 (1876) [Pub. 1876] Kitton, F. - <i>Heliopelta Metii</i>. : (Hardwicke's) Science Gossip. - Vol. 13 pp.65. (1877) [Pub. 1877] Kitton, F. - <i>Hyalodiscus subtilis</i> et <i>H. californicus</i> (et response de M. le prof. H.L. Sm : Brebissonia. - Vol. 1 pp.117-121. (1879) [Pub. 1879] Kitton, F. - Maine Deposits. : Hardwicke's Science Gossip. London. - Vol. 4 pp.85-87, 10 figs. (63-72) (1868) [Pub. 1868] Kitton, F. - Monmouth deposit : Hardwicke's Science-Gossip - pg.156-158, figs. 151-167 (1 Jul 1867) [Pub. 1867] Kitton, F. - Monmouth Deposit. : Hardwicke's Science Gossip 1867. - pg.133-134 (1867) [Pub. 1867] Kitton, F. - Monmouth deposits again : Hardwicke's Science-Gossip - pg.180-181, figs. 181-192 (1 Aug 1867) [Pub. 1867] Kitton, F. - <i>Navicula Durrandii</i> n. sp. : Journal of the Royal Microscopical Society, series 2. - Vol. 5 pp.1042. (1885) [Pub. 1885] Kitton, F. - New Diatoms : Monthly Microscopical Journal - Vol. 12 pp.218-220, lxxxii-lxxxiii, pls. 51-52 (1874) [Pub. 1874] Kitton, F. - New Species of <i>Biddulphia</i> from Fiji (<i>B. echinata</i>). : Journal of the Royal Microscopical Society, 1888. - pg.466. (1888) [Pub. 1888] Kitton, F. - New species of Diatomaceae : Quarterly Journal of Microscopical Science, New Series - Vol. 8 pp.139-143 (1868) [Pub. 1868] Kitton, F. - New species of <i>Navicula</i> (<i>N. venustissima</i>). : Journal of the Royal Microscopical Society, 1889. - pg.101. (1889) [Pub. 1889] Kitton, F. - Note on the Rev. G.L. Mills paper on Diatoms in Peruvian guano. : Journal of the Royal Microscopical Society, series 2. - Vol. 2 pp.476. (1882) [Pub. 1882] Kitton, F. - Notes on New York Diatoms with description of a new species <i>Fragilaria crot</i> : Hardwicke's Science Gossip. - Vol. 5 pp.109-110, 3 fig. (1869) [Pub. 1869] Kitton, F. - Notes on some French Diatomaceae, presented to the Club by Alph. de Brebiss : Journal of the Quekett Microscopical Club. - Vol. 2 pp.37-43, 1 pl. (1870) [Pub. 1870] Kitton, F. - Notes sur quelques Diatomees. : Bulletin de la societe belge de microscopie. - Vol. 5 pp.2 figs. (1878) [Pub. 1878] Kitton, F. - On diatomaceous deposits from Jutland. : Journal of the Quekett Microscopical Club. London. - Vol. 2 pp.168-171, 5 pls. (1870) [Pub. 1870] Kitton, F. - On <i>Hyalodiscus subtilis</i> and <i>H. californicus</i>. (With notes by Prof. H.L. Smi : American Journal of Microscopy. - Vol. 3 pp.357, 8 fig. (1878) [Pub. 1878] Kitton, F. - On some Diatomaceae from the Island of Socotra. : Journal of the Linnean Society, Botany. - Vol. 20 pp.513-515, pl. 48. (1884) [Pub. 1884] Kitton, F. - Remarks on <i>Aulacodiscus formosus</i>, <i>Omphalopelta versicolor</i> etc. with descrip : Monthly Microscopical Journal. London. - Vol. 10 pp.6-9, pl. 21. (1873) [Pub. 1873] Kitton, F. - Remarks on some of the new species of Diatomaceae recently published by the : Quarterly Journal of Microscopical Science, New Series - Vol. 8 pp.13-16 (1868) [Pub. 1868] Kitton, F. - Some new diatomaceous forms from the "Saugstiefler" of Dubravica : Hardwicke's Science-Gossip - pg.36-37, figs. 40-42 (1885) [Pub. 1885] Kitton, F. - The early history of the Diatomaceae. : Science Gossip. - Vol. 16 pp.77, 1 fig. (1880) [Pub. 1880] Kitton, F. - The early history of the Diatomaceae. : Science Gossip. - Vol. 16 pp.133, 6, etc. (1882) [Pub. 1882] Kitton, F. - The Genus <i>Amphitetras</i>. : Hardwicke's Science Gossip. London. - Vol. 3 pp.271-. (1867) [Pub. 1867]</p>
<p>Dr. W. S. Lacey</p>	

Colin Lamb



Vida Annette Latham



Latham, V. A.

Portrait in newspaper cuttings.

Dr. Vida Annette Latham. (b. 4/2/1866 bp. 14th March 1866 at Hindle d. 17/1/1958) - Fellow of the Royal Microscopical Society elected 1887.

In 1920 and 1924 (Miss Vida Annette Latham, M.D., D.D.S.) living at 1644 Morse Avenue, Rogers Park, Chicago, Ill., United States of America

Royal Microscopical Society Members List 1934:

Elected 1887 Latham, Miss Vida Annette, M.D., D.D.S., 1644 Morse Avenue, Roger's Park, Chicago, Ill., United States of America

Qualifications in 1924 - M.D., D.D.S.

Qualifications - Doctor of Dental Science(Surgery), M.D., B.Sc., F.S.Sc, F.M.S., F.R.M.S.

Born at Hindley Hall, Lancashire, she was the tenth child of Dr. John Latham, Millgate Street, Wigan and his wife Mary Anne.

In 1885 noted as 'late Hon. Sec. Norwich Branch U.J.F.C.'

Became a Member of Postal Microscopical Society in July 1884 and remained a member for 3 years - 84/85, 85/86, and 86/87. Addresses given - 1884: 15 Thorncliffe Road, Oxford Road, Manchester and 1886: 70 Portsmouth Street, Oxford Road, Manchester.

In the Journal of the Royal Microscopical Society August 1890 Part 4. 'Miss V. A. Latham., F.R.M.S. - This lady has recently been elected to the Chair of Demonstrator in Pathology in the University of Michigan. Professor Latham is the first lady who has held any office in the Medical Department of the University, and has our congratulations and best wishes for her success. (This was extracted from the American Monthly Microscopical Journal XI [1890] p.10.)

Elected to Quekett Microscopical Society 13th April 1920. In 1939 and 1945 and 1948 Address given as 1644 Morse Avenue, Rogers Park, Chicago, Ill. United States of America

In 1948 quals - M.D., D.D.S., F.R.M.S.

Series of articles in Journal of the Postal Microscopical Society entitled - The Microscope and How to use it. In fifteen parts they consisted of:-

Part I - Introduction - January 1885

Part II - On Mounting Microscopic Objects - April 1885

Part III - On Mounting Microscopic Objects (continued) - July 1885
 Part IV - Practical Histology - October 1885
 Part V —Double Staining etc. – January 1886
 Part VI— Double Staining (continued) - April 1886
 Pa-t VII - Hardening Agents - July 1886
 Part VIII - Agents which harden and at the same time colour the tissues - October 1886
 Part VIII (mis-numbered - should be part IX) - Injecting - January 18-7
 Part X – Injecting (continued)— April 1887
 Part XI – Injecting, etc. (continued) - July 1887
 Par– XII - Section-Cutting - October 1887
 Part XIII - —Cements and Useful Recipes - January 1888
 Part XIV - Practical Notes on Histology - April 1888
 Part XV - Practical Hints on Histology - October 1888
 October 1890 Transactions of the RMS Part 5 Article - Alcoholic Method of Mounting Bryozoa. - Mis– V. A. Latham, when adopting the alcoholic method of mounting, first rings a cell of the brown cement and allows it to harden thoroughly; then, she says. "cover this entirely with balsam and benzol, and when dry again make it slightly sticky by a thin line of balsam which fastens down the cover-glass. Ring over all another layer of the last cement, and when dry use brown cement to completely seal the mount which, when dry, can be finished as the mounter wishes. Or, instead of the above method, after the organisms have been fixed and coloured, pass them through alcohol 30 per cent., 50 per cent., 70 per cent., and absolute, the last at least twice, and let them stand covered for 24 hours. Replace the spirit by pure benzol, remove about a tenth of the alcohol in which the organisms are placed with a pipette, and replace by the same amount of benzol; repeat this a number of times (about twelve) at intervals from 10 to 30 minutes. Great care must be taken that the benzol mixes thoroughly. After the last addition pour the fluid off and substitute pure benzol. At the end of 24 to 48 hours in the benzol, according to the size of the object, a fifth part of the canada balsam dissolved in benzol is added; this is repeated at intervals of from a quarter to half an hour; the objects may now be preserved in the tubes till wanted, or mounted at once. In mounting, care must be taken that each drop holds in suspension a sufficient variety of organisms. The method is not quite so tedious as it appears from the reading."

In 1889 more articles appear in the Postal Microscopical Journal dealing with histology and Preparation of Teeth for Microscopical Examination. Articles in the Journal continued for a considerable period and in 1892 she became an Associate Editor of the by then renamed Journal of Microscopy and Natural Science (Postal Microscopical Society) when on the title page of the journal for that year she was referred to as Prof. V. A. Latham, D.D.S., F.R.M.S., etc. and her address was Chicago University, United States of America By the third quarter of 1892 an article 'Methods of Preparing Sections of Teeth' was published in the Journal when her address was given as University Of Michigan, United States of America Later that year the Journal reprints an article 'Preparing Sections of Teeth for Histology and Bacteriology' which originally appeared in The Dental Register. The 1894 and 1895 title pages for the Journal of Microscopy and Natural Science again give her address as Chicago University. In 1887, V. A. Latham was elected a fellow of the Royal Microscopical Society. After emigrating to the United States of America she entered the University of Michigan where she took her Doctorate in Dental Science (1892). For a period she was Professor of Pathology at Chicago University. She eventually went into Private Practice, having qualified in Medicine at the Northwestern University in 1895, at 1644 Morse Avenue, Rogers Park, Chicago, Illinois (1644 W. Morse) from where she performed the duties of Secretary of the State Microscopical Society of Illinois. Certainly, she was at this address in 1924 (referred to as Miss, so still unmarried, having been quoted in an article about her in the Daily News of 2/4/1957 as saying 'I'm too busy to get married. People should realise marriage isn't romantic, it's give-and-take, a partnership'.) and remained there until she died. On 13/4/1920 she joined the Quekett Microscopical Club. Much revered by her patients and her peers she was named one of the ten Medical Women of the Year by the Boston Chapter of the American Medical Womens Association on 11/11/1956, just over a year prior to her death. During her years in America she made many article contributions to the Proceedings of the American Microscopical Society.

An article about V. A. Latham appeared in The Chicago American (with photograph) on 12th November 1956. In Science gossip of February 1866 there appeared an article 'On Mounting Pathological Specimens' by V. A. Latham, F.M.S.

D. S. Spence, M.B. in 'The Microscope' of November-December 1957 in his famous 'From my notebook' series mentioned Dr. Vida A. Latham, then some 91 years old, ending his article - 'Long life to her!'. By mid-January the following year she had died, just 18 days before her 92nd birthday. Notices of her death appeared in many Illinois State newspapers of the time.

A service in her honour was held at 2.30 p.m. Monday 19th January 1958 in the chapel at 6959 N. Clark, Chicago. A class history compiled in 1896 for the Womens Medical School Northwestern University contains the following entry:-
 Latham, Vida Annette - (F.S.Soc. and F.R.M.S., London, England.) D–D.S. University of Michigan. - Rogers Park Ill. Histology, bacteriology, pathology, microscopy and oral surgery. Vice-President American Microscopical Society. Assistant Professor Pathology. Curator of Museum. Director Microscopical Laboratory and Assistant Secretary N.W.U.W.M. Sch. Pathologist and Dental Surgeon Mary Thompson Hosp. Ex-Professor Dental Pathology, Histology and Bacteriology, American Dental College, Chicago. Ex-Demonstrator Pathology, University of Michigan. Associate Editor International Journal of Microscopy and Natural Science. Corresponding Secretary of Ill. S. Med. Soc.

Received Merit Award from Chicago Technical Societies Council in November 1957.
 Also in 1957 voted 'Woman of the Year' by the Zonta Club, an organisation for professional women.
 Also taught at Rush Medical School.
 Dental degree at University of Michigan in 1892.
 One time Professor of Oral Surgery at American Dental College (Northwestern University Dental School)
 Past president of State Microscopic Society and Medical Womens Club.
 One time on the staff of Mary Thompson Hospital and St. Francis Hospital.
 An organist and pianist, she composed many musical scores. Even tried her hand at 'stone cutting'.
 When she died still had a sister living in the United States - Mrs. H. A. Oldham of Madison.
 Testimonial dinner given in her honour in 1936 by Microscopical Society of Illinois.

Science Gossip April 1887 - Exchanges Column -
 'Wanted. Vols. Of "Northern Microscopist," unbound preferred, to complete set, lowest offers, etc. - V. A. Latham, F.M.S., 70 Portsmouth Street,—Oxford Road, Manchester'

In the Journal of Micrology and Natural History Mirror December 1914 in the General Correspondence section - 'Mounting Starches: Mounting in Glycerine' the letter is printed with the name V. A. Lathom (Chicago United States of America)

In the Journal of Micrology and Natural History Mirror August 1915 in the General Correspondence section - 'Crystals: Santonine and Sulphonal' with the name V. A. Lathom, M.D. (Chicago United States of America)

In the Journal of Micrology and Natural History Mirror February 1916 an Article - Some Diatom Notes by V. A. Lathom, M.D., F.R.M.S. (1644, Morse Avenue, Rogers Park, Chicago, Ill., United States of America) and also 'Rotifers by Polarized Light' by V. A. Lathom.

Latham, V. A - 'Diatoms of New Zealand' published 1945.

The State Microscopical Society of Illinois, United States of America was Present at the Quekett Microscopical Club Conversazione on Tuesday 12th October 1937 at the Rooms of The Royal Society of London, Burlington House, Piccadilly, W.1. In the entry Dr. V. A. Latham and others were noted as showing - Photographs and slides illustrating the work of American Microscopists. Whether Dr. Latham was actually in attendance is unknown.

V. A. Latham, M.D. Member of the New York Microscopical Society 1955 address North West University, College of Physicians & Surgeons, 1644 Morris Ave. Chicago 26, Ill. Stated Interest - Medical Microscopy. In 1957 her address was given as 1644 Morse Avenue, Chicago 26, Ill.

American Society of Microscopists - 1891:

Latham, Miss V. A., joined 1888, Ann Arbor, Mich.

also

Latham, W. G., joined 1890, Board of Trade, Detroit, Mich.

Arrived in Glasgow on 6th July 1898 aboard the Ethiopia sailing from New York

Sailed for New York aboard the Campania leaving Liverpool on 6th May 1899

John Latham b. circa 1802 Wigan

In the 1851 Census @ Millgate, Wigan, aged 49, a widower, M.R.C.S. London L.S.A. London – a General Practitioner

(also living there Thomas Marsden, brother in law, aged 38, a House Proprietor)

In the 1861 Census @ Wigan Road, Hindley, Lancashire, aged 59,

Practising as General Physician and Licentiate of the Edinburgh College of Physicians, Member of the London Royal College of Surgeons etc.

In the 1871 Census @ 28 Millgate, Wigan, aged 69, a Physician and Surgeon, a widower

(also living there one Thomas Marsden, brother in law, aged 58, a Surgeons Assistant, b. Wigan)

The family appears to be split over two households, adjacent, or at least very close to each other.

m. Margaret Morris Marsden

m. 7th February 1831 or 1832 Wigan.

BMD Death March Quarter 1851 Wigan Vol.21. pg.689.

—Peter W. Latham b. circa 1832 Wigan

In the 1851 Census @ Millgate, Wigan, aged 18, a Scholar

In the 1861 Census @ 12 Montague Terrace, Bloomsbury, aged 28, a Medical Student (B.A. Fellow Downing Coll.), a boarder

—Robert Marsden Latham b. circa 1834 Wigan

In the 1851 Census @ Millgate, Wigan, aged 16, a Scholar

In the 1861 Census @ York Place, Richmond, aged 26, a Barrister at Law, a boarder

m. Mary Ann Lever Rowbottom b. circ Waterton Nr. Liverpool

BMD Marriage December Quarter 1858 Liverpool Vol.8b. pg.443.

In the 1861 Census @ York Place, Richmond, aged 22

—James Bevan Latham b. circa 1840 Wigan

BMD Birth March Quarter 1840 Wigan Vol.21. pg.828.

In the 1851 Census @ Millgate, Wigan, aged 11, a Scholar

In the 1861 Census @ Wigan Road, Hindley, Lancashire, aged 21, a Student Mining Engineer

In the 1871 Census @ Birkdale Cottage, Birkdale, aged 31, a Mining Engineer

In the 1881 Census @ 237 Low Green Road, Hindley, aged 41, a Mining Engineer

BMD Death, aged 56, September Quarter 1896 Stockport Vol.8a. pg.40.

m. Mary Elizabeth Ellison b. circa 18cashire

BMD Marriage September Quarter 1863 Wigan Vol.8c. pg.19.

In the 1871 Census @ Birkdale Cottage, Birkdale, aged 29

In the 1881 Census @ 237 Low Green Road, Hindley, aged 39

BMD Death, aged 55, March Quarter 1897 Stockport Vol.8a. pg.67.

—Minnie Latham b. circa 1864 Hindley In the 1881 Census @ 237 Low Green Road, Hindley, aged 16

—Charles Latham b. circa 1868 Birkdale In the 1871 Census @ Birkdale Cottage, Birkdale, aged 2

—Margaret Hannah W. Latham b. circa 1846 Wigan

In the 1851 Census @ Millgate, Wigan, aged 4, a Scholar

In the 1861 Census @ Wigan Road, Hindley, Lancashire, aged 14, a Scholar

In the 1871 Census @ 5, Latham's Yard, Wigan, aged 24, a Scholar

In the 1881 Census @ Peel Park Gardens, Accrington, aged 34, a Lady, a boarder

BMD Death, aged 42, September Quarter 1889 Burnley Vol.8e. pg.178.

—Ma(ry) Elizabeth Latham b. circa 1850 Wigan

In the 1851 Census @ Millgate, Wigan, aged 20 wks/months or 2 months

In the 1861 Census @ Wigan Road, Hindley, Lancashire, aged 10, a Scholar

In the 1871 Census @ 5, Latham's Yard, Wigan, aged 20, a Scholar

m. Mary Anne Whaley b. circa 1830 Wroughtington, Lancashire

	<p>BMD Marriage June Quarter 1856 Wigan Vol.8c. pg.44. In the 1861 Census @ Wigan Road, Hindley, Lancashire, aged 31 d. prior to 1871</p>
—	<p>Adah Annie Latham b. circa 1856 Wigan (Hindley) BMD Birth June Quarter 1857 Wigan Vol.8c. pg.63. In the 1861 Census @ Wigan Road, Hindley, Lancashire, aged 4 In the 1871 Census @ 28 Millgate, Wigan, aged 14, a Scholar In the 1881 Census @ 18 St. James Terrace, Wigan, aged 24</p>
m.	<p>James Lyon b. circa 1854 Wigan BMD Marriage December Quarter 1877 Wigan Vol.8c. pg.36. In the 1881 Census @ 18 St. James Terrace, Wigan, aged 26, a Commercial Traveller</p>
—	<p>Frank John E. O. Lyon b. 1878 Wigan BMD Birth December Quarter 1878 Wigan Vol.8c. pg.54. In the 1881 Census @ 18 St. James Terrace, Wigan, aged 2</p>
—	<p>James Reginald Lyon b. circa 1879 Ormskirk BMD Birth March Quarter 1880 Ormskirk Vol.8b. pg.782. In the 1881 Census @ 18 St. James Terrace, Wigan, aged 1</p>
—	<p>Ma(r)y Zillah Evelinda Latham b. circa 1858 Wigan BMD Birth September Quarter 1858 Wigan Vol.8c. pg.60. In the 1861 Census @ Wigan Road, Hindley, Lancashire, aged 2 In the 1871 Census @ 28 Millgate, Wigan, aged 12, a Scholar</p>
—	<p>John Cuthbert Latham b. circa 1859 Wigan BMD Birth March Quarter 1860 Wigan Vol.8c. pg.81. In the 1861 Census @ Wigan Road, Hindley, Lancashire, aged 1 In the 1871 Census @ 5, Latham's Yard, Wigan, aged 11, a Scholar</p>
—	<p>Helen Aminta Latham b. circa 1861 Wigan BMD Birth December Quarter 1861 Wigan Vol.8c. pg.61. In the 1871 Census @ 5, Latham's Yard, Wigan, aged 9, a Scholar In the 1881 Census @ Oxford House, Unthanks Road, Heigham, Norfolk, a boarder, aged 19, a Scholar</p>
—	<p>Vida Anny (Annette) Latham b. circa 1865 Wigan BMD Birth March Quarter 1866 Wigan Vol.8c. pg.82. In the 1871 Census @ 5, Latham's Yard, Wigan, aged 5, a Scholar In the 1881 Census @ Oxford House, Unthanks Road, Heigham, Norfolk, a boarder, aged 15, a Scholar</p>
	<p>Member of The American Society of Microscopists 1890 (Joined 1888) Miss V. A. Latham @ Ann Arbor, Mich.</p>

BIRTHDAY TUESDAY

Lady Doctor, 91, Too Busy to Wed

Dr. Vida A. Latham is still too busy to think of getting married—she will be 91 Tuesday.

"I still have my medical and dental practices," she told the Daily News. "And then I'm doing quite a bit of research."

Her present scientific work, she said, is with deep sea lime deposits in her home, office and laboratory at 1644 Morse.

"There seems to be no end to their uses," she said. "They're used in cleaning preparations, as petroleum filters, sugar filters . . .

* * *
"NOT AN industry today isn't working with them," she said.

Dr. Latham said she never married, but not because she doesn't like men.

"We women couldn't do without them," she said, "and vice versa.

"But nowadays people aren't careful of their choice.

* * *
"THEY jump into matrimony thinking only of looks. They should realize marriage isn't romance, it's give-and-take, a partnership."

Dr. Latham doesn't drink or smoke, and she never has.

"But I have my vices. I read too much, when I shouldn't read. And I've got a terrible temper . . . like an English bulldog."

The doctor was born in Lancashire, England. She came to the United States to study

dentistry at the University of Michigan in 1889.

* * *
LATER she earned her medical degree at Northwestern University.

"I've practiced for 68 years. Most of my patients are businessmen—one has been coming to me for 60 years.

"He was 85 years old Friday, and he dropped by to tell me, 'Thank God, you're still alive. You don't try to butcher me.'"

* * *
DR. LATHAM has "three or four" degrees.

"Degrees don't amount to anything, though," she said.

"Look at these Harvard medical graduates — some don't know how to put on a bandage.

"A Cornell man is worth ten Harvard men," she insisted.

[Chicago?]

Daily News

2-4-57

VIDA LATHAM, 91, PHYSICIAN, WRITER, DIES

Former Teacher; Also

Was a Composer

Dr. Vida Latham, 91, physician and dentist since 1895, died yesterday in her home at 1644 Morse Av. She also had her office there.

In addition to her private practice, Dr. Latham devoted much time to research and to writing for medical and scientific publications. She had been honored many times by medical groups.

Dr. Latham came to the United States from her native England when she was 21. She was the youngest of a family of 10. She got her degree in dentistry from the University of Michigan in 1892 and three years later received her medical doctorate from Northwestern University.

Given Award in 1936

Last November she was given a merit award by the Chicago Technical Societies Council. In 1936, the Micro-

Chicago
Tribune
18th January
1958

scopical Society of Illinois recognized her work in microscopic science with a testimonial dinner.

On her 90th birthday, Nov. 11, 1956, she was named "medical woman of the year." Last year, the Zonta club, an organization of professional women of which she was a member, named her "woman of the year."

Taught in Three Schools

At one time she taught medicine at Rush Medical college, the University of Chicago, and Northwestern university.

She was an accomplished organist and pianist and had composed many musical scores. There was hardly an art or craft she hadn't tried. Her latest was stone cutting.

Surviving is a sister, Mrs. H. A. Oldham of Madison, Wis. Services will be held at 2:30 p. m. Monday in the chapel at 6959 Clark St.

	<p><i>Chicago Sun Times 1/18/58</i></p> <h2 style="text-align: center;">Vida Latham, 91, Noted Doctor-Dentist, Dead</h2> <p style="text-align: right;"><i>Wounded 95</i></p> <p>Dr. Vida A. Latham, 91, who wished only to live long enough to see "a bit more peace in the world, died Friday in her home at 1644-W. Morse.</p> <p>Dr. Latham, one of Chicago's oldest practicing doctor-dentists, was the youngest of 10 children of an English physician.</p> <p>She came to the United States in the 1880s. In 1892 she received a dental degree from the University of Michigan and went to attend the Women's Medical College at Northwestern University, from which she was graduated in 1895.</p> <p style="text-align: center;">Instructor At NU</p> <p>For many years she taught histology, pathology, bacteriology and oral surgery at Northwestern.</p> <p>Dr. Latham was also a professor of oral surgery at the old American Dental College, now the Northwestern University Dental School.</p> <p>She was formerly on the staff of the Mary Thompson Hospital, Chicago, and St. Francis Hospital in Evanston.</p> <p>She was a past president of the State Microscopic Society of Illinois and the Medical Women's Club and a member of numerous national and international medical groups.</p> <p style="text-align: center;">Woman Of The Year</p> <p>Dr. Latham was named one of the "10 Medical Women of the Year" in 1957 by the Boston Chapter of the American Medical Women's Assn.</p> <p>Surviving is a sister, Mrs. H. A. Oldham of Madison, Wis.</p> <p>Services will be held at 2:30 p.m. Monday in the chapel at 6959 N. Clark. Burial will be private.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p style="text-align: center;"><i>[Chicago]</i> <i>Herald-American</i></p> <p>DR. VIDA A. LATHAM, 91, of 1644 Morse st., physician and dentist since 1895, will be buried Monday following 2:30 p.m. in the chapel at 6959 N. Clark st. Dr. Latham, who was one of Chicago's oldest practicing doctors, died yesterday in her home, which she also used as an office. The youngest of 10 children of an English physician, Dr. Latham came to the United States in the 1880s and in 1892 received a dental degree from the University of Michigan. She graduated from Women's Medical College at Northwestern University, where she later taught, in 1895. Dr. Latham also was a professor of oral surgery at the old American Dental College, now the Northwestern University Dental School. She formerly was on the office staffs of the Mary Thompson Hospital and St. Francis Hospital. She was a past president of the State Microscopic Society and the Medical Women's Club. In 1957 the Boston Chapter of the American Medical Women's Assn. named her one of the 10 medical women of the year. She is survived by a sister.</p> <p style="text-align: right;"><i>also received 1957 Merit Award from Chicago Technical Societies Council - (Nov. 1957)</i></p> </div> <p>Diatom Bibliography</p> <p>Latham, V.A. , - The Diatoms of New Zealand.[Diatom Notes -Pub.1945 : Vol.9 : pg.26-Jan]</p> <p>Latham, V.A. / (?) - Diatom Notes #7 : On American diatom deposits and polishing powder earth.[Diatom Notes. 7. -Pub.State Microscopical Society of Illinois.]</p> <p>Latham, V.A. - A brief review of early microscopy : The Lens - Vol. 1 No. 1 pp.3-4 (May 1939) [Pub. 1939]</p> <p>Latham, V.A. - A plea for symposium work, pondlife and new methods of Narcotizing Polyzoa : Transactions of the American Microscopical Society - pg.67-70 (Dec 1909) [Pub. 1909]</p> <p>Latham, V.A. - American diatomite deposits and polishing powder earths : Diatom Notes, State Microscopical Society of Illinois - Vol. 7 pp.11 pp. (1943?) [Pub. 1943]</p> <p>Latham, V.A. - Early flourite objective : Micro Notes - Vol. 4 No. 1 pp.11-12 (Jan-Mar 1949) [Pub. 1949]</p> <p>Latham, V.A. - In memoriam Jens Egede Nielsen : Micro-Notes - Vol. 5 No. 2 pp.52-55 (Apr-Jun 1950) [Pub. 1950]</p> <p>Latham, V.A. - Symposium on Microscopy : Micro Notes - Vol. 3 No. 4 pp.63-68 (Dec 1948) [Pub. 1948]</p> <p>Latham, V.A. - Symposium on Microscopy : Micro Notes - Vol. 3 No. 2 pp.31-32 (Jun 1948) [Pub. 1948]</p> <p>Latham, V.A. - Symposium on Microscopy (continued from last issue) : Micro Notes - Vol. 3 No. 3 pp.45-47 (Sep 1948) [Pub. 1948]</p> <p>Latham, V.A. - The diatoms of New Zealand : Diatom Notes, State Microscopical Society of Illinois - Vol. 9 pp.1-26 (Jan 1945) [Pub. 1945]</p>
G. Lester	
H.C. Lister-Green	

J.A. Long



Long, J. A.
 John Albert Long (1863?-1944?).
 Diatomist
 J. A. Long collection of diatoms (in tubes) with K. D. Kemp.
 Addresses in Keighley, Bradford and latterly Menston, Leeds.
 Schoolmaster by occupation.
 Taught at Westgate Hill School
 Taught to mount diatoms by W. A. Firth

1889

1920

John Albert Long signature - 1911 Census

Benjamin Long b. circa 1810 Yeadon, Yorkshire
 In the 1841 Census @ Yeadon:
 Benjamin Long, aged 25+, a Slubber Woollen
 In the 1851 Census @ Carlton Road, Yeadon:
 Benjamin Long, aged 40, a Slubber, b. Yeadon, Yorkshire
 In the 1861 Census @ Moor Field Place, Yeadon, Yorkshire, aged 50, a Woollen Slubber
 (Living next door at Carlion Road is Ruth Dawson, aged 39, a widow, who son Edmund marries in 1861/2)
 In the 1871 Census @ Carlton Road, Yeadon, aged 60, a Gardener
 d. before 1881 Census

m. Mary Dawson b. circa 1813 Yeadon, Yorkshire
 m. 25th December 1834 St. Oswald, Guisley, Yorkshire, after Banns
 Benjamin signed his name
 Mary made her mark
 Witnesses: James Yeadon and John Rawnsley
 In the 1841 Census @ Yeadon:
 Mary Long, aged 25+
 In the 1851 Census @ Carlton Road, Yeadon:
 Mary Long, aged 37, b. Yeadon, Yorkshire
 In the 1861 Census @ Moor Field Place, Yeadon, Yorkshire, aged 47
 (also her mother, aged 75, a widow, living on interest of property, b. Yeadon, Yorkshire)

In the 1871 Census @ Carlton Road, Yeadon, aged 57
 In the 1881 Census @ High Street, Queen Street, Yeadon, aged 67, a Housekeeper
 In the 1891 Census @ 13 Tadman Street, Alvethorpe with Thornes, Yorkshire:
 Mary Long, aged 77, a widow, b. Yeadon, Yorkshire
 living with daughter Ellen
 possibly BMD Death, aged 79, June Quarter 1893 Wakefield Vol.9c. pg.47.
 or BMD Death, aged 79, March Quarter 1894 Dewsbury Vol.9b. pg.435.

—Emma Long b. circa 1835 Yeadon
 bp. 24th January 1836 St. Oswald, Guiseley
 parents - Benjamin (a Slubber) and Mary Long, of Yeadon
 In the 1841 Census @ Yeadon:
 Emma Long, aged 5
 In the 1851 Census @ Carlton Road, Yeadon:
 Emma Long, aged 15, a Factory Girl, b. Yeadon, Yorkshire
 In the 1861 Census @ Bradley Hill, Bramley, Leeds:
 Emma Wilkinson, aged 25, b. Yeadon, Yorkshire
 also present her sister Ellen
 In the 1871 Census @ Stanningley, Pudsey, Yorkshire:
 Emma Wilkinson, aged 35, b. Yeadon, Yorkshire
 In the 1881 Census @ William Street, Bramley, Leeds:
 Emma Wilkinson, aged 45, b. Yeadon, Yorkshire
 In the 1891 Census @ 3 Town Street, Bramley, Leeds:
 Emma Wilkinson, aged 55, b. Yeadon, Yorkshire
 BMD Death, aged 60, September Quarter 1896 Bramley Vol.9b. pg.210.
 bu. 21st August 1896 St. Thomas, Stanningley, aged 60, of Town Street, Stanningley

m. William Wilkinson b. 28th September 1834 Armley, Yorkshire
 bp. 30th November 1834, St. Peter, Leeds
 parents - Joseph (a Dyer) and Mary Wilkinson, of Armley
 m. 1st March 1858 St. Peter, Leeds, after Banns
 William Wilkinson, aged 22, a Bachelor, a Mechanic, of Bramley
 father - Joseph Wilkinson, a Dyer
 Emma Long, aged 21, a Spinster, of Bramley
 father - Benjamin Long, a Slubber
 Both signed their name
 Witnesses: George Wood (made his mark) and Sarah Long (signed)
 BMD Marriage March Quarter 1858 Leeds Vol.9b. pg.324.
 In the 1861 Census @ Bradley Hill, Bramley, Leeds:
 William Wilkinson, aged 26, an Engine Fitter, b. Armley, Yorkshire
 In the 1871 Census @ Stanningley, Pudsey, Yorkshire:
 William Wilkinson, aged 36, an Engine Fitter at Works, b. Armley, Yorkshire
 In the 1881 Census @ William Street, Bramley, Leeds:
 William Wilkinson, aged 46, a Grocer, b. Armley, Leeds
 In the 1891 Census @ 3 Town Street, Bramley, Leeds:
 William Wilkinson, aged 56, a Grocer and Draper, b. Armley, Yorkshire
 son Joseph (now married) around the corner @ 1 School Terrace
 In the 1901 Census @ 2 William Street, Bramley, Yorkshire:
 William Wilkinson, aged 66, a widower, a retired Grocer, b. Armley, Yorkshire
 In the 1911 Census in Bramley, Yorkshire registration district:
 William Wilkinson, aged 76
 possibly bu. St. Thomas, Stanningley, 24th May 1916, aged 81,
 of 58 Milvike? Place, Woodham Ridge

—Joseph Wilkinson b. 29th December 1858 Bramley, Yorkshire
 bp. 20th March 1859 St. Thomas, Stanningley
 parents - William (an Engineer) and Emma Wilkinson, of Bradley Hill
 In the 1861 Census @ Bradley Hill, Bramley, Leeds:
 Joseph Wilkinson, aged 2, b. Bramley, Yorkshire
 In the 1871 Census @ Stanningley, Pudsey, Yorkshire:
 Joseph Wilkinson, aged 12, a Scholar, b. Stanningley, Yorkshire
 In the 1891 Census @ 1 School Terrace, Bramley, Yorkshire:
 Joseph Wilkinson, aged 32, a Butcher and Beer Retailer, b. Stanningley, Yorkshire
 In the 1901 Census @ 1 School Terrace, Bramley, Yorkshire:
 Joseph Wilkinson, aged 42, a Butcher and Beer Retailer, b. Stanningley, Yorkshire
 d. 2nd March 1904
 BMD Death, aged 45, March Quarter 1904 Bramley Vol.9b. pg.241.
 bu. 5th March 1904 St. Thomas, Stanningley, aged 45 years, of 5 Town Street, Stanningley
 Probate: Wilkinson, Joseph, of 5 Town Street, Stanningley, Leeds, died 2nd March 1904.
 Probate Wakefield 12th March 1904 to Fanny Wilkinson, widow. Effects £482 5s. 6d.

m. Fanny Richmond b. circa 1857 Adel, Yorkshire
 BMD Birth September Quarter 1857 Otley Vol.9a. pg.116.
 m. 11th September 1880 St. Thomas, Stanningley, after Banns
 Joseph Wilkinson, aged 21, a Bachelor, a Clerk, of Stanningley
 father - William Wilkinson, a Grocer
 Fanny Richmond, aged 22, a Spinster, of Stanningley
 father - John Richmond, a Farmer
 Both signed their name
 Witnesses: Charles Williams (signed) and Betty Danborough (made her mark)
 In the 1891 Census @ 1 School Terrace, Bramley, Yorkshire:
 Fanny Wilkinson, aged 33, b. Adel, Yorkshire
 In the 1901 Census @ 1 School Terrace, Bramley, Yorkshire:
 Fanny Wilkinson, aged 43, b. Leeds, Yorkshire
 d. 7th August 1906
 BMD Death, aged 48, September Quarter 1906 Bramley Vol.9b. pg.210.
 bu. 10th August 1906 St. Thomas, Stanningley, aged 48, of Town Street, Stanningley

		<p>Probate: Wilkinson, Fanny, of 5 Town Street, Stanningley, Leeds, widow, died 7th August 1906. Probate Wakefield 20th August 1906 to John William Wilkinson, butcher and Harold Wilkinson, iron-turner. Effects £575 16s. 8d.</p> <p>—John William Wilkinson b. circa 1881 Stanningley, Yorkshire In the 1891 Census @ 1 School Terrace, Bramley, Yorkshire: John Wm. Wilkinson, aged 9, a Scholar, b. Stanningley, Yorkshire In the 1901 Census @ 1 School Terrace, Bramley, Yorkshire: John William Wilkinson, aged 18, an Insurance Agent, b. Stanningley, Yorkshire</p> <p>—Harold Wilkinson b. 10th April 1884 Stanningley, Yorkshire bp. 25th May 1884 St. Thomas Stanningley parents - Joseph (a shopkeeper) and Fanny Wilkinson, of Stanningley In the 1891 Census @ 1 School Terrace, Bramley, Yorkshire: Harold Wilkinson, aged 7, a Scholar, b. Stanningley, Yorkshire In the 1901 Census @ 1 School Terrace, Bramley, Yorkshire: Harold Wilkinson, aged 16, a Steam Crane Mechanic, b. Stanningley, Yorkshire In the 1911 Census in Bramley, Yorkshire registration district: Harold Wilkinson, aged 27</p> <p>—Mary Emma Wilkinson b. circa 1887 Stanningley, Yorkshire bp. 7th August 1887 St. Thomas, Stanningley parents - Joseph (a Butcher) and Fanny Wilkinson, of Stanningley In the 1891 Census @ 1 School Terrace, Bramley, Yorkshire: Mary E. Wilkinson, aged 3, b. Stanningley, Yorkshire In the 1901 Census @ 1 School Terrace, Bramley, Yorkshire: Mary Emma Wilkinson, aged 13, b. Stanningley, Yorkshire</p> <p>—Clara Wilkinson b. circa 1889 Stanningley, Yorkshire In the 1891 Census @ 1 School Terrace, Bramley, Yorkshire: Clara Wilkinson, aged 1, b. Stanningley, Yorkshire In the 1901 Census @ 1 School Terrace, Bramley, Yorkshire: Clara Wilkinson, aged 11, b. Stanningley, Yorkshire</p> <p>—Charles Frederick Wilkinson b. circa 1874 Stanningley, Yorkshire BMD Birth December Quarter 1874 Bramley Vol.9b. pg.376. In the 1881 Census @ William Street, Bramley, Leeds: Charles F. Wilkinson, aged 6, a Scholar, b. Stanningley, Yorkshire In the 1891 Census @ 3 Town Street, Bramley, Leeds: Charles F. Wilkinson, aged 16, a Grocer's Assistant, b. Stanningley, Yorkshire In the 1901 Census @ 2 William Street, Bramley, Yorkshire: Charles Fredk. Wilkinson, aged 26, a Grocer's Assistant and Postman, b. Stanningley, Yorkshire In the 1911 Census in Bramley, Yorkshire registration district: Charles Frederick Wilkinson, aged 36 (though not at the same address as wife and child) d. 14th July 1915 BMD Death, aged 40, September Quarter 1915 Bramley Vol.9b. pg.281. bu. 17th July 1915 St. Thomas, Stanningley, aged 40, of 3 Town Street Probate: Wilkinson, Charles Frederick, of 3 Town Street, Stanningley, Yorkshire died 14th July 1915. Probate Wakefield 19th August 1915 to Henrietta Wilkinson, widow. Effects £400 16s. 3d.</p> <p>m. Henrietta Faulkner b. circa 1875 Melton Mowbray, Leicestershire m. 21st May 1900 St. Paul, Pudsey, after Banns Charles Frederick Wilkinson, aged 25, a Bachelor, a Grocer and Postman, of 3 Town Street, Stanningley father - William Wilkinson, a Grocer Henrietta Faulkner, aged 24, a Spinster, of Ebenezer Square, Stanningley father - George Faulkner, a Contractor Both signed their name Witnesses: Harry Pollard, Hubert Lockwood, Lydia Ann Faulkner and Mary Emma Wilkinson BMD Marriage June Quarter 1900 North Bierley Vol.9b. pg.413. In the 1901 Census @ 2 William Street, Bramley, Yorkshire: Henrietta Wilkinson, aged 25, b. Melton Mowbray, Leicestershire In the 1911 Census in Bramley, Yorkshire registration district: Henrietta Wilkinson, aged 35</p> <p>—Kathleen Wilkinson b. circa 1908 BMD Birth September Quarter 1908 Bramley Vol.9b. pg.293. In the 1911 Census in Bramley, Yorkshire registration district: Kathleen Wilkinson, aged 2</p> <p>—Sarah Long b. circa 1838 Yeadon, Yorkshire bp. 25th June 1837 St. Oswald, Guiseley parents - Benjamin (a Slubber) and Mary Long, of Yeadon In the 1841 Census @ Yeadon: Sarah Long, aged 4 In the 1851 Census @ Carlton Road, Yeadon: Sarah Long, aged 13, a Factory Girl, b. Yeadon, Yorkshire</p> <p>—Edmund Long b. circa 1838 Yeadon, Yorkshire possibly BMD Birth June Quarter 1839 Otley Vol.23. pg.490. bp. 2nd June 1839 St. Oswald, Guiseley parents - Benjamin (a Slubber) and Mary Long, of Yeadon In the 1841 Census @ Yeadon: Edmund Long, aged 2</p>
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		<p>In the 1851 Census @ Carlton Road, Yeadon: Edmund Long, aged 11, a Factory Boy, Scholar, b. Yeadon, Yorkshire In the 1861 Census @ Moor Field Place, Yeadon, Yorkshire, aged 22, a Woollen Cloth Weaver In the 1871 Census @ Moor Lane, Yeadon, Yorkshire, aged 31, a Warp Dresser In the 1881 Census @ 23 Barden Street, Armley, Leeds, aged 41, a Warp Dresser In the 1891 Census @ 13 Shoreham Road, Wortley, Leeds, aged 51, a Warp Dresser BMD Death, aged 62, December Quarter 1901 Bramley Vol.9b. pg.250.</p> <p>m. Ruth Dawson (nee Hudson) b. circa 1821 Yeadon, Yorkshire In the 1851 Census @ Carlton Road, Yeadon: Ruth Dawson, aged 29, b. Yeadon This address was next door to the Long family where Edmund lived, aged 11 In the 1861 Census @ Carlton Road, Yeadon: Ruth Dawson, aged 39, a widow, a Woollen Cloth Spinner, b. Yeadon This address was next door to the Long family where Edmund lived, aged 22 Banns read St. Thomas, Huddersfield 9th February, 16th February, 23rd February 1862. m. 1st March 1862 St. John's, Yeadon Edward Long??, of Full Age, a Bachelor, a Clothier, of Yeadon father - Benjamin Long, a Slubber Ruth Dawson, of full age, a Widow, of Yeadon father - Samuel Hudson, a Clothier Both signed their name Witnesses: Reuben Mawson and Sarah Mawson (Note: The register entry is Edward Long, as is the signature. How does this tie up with actual name - Edmund) BMD Marriage March Quarter 1862 Wharfedale Vol.9a. pg.170. In the 1871 Census @ Moor Lane, Yeadon, Yorkshire, aged 49 In the 1881 Census @ 23 Barden Street, Armley, Leeds, aged 59 In the 1891 Census @ 13 Shoreham Road, Wortley, Leeds, aged 69 BMD Death, aged 75, June Quarter 1897 Leeds Vol.9b. pg.285.</p> <p>previous m. Edmund Dawson b. circa 1821 Yeadon m. 17th April 1843 St. Oswald, Guiseley Edmund Dawson, of full age, a Bachelor, a Clothier, of Yeadon father - Benjamin Dawson, a Clothier Ruth Hudson, of full age, a Spinster, of Yeadon father - Samuel Hudson, a Clothier Edmund Dawson signed his name Ruth Hudson made her mark Witnesses: Samuel Hudson and Benjamin Long BMD Marriage June Quarter 1843 Otley Vol.23. pg.377. In the 1851 Census @ Carlton Road, Yeadon: Edmund Dawson, aged 29, a Clothier, b. Yeadon</p> <p>—Sarah Dawson b. circa 1843 Yeadon, Yorkshire bp. 8th October 1843 St. Oswald, Guiseley parents - Edmund (a Clothier) and Ruth Dawson, of Yeadon In the 1851 Census @ Carlton Road, Yeadon: Sarah Dawson, aged 7, a Scholar, b. Yeadon In the 1861 Census @ Carlton Road, Yeadon: Sarah Dawson, aged 17, a Woollen Cloth Spinner, b. Yeadon</p> <p>—Benjamin Dawson b. circa 1844 Yeadon bp. 23rd February 1845 St. Oswald, Guiseley parents - Edmund (a Clothier) and Ruth Dawson, of Yeadon In the 1851 Census @ Carlton Road, Yeadon: Benjamin Dawson, aged 6, a Scholar, b. Yeadon In the 1861 Census @ Carlton Road, Yeadon: Benjamin Dawson, aged 16, a Woollen Cloth Spinner, b. Yeadon In the 1871 Census @ Moor Lane, Yeadon, Yorkshire: Benjamin Dawson, aged 26, a Warp Dresser, b. Yeadon In the 1881 Census @ Cemetery Road, Yeadon, Yorkshire: Benj. Dawson, aged 36, a Warp Dresser, b. Yeadon, Yorkshire possibly BMD Death, aged 38, June Quarter 1883 Wharfedale Vol.9a. pg.123.</p> <p>m. Sarah Jane Malthouse b. circa 1847 Yeadon, Yorkshire BMD Birth March Quarter 1848 Otley Vol.23. pg.488. bp. 7th May 1848 St. Oswald, Guiseley parents - John (a Farmer) and Jane Malthouse, of Yeadon m. 12th November 1877 St. John, Yeadon, after Banns Benjamin Dawson, aged 32, a Bachelor, a Warp-dresser, of Yeadon father - Edmund Dawson, a manufacturer Sarah Jane Malthouse, aged 29, a Spinster, of Yeadon father - John Malthouse, a Farmer Both signed their name Witnesses: Edmund Hartley Malthouse (signed) and Mary Ann Sheard (made her mark) BMD Marriage December Quarter 1877 Wharfedale Vol.9a. pg.274. In the 1881 Census @ Cemetery Road, Yeadon, Yorkshire: Sarah Jane Dawson, aged 33, b. Yeadon, Yorkshire possibly BMD Death, aged 40, December Quarter 1888 Wharfedale Vol.9a. pg.111.</p> <p>—Fred Dawson b. 17th February 1878 Yeadon, Yorkshire BMD Birth March Quarter 1878 Wharfedale Vol.9a. pg.166. bp. 24th May 1885 Yeadon parents - Benjamin (a Warp Dresser) and Sarah Jane Dawson, of Yeadon In the 1881 Census @ Cemetery Road, Yeadon, Yorkshire: Fred Dawson, aged 3, b. Yeadon, Yorkshire</p>
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				<p>In the 1891 Census @ Moor Grange, Yeadon, Yorkshire: Fred Dawson, aged 13, a Woollen Piecer, b. Yeadon, Yorkshire living in the household of maternal grandparents John Malthouse, aged 73, a farmer Jane Malthouse, aged 66</p>
				<p>—Janet Dawson b. 12th May 1879 Yeadon, Yorkshire bp. 24th May 1885 Yeadon parents - Benjamin (a Warp Dresser) and Sarah Jane Dawson, of Yeadon BMD Birth June Quarter 1879 Wharfedale Vol.9a. pg.177. In the 1881 Census @ Cemetery Road, Yeadon, Yorkshire: Janet Dawson, aged 1, b. Yeadon, Yorkshire In the 1891 Census @ Moor Grange, Yeadon, Yorkshire: Janet Dawson, aged 11, b. Yeadon, Yorkshire living in the household of maternal grandparents John Malthouse, aged 73, a farmer Jane Malthouse, aged 66</p>
				<p>—Eliza Dawson b. circa 1847 Yeadon bp. 26th September 1847 St. Oswald, Guiseley parents - Edmund (a Clothier) and Ruth Dawson, of Yeadon In the 1851 Census @ Carlton Road, Yeadon: Eliza Dawson, aged 3, a Scholar, b. Yeadon In the 1861 Census @ Carlton Road, Yeadon: Eliza Dawson, aged 13, a Woollen Spinner, b. Yeadon In the 1871 Census @ Normald's Fold, Yeadon, Yorkshire: Eliza Rawsley, aged 23, b. Yeadon, Yorkshire In the 1881 Census @ Ivegate? Chapel Hill, Yeadon: Eliza Rawsley, aged 33, b. Yeadon, Yorkshire In the 1901 Census @ High Street, Yeadon, Yorkshire: Eliza Rawsley, aged 53, a widow, a Confectioner, b. Yeadon, Yorkshire also present a grand daughter Edna Gertrude Rawsley, aged 2, b. Huddersfield, Yorkshire</p>
				<p>m. Amos Rawsley b. circa 1845 Yeadon, Yorkshire m. 24th December 1867 St. John, Yeadon Amos Rawsley, aged 22, a Bachelor, a Tailor, of Yeadon father - William Rawsley, a Tailor Eliza Dawson, aged 20, a Spinster, of Yeadon father - Edmund Dawson, a Clothier Both signed their name Witnesses: Benjamin Dawson and Gideon Rawsley BMD Marriage December Quarter 1867 Wharfedale Vol.9a. pg.252. In the 1871 Census @ Normald's Fold, Yeadon, Yorkshire: Amos Rawsley, aged 25, a Tailor employing 2 men and 1 boy, b. Yeadon, Yorkshire In the 1881 Census @ Ivegate? Chapel Hill, Yeadon: Amos Rawsley, aged 35, a Tailor and Draper, b. Yeadon, Yorkshire BMD Death, aged 55, September Quarter 1900 Wharfedale Vol.9a. pg.114.</p>
				<p>—Annie Beatrice Rawsley b. circa 1867 Yeadon, Yorkshire BMD Birth March Quarter 1868 Wharfedale Vol.9a. pg.136. In the 1881 Census @ Ivegate? Chapel Hill, Yeadon: Annie B. Rawsley, aged 13, b. Yeadon, Yorkshire</p>
				<p>m. Abel Kay or John Smith BMD Marriage March Quarter 1894 Wharfedale Vol.9a. pg.224.</p>
				<p>—Sarah Elizabeth Rawsley b. circa 1869 Yeadon, Yorkshire BMD Birth March Quarter 1870 Wharfedale Vol.9a. pg.142. In the 1871 Census @ Normald's Fold, Yeadon, Yorkshire: Sarah E. Rawsley, aged 1, b. Yeadon, Yorkshire In the 1881 Census @ Ivegate? Chapel Hill, Yeadon: Sarah E. Rawsley, aged 11, b. Yeadon, Yorkshire</p>
				<p>m. William Henry Baker m. 28th April 1896 St. Thomas, Huddersfield, after Banns William Henry Baker, aged 27, a Bachelor, a Butcher, of Yeadon father - John Baker, a Farmer Sarah Elizabeth Rawsley, aged 26, a Spinster, a Confectioner, of Yeadon father - Amos Rawsley, a Confectioner Both signed their name Witnesses: Albert D. Rawsley and Mary H. Rawsley BMD Marriage June Quarter 1896 Wharfedale Vol.9a. pg.294.</p>
				<p>—Charles Victor Rawsley b. circa 1871 Yeadon, Yorkshire BMD Birth September Quarter 1871 Wharfedale Vol.9a. pg.142. In the 1881 Census @ Ivegate? Chapel Hill, Yeadon: Charles V. Rawsley, aged 9, b. Yeadon, Yorkshire</p>
				<p>m. Annie Harriet Hargreaves m. 1st October 1894 St. Thomas, Huddersfield, after Banns Charles Victor Rawsley, aged 23, a Bachelor, a Tailor, of Yeadon father - Amos Rawsley, an Outfitter Annie Harriet Hargreaves, aged 22, a Spinster, a Dress-maker, of Rawdon father - William Hargreaves, a Builder Both signed their name</p>

			<p>Witnesses: William Hargreaves and Ellen Hargreaves BMD Marriage December Quarter 1894 Wharfedale Vol.9a. pg.285.</p>
		—	<p>Albert Dawson Rawsley b. circa 1872 Yeadon, Yorkshire BMD Birth December Quarter 1872 Wharfedale Vol.9a. pg.1[56]2 In the 1881 Census @ Ivegate? Chapel Hill, Yeadon: Albert D. Rawsley, aged 8, b. Yeadon, Yorkshire BMD Death, aged 38, March Quarter 1911 Wharfedale Vol.9a. pg.106.</p>
		—	<p>Mary Hannah Rawsley b. circa 1873 Yeadon, Yorkshire BMD Birth June Quarter 1874 Wharfedale Vol.9a. pg.162. In the 1881 Census @ Ivegate? Chapel Hill, Yeadon: Mary H. Rawsley, aged 7, b. Yeadon, Yorkshire In the 1901 Census @ High Street, Yeadon, Yorkshire: Mary Hannah Rawsley, aged 26, a Shop Assistant, b. Yeadon, Yorkshire In the 1911 Census in Wharfedale, Yorkshire registration district: Mary Hannah Rawsley, aged 37</p>
		—	<p>Hess(i)e Maud Rawsley b. circa 1875 Yeadon, Yorkshire BMD Birth December Quarter 1875 Wharfedale Vol.9a. pg.156. In the 1881 Census @ Ivegate? Chapel Hill, Yeadon: Hesse M. Rawsley, aged 5, b. Yeadon, Yorkshire In the 1901 Census @ High Street, Yeadon, Yorkshire: Hessie Maud Rawsley, aged 25, Baker, b. Yeadon, Yorkshire In the 1911 Census in Wharfedale, Yorkshire registration district: Hessie Maud Rawsley, aged 35</p>
			<p>m. John F. Goodall BMD Marriage June Quarter 1919 Wharfedale Vol.9a. pg.435.</p>
		—	<p>Mabel Rawsley b. circa 1879 Yeadon, Yorkshire BMD Birth March Quarter 1880 Wharfedale Vol.9a. pg.162. In the 1881 Census @ Ivegate? Chapel Hill, Yeadon: Mabel Rawsley, aged 1, b. Yeadon, Yorkshire In the 1901 Census @ High Street, Yeadon, Yorkshire: Mabel Rawsley, aged 21, b. Yeadon, Yorkshire</p>
			<p>m. William Pike Bailey m. 2nd October 1906 St. Oswald, Guiseley, after Banns William Pike Bailey, aged 36, a Bachelor, a Joiner, of Willsgill House, Guiseley father - William Bailey (deceased), a Book Keeper Mabel Rawsley, aged 26, a Spinster, of High Street, Yeadon father - Amos Rawsley (deceased), a Tailor Both signed their name Witnesses: Arthur Frankland and Mary H. Rawsley BMD Marriage December Quarter 1906 Wharfedale Vol.9a. pg.267.</p>
		—	<p>Millie Rawsley b. circa 1882 Yeadon, Yorkshire BMD Birth March Quarter 1883 Wharfedale Vol.9a. pg.161. In the 1901 Census @ High Street, Yeadon, Yorkshire: Millie Rawsley, aged 18, b. Yeadon, Yorkshire In the 1911 Census in Wharfedale, Yorkshire registration district: Millie Rawsley, aged 28</p>
		—	<p>Nellie Rawsley b. circa 1884 Yeadon, Yorkshire BMD Birth December Quarter 1884 Wharfedale Vol.9a. pg.166. In the 1901 Census @ High Street, Yeadon, Yorkshire: Nellie Rawsley, aged 16, b. Yeadon, Yorkshire In the 1911 Census in Wharfedale, Yorkshire registration district: Nellie Rawsley, aged 26</p>
			<p>probably m. John F. Goodall BMD Marriage June Quarter 1919 Wharfedale Vol.9a. pg.435.</p>
		—	<p>Lucy Rawsley b. circa 1886 Yeadon, Yorkshire BMD Birth June Quarter 1886 Wharfedale Vol.9a. pg.458. In the 1901 Census @ High Street, Yeadon, Yorkshire: Lucy Rawsley, aged 14, b. Yeadon, Yorkshire</p>
			<p>m. Harold Bean BMD Marriage December Quarter 1909 Wharfedale Vol.9a. pg.305.</p>
		—	<p>Hilda Rawsley b. circa 1889 Yeadon Yorkshire BMD Birth December Quarter 1889 Wharfedale Vol.9a. pg.155. In the 1901 Census @ High Street, Yeadon, Yorkshire: Hilda Rawsley, aged 11, b. Yeadon, Yorkshire</p>
		—	<p>Charles Dawson b. circa 1849 Yeadon In the 1851 Census @ Carlton Road, Yeadon: Charles Dawson, aged 1, a Scholar, b. Yeadon In the 1861 Census @ Carlton Road, Yeadon: Charles Dawson, aged 12, a Woollen Cloth Weaver, b. Yeadon In the 1871 Census @ Moor Lane, Yeadon, Yorkshire: Charles Dawson, aged 21, a Cloth Weaver, b. Yeadon In the 1881 Census @ New Road, Guiseley, Yorkshire: Charles Dawson, aged 32, a Power Loom Tuner, b. Yeadon, Yorkshire</p>

- m. Ann Elizabeth Long b. circa 1848 Yeadon, Yorkshire
 m. 23rd December 1871 Parish Church, Yeadon, after Banns
 Charles Dawson, aged 22, a Bachelor, an overlooker, of Yeadon
 father - Edward Dawson, a Cloth Manufacturer
 Ann Elizabeth Long, aged 23, a Spinster, of Yeadon
 father - John Long, a Weaver
 Both signed their name
 Witnesses: Seth Hardaker and Mary Ann Hardaker
 BMD Marriage December Quarter 1871 Wharfedale Vol.9a. pg.271.
 In the 1881 Census @ New Road, Guiseley, Yorkshire:
 Ann E. Dawson, aged 32, b. Yeadon, Yorkshire
- ?
- Sarah Hannah Long b. circa 1867 Yeadon, Yorkshire
 BMD Birth December Quarter 1867 Wharfedale Vol.9a. pg.136.
 In the 1881 Census @ New Road, Guiseley, Yorkshire:
 Sarah H. Long, aged 13, a Scholar, b. Yeadon, Yorkshire
 recorded as step-daughter to Charles Dawson
- Clara Helena Dawson b. 8th April 1872 Yeadon, Yorkshire
 BMD Birth June Quarter 1872 Wharfedale Vol.9a. pg.153.
 bp. 16th June 1872 St. John, Yeadon
 parents - Charles (an Overlooker) and Ann Elizabeth Dawson, of Yeadon
 In the 1881 Census @ New Road, Guiseley, Yorkshire:
 Clara H. Dawson, aged 8, a Scholar, b. Yeadon, Yorkshire
 BMD Death, aged 74, March Quarter 1947 Leeds Vol.2c. pg.486.
 bu. 3rd March 1947, aged 73, of 23 Hawthorne Avenue @ St. Andrew, Yeadon
- Edmund Dawson b. circa 1873 Guiseley, Yorkshire
 BMD March Quarter 1874 Wharfedale Vol.9a. pg.148.
 bp. 4th November 1877 St. Oswald, Guiseley
 parents - Charles (a Tuner) and Ann Elizabeth Dawson of Guiseley
 In the 1881 Census @ New Road, Guiseley, Yorkshire:
 Edmund Dawson, aged 7, a Scholar, b. Guiseley, Yorkshire
- probably m. Annie Eastwood
 m. 24th March 1894 St. Thomas, Huddersfield, after Banns
 Edmund Dawson, aged 20, a Bachelor, a Mill-hand, of Yeadon
 father - Charles Dawson, a Mill-hand
 Annie Eastwood, aged 20, a Spinster, a Mill-hand, of Yeadon
 father - James Eastwood, a Mill-hand
 Both signed their name
 Witnesses: John Eanie and Sarah Agnes Coultas
- Edith Dawson b. circa 1875 Guiseley, Yorkshire
 BMD Birth March Quarter 1876 Wharfedale Vol.9a. pg.164.
 bp. 4th November 1877 St. Oswald, Guiseley
 parents - Charles (a Tuner) and Ann Elizabeth Dawson of Guiseley
 In the 1881 Census @ New Road, Guiseley, Yorkshire:
 Edith Dawson, aged 5, a Scholar, b. Guiseley, Yorkshire
- Ada Dawson b. circa 1878 Guiseley, Yorkshire
 BMD Birth September Quarter 1878 Wharfedale Vol.9a. pg.158.
 In the 1881 Census @ New Road, Guiseley, Yorkshire:
 Ada Dawson, aged 2, b. Guiseley, Yorkshire
- Ben(jamin) Dawson b. circa 1881 Guiseley, Yorkshire
 probably BMD Birth June Quarter 1881 Wharfedale Vol.9a. pg.158.
 bp. 10th April 1881 St. Oswald, Guiseley
 In the 1881 Census @ New Road, Guiseley, Yorkshire:
 Ben Dawson, aged 3 weeks, b. Guiseley, Yorkshire
- possibly m. Lizzie Ingham
 m. 21st March 1908 All Saints, Otley, after Banns
 Benjamin Dawson, aged 27, a Bachelor, a Finisher, of High Street, Yeadon
 father - Charles Dawson, an Overlooker
 Lizzie Ingham, aged 20, a Spinster, a Warper of 15 North Street, Otley
 father - Joseph Ingham, a Police Constable
 Both signed their name
 Witnesses: Clifford Harold Myers and Mary Anne Storey
- John Dawson b. 24th March 1883
 BMD Birth June Quarter 1883 Wharfedale Vol.9a. pg.159.
 bp. 6th May 1883 St. Oswald, Guiseley
- William Dawson b. circa 1851 Yeadon
 bp. 27th April 1851 St. Oswald, Guiseley
 parents - Edmund (a Clothier) and Ruth Dawson, of Yeadon
 In the 1851 Census @ Carlton Road, Yeadon:
 William Dawson, aged 1 month, a Scholar, b. Yeadon
 In the 1861 Census @ Carlton Road, Yeadon:
 William Dawson, aged 10, a Scholar, b. Yeadon
 In the 1871 Census @ Moor Lane, Yeadon, Yorkshire:
 William Dawson, aged 20, a Mule Spinner, b. Yeadon
 In the 1881 Census @ White House, Yeadon, Yorkshire:

	<p>William Dawson, aged 30, a Mile Spinner, b. Yeadon, Yorkshire living at same address as father-in-law In the 1891 Census @ Moor Grange, Yeadon, Yorkshire: William Dawson, aged 40, a Mule Spinner, b. Yeadon, Yorkshire In the 1901 Census @ 4, Rockville, Yeadon, Yorkshire: William Dawson, aged 50, a Woollen Spinner, b. Yeadon, Yorkshire</p>
	<p>m. Emma Elizabeth Malthouse b. 21st December 1853 bp. 5th September 1858 St. Oswald, Guiseley parents - John (a Farmer) and Jane Malthouse, of Yeadon baptised on the same day as her brother Edwin Hartley Malthouse b. 3rd September 1856 m. 6th February 1875 St. Oswald, Guiseley, by Licence William Dawson, aged 23, a Bachelor, a Mule-spinner, of Yeadon father - Edmund Dawson, manufacturer Emma Elizabeth Malthouse, aged 21, a spinster, of Rawdon father - John Malthouse, a Farmer Both signed their name Witnesses: Benjamin Dawson and Sarah Jane Malthouse In the 1881 Census @ White House, Yeadon, Yorkshire: Emma E. Dawson, aged 27, b. Yeadon, Yorkshire living at same address as father In the 1891 Census @ Moor Grange, Yeadon, Yorkshire: Emma E. Dawson, aged 37, b. Yeadon, Yorkshire In the 1901 Census @ 4, Rockville, Yeadon, Yorkshire: Emma Dawson, aged 47, b. Yeadon, Yorkshire</p>
	<p>— Helena Dawson b. 2nd June 1875 Yeadon, Yorkshire BMD Birth September Quarter 1875 Wharfedale Vol.9a. pg.149. bp. 26th December 1875 St. Oswald, Guiseley parents - William (a Mule Spinner) and Emma Elizabeth Dawson, of Yeadon In the 1881 Census @ White House, Yeadon, Yorkshire: Helena Dawson, aged 5, a Scholar, b. Yeadon, Yorkshire In the 1891 Census @ Moor Grange, Yeadon, Yorkshire: Helena Dawson, aged 15, a Confectioner, b. Yeadon, Yorkshire In the 1901 Census @ Park Street, Gomersal, Yorkshire: Helena Robinson, aged 25, b. Yeadon nr. Leeds, Yorkshire In the 1911 Census in Dewsbury, Yorkshire registration district: Helena Robinson, aged 35</p>
	<p>m. Henry Lumby Robinson m. 8th October 1898 St. Thomas, Huddersfield, after Banns Henry Lumby Robinson, aged 25, a bachelor, a Mill-hand, of Yeadon father - not entered Helena Dawson, aged 23, a spinster, of Yeadon father - William Dawson, a Mill-hand Both signed their name Witnesses: Arthur Slater Walker and Margaret Eleanor Lumby BMD Marriage December Quarter 1898 Wharfedale Vol.9a. pg.271. In the 1901 Census @ Park Street, Gomersal, Yorkshire: Henry L. Robinson, aged 27, a Cloth Fuller, b. Yeadon nr. Leeds, Yorkshire In the 1911 Census in Dewsbury, Yorkshire registration district: Harry Robinson, aged 37</p>
	<p>— Harry Dawson b. 4th January 1878 Yeadon, Yorkshire BMD Birth March Quarter 1878 Wharfedale Vol.9a. pg.158. bp. 1st January 1882 St. Oswald, Guiseley parents - William (a Mule Spinner) and Emma Elizabeth Dawson, of Yeadon In the 1881 Census @ White House, Yeadon, Yorkshire: Harry, Dawson, aged 3, b. Yeadon, Yorkshire In the 1891 Census @ Moor Grange, Yeadon, Yorkshire: Harry Dawson, aged 13, a Woollen piecer, b. Yeadon, Yorkshire In the 1901 Census @ 4, Rockville, Yeadon, Yorkshire: Harry Dawson, aged 23, a, Under Spinner, b. Yeadon, Yorkshire</p>
	<p>— Louise Dawson b. 1886 Yeadon, Yorkshire BMD Birth June Quarter 1886 Wharfedale Vol.9a. pg.157. bp. 3rd October 1886 St. Oswald, Guiseley parents - William (a Wool Spinner) and Emma Elizabeth Dawson, of Yeadon In the 1891 Census @ Moor Grange, Yeadon, Yorkshire: Louise Dawson, aged 4, b. Yeadon, Yorkshire In the 1901 Census @ 4, Rockville, Yeadon, Yorkshire: Louise Dawson, aged 14, a Pupil Teacher, b. Yeadon, Yorkshire</p>
	<p>— Lillie Dawson b. circa 1890 Yeadon, Yorkshire BMD Birth September Quarter 1890 Wharfedale Vol.9a. pg.143. bp. 20th December 1891 Yeadon parents - William (a Mill-hand) and Emma Elizabeth Dawson, of Yeadon In the 1891 Census @ Moor Grange, Yeadon, Yorkshire: Lillie Dawson, aged 9 months, b. Yeadon, Yorkshire In the 1901 Census @ 4, Rockville, Yeadon, Yorkshire: Lillie Dawson, aged 10, b. Yeadon, Yorkshire</p>
	<p>— John Dawson bp. 5th March 1854 St. Oswald, Guiseley parents - Edmund (a Clothier) and Ruth Dawson, of Yeadon</p>

		<p>Robert Dawson b. 18th October 1855 bp. 3rd February 1856 St. Oswald, Guiseley parents - Edmund (a Cloth Manufacturer) and Ruth Dawson, of Yeadon</p> <p>John Albert Long b. 25th January 1863 Yeadon, Yorkshire BMD Birth March Quarter 1863 Wharfedale Vol.9a. pg.128. bp. 1st March 1863 St. John, Yeadon parents - Edmund (a Clothier) and Ruth Long of Yeadon In the 1871 Census @ Moor Lane, Yeadon, Yorkshire, aged 8, a Scholar In the 1881 Census @ Chester Diocesan Training College, Chester St Oswald, Cheshire, aged 18, a Student in College In the 1891 Census @ 14 Station Road, Burley, Yorkshire, aged 28, an Elementary Teacher (a certified assistant) In Kelly's Directory of Bradford 1901: Westgate Hill Mixed School (opened November 9th 1899) John A. Long - Headmaster Accommodation - 181 places: Average attendance - 125 pupils In the 1901 Census @ 6 Westgate Hill, Bradford, Yorkshire, aged 38, a Schoolmaster J. A. Long. 'Report on a first investigation of Local Diatoms in 1909', Journal of the Spen Valley Literary and Scientific Society, 1910, vol. 1 no. 2. In 1909 was a subscriber to the Bradford Scientific Journal. Address given as Westgate Hill, Bradford. In the 1911 Census @ 6 Westgate Hill, Tong, North Bierley, Yorkshire: John Albert Long, aged 48, a widower, an Elementary Teacher, b. Yeadon, Yorkshire also present his sister-in-law and future wife Fanny Elizabeth Bransby, aged 37, a widow, b. Cartle Bytham, Lincolnshire In the Post Office Bradford Directory, 1912: Long, John A., schoolmaster, Westgate Hill, Tong The Naturalist (Yorkshire Naturalists' Union) 1921: LIST OF SOCIETIES Affiliated with the Yorkshire Naturalists' Union, (with the addresses of the Secretaries.) Spen Valley Literary and Scientific Society. — J. A. Long, Westgate Hill, Bradford. Retired in 1923 Elected to Royal Microscopical Society in 1927 In the Royal Microscopical Society Members List 1934: Long, John A., "Mayhurst", Menston-in-Wharfedale, Leeds. In the Royal Microscopical Society Members List 1938: Long, John A., Mayhurst, Menston-in-Wharfedale, Leeds. Journal of the Royal Microscopical Society (1944?) Obituary - John Albert Long by Norman Ingram Hendey States year as 1944 - 5th June @ home in Menston-in-Wharfedale This should be 5th June 1945 BMD Death, aged 82, June Quarter 1945 Wharfedale Vol.9a. pg.165. bu. 9th June 1945, aged 82 years, of "Mayhurst", Cleasby Road, Menston @ Burley in Wharfedale Author: Diatoms of the Moreno Shale (John A. Long, Dingley P. Fuge & James Smith) Journal of Palaeontology March 1946 Vol.20. No.2. pp.89-118.</p> <p>m. Martha Ann Gill b. circa 1862 Guiseley, Yorkshire probably BMD Birth March Quarter 1863 Wharfedale Vol.9a. pg.130. Banns read @ St. Paul, Esholt, 10th, 17th and 24th February 1889 Banns read @ St. John the Evangelist, Wortley de Leeds, 17th and 24th February and 3rd March 1889 m. 9th March 1889 St. Paul, Esholt, after Banns John Albert Long, aged 26, a Bachelor, a Schoolmaster, of Wortley-de-Leeds father - Edmund Long, a Warp Dresser Martha Ann Gill, aged 26, a Spinster, of Esholt father - William Gill, a Farmer Both signed their name Witnesses: John William Gill and Eunice Beatrice Rawsley BMD Marriage March Quarter 1889 Wharfedale Vol.9a. pg.185. In the 1891 Census @ 14 Station Road, Burley, Yorkshire, aged 28 BMD Death, aged 34, June Quarter 1897 Wharfedale Vol.9a. pg.111. bu. 14th June 1897 Burley, aged 34, of Burley</p> <p>Alice Lil(ia)n Long b. circa 1890 Esholt, Yorkshire BMD Birth June Quarter 1890 Wharfedale Vol.9a. pg.161 bp. 27th July 1891 St. Paul, Esholt parents - John Aldert (a School Master) and Martha Ann Long, of Burley In the 1891 Census @ 14 Station Road, Burley, Yorkshire, aged 10 months In the 1901 Census @ 6 Westgate Hill, Bradford, Yorkshire, aged 10 In the 1911 Census in Lancaster, Lancashire registration district: Alice Lilian Long, aged 20 BMD Death, Alice L. Nottingham, aged 35, March Quarter 1926 Dewsbury Vol.9b. pg.759. bu. 25th February 1926 Burley, aged 35, of The Elms, Mill Bridge, Liversedge</p> <p>m. Clarkson Nottingham b. 11th August 1887 BMD Birth September Quarter 1887 Leeds Vol.9b. pg.551. m. 9th June 1920 St. James, Tong, after Banns Clarkson Nottingham, aged 32, a Bachelor, a Chemist, of Churchfield Terrace, Liversedge, Birstal father - Arthur Thomas Nottingham (deceased), a Cashier Alice Lilian Long, aged 30, a spinster, of 6 Westgate Hill, Tong. father - John Albert Long, a Schoolmaster Both signed their name Witnesses: John Albert Long and S. Oswald Slater BMD Marriage June Quarter 1920 North Bierley Vol.9b. pg.123. BMD Death, aged 89, September Quarter 1976 Witney, Oxfordshire Vol.20. pg.2458.</p>
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		<p>subsequent m. Cicely Mary Wilson b. 29th June 1900 BMD Marriage June Quarter 1928 Sculcoates Vol.9d. pg.249. BMD Death, aged 87, July 1987 West Oxfordshire Vol.20. pg.2469.</p> <p>~possibly the children below</p> <p>—Edna Nottingham BMD Birth December Quarter 1928 Hunslet Vol.9b. pg.662.</p> <p>—Helen B. Nottingham BMD Birth June Quarter 1930 Wakefield Vol.9c. pg.32.</p> <p>—Janet Nottingham BMD Birth March Quarter 1922 Dewsbury Vol. 9b. pg.993.</p> <p>possibly m. William R. Walker BMD Marriage March Quarter 1941 York Vol.9c. pg.2211.</p> <p>—Ruth Nottingham BMD Birth December Quarter 1924 Dewsbury Vol.9b. pg.848.</p> <p>—Edith Annie Long b. 17th January 1895 Burley, Yorkshire BMD Birth March Quarter 1895 Wharfedale Vol.9a. pg.143 bp. 21st April 1895 St. Paul, Esholt parents - John Albert (a School Master) and Martha Ann Long, of Burley in Wharfedale In the 1901 Census @ 6 Westgate Hill, Bradford, Yorkshire, aged 6 In the 1911 Census @ 6 Westgate Hill, Tong, North Bierley, Yorkshire: Edith Annie Long, aged 16, Scholar, b. Burley in Wharfedale, Yorkshire BMD Death, aged 91, January 1986 Cirencester Vol.22. pg.2065.</p> <p>m. Edward Martin Hodge b. 12th July 1896 Bristol BMD Birth September Quarter 1896 Barton Regis Vol.6a. pg.136. parents - Alfred J. Hodge (1866-1916) and Edith Mary Chapman (1863-?) m. 27th December 1921 St. James, Tong Edward Martin Hodge, aged 25, a bachelor, a Clerk, of Birstal! father - Alfred James Hodge (deceased), an Engineer Edith Annie Long, aged 26, a Spinster, of Westgate Hill father - John Albert Long, a Schoolmaster BMD Marriage, December Quarter 1921 North Bierley Vol.9b. pg.82. Actually a Minister of the United Reformed Church: Morley Mem. Bristol 1950-55 Upper Cam 1955-61 Uley 1964-71 (retired) d. 9th October 1979 BMD Death, aged 83, December Quarter 1979 Stroud Vol.22. pg.2124.</p> <p>—female Hodge</p> <p>m. Grace Clapton b. circa 1871 Castle Bytham, Lincolnshire BMD Birth September Quarter 1871 Bourn (Lincolnshire) Vol.7a. pg.291. In the 1881 Census @ Masons Arms Inn, Castle Bytham, Lincolnshire: Grace Clapton, aged 9, a Scholar, b. Castle Bytham, Lincolnshire In the 1891 Census @ 2 Rosebank Villas, Burley, Yorkshire: Grace Clapton, aged 19, a Nurse (domestic), b. Castle Bytham, Lincolnshire in the household of William K. Rix, aged 50, a Physician and Surgeon Banns read @ St. James, Tong John Albert Long, aged 35, a widower, of St. James, Tong parish Grace Clapton, aged 28, a spinster, of Castle Bytham, Lincolnshire 4th, 11th and 18th December 1898 BMD Marriage December Quarter 1898 Bourn (Lincolnshire) Vol.7a. pg.735. In the 1901 Census @ 6 Westgate Hill, Bradford, Yorkshire, aged 28 d. 2nd September 1908 BMD Death, aged 37, September Quarter 1908 North Bierley Vol.9b. pg.105. Probate: Long, Grace, of 6 Westgate Hill, Bradford (wife of John Albert Long) died 2nd September 1908. Administration Wakefield 12th October 1908 to the said John Albert Long, schoolmaster. Effects £83 9s. 10d</p> <p>m. Fanny Elizabeth Bransby (nee Clapton) b. circa 1874 Castle Bytham, Lincolnshire Sister to 2nd wife Grace Clapton Fanny Elizabeth Clapton BMD Birth December Quarter 1873 Bourn Vol.7a. pg.338. In the 1881 Census @ Masons Arms Inn, Castle Bytham, Lincolnshire: Fanny E. Clapton, aged 7, a Scholar, b. Castle Bytham, Lincolnshire In the 1891 Census @ Mason Arms, Castle Bytham, Lincolnshire: Fanny E. Clapton, aged 17, a Domestic Servant, b. Castle Bytham, Lincolnshire In the 1901 Census @ Aslockton, Nottinghamshire: Fanny E. Bransby, aged 27, b. Castle Bytham, Lincolnshire In the 1911 Census @ 6 Westgate Hill, Tong, North Bierley, Yorkshire: Fanny Elizabeth Bransby, aged 37, b. Castle Bytham, Lincolnshire at the same address as John Albert Long and daughter Edith Annie Long BMD Marriage June Quarter 1911 Grantham Vol.7a. pg.1246. Micro-Notes - Issued by the State Microscopical Society of Illinois March 1948 Vol.III. No.1. "OBITUARY We regret to announce the death of the wife of the late John A. Long, last February, 1947 after a short illness. As known to diatomists all over the</p>
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	<p>world, Mr. Long was one of the most skilled and generous workers." See Clapton notes at end of document Fanny Elizabeth Long, aged 73, bu. 20th January 1947 (d. Royal Infirmary, Bradford) BMD Death, aged 73, March Quarter 1947 Bradford Vol.2b. pg.76.</p> <p>previous m. Tom Bransby BMD Marriage March Quarter 1900 Bourn Vol.7a. pg.461. In the 1901 Census @ Aslockton, Nottinghamshire: Tom Bransby, aged 25, a Farmer, (working on his own account), b. Aslockton, Nottinghamshire Quite when Tom Bransby died I'm not sure.</p> <p>—Elizabeth Long b. circa 1840 Yeadon, Yorkshire possibly BMD Birth June Quarter 1839 Otley Vol.23. pg.495. bp. 26th December 1841 St. Oswald, Guiseley parents - Benjamin (a Slubber) and Mary Long, of Yeadon In the 1851 Census @ Carlton Road, Yeadon: Elizabeth Long, aged 9, a Factory Girl, Scholar, b. Yeadon, Yorkshire In the 1861 Census @ Moor Field Place, Yeadon, Yorkshire, aged 20, a worker in a Woollen Factory In the 1871 Census @ Carlton Road, Yeadon, aged 30, a Filler at a Woollen Mill In the 1881 Census @ Cemetery Road, Yeadon, Yorkshire: Elizabeth Goddard, aged 39, b. Yeadon, Yorkshire In the 1891 Census @ 9 School Terrace, Bramley, Yorkshire: Elizabeth Goddard, aged 49, b. Yeadon, Yorkshire In the 1901 Census @ 9 School Terrace, Bramley, Yorkshire: Elizabeth Goddard, aged 60, b. Yeadon, Yorkshire</p> <p>m. William Goddard b. circa 1851 Thetford, Norfolk BMD Birth March Quarter 1853 Thetford Vol.4b. pg.437. m. 4th November St. John's, Yeadon, after Banns William Goddard, aged 25, a Bachelor, a Delver, of Yeadon father - James Goddard, a Labourer Elizabeth Long, aged 35, a Spinster, of Yeadon father - Benjamin Long, a Gardener William Goddard made his mark, Elizabeth Long signed Witnesses: George Emsley and Mary Ann Goddard BMD Marriage December Quarter 1876 Wharfedale Vol.9a. pg.278. In the 1881 Census @ Cemetery Road, Yeadon, Yorkshire: William Goddard, aged 29, a Delver, b. Thetford, Norfolk In the 1891 Census @ 9 School Terrace, Bramley, Yorkshire: William Goddard, aged 39, a General Labourer, b. Thetford, Norfolk In the 1901 Census @ 9 School Terrace, Bramley, Yorkshire: William Goddard, aged 50, a Night Watchman at a Woollen Mill, b. Thetford, Norfolk probably In the 1911 Census in North Bierley, Yorkshire registration district: William Goddard, aged 60</p> <p>—Walter Goddard b. circa 1880 Yeadon, Yorkshire BMD Birth December Quarter 1880 Wharfedale Vol.9a. pg.169. In the 1881 Census @ Cemetery Road, Yeadon, Yorkshire: Walter Goddard, aged 4 months, b. Yeadon, Yorkshire BMD Death, aged 1, March Quarter 1882 Wharfedale Vol.9a. pg.115.</p> <p>—James Dawson Long b. circa 1843 Yeadon, Yorkshire BMD Birth June Quarter 1844 Otley Vol.23. pg.531. bp. 28th April 1844 St. Oswald, Guiseley parents - Benjamin (a Slubber) and Mary Long, of Yeadon In the 1851 Census @ Carlton Road, Yeadon: James Long, aged 7, a Scholar, b. Yeadon, Yorkshire In the 1861 Census @ Moor Field Place, Yeadon, Yorkshire, aged 17, a Woollen Spinner In the 1871 Census @ Moor End, Yeadon, aged 27, a Mule Spinner In the 1881 Census @ High Street, Queen Street, Yeadon, aged 37, a Woollen Spinner, a widower BMD Death, aged 41, March Quarter 1886 Wharfedale Vol.9a. pg.109.</p> <p>m. Mary Ann Gray b. circa 1846 Yeadon probably BMD Birth December Quarter 1846 Otley Vol.23. pg.493. m. 20th April 1867 St. John's, Yeadon James Dawson Long, aged 23, a Bachelor, a Spinner, of Yeadon father - Benjamin Long, a Gardener Mary Ann Gray, aged 20, a Spinster, of Yeadon father - Thomas Gray, a Clothier Both signed their name Witnesses: Edmund Land and Briggs ?????? BMD Marriage June Quarter 1867 Wharfedale Vol.9a. pg.226. In the 1871 Census @ Moor End, Yeadon, aged 24 BMD Death, aged 32, June Quarter 1879 Wharfedale Vol.9a. pg.128.</p> <p>—Sarah Long b. 29th August 1867 bp. 13th October 1867 St. John, Yeadon parents - James Dawson (a Spinner) and Mary Ann Long of Yeadon</p> <p>—William Henry Long b. 23rd June 1868 Yeadon, Yorkshire bp. 14th February 1869 St. John, Yeadon parents - James Dawson (a Spinner) and Mary Ann Long of Yeadon BMD Birth September Quarter 1868 Wharfedale Vol.9a. pg.143. In the 1871 Census @ Moor End, Yeadon, aged 2 In the 1881 Census @ High Street, Queen Street, Yeadon, aged 13, a Mule Piecer (Woollen) In the 1891 Census @ South View Terrace, Yeadon, aged 22, a Woollen Weaver</p>
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		<p>(orphaned and living with mother's mother - Barbara Gray, a widow, aged 62) possibly BMD Death, aged 24, December Quarter 1892 Leeds Vol.9b. pg.331.</p> <p>— Thomas Long b. circa 1869 Yeadon, Yorkshire probably BMD Birth September Quarter 1869 Wharfedale Vol.9a. pg.124. In the 1871 Census @ Moor End, Yeadon, aged 21 In the 1881 Census @ High Street, Queen Street, Yeadon, aged 11, a Mule Piecer (Woollen) In the 1891 Census @ South View Terrace, Yeadon, aged 21, a Woollen Weaver (orphaned and living with mother's mother - Barbara Gray, a widow, aged 62)</p> <p>— Emma Long b. circa 1870 Yeadon, Yorkshire probably BMD Birth June Quarter 1871 Wharfedale Vol.9a. pg.158. In the 1881 Census @ High Street, Queen Street, Yeadon, aged 10, a Scholar In the 1891 Census @ South View Terrace, Yeadon, aged 19, a Woollen Weaver (orphaned and living with mother's mother - Barbara Gray, a widow, aged 62) In the 1901 Census @ 20 Lyon Street, Garston, Lancashire: Emma Hargreaves, aged 30, b. Yeadon, Yorkshire In the 1911 Census in West Derby, Lancashire registration district: Emma Hargreaves, aged 40 possibly BMD Death, aged 69, September Quarter 1940 Liverpool South Vol.8b. pg.240.</p> <p>m. Abraham Marshall Hargreaves b. circa 1865 Otley, Yorkshire m. 20th August 1900 St. Andrew's, Yeadon, after Banns (married in St. Andrew's Church during the temporary closing of St. John's Church) Abraham Marshall Hargreaves, aged 35, a Bachelor, A Master Turner, of Garston father - Joseph Hargreaves (deceased), a Bobbin Turner Emma Long, aged 30, a Spinster, a Weaver, of St. John, Yeadon father - James Dawson Long (deceased), a Spinner Both signed their name Witnesses: Clifford Richardson and Minnie Long BMD Marriage September Quarter 1900 Wharfedale Vol.9a. pg.284. In the 1901 Census @ 20 Lyon Street, Garston, Lancashire: Abraham Hargreaves, aged 35, a Bobbin Turner, b. Otley, Yorkshire In the 1911 Census in West Derby, Lancashire registration district: Abraham Marshall Hargreaves, aged 45 BMD Death, aged 58, March Quarter 1924 Liverpool Vol.8b. pg.380.</p> <p>— Cedric Ernest Hargreaves b. circa 1903 BMD Birth December Quarter 1903 West Derby Vol.8b. pg.680. In the 1911 Census in West Derby, Lancashire registration district: Cedric Ernest Hargreaves, aged 7</p> <p>— Eddy Long b. 15th August 1872 BMD Birth September Quarter 1872 Wharfedale Vol.9a. pg._56? bp. 13th September 1872 (private baptism) St. John, Yeadon parents - James Dawson (a Mule Spinner) and Mary Ann Long of Yeadon BMD Death, aged 0, September Quarter 1872 Wharfedale Vol.9a. pg.115.</p> <p>— Barbara Long b. circa 1873 Yeadon, Yorkshire BMD Birth March Quarter 1874 Wharfedale Vol.9a. pg.154. In the 1881 Census @ High Street, Queen Street, Yeadon, aged 7, a Scholar In the 1891 Census @ South View Terrace, Yeadon, aged 17, a Woollen Weaver (orphaned and living with mother's mother - Barbara Gray, a widow, aged 62) In the 1901 Census @ 108 High Street, Yeadon: Barbara Mercer, aged 27, b. Yeadon, Yorkshire In the 1911 Census in Halifax, Yorkshire registration district: Barbara Mercer, aged 37</p> <p>m. Thomas Mercer b. circa 1873 Manningham, Yorkshire m. 3rd April 1899 St. Andrew, Yeadon, after Banns Thomas Mercer, aged 25, a Bachelor, a Dyer, of Yeadon father - Sam Mercer, a Stone Mason Barbara Long, aged 25, a Spinster, a Mill Hand, of Yeadon father - James Dawson Long (deceased), a Mill Hand Both signed their name Witnesses: William Higgins and Abraham Marshall Hargreaves BMD Marriage June Quarter 1899 Wharfedale Vol.9a. pg.335. In the 1901 Census @ 108 High Street, Yeadon: Thomas Mercer, aged 27, a labourer, b. Manningham, Yorkshire In the 1911 Census in Halifax, Yorkshire registration district: Barbara Mercer, aged 37</p> <p>— Nellie Mercer b. 27th September 1899 Yeadon, Yorkshire BMD Birth December Quarter 1899 Wharfedale Vol.9a. pg.156. bp. 29th October 1899 St. Andrew, Yeadon parents - Thomas (a Dyer) and Barbara Mercer of 30 Football, Yeadon In the 1901 Census @ 108 High Street, Yeadon: Nellie Mercer, aged 1, b. Yeadon, Yorkshire In the 1911 Census in Halifax, Yorkshire registration district: Nellie Mercer, aged 11</p> <p>— Stephen Mercer b. 17th July 1903 BMD Birth September Quarter 1903 Halifax Vol.9a. pg.414. bp. 16th August 1903 St. Augustine, Halifax parents - Thomas (a Weaver) and Barbara Mercer of 11 Whitby Street In the 1911 Census in Halifax, Yorkshire registration district: Stephen Mercer, aged 7</p>
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—Evelyn Mercer b. circa 1907
 BMD Birth June Quarter 1908 Halifax Vol.9s. pg.376.
 In the 1911 Census in Halifax, Yorkshire registration district:
 Evelyn Mercer, aged 3

—Minnie Long b. circa 1876 Yeadon, Yorkshire
 BMD Birth June Quarter 1877 Wharfedale Vol.9a. pg.160.
 In the 1881 Census @ High Street, Queen Street, Yeadon, aged 4
 In the 1891 Census @ South View Terrace, Yeadon, aged 14, a Tailoress' Apprentice
 (orphaned and living with mother's mother - Barbara Gray, a widow, aged 62)
 probably in the 1901 Census @ Leaffield Place, Yeadon:
 Minnie Long, aged 23, a Weaver in a Woollen Mill, b. Yeadon, Yorkshire
 recorded as niece to head of the household - Charles Slater, aged 35, b. Yeadon

m. John Clifford Richardson
 m. 25th December 1901 St. Augustine, Halifax, after Banns
 John Clifford Richardson, aged 24, a bachelor, a Van Man, of St. Andrew's Parish, Yeadon
 father - John Richardson, a Warehouseman
 Minnie Long, aged 24, a Spinster, of Whitby Street
 father - James Dawson Long (deceased), a Spinner
 Both signed their name
 Witnesses: Edmund Langford Cook and Ethel Richardson
 BMD Marriage December Quarter 1901 Halifax Vol.9a. pg.854.

—Ellen Long b. circa 1845 Yeadon, Yorkshire
 BMD Birth March Quarter 1846 Otley Vol.23. pg.544.
 In the 1851 Census @ Carlton Road, Yeadon:
 Ellen Long, aged 5, at home, b. Yeadon, Yorkshire
 In the 1861 Census @ Bradley Hill, Bramley, Leeds:
 Ellen Long, aged 15, a Scholar, b. Yeadon, Yorkshire
 but also appears in the 1861 Census @ Moor Field Place, Yeadon, Yorkshire,
 aged 15, a worker in a Woollen Factory!!
 In the 1871 Census @ Carlton Road, Yeadon, aged 25, a Filler at a Woollen Mill
 In the 1881 Census @ 3 Ashfield Road, Idle, Yorkshire:
 Ellen Brooke, aged 35, b. Yeadon, Yorkshire
 In the 1891 Census @ 13 Tadman Street, Alvethorpe with Thornes, Yorkshire:
 Ellen Brooke, aged 45, b. Yeadon, Yorkshire
 also present her mother - Mary Long, aged 77
 In the 1901 Census @ Thornes Lane, Alvethorpe, Yorkshire:
 Ellen Brooke, aged 55, b. Idle, Yorkshire
 probably BMD Death, aged 58, December Quarter 1904 Wakefield Vol.9c. pg.49.
 bu. 13th October 1904, aged 58, of 13 Tadman Buildings, Thornes Lane, @ St. Lames, Thornes

m. Aaron Brooke b. circa 1848 Idle, Yorkshire
 possibly BMD Birth, Aaron Brook, March Quarter 1849 Bradford, Yorkshire, Vol.23. pg.197.
 m. 15th April 1876 St. John's, Yeadon, after Banns
 Aaron Brooke, aged 27, a Spinner, of Tolle?
 father - John Brooke, a Weaver
 Ellen Long, aged 31, a Spinster, of Yeadon
 father - Benjamin Long, a Gardener
 Both signed their name
 Witnesses: John Smith and Mary Smith
 BMD Marriage June Quarter 1876 Wharfedale Vol.9a. pg.247.
 In the 1881 Census @ 3 Ashfield Road, Idle, Yorkshire:
 Aaron Brooke, aged 32, a Woollen Yarn Spinner, b. Idle, Yorkshire
 In the 1891 Census @ 13 Tadman Street, Alvethorpe with Thornes, Yorkshire:
 Aaron Brooke, aged 42, a Mule Spinner, b. Idle, Yorkshire
 In the 1901 Census @ Thornes Lane, Alvethorpe, Yorkshire:
 Aaron Brooke, aged 52, a Woollen Spinner, b. Idle, Yorkshire
 In the 1911 Census in Wakefield, Yorkshire registration district:
 Aaron Brooke, aged 62
 BMD Death, aged 68, September Quarter 1916 Wakefield Vol.9c. pg.33.
 bu. 7th August 1916, aged 68, of 24 Commercial Street, @ St. James, Thornes

—Benjamin Long b. circa 1850 Yeadon, Yorkshire
 bp. 30th November 1852 St. Oswald, Guiseley
 parents - Benjamin (a Slubber) and Mary Long, of Yeadon
 In the 1861 Census @ Moor Field Place, Yeadon, Yorkshire, aged 10, a Scholar
 possibly BMD Death December Quarter 1863 Wharfedale Vol.9a. pg.99.

—Mary Long b. circa 1853 Yeadon, Yorkshire
 possibly BMD Birth June Quarter 1854 Otley Vol.9a. pg.137.
 bp. 2nd July 1854 St. Oswald, Guiseley
 parents - Benjamin (a Slubber) and Mary Long, of Yeadon
 In the 1861 Census @ Moor Field Place, Yeadon, Yorkshire, aged 7, a Scholar
 In the 1871 Census @ Carlton Road, Yeadon, aged 16, a Power Loom Weaver (Woollen)
 In the 1881 Census @ Canada, Rawdon, Yorkshire:
 Mary Smith, aged 27, b. Yeadon, Yorkshire

m. John Smith b. circa 1850 Rigton, Yorkshire
 m. 8th September 1873 St. Peter, Rawdon, after Banns
 John Smith, aged 23, a Bachelor, a Mason, of Rawdon
 father - Thomas Smith, a Butcher
 Mary Long, aged 20, a Spinster, of Yeadon
 father - Benjamin Long, a Gardener
 Both signed their name

Witnesses John Barker Smith (signed) and Smith Hardisty? (made his mark)
BMD Marriage September Quarter 1873 Wharfedale Vol.9a. pg.221.

In the 1881 Census @ Canada, Rawdon, Yorkshire:

John Smith, aged 31, a Stone Mason, b. Rigton, Yorkshire

— Harry Smith b. 23rd November 1876 Yeadon, Yorkshire

bp. 24th December 1876 Yeadon

parents - John (a Mason) and Mary Smith, of Yeadon

In the 1881 Census @ Canada, Rawdon, Yorkshire:

Harry Smith, aged 4, b. Yeadon, Yorkshire

— Annie Smith b. circa 1878 Yeadon, Yorkshire

In the 1881 Census @ Canada, Rawdon, Yorkshire:

Annie Smith, aged 2, b. Yeadon, Yorkshire

Other Notes:

Yeadon and district 1902 OS





Address also recorded as "Mayhurst", Menston, Yorkshire
 Address also recorded on a rosette diagram as "Ferncliffe", Menston, Yorkshire (see Note at bottom of page)

In the 1841 Census @ Yeadon:
 Benjamin Dawson, aged 50+, a Clothier
 Sarah Dawson, aged 50+
 Sarah Dawson, aged 20+
 Edmund Dawson, aged 15+, a Clothier

BMD Marriage, Edmund Dawson to Ruth Hudson, June Quarter 1843 Otley Vol.23. pg.377.

In the 1841 Census @ Moor End, Yeadon:
 Samuel Hudson, aged 60+, a Clothier
 Martha Hudson, aged 55+
 Samuel Hudson, aged 20+
 Ruth Hudson, aged 15+
 Ellen Hudson, aged 12
 Edward Hudson, aged 3
 Hannah Hudson, aged 80+

Dictionary of British and Irish botanists and horticulturists By Ray Desmond 1994:
 Long, John Albert (1863-1944)
 b. Yeadon, Yorks 1863 d. Menston-in-Wharfedale 5th June 1944
 FRMS 1927
 Teacher at Keighley and Burley-in-Wharfedale
 Headmaster, Bradford 1898-1923.
 Algologist
 R. Microsc. Soc. 1944, 168
 Collection of diatom slides at R. Microscopical Soc.
 (not present in the 1931 edition)

Clapton Notes:

Thomas Clapton b. circa 1832 Woolsthorpe, Lincolnshire
 In the 1881 Census @ Masons Arms Inn, Castle Bytham, Lincolnshire:
 Thomas Clapton, aged 48, an Agricultural Labourer and Inn Keeper,
 b. Woolsthorpe, Lincolnshire
 In the 1891 Census @ Mason Arms, Castle Bytham, Lincolnshire:
 Thomas Clapton, aged 58, an Agricultural Labourer, b. Woolsthorpe, Lincolnshire

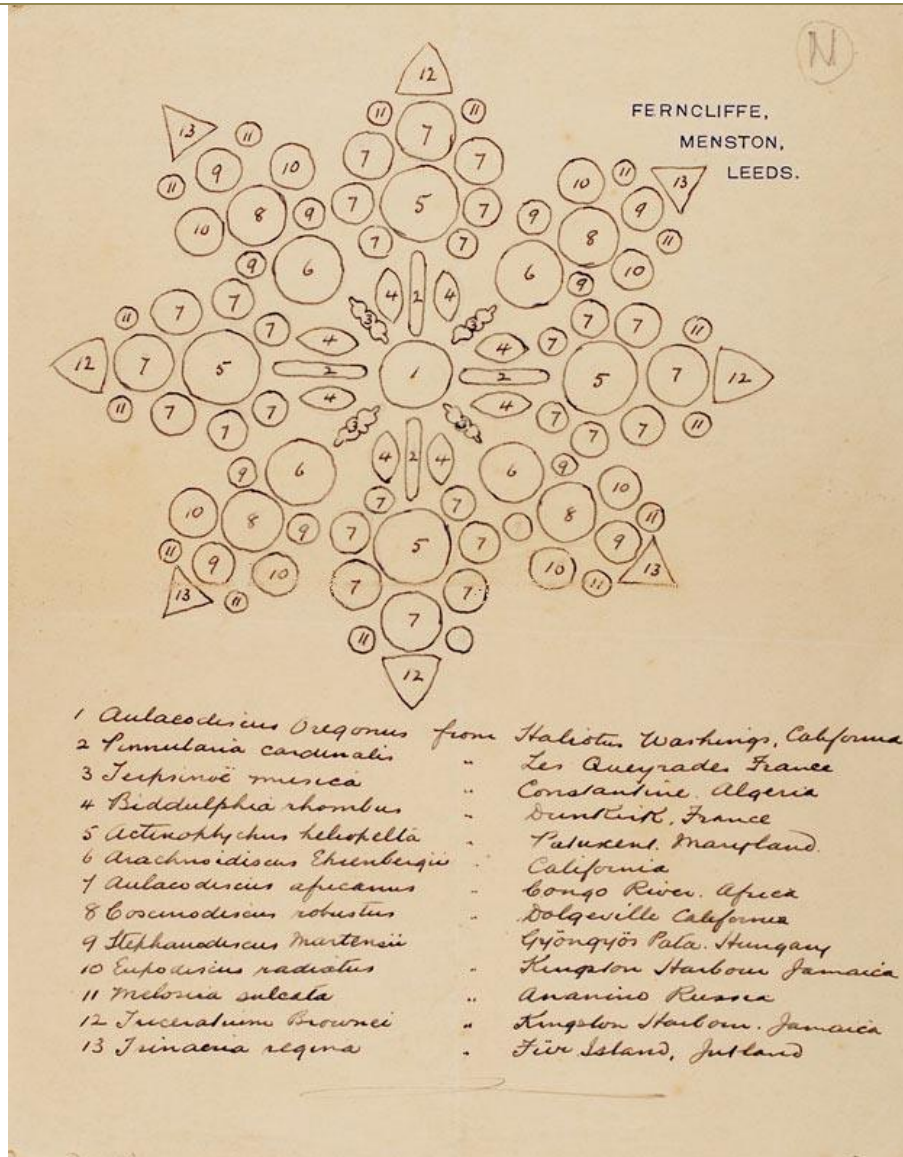
m. Naomi Howitt b. circa 1835 Castle Bytham, Lincolnshire
 BMD Marriage June Quarter 1855 Bourn Vol.7a. pg.477.
 In the 1881 Census @ Masons Arms Inn, Castle Bytham, Lincolnshire:
 Naomi Clapton, aged 45, b. Castle Bytham, Lincolnshire
 In the 1891 Census @ Mason Arms, Castle Bytham, Lincolnshire:
 Naomi Clapton, aged 55, b. Castle Bytham, Lincolnshire

—William Clapton b. circa 1857 Woolsthorpe, Lincolnshire
 In the 1891 Census @ Mason Arms, Castle Bytham, Lincolnshire:
 William Clapton, aged 33, an Agricultural Labourer, b. Woolsthorpe, Lincolnshire

—George Clapton b. circa 1868 Castle Bytham, Lincolnshire
 In the 1881 Census @ Masons Arms Inn, Castle Bytham, Lincolnshire:
 George Clapton, aged 12, a Scholar, b. Castle Bytham, Lincolnshire
 In the 1891 Census @ Mason Arms, Castle Bytham, Lincolnshire:
 George Clapton, aged 22, an Agricultural Labourer, b. Castle Bytham, Lincolnshire

—Grace Clapton b. circa 1871 Castle Bytham, Lincolnshire
 BMD Birth September Quarter 1871 Bourn (Lincolnshire) Vol.7a. pg.291.
 In the 1881 Census @ Masons Arms Inn, Castle Bytham, Lincolnshire:
 Grace Clapton, aged 9, a Scholar, b. Castle Bytham, Lincolnshire
 In the 1891 Census @ 2 Rodebank Villas, Burley, Yorkshire:

	<p>Grace Clapton, aged 19, a Burse (domestic), b. Castle Bytham, Lincolnshire in the household of William K. Rix, aged 50, a Physician and Surgeon In the 1901 Census @ 6 Westgate Hill, Bradford, Yorkshire, Grace Long, aged 28 b. Castle Bytham, Lincolnshire d. 2nd September 1908 BMD Death, aged 37, September Quarter 1908 North Bierley Vol.9b. pg.105. Probate: Long, Grace, of 6 Westgate Hill, Bradford (wife of John Albert Long) died 2nd September 1908. Administration Wakefield 12th October 1908 to the said John Albert Long, schoolmaster. Effects £83 9s. 10d</p> <p>m. (2) John Albert Long b. 25th June 1862 Yeadon, Yorkshire Banns read @ St. James, Tong John Albert Long, aged 35, a widower, of St. James, Tong parish Grace Clapton, aged 28, a spinster, of Castle Bytham, Lincolnshire 4th, 11th and 18th December 1898 BMD Marriage December Quarter 1898 Bourn (Lincolnshire) Vol.7a. pg.735.</p> <p>m. (1) Martha Ann Gill (circa 1862-1897)</p> <p>— Alice Lil(l)ian Long (1890-circa 1926)</p> <p>— m. Clarkson Nottingham b. (1887-1976)</p> <p>— subsequent m. Cicely Mary Wilson (1900-1987)</p> <p>— ~possibly the children below</p> <p>— Edna Nottingham (circa 1928-?)</p> <p>— Helen B. Nottingham (1930-?)</p> <p>— Janet Nottingham (circa 1922-?)</p> <p>— possibly m. William R. Walker</p> <p>— Ruth Nottingham (1924-?)</p> <p>— Edith Annie Long (circa 1894-?)</p> <p>— Fanny Elizabeth Clapton b. circa 1874 Castle Bytham, Lincolnshire BMD Birth December Quarter 1873 Bourn Vol.7a. pg.338. In the 1881 Census @ Masons Arms Inn, Castle Bytham, Lincolnshire: Fanny E. Clapton, aged 7, a Scholar, b. Castle Bytham, Lincolnshire In the 1891 Census @ Mason Arms, Castle Bytham, Lincolnshire: Fanny E. Clapton, aged 17, a Domestic Servant, b. Castle Bytham, Lincolnshire In the 1901 Census @ Aslockton, Nottinghamshire: Fanny E. Bransby, aged 27, b. Castle Bytham, Lincolnshire In the 1911 Census @ 6 Westgate Hill, Tong, North Bierley, Yorkshire: Fanny Elizabeth Bransby, aged 37, b. Castle Bytham, Lincolnshire at the same address as John Albert Long and daughter Edith Annie Long Micro-Notes - Issued by the State Microscopical Society of Illinois March 1948 Vol.III. No.1. "OBITUARY We regret to announce the death of the wife of the late John A. Long, last February, 1947 after a short illness. As known to diatomists all over the world, Mr. Long was one of the most skilled and generous workers." Fanny Elizabeth Long, aged 73, bu. 20th January 1947 (d. Royal Infirmary, Bradford) BMD Death, aged 73, March Quarter 1947 Bradford Vol.2b. pg.76.</p> <p>m. Tom Bransby b. circa 1875 Aslockton, Nottinghamshire BMD Marriage March Quarter 1900 Bourn Vol.7a. pg.461. In the 1901 Census @ Aslockton, Nottinghamshire: Tom Bransby, aged 25, a Farmer, (working on his own account), b. Aslockton, Nottinghamshire Quite when Tom Bransby died I'm not sure.</p> <p>m. (3) John Albert Long BMD Marriage June Quarter 1911 Grantham Vol.7a. pg.1246.</p> <p>— Charles Clapton b. circa 1875 Castle Bytham, Lincolnshire In the 1881 Census @ Masons Arms Inn, Castle Bytham, Lincolnshire: Charles Clapton, aged 5, a Scholar, b. Castle Bytham, Lincolnshire</p> <p>Royal Microscopical Society contributions: 1939 - 56 species slides of diatoms 1943 - 53 Reference Slides of Diatoms</p> <p>Royal Microscopical Society 1947: Since the last report the Council deplors the loss the Society has sustained, by death, of the following Fellows : Mr. J. A. Long, elected 1927</p>
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The above diagram accompanying a 101 form rosette is on Paper headed "Ferntcliffe, Menston, Leeds", slide date October 1925.

Long was recorded at "Mayhurst, Cleasly Road, Menston" in the burial record so Ferntcliffe may have been an earlier residence (the diagram has been dated to 1925)

Interestingly the entry below the burial record for Long is one for one Harriet Swithenbank of Ferntcliffe, Cleasly Road, Menston (bu. 16th June 1945, aged 87 years)

From Discovery Reports Volume XVI 1939 pp.210-211.:

"The species (*Arachnoidiscus ehrenbergii*) is frequently found off the coasts of Japan and California, but it is almost inconceivable that the Bransfield colony originated from California, as there is no surface current which would account for this extension of its range. Information received from Mr. John A. Long of Leeds, indicates that *A. ehrenbergii* has established itself at other points within the Atlantic Circle; Mr. Long has observed this species in material collected by Sir Douglas Mawson's expedition to Adelle Land."

OBITUARY.

JOHN ALBERT LONG.

(1863–1944.)

JOHN ALBERT LONG died at his home in Menston-in-Wharfedale, near Leeds, on June 5th, at the age of 82 years.

He was elected to the Fellowship in 1927, and upon his rare visits to London took a great interest in the evening meetings of the Society. He was born at Yeadon in Yorkshire, and commenced his career as a teacher at Keighley and at Burley-in-Wharfedale. In 1898 he became headmaster at Westgate Hill School in Bradford and remained there until he retired in 1923.

Always interested in botany, he was the first to introduce it as a subject for study in a Bradford school, and for a considerable time was the secretary of the Spen Valley Literary and Scientific Society. He became interested in diatoms in 1900 and maintained an active interest in that group of organisms up to within one month of his death.

As a preparer of diatom slides he ranks among the best ever produced in this country and the Society's collection benefited by nearly a 1000 specimens which he mounted specially during 1935–9.

To those of us who knew him well he was much more than an expert manipulator at the microscope, he was generous to a fault, kindly in disposition, and ever ready to offer sound and often critical advice.

He was one of the last of an old school of diatomists who are fast disappearing, and he corresponded with other diatomists all over the world. It is very sad that he failed to live to see the only scientific publication to bear his name—a paper on the Diatoms of the Moreno Shale of California which, it is hoped, will appear very shortly.
N. I. H.

Obituary - Journal of the Royal Microscopical Society: Volume 64 1944 pg.168. (by Norman Ingram Hendey)
Note: Pretty sure this 1944 date of death is in error even though the publication date appears to be 1944

The Diatoms of the Moreno Shale by John A. Long, Dingley P. Fuge and James Smith includes the note (at the bottom of the first page) referring to John A. Long "Menston-in-Wharfedale, Leeds— deceased 1945".

14 Station Road, Burley-in-Wharfedale



Diatom Bibliography

Long, J.A. / Fuge, D.P. and Smith, J. - Diatoms of the Moreno Shale. : Journal of Paleontology. - Vol. 20 No. 2 pp.89-118, pl. 13-19. (Mar 1946) [Pub. 1946]

Fred Loxton



Loxton, F. C. (Fred) 86 Haymoor Road, Poole, Dorset. BH15 3NU

Joined Quekett Microscopical Club 1st January 1983

Stated interests - Photomicrography, Pond Life, Foraminifera.

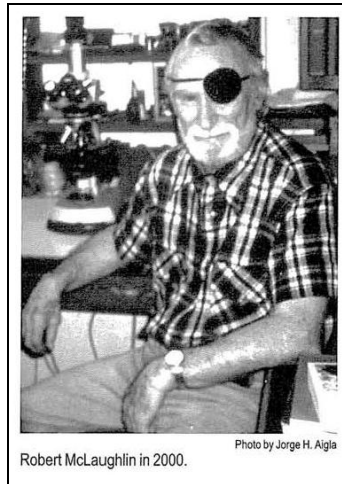
A large range of subjects mounted.

Occasional slides sold in a variety of styles, including some paper covers.

R. B. McLaughlin



Robert B. McLaughlin



Robert McLaughlin in 2000.

Photo by Jorge H. Aigla

Elected to the Quekett Microscopical Club 11th May 1965

In the Quekett Microscopical Club Membership list of 1969:

McLaughlin, R. B., 3529 Dunkirk Drive, Anchorage, Alaska 99502, U.S.A.

In the Quekett Microscopical Club Membership list of 1974:

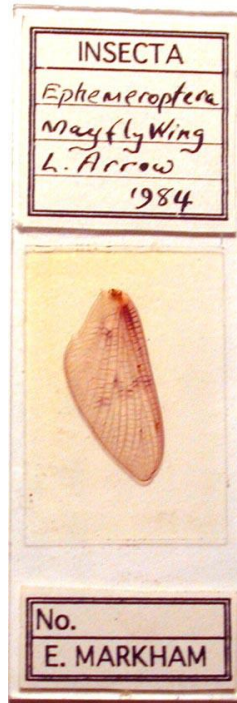
McLaughlin, R. B., 211 Sereno Drive, Santa Fe, New Mexico 87501

Interests: Diatoms General

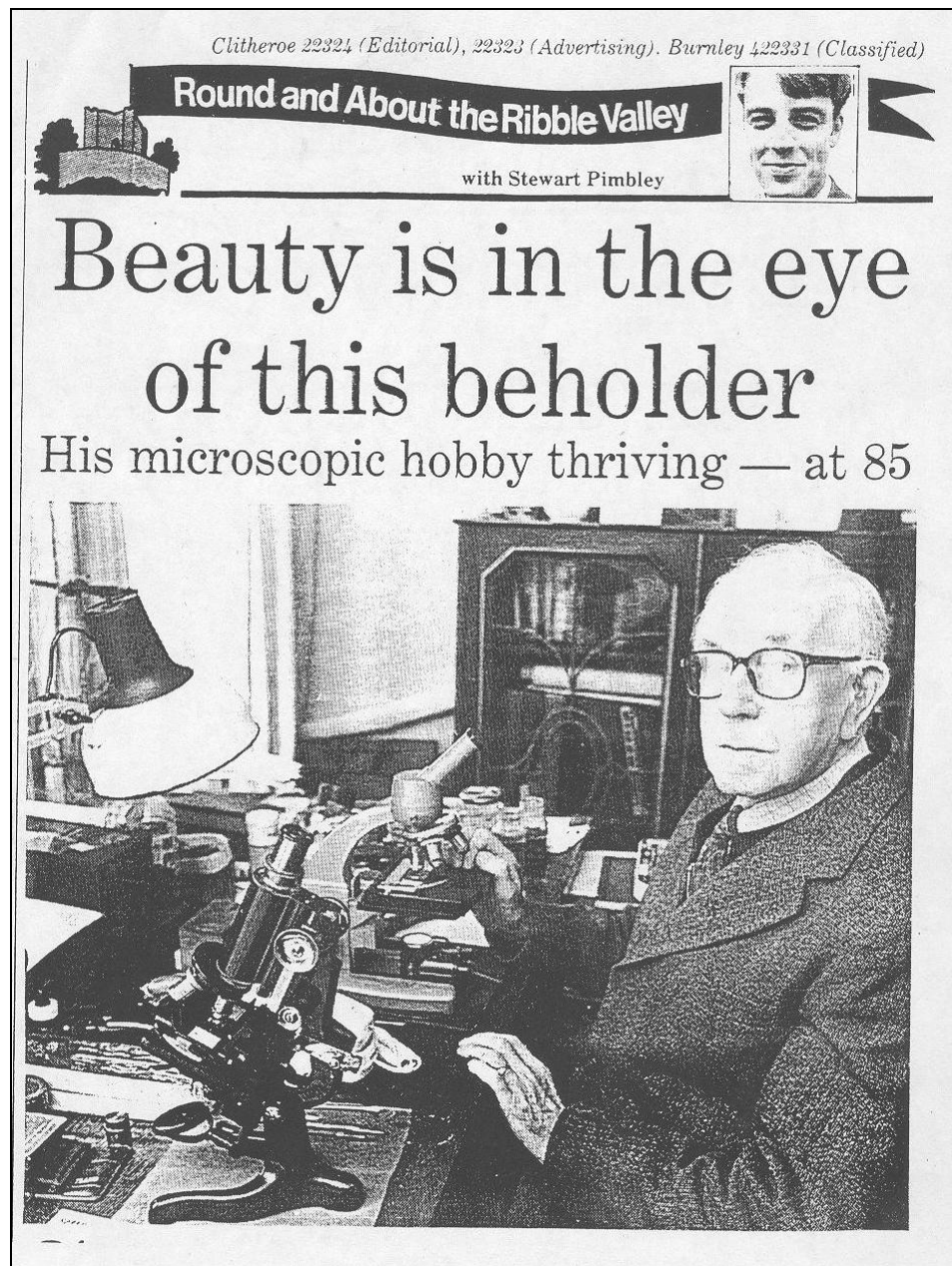
Diatom Bibliography

- McLaughlin, R. / Burckle, L.H. - Size changes in the marine diatom *Coscinodiscus nodulifer* A. Schmidt in the :
 Micropaleontology - Vol. 23 No. 2 pp.216-222, 1 tbl., 3 figs. (Apr 1977) [Pub. 1977]
- McLaughlin, R.B. / Andrews, G.W. - *Cymbella langii*, A new Miocene diatom from the Espanola Area, Rio
 Arriba Co : Diatom Research - Vol. 5 No. 1 pp.55-61, 10 figs. (1990) [Pub. 1990]
- McLaughlin, R.B. / Andrews, G.W. - *Cymbella Langii*, A New Miocene Diatom from the Espanola Area, Rio
 Arriba Co : Diatom Research - Vol. 5 No. 1 pp.55-61, 10 figs. (1990) [Pub. 1990]
- McLaughlin, R.B. / Burckle, L. - Size changes in the marine diatom *Coscinodiscus nodulifer* A. Schmidt in the :
 Micropaleontology - Vol. 23 No. 2 pp.216-222, 1 tbl., 3 figs. (1977) [Pub. 1977]
- McLaughlin, R.B. / Stone, J.L. - Some late Pleistocene diatoms of the Kenai Peninsula, Alaska : Nova Hedwigia
 - No. 82 pp.5-118, 16 pls., 2 figs. (1986) [Pub. 1986]
- McLaughlin, R.B. / Stone, J.L. - Fossil freshwater diatomaceous earth from Kenai Peninsula, Alaska :
 Microscopy, The Journal of the Quekett Microscopical Club - Vol. 32 No. 11 pp.476-483, pl. 7 (Jan-Jun
 1975) [Pub. 1975]
- McLaughlin, R.B. / Stone, J.L. - Fossil freshwater diatomaceous earth from Kenai Peninsula, Alaska (continue :
 Microscopy, The Journal of the Quekett Microscopical Club - Vol. 33 No. 1 pp.38-43, pls. 9-10 (Jan-Jun
 1976) [Pub. 1976]
- McLaughlin, R.B. / Stone, J.L. - Fossil freshwater diatomaceous earth from Kenai Peninsula, Alaska (continue :
 Microscopy, The Journal of the Quekett Microscopical Club - Vol. 32 No. 12 pp.517-520, pl. 8 (Jul-Dec
 1975) [Pub. 1975]
- McLaughlin, R.B. - A preliminary account of diatomaceous deposits on Kenai Peninsula, Alaska : Microscopy,
 The Journal of the Quekett Microscopical Club - Vol. 32 pp.151-154 (Jan-Jun 1972) [Pub. 1972]
- McLaughlin, R.B. - *Cyclotella Jonesii*, A New Diatom Species From Pliocene Deposits at Chiloqui : Diatom
 Research - Vol. 7 No. 1 pp.95-101, 11 figs. (1992) [Pub. 1992]
- McLaughlin, R.B. - Diatoms : The Microscope - Vol. 36 pp.141-152 (1988) [Pub. 1988]
- McLaughlin, R.B. - Diatoms : The Microscope - Vol. 36 pp.57-69 (1988) [Pub. 1988]
- McLaughlin, R.B. - Diatoms : The Microscope - Vol. 37 pp.411-419 (1989) [Pub. 1989]
- McLaughlin, R.B. - The diatom *Trinacria excavata* Heiberg, A Note : Microscopy, The Journal of the Quekett
 Microscopical Club - Vol. 33 No. 3 pp.159-161, 2 figs. (Jan-Jun 1977) [Pub. 1977]
- McLaughlin, R.B. - The Fleming method of mounting very fragile diatoms : Microscopy, The Journal of the
 Quekett Microscopical Club - Vol. 33 No. 3 pp.152-153 (Jan-Jun 1977) [Pub. 1977]

Dr. Ed. Markham



William Marshall



Scoring top marks in an eye test would not even qualify the most sharp-eyed person to see the beauty enjoyed by Mr William Marshall over the last 75 years.

Despite poor vision, this 85-year-old can still see far beyond the reach of the average person when viewing the very basis of life itself at his Castle View home.

This is all possible through Mr Marshall's rare lifetime hobby, the exploration of minute single cells through the lens of a microscope.

A few minutes looking through the microscope will soon convince the most indifferent observer of the beauty to be found in this world within worlds.

Mr Marshall's unusual world consists of diatoms, the single cell algae found in fresh water, which form intricate symmetrical designs.

Over the years, this microscopic hobby has helped him amass an unusual collection of samples from all over the world, so how did it start?

Born and bred in Clitheroe, Mr Marshall first came in contact with the world of the microscope while at Clitheroe's National School.

He explained: "It was after the first world war, soldiers were coming back and two came to school, one bringing an ancient microscope.

"All I can remember is the lads at the back of the class pulling out their hair to put under the microscope."

His next encounter with this minute world was at technical school, where he used microscopes to study fibres as part of his training to be a draughtsman.

"It was while I was there that I got to know of Mr Edmondson Buck, a local photographer who owned a microscope," said Mr Marshall.

His interest was soon stimulated after a look through Mr Buck's microscope and the desire to own one himself soon became apparent.

Mr Marshall, keen to further this blooming interest, bought the microscope for £3 15s from

Mr Buck, paying at the rate of 2s 6d. (12½p) a week.

"I waited and saved until I could pay for the microscope. It was a fortune then," he said.

After flicking through the pages of a magazine, Mr Marshall quickly decided what he wanted to discover through his microscope's lens. "I came across an article in 'Mecano Magazine' on microscopic pond and fresh-water life and that whetted my appetite for more."

Viewing these microscopic wonders may not be everyone's idea of a enjoyable hobby, so why does Mr Marshall enjoy it so much?

Mr Marshall, a founder member of Clitheroe and District Naturalist Society, has spent many enjoyable hours searching out diatoms in nooks and crannies around the Ribble Valley and country to create his collection.

"Every time you find something new. It's like fishing: you may wait all day and not find anything and next day you'll find a lot.

"Many of these things you come across by accident. It's a case of not knowing what you are going to find."

After collection, Mr Marshall mounted the diatoms on slides, using a delicate process involving many hours of precision work, before he could view them under the microscope.

However, this manipulative process required not just a great deal of concentration, but a firm grip and strong eyesight.

Unfortunately, Mr Marshall was forced, a few years ago, to give up slide mounting, because the process was proving too difficult to carry out.

"I couldn't do it now, as I no longer have a good eye and steady hand to complete the process," he explained.

Determined not to give up his hobby, Mr Marshall is now content to view water samples collected from ponds and streams around the Ribble Valley.

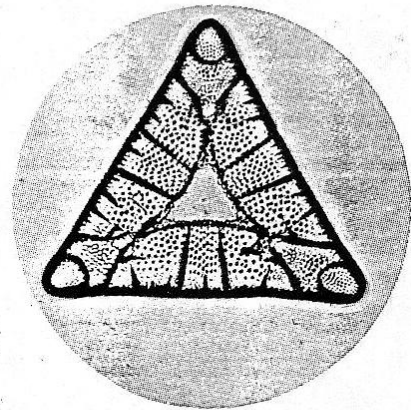
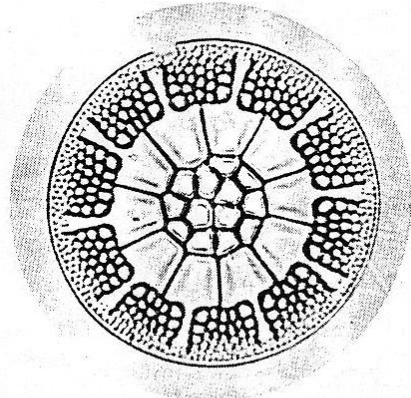
His unusual hobby even overlapped into his work as a North West Electricity Board inspector. "I always carried a bottle in my pocket and if near

water I would quickly fill it."

Apart from a vast knowledge of his subject, Mr Marshall has photographed his slides and drawn the images found on them.

Now, with his collection almost completely categorised, Mr Marshall hopes his lifetime's work will act as a lasting reminder of the unseen beauty which surrounds us all.

Life as seen through the microscope



VIEWED through a microscope, this picture clearly shows the magnified structure of the diatom, as seen by Mr Marshall.

Explaining the true size of their intricate and complex designs, Mr Marshall said: "Let's put it this way, the largest diatom will be a 60th of an inch, but the majority are around 1,000th of an inch in size."

Friends and family have brought diatom samples from all over the world, including fossilised remains from the Indonesian island of Java.

Among Mr Marshall's important finds is a rare species found in the Coe near Brungerley. This single cell microscopic plant, shaped roughly in the form of a letter eight, is the basis of life. It breaks down matter and gives off oxygen, making the river more conducive for other forms of life.

Elected to the QMC 10th January 1950

In the Quekett Microscopical Club Membership list of 1969:

Marshall, W.M., 35 Castle View, Clitheroe, Lancs

Eric Marson

Of Northern Biological Supplies (NBS)

Elected to the QMC 17th November 1970

In the Quekett Microscopical Club Membership list of 1974:

Marson, J. E. (Honorary Member), 31 Cheltenham Avenue, Ipswich, Suffolk, IP1 4LN.

John Eric Marson b. 6th September 1914

BMD Birth, John E. Marson, December Quarter 1914 Bradford Vol.9b. pg.267

Mother's maiden name - Botterill

BMD Death, aged 88, John Eric Marson, December 2002 Deben 29C/7431/120

Obituary
John Eric Marson: 1914-2002



Eric Marson was born in Bradford on 6 September 1914, and was educated at Belle Vue School there. He left after matriculating, to be apprenticed to Harrison, Parkinson & Co, a local pharmaceutical firm and suppliers of apparatus and equipment to local schools and colleges. While working there he passed the Inter B. Pharm after attending the local technical college part time. In the early 1930s times were difficult, and in 1933 he began to build up a small business on the side, supplying biological specimens to local schools, and living specimens to local hospitals, but we must return to the story of this company below.

He began what he always regarded as his main career, in education, when he undertook teacher training at Leeds. On passing the course with distinction in 1937, he was appointed to teach at Thackley Open Air School [for pupils from poor areas of Bradford] until it closed on the outbreak of WW2. Between 1939 and 1941 he organised local gardening schemes until being called up,

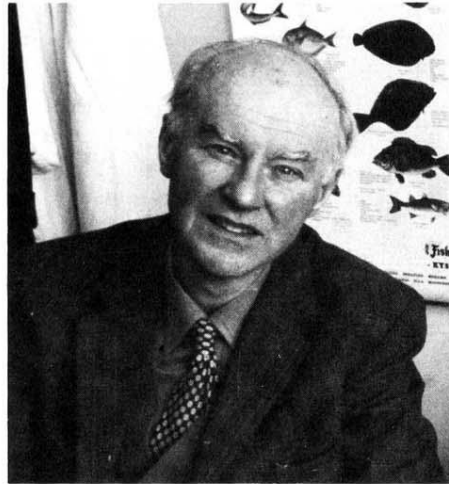
with other spectacle-wearers. He trained with the Cameronians, and was one of those guarding Rudolf Hess, before being trained in radio. He saw service in Kenya, Ceylon and the jungles of Burma before being demobbed in 1946.

He then became a science master at Drummond Secondary Boys' School in Bradford, and secretary of Bradford Microscopical Society, which met at the school, and numbered Barry Ellam among its young members. At that time also he began his interest in beekeeping and developed into an experienced bird-ringer.

In 1953 he was appointed a rural science adviser to East Suffolk County Education Department, and began his long association with Belstead House. He did a great deal to encourage the establishment of rural studies in many schools, out-county as well as in, and helped to design new county-wide facilities for such studies. The style of teaching rural science in so rural a county as Suffolk made it a suitable model for some

	<p style="text-align: center;">516 OBITUARY</p> <p>developing countries overseas, and Eric organised conferences to facilitate the interchange of ideas.</p> <p>From 1964 he worked as a Team Leader with the Nuffield Secondary Science Project, for less academic pupils, but retired from the formal educational world in 1970. However, he never lost his love of teaching, as testified to by the many who benefited from his tutorials on mounting over the next thirty years!</p> <p>In his retirement he was able to develop further links with microscopy and beekeeping. He was an Honorary Member of the Postal Microscopical Society, and served for a time as its secretary. He was an Honorary Member of the Suffolk Beekeepers Association, and organised their first five annual conferences. In addition he was concerned with the national body for beekeepers.</p> <p>His business could now take up much more of his time, and Eric's own account of the development of his Northern Biological Supplies company was given by him in this <i>Journal</i>, 37, 353–360, [1995]. This paper is recommended for those who wish to refresh their memories of this venture which helped so many ordinary microscopists in their work, and for providing further personal details. With Eric's death this most useful venture has now ceased to operate.</p> <p>He was elected to Honorary Membership of the Quekett in 1970, and served as a committee member, vice president, and membership secretary. It is not generally known, but should now be recorded, that Eric contributed substantial sums anonymously to the Club over the years to support various enterprises.</p> <p>For many years he organised teaching courses on microscopical mounting at Belstead House,</p> <p style="text-align: right;">and many QMC members, and others, have befitted enormously from attendance at these, characterised as they were with an informal but purposive atmosphere. His teaching experience came to the fore in such courses, as mentioned above, allowing him to convey quite complicated procedures very clearly even to complete beginners. The portrait which accompanies this obituary shows Eric in 1994, explaining his technique for collecting pollen on jelly-smear slides, ready for rapid staining - exactly as so many will remember him.</p> <p>Eric developed a series of fixatives and mountants for use in natural history microscopy, and his very useful series of booklets on mounting techniques [bound into one volume as <i>NBS Practical Microscopy</i> in 1980] will long be in use. He might best be remembered by QMC members for his microscopical preparations, which were sold widely through wholesalers and retailers, and direct to customers also. In 1953 NBS became a partnership, and in 1986 a limited company.</p> <p>Eric habitually went to his place of work in Martlesham, near to where he lived in Ipswich, from about 3am until mid-morning. He did so as usual on 5 December 2002, and was found dead among his microscopical paraphernalia by the local postman. His humanist funeral was held at Ipswich crematorium on 17th December.</p> <p>In August 1938 he married Lillian Huntley, in what was to be a very happy and productive union until her death in 1986. There were four children of the marriage, of whom John, Eric, and Nancy survive, and the Club offers them its sincere condolences on the loss of their father, a man who came to mean so much to so many through his patient sincerity.</p> <p style="text-align: center;"><i>The Journal of the Quekett Microscopical Club</i> VOLUME 39, 2001-2004, Part 5, Pages 515 & 516</p>
<p>L.V. Martin</p>	<p>Leslie Vernon Martin b. 5th December 1918 BMD Death, aged 74, Leslie Vernon Martin, April 1993 Surrey Mid-Eastern 45A/7562A/161</p>

Leslie Vernon Martin, O.B.E.



LESLIE MARTIN, who died 11th April 1993, was a man of many parts. He had a distinguished career in the Civil Service, rising to Chief Accountant at the Colonial Office, where he was responsible for introducing a major computing system; on retiring in 1978 was awarded the OBE. He had a lifelong interest in microscopy, and after serving first as Treasurer and later as President of the Club, was made an Honorary Member in 1975. He was also a Fellow of the Royal Microscopical Society.

He was a man of acute intelligence who was an outstanding microscopist; not only with a sound grasp of the theory, but also as an accomplished user of machine tools, he invariably constructed the ingenious apparatus he had designed himself, contributing a number of papers to the *Journal*. In both this and scientific matters he was entirely self-taught. He had a profound knowledge of the history of science and of the light microscope in particular. I recall a visit to the Herschel Museum in Bath; on the wall was a group portrait of some 20 Fellows of the Royal Society of the time. I enquired of the Curator who they were. She was unable to name more than half a dozen, but Leslie ran his finger along the row and identified every one, briefly describing their sphere of interest — a remarkable tour de force!

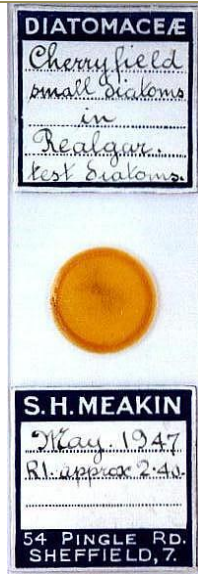
He much admired the great Victorian scientist, telling me on more than one occasion, that he had read so deeply of their writings that he felt they were personal friends of his. Francis Wenham was a particular favourite of his, who, he felt, had not had sufficient recognition for his many innovations.

What was perhaps less well-known was that he made himself master of the taxonomy of the Rotifera, and more lately the Gastrotrichae, publishing a number of important papers in this field in the *Journal*. He added no fewer than 20 species to the British list of Rotifera, and described four previously unknown male rotifers, including a male Monommata, a first for that genus. Again, with the Gastrotrichs, he added 20 species to the British list and found six new species.

His was a classic example of what an intelligent and diligent amateur can achieve, even in a specialist field. He was almost excessively modest about his achievements and knowledge, and would often preface a comment with the words 'Of course, I don't really understand these matters, but . . .' I could await what was to follow with great expectancy, somewhat tinged with apprehension, since invariably he would then proceed to show that he understood it very well, and would sometimes demolish a pet theory of mine in a few words. Fortunately he would always temper his remarks with helpful advice and words of encouragement. His intellect made him sometimes a little impatient with foolish questions, but anyone who made a genuine approach to him could be sure of receiving invaluable advice, and unstinting help. He possessed an excellent sense of humour, and had a fund of good stories. Underneath a somewhat shy outward persona his friends knew him as a warm and caring man. He will be much missed.

Anthony Saunders-Davies

Samuel Henry Meakin



(from an obituary in the Quekett Microscopical Club Journal by A. Morley Jones)

S. H. Meakin, who died on 23rd March 1955 was well known to all QMC members who were interested in the diatomaceae, by the series of articles in the Journal describing new and rare diatoms, written in collaboration with J. W. Barker and A. L. Brigger (see Meakin references).

Meakin was an engineer, and his hobbies were gardening, photography and microscopy. Shortly after the end of the first world war, owing to a severe physical disability, he decided to retire from his profession and take up an occupation which could be followed at home. At this time the correspondence columns of the 'English Mechanic' contained many letters dealing with microscopical matters and Meakin replied to a letter from myself (A.M.J.) offering help in mounting diatoms.

He soon became an accomplished mounter and J. A. Long and Reverend Dingley P. Fuge helped him in nomenclature in the early stages of his work. His engineering skill enabled him to build his own microscope (to which he later added a commercial binocular eyepiece) and to make many pieces of accessory apparatus, including the mechanical fingers which he used with such success in the manipulation and mounting of diatoms, of which his preparations are unsurpassed. His extraordinary skill in manipulating diatoms and splitting frustules and even valves into their component parts enabled him to make full use of his unusually keen powers of observation. Meakin described his apparatus in a series of articles in 'The Microscope', later republished in book form with instructions on collecting and mounting diatoms.

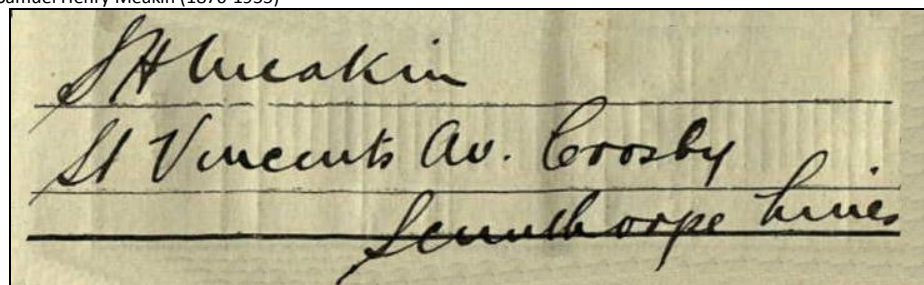
His excellent photographic reproductions of figures of diatoms were well known.

As a Christmas Greeting Meakin usually sent his friends and correspondents a beautifully mounted diatom enclosed in a cardboard box which he had made with infinite care.

Meakin was an ideal correspondent being punctual in replying and including clarity of content.

His observations of facts, based on his handling and mounting of thousands of diatoms, were unquestionably accurate, but his conclusions were often controversial, and as he upheld his opinions with the utmost enthusiasm, his correspondence was always most stimulating.

Samuel Henry Meakin (1876-1955)



Samuel Henry Meakin signature - 1911 Census

Elected to Quekett Microscopical Club 13th April 1943. In 1945 and 1948 was at 54 Pingle Road, Sheffield 7. Stated interest 1945 - Diatoms. Stated interests 1948 - Brass and glass; diatoms.

(from an obituary in the Quekett Microscopical Club Journal by A. Morley Jones)

S. H. Meakin, who died on 23rd March 1955 was well known to all Quekett Microscopical Club members who were interested in the Diatomaceae, by the series of articles in the Journal describing new and rare diatoms, written in collaboration with J. W. Barker (John William Barker, B.Sc., A.R.C.S. elected to QMC 9th May 1939. Address from 1945 members list - 8 Balcaskie Road, Eltham, S.E.9. Stated interests - Diatoms, photomicrography.) and A. L. Brigger (see Meakin references). Note:- In The Microscope March April 1955 Vol. 10 No. 6 is the following - 'As we go to press we learn with regret of the death of Mr. S. H. Meakin, the well-known diatomist. Mr. Meakin had been a subscriber and contributor to The Microscope since its inception.'

Meakin was an engineer, and his hobbies were gardening, photography and microscopy. Shortly after the end of the first world war, owing to a severe physical disability, he decided to retire from his profession and take up an occupation which could be followed at home. At this time the correspondence columns of the 'English Mechanic' contained many letters dealing with microscopical matters and Meakin replied to a letter from myself (A.M.J.) offering help in mounting diatoms.

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Samuel Henry Meakin appears as a customer in the accounts of J. T. Norman where two sales are recorded. One in May 1926 and another in June of the same year.

Advertisement in The Microscope October and November 1937 - 'Wanted, DIATOMS cleaned or uncleaned in exchange for other material, slides or photographs of diatoms. - Meakin, 54 Pringle Road, Sheffield.'

Advertisement in The Microscope May 1938 - 'DIATOMS cleaned or uncleaned in exchange for other material, slides or photographs of diatoms. - Meakin, 54 Pringle Road, Sheffield.'

Advertisement in The Microscope July 1938 - 'DIATOMS cleaned or uncleaned in exchange for other material, slides or photographs of diatoms. - S. H. Meakin, 54 Pringle Road, Sheffield.'

Advertisement in The Microscope October 1938 - 'DIATOMS cleaned or uncleaned in exchange for other material, slides or photographs of diatoms. - S. H. Meakin, 54 Pringle Road, Sheffield.'

Advertisement in The Microscope March 1939, May 1939 - 'Diatom Material, recent or fossil, cleaned or uncleaned, wanted in exchange for other material or diatom slides. Correspondence invited. - S. H. Meakin, 54 Pringle Road, Sheffield, 7.'

Articles in the Quekett Journal

1938 - Note on a new diatom from Joes River, Barbadoes Vol. 24, page 100

1942 - Notes on Diatoms Vol. 24, pages 230-233

1950 - A note concerning the non-validity of *Stictodiscus conserpus*, n.sp. Ba. & Me. Vol. 26, page 162

The articles below were written in conjunction with J. W. Barker.

1943 - New Genera and Species of Diatoms from Russia Vol. 24, pages 251-255

1944 - New and Rare Diatoms Vol. 25, pages 18-22

1945 - New and Rare Diatoms Vol. 25, pages 76-79

1946 - New Diatoms from the Moreno Shale Vol. 25, pages 143-144

1947 - Diatoms from Russian Deposits Vol. 25, pages 175-178

1948 - New and Rare Diatoms Vol. 25, pages 233-235

1949 - New and Rare Diatoms Vol. 25, pages 301-303

The article below was in conjunction with A. L. Brigger

1949 - New and Rare Diatoms Vol. 26, pages 41-42

The article below was in conjunction with C. C. Swatman.

1936 - A note on *Craspedoporus elegans* and *Porodiscus interruptus* Vol. 23, pages 197-199

(Note:- Cecil Charles Swatman. Elected to Quekett Microscopical Club 8th February 1921. In 1939 and 1945 Members list was at 23 Canning Road, Walthamstow, E. 17. Stated interest - Diatoms. Quekett Microscopical Club committee member 1937-38, 1938-39, 1939-1940-1941-1942, 1942-1943. Present at the Quekett Microscopical Club Conversazione on Tuesday 12th October 1937 at the Rooms of The Royal Society of London, Burlington House, Piccadilly, W.1. showing - Diatoms: and Hippuric acid [polarized light]. Present at Quekett Microscopical Club Gossip meeting 24th August 1937 exhibiting - Selected diatoms; three *Actinoptochus* from cutting for new National Route 1010, Newport, Cal. In 1937 Deepes Ltd were advertising 'Swatmans diatom sieves' [see Quekett Microscopical Club Journal inside front cover March 1938]. C. C. Swatman Present at the Quekett Microscopical Club Conversazione on Tuesday 11th October at Burlington House, demonstrating - The Cleaning of Diatoms.)

Articles in The Microscope

January 1939 - Mounting Moth and Butterfly Wing Scales

June 1939 (reprinted Vol. 13. No. 3. July/August 1961) - The Study of Diatoms (I)

July 1939 - The Study of Diatoms (II Cleaning; Strewn slides)

August 1939 - The Study of Diatoms (III Media; Strewn slides)

September 1939 - The Study of Diatoms (IV Selected slides)

November 1939 - The Study of Diatoms (V Mechanical Fingers)

Articles in Watsons Microscope Record

Mounting Diatoms in Hyrax - September 1933 (No. 30)

Mounting Diatoms - May 1934 (No. 32)

Publishers of The Microscope - 'Mounting Diatoms with notes on Cleaning Material' by S. H. Meakin and C. C. Swatman'. Price 5s. 2d. post free.

How to Study Diatoms-2, A Mechanical Finger by Meakin, S.H. - The Microscope Sep.-Oct. 1961 - Also included in "A Diatom Notebook" by James F. Fidiham 1976 (unpublished)

How to Study Diatoms-3, Mounting Selected Slides by Meakin, S.H. - The Microscope Jul.-Aug. 1962 - Also included in "A Diatom Notebook" by James F. Fidiham 1976 (unpublished)


Mr. S. H. Meakin read the Diatom section of the manuscript for Wilfrid J. Garnetts 'Freshwater Microscopy (1953) and mounted a slide of freshwater diatoms specifically for the volume. The photographs of this appear a Plates XII and XIII in the book.

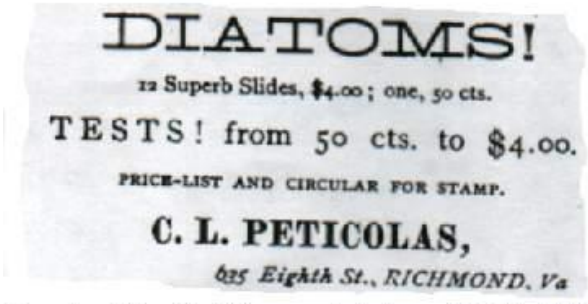
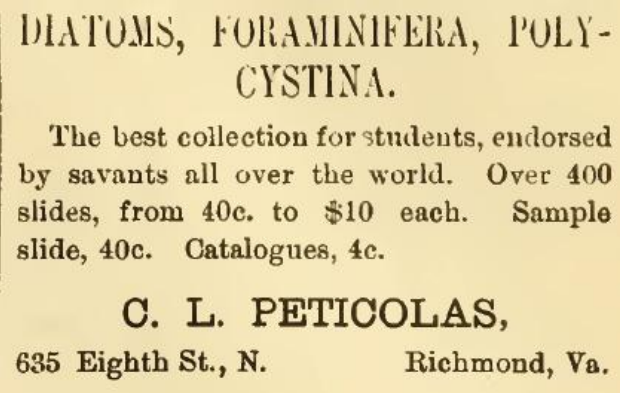
1901 Census

Samuel H Meakin aged 24 born Notts, Greasley living at Greasley Notts Occupation Mechanical Draughtsman

	<p>1881 Census Name Relation Marital Status Gender Age Birthplace Occupation Disability Henry MEAKIN Head M Male 35 Derby, England Engine Fitter Eliza MEAKIN Wife M Female 35 Sawley, Derby, England Samuel H. MEAKIN Son Male 4 Greasley, Nottingham, England Dwelling 16 Engine Lane, Greasley, Nottingham, England BMD Birth Samuel Henry Meakin, September Quarter 1876 Barford Vol.7b. pg.122.</p> <p>In the 1911 Census @ St. Vincents Avenue, Crosby, Scunthorpe, Lincolnshire: Samuel Henry Meakin, aged 34, a Steelworks Engineer at an Iron and Steel Works, b. Greasley, Nottinghamshire Lily Meakin, aged 34, b. Eastwood, Nottinghamshire Stanley Meakin, aged 7, b. Eastwood, Nottinghamshire Mary Meakin, aged 6,, b. Eastwood, Nottinghamshire Frank Meakin, aged 4 weeks, b. Scunthorpe, Lincolnshire</p> <p>Diatom Bibliography Meakin, S.H. / Barker, J.W. - Collected Reprints. Meakin, S.H. / Barker, J.W. - Diatoms from Russian Deposits. : Journal of the Quekett Microscopical Club, series 4. - Vol. 2 No. 4 pp.175-178, pl. 24. (1947) [Pub. 1947] Meakin, S.H. / Barker, J.W. - New and rare diatoms.[Journal of the Quekett Microscopical Club. Ser.4. 2(1), 1944 :1722.] Meakin, S.H. / Barker, J.W. - New and rare diatoms.[Journal of the Quekett Microscopical Club. Ser.4. 2(5), 1948 :233235.] Meakin, S.H. / Barker, J.W. - New diatoms from the Moreno Shale.[Journal of the Quekett Microscopical Club. Ser.4. 2(3), 1946 :143178.] Meakin, S.H. / Barker, J.W. - New genera and species of diatoms from Russia.[The Journal of the Quekett Microscopical Club. Ser.4. 1(6), 1943: 251-255.] Meakin, S.H. / Barker, J.W. - New and Rare Diatoms. : Journal of the Quekett Microscopical Club, series 4. - Vol. 2 No. 1 pp.18-22, pl. 3-4. (1944) [Pub. 1944] Meakin, S.H. / Barker, J.W. - New and Rare Diatoms. : Journal of the Quekett Microscopical Club, series 4. - Vol. 2 No. 2 pp.76-78, pl. 15-16. (1945) [Pub. 1945] Meakin, S.H. / Barker, J.W. - New and Rare Diatoms. : Journal of the Quekett Microscopical Club, series 4. - Vol. 2 No. 5 pp.233-235, pl. 28. (24 Sep 1948) [Pub. 1948] Meakin, S.H. / Barker, J.W. - New and Rare Diatoms. : Journal of the Quekett Microscopical Club, series 4. - Vol. 2 No. 6 pp.301-303, pl. 37-38. (27 Jun 1949) [Pub. 1949] Meakin, S.H. / Barker, J.W. - New Genera and Species of Diatoms from Russia. : Journal of the Quekett Microscopical Club, series 4. - Vol. 1 No. 6 pp.251-255, pl. 38, 39. (29 Feb 1944) [Pub. 1944] Meakin, S.H. / Barker, J.W. - New diatoms from the Moreno Shale. : Journal of the Quekett Microscopical Club, series 4. - Vol. 2 No. 3 pp.143-144, pl. 22. (1946) [Pub. 1946] Meakin, S.H. / Brigger, A.L. - New and Rare Diatoms. : Journal of the Quekett Microscopical Club, series 4. - Vol. 3 No. 1 pp.41-42, pl. 6. (1949) [Pub. 1949] Meakin, S.H. / Swatman, C.C. - A note on <i>Craspedoporus elegans</i> and <i>Porodiscus interruptus</i> : Microscopy, The Journal of the Quekett Microscopical Club - Vol. 1 No. 5 pp.197-199, pl. 14 (1936) [Pub. 1936] Meakin, S.H. - How to Study Diatoms-2, A Mechanical Finger : The Microscope - Vol. 13 No. 4 pp.86-90 (Sep.-Oct. 1961) [Pub. 1961] Meakin, S.H. - How to Study Diatoms-3, Mounting Selected Slides : The Microscope - Vol. 13 No. 8 pp.p. 212-218 (Jul.-Aug. 1962) [Pub. 1962] Meakin, S.H. - Note on a new diatom from Joe's River, Barbadoes : Microscopy, The Journal of the Quekett Microscopical Club - Vol. 1 pp.100-102, pls. 14-15 (1938) [Pub. 1938] Meakin, S.H. - Notes on diatoms : Microscopy, The Journal of the Quekett Microscopical Club, Series 4 - Vol. 1 No. 5 pp.230-233, pl. 36-37 (Dec 1942) [Pub. 1942] Meakin, S.H. - The study of diatoms : The Microscope - Vol. 3 and 4 pp.152, 187, 209, 239, 8, 50 (1939) [Pub. 1939]</p>
<p>Frank D. Monson</p>	
<p>Stanley Midwinter</p>	<div> </div> <p>James Stanley Midwinter (15th February 1923 - 2nd August 2008) Stanley was born on the 15th February 1923, first son of William Herbert Midwinter and Katie (nee Jones) in the Welsh village Rhos Isaf. Wherever he lived, throughout his life, he never forgot his Welsh origins and frequently returned to the village of his birth to visit family and friends. He spoke Welsh and was keen to teach others the rudiments of his native language. Stanley was an indefatigable correspondent, communicating with a wide range of acquaintances from all periods in his life, on all the subjects he took a delight in. Throughout his life there was a passion for music, particularly the genre of Jazz. He was an accomplished pianist, guitarist and banjoist. He was taught the banjo by the famous teacher Charles Evans, who also taught Selwyn Cash.</p>

	<p>For many years he played guitar with like-minded jazz musicians who had a standing set at the Barwell and District Constitutional Club on a Friday night. Stanley played this set right up until his demise and rarely missed a performance.</p> <p>His interest in Microscopy began when he discovered the writings of Philip Henry Gosse during his childhood. Proud of his 'working-class' heritage he recounted his desire to, one day, own a brass microscope, similar to the Society of Arts model displayed in a local shop near his childhood home – an ambition he achieved in later adulthood. He was a familiar figure at the various club meetings around the country and was particularly interested in the various 'do-it-yourself' projects, as he was also a skilled lathe operator. His children have fond recollections of pond-dipping trips in the mid-seventies and his association with Horace Barber, who lived in the next town, was instrumental in establishing an interest in the Diatomaceae. Stanley was a member of the Quekett Microscopical Club, the Manchester Microscopical Society and the Postal Microscopical Society.</p> <p>His formative years were spent in Birkenhead.</p> <p>He was educated first at Mersey Road School and then, via a scholarship, entered the local Grammar, Rockferry High School.</p> <p>After school, during the war years, he started work with ShellMex.</p> <p>In the mid years of the conflict he was called up, entering the Army, working in the Royal Army Ordnance Corps (RAOC), reaching the rank of Corporal by the time of his discharge in 1947, when he enrolled at Liverpool University in the Social Sciences department and later to Manchester University to qualify as a Mental Health specialist.</p> <p>His professional life began when he started work at Denbigh Mental Hospital where he was a Psychiatric Social Worker.</p> <p>He married his wife, Irma, a student nurse at the same hospital, in 1954.</p> <p>His daughter Jennifer was born in 1960, his son Ken in 1964.</p> <p>He later specialised in Child Guidance, being responsible for large swathes of North Wales, which he patrolled on his motorbike. From here Stanley moved to King's College, Belgrave Children's Hospital, a prestigious group at the time.</p> <p>He moved from London to Hinckley, taking up a lectureship in Social Work at Lanchester Polytechnic in Coventry in 1963. He remained there for 19 years until his retirement.</p> <p>He was renowned for driving to work in his green 1952 Armstrong Siddeley Whitley. As parts for this vehicle became more difficult to source Stanley donated the car to the Coventry Museum of British Road Transport. He was briefly reunited with the cherished machine on his eightieth birthday when friends organised for the vehicle to be at the steps of Coventry Cathedral where he was to meet for a birthday lunch.</p> <p>A highly principled man, he remained true to his convictions even when those beliefs ran contrary to his own benefit.</p>
<p>Maurice O. Moss</p>	<p>Elected to the Quekett Microscopical Club 26th August 1969 In the Quekett Microscopical Club Membership list of 1974: Moss, Dr. M. O., 34 Overdale, Dorking, Surrey, RH5 4BS. Dorking 2457 Interests: Algae, Bacteriology, Diatoms Freshwater, Microbiology, Mycetoza, Mycology, Plant Pathology</p> <p>Diatom Bibliography Moss, M.O. / Gibbs, G. / Gray, V. / Ross, R. - The presence of a raphe in <i>Semiobis hemicyclus</i> (Ehrenb.) R. Patr. [Bacillaria -Pub.1978 : Vol.1 : pg.137-150] Moss, M.O. / Gibbs, G. and Ross, R. - The presence of a raphe in <i>Semiobis hemicyclus</i> (Ehrenb.) R. Patr. : Bacillaria - Vol. 1 pp.137-150, 4 pls., 1 fig. (1978) [Pub. 1978] Moss, M.O. / Gibbs, G. - The frustule of <i>Achnanthes lanceolata</i> (Breb.) Grunow : Microscopy, The Journal of the Quekett Microscopical Club - Vol. 32 pp.401-406, fig. 1-15 (Jul-Dec 1974) [Pub. 1974] Moss, M.O. - Structures at the edge of the frustule of <i>Pleurosigma angulatum</i> (Quekett), : Microscopy, The Journal of the Quekett Microscopical Club - Vol. 34 No. 7 pp.504-506, 2 figs. (Jan-Jun 1983) [Pub. 1983] Moss, Maurice O. / Carter, John R. - The resurrection of <i>Achnanthes rostrata</i> Oestrup. [Bacillaria -Pub.1982 : Vol.5 : pg.157-164]</p>
<p>Fred Nicholson</p>	
<p>George Norman</p>	<p>George Norman, M.R.C.S.Eng., 12 Brock Street, Bath. President Bath Microscopical Society 1885/86. Member Postal Microscopical Society 1881-1892 (possibly before, possibly after). In 1882/83 and 1883/84 was on circuit i. Was also a committee member in 1881/82, 1882/83, 1883/84, 1884/85, 1885/86, 1886/87, 1887/88, 1888/89, 1889/90, 1891/2 season.</p> <p>Also George Norman (1824-1882) Born. - Hull, 1824. Died. - Peebles 5th July 1882. List of Hull Diatomaceae in Transactions of the Microscopical Society VIII (1860). Worked at Yorkshire plants. Diatoms in Hull Museum, catalogued by R. H. Philip.</p> <p>References:- Catalogue of Scientific papers compiled and published by The Royal Society, IV, 643., VIII, 517., X, 939., XIII, 541. ; Correspondence of G. A. Walker-Arnott in Department of Botany, Natural History Museum. ; Transactions of the Hull Field Naturalists Club I, 105 (includes portrait) and II, 14. ; The Naturalist 1903, 307. Pleurosigma Normanii Ralfs.</p> <p>Author - Notes on some new and rare Diatomaceae, from the stomachs of <i>Ascidiae</i>. 8vo, pp. 2. London 1857. Author - List of Diatomaceae occurring in the neighbourhood of Hull. 8vo, pp. 23. London 1860. Author - On some un-described Species of Diatomaceae. 8vo, pp. 5. plate 1. London 1860. Author - List of Diatomaceae, occurring in the neighbourhood of Hull. 2nd edit., 8vo, pp. 32. Hull 1865 Author – Hunting for Diatoms. 8vo, pp. 10. London 1862.</p>
<p>Debbie Oppenheim</p>	
<p>T. B. B. Paddock</p>	<p>Elected to the Quekett Microscopical Club 10th October 1972 In the Quekett Microscopical Club Membership list of 1974: Paddock, T. B. B., Department of Botany, British Museum (Natural History), Cromwell Road, London, SW7. 01-589-6323, Ext. 504.</p> <p>Diatom Bibliography Paddock, T.B.B. / Kemp, K.-D. - An illustrated survey of the morphological features of the diatom genus <i>Mas</i> : Diatom Research - Vol. 5 No. 1 pp.73-103 (1990) [Pub. 1990] Paddock, T.B.B. / Kemp, K.-D. - Chambers within the valve of <i>Diadema</i>, gen. nov. : Diatom Research - Vol. 4</p>

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<p>Roger Padgham</p>	
<p>Luigi Pastori</p>	<p>Elected to the Quekett Microscopical Club 18th October 1966 In the Quekett Microscopical Club Membership list of 1969: Pastori, L., 41 Crespigny Road, Hendon Central, London, N.W.4. In the Quekett Microscopical Club Membership list of 1974: Pastori, L., Three Ways, Flordon, Norwich, Norfolk. NOR 68W. Swainsthorpe 540 Interests: General Microscopy</p>
<p>C. L. Peticolas</p>	 <p>Address in mid 1880's 635 Eighth Street, Richmond Virginia. Richmond, VA Advertised his slides as "Each One A Gem."(Microscopical Bulletin). Cat. of 400 Authentic preparations, Diatoms, Foraminifera, and Polycystinae.</p>

	<p>Price: 12 for \$4.50. any 6 for \$2.40, single slide, .40 cents (1890).</p>  <p>DIATOMS! 12 Superb Slides, \$4.00; one, 50 cts. TESTS! from 50 cts. to \$4.00. PRICE-LIST AND CIRCULAR FOR STAMP. C. L. PETICOLAS, 635 Eighth St., RICHMOND, Va</p> <p>American Monthly Microscopical Journal Vol. I. 1880</p>  <p>DIATOMS, FORAMINIFERA, POLY-CYSTINA.</p> <p>The best collection for students, endorsed by savants all over the world. Over 400 slides, from 40c. to \$10 each. Sample slide, 40c. Catalogues, 4c.</p> <p>C. L. PETICOLAS, 635 Eighth St., N. Richmond, Va.</p> <p>The American Monthly Microscopical Journal for January/February 1894</p> <p>In The American Monthly Microscopical Journal for May/June/July/August/September/October/November/December 1881: Wanted. - Good gatherings of Diatoms, fossil or recent, especially of test forms. Liberal exchange in fine slides; prepared or rough material. Lists exchanged. C. L. Peticolas, 635 8th Street, Richmond, Va.</p>
<p>Victor Porguen</p>	<p>In August 1984 – V. Porguen, 24 Anson Road, Norwalk, Connecticut</p> <p>Diatom Bibliography</p> <p>Porguen, V. / Sullivan, M.J. - <i>Australodiscus peruvianus</i>, gen. et sp. nov., a marine centric diatom from t : Eur. J. Phycol. - Vol. 32 pp.119-124 (1997) [Pub. 1997]</p> <p>Porguen, V. / Sullivan, M.J. - A New Species of <i>Eupodiscus</i> Closely Related to the Generitype <i>E. radiatus</i> (: 10th Diatom-Symposium - pg.117-126, 3 plts. (1988) [Pub. 1988]</p>
<p>Wallace Frederick Reeve</p>	<p>Frederick Reeve b. circa 1872 West Ham, Essex</p> <p>In the 1901 Census @ 220 Crownfield Road, Wanstead, Essex: Frederick Reeve, aged 28, a Boiler Maker, b. West Ham, Essex</p> <p>In the 1911 Census in West Ham, Essex: Frederick Reeve, aged 38</p> <p>m. Marion Rushmer b. circa 1871 Reddham, Norfolk</p> <p>BMD Marriage December Quarter 1897 West Ham Vol.4a. pg.435.</p> <p>In the 1901 Census @ 220 Crownfield Road, Wanstead, Essex: Marion Reeve, aged 29, b. Reddham, Norfolk</p> <p>In the 1911 Census in West Ham, Essex: Marion Reeve, aged 39</p> <p>Wallace Frederick Reeve b. 30th August 1898 West Ham, Essex</p> <p>In the 1901 Census @ 220 Crownfield Road, Wanstead, Essex: Wallace Frederick Reeve, aged 2, b. West Ham, Essex</p> <p>In the 1911 Census in West Ham, Essex: Wallace Frederick Reeve, aged 12</p> <p>Elected to Quekett Microscopical Club 10th February 1925. Quekett Microscopical Club Hon. Assistant Curator 1936-37, 1937-38, 1938-39, 1939-1940-1941-1942, 1942-1943 and committee member 1939-1940-1941-1942, 1942-1943</p> <p>Present at the Quekett Microscopical Club Conversazione on Tuesday 12th October 1937 at the Rooms of The Royal Society of London, Burlington House, Piccadilly, W.1. showing - Plates and anchors of Synapta.</p> <p>In the 1939 and 1945 and 1948 Quekett Microscopical Club Members list was at 117 Westwood Road, Goodmayes, Essex. Stated interest - Diatoms.</p> <p>Present at the Quekett Microscopical Club Conversazione on Tuesday 11th October ???? at Burlington House, showing - Group of various diatoms from Oamaru, N.Z.</p> <p>BMD Death, aged 74, December 1972 Redbridge Vol.5d. pg.1773</p> <p>probably m. Dora E. Farnell BMD Marriage September Quarter 1932 Wandsworth Vol.1d. pg.1158.</p>

	<p style="text-align: center;">W. F. Reeve</p> <p>ON 26 OCTOBER 1972 this former member of the Q.M.C. passed away. He was elected to membership 10 February 1925. He was assistant curator 1936-1944 when C. J. Sidwell was curator. Sidwell suffered from poor health and during much of this time Reeve was in sole command. In 1945 he was succeeded by W. R. Dracass, who died so tragically only two years later. At one time Reeve was an ardent diatomist, but he was forced to give up microscopy on account of trouble with his eyesight. Nevertheless, he was always ready to help fellow microscopists and his friends the world over mourned his passing and the loss of his presence from the ranks of the generous, cheerful and helpful people of microscopy.</p> <p style="text-align: right;">R.M.C.L. A.L.E.B.</p> <p>AS WE GO TO PRESS we learn with regret of the deaths of Mr Ed. Frison (Hon. Member) and Mr E. D. Evens, a highly respected microscopist and former Member.</p> <p style="text-align: right;">331</p>
<p>Mr. Robertson (Glasgow)</p>	<div style="text-align: center;">  </div> <p>Robertson, T. W. - Slide date - 1915 Elected to Quekett Microscopical Club January 18th 1907. Address in 1908, 1909 Quekett Microscopical Club members list - Burnton, near Mount Vernon, Glasgow.</p>
<p>J. M. Rollo</p>	
<p>A. W. Round</p>	<div style="text-align: center;">  </div> <p>Elected to the QMC 9th January 1962 In the Quekett Microscopical Club Membership list of 1969 & 1974: Round, A.W., 35 Nonsuch Court Avenue, Ewell, Surrey. 01-393-9363</p>
<p>Frank E. Round</p>	<p>Diatom Bibliography</p> <p>Round, F.E. / Basson, P.W. - A new monoraphid diatom genus (<i>Pogoneis</i>) from Bahrain and the transfer of p : Diatom Research - Vol. 12 No. 1 pp.71-81 (May 1997) [Pub. 1997]</p> <p>Round, F.E. / Bukhtiyarova, L. - Four new genera based on <i>Achnanthes</i> (<i>Achnanthidium</i>) together with a re-def : Diatom Research - Vol. 11 No. 2 pp.345-361 (Nov 1996) [Pub. 1996]</p> <p>Round, F.E. / Bukhtiyarova, L. - Revision of the genus <i>Achnanthes sensu lato</i>. <i>Psammothidium</i>, a new genus bas : Diatom Research - Vol. 11 No. 1 pp.1-30 (may 1996) [Pub. 1996]</p> <p>Round, F.E. / Crawford, R.M. and Mann, D.G. - The Diatoms. Biology & Morphology of the genera. : Cambridge University Press, Cambridge - pg.747 pp. (1990) [Pub. 1990]</p> <p>Round, F.E. / Crawford, Richard M. - The lines of evolution of the Bacillariophyta : I. Origin.[Proc.R.Soc.Lond -Pub.1981 : Vol.B211 : pg.237-260]</p> <p>Round, F.E. / Hakansson, H. - Cyclotelloid species from a diatomite in the Harz mountains, Germany, inclu : Diatom Reserach - Vol. 7 No. 1 pp.109-125 (1992) [Pub. 1992]</p> <p>Round, F.E. / Mann, D.G. - <i>Psammodiscus</i> nov. gen. Based on <i>Coscinodiscus nitidus</i>. : Ann. Bot. - Vol. 46 pp.367-373 (1980) [Pub. 1980]</p> <p>Round, F.E. / Mann, D.G. - The diatom genus <i>Brachysira</i>. I. Typification and separation from <i>Anomoeonei</i> : Arch. Protistenk. - Vol. 124 pp.221-231 (1981) [Pub. 1981]</p> <p>Round, F.E. / Medlin, L.K. - Taxonomic studies of marine gomphonemoid diatoms. : Diatom Research - Vol. 1 No. 2 pp.205-225 (1986) [Pub. 1986]</p> <p>Round, F.E. / Reid, F.M.H. - The antarctic diatom <i>Synedra reinholdii</i>: Taxonomy, ecology and transference : Diatom Research - Vol. 2 No. 2 pp.219-227 (1987) [Pub. 1987]</p>

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<p>Doug Smith</p>	<div> </div> <p style="text-align: center;"><i>Doug Smith – Snowdon</i></p> <p><i>Possibly</i> Elected to the QMC 13th March 1973 In the Quekett Microscopical Club Membership list of 1974: Smith, D., 2 Cloister Garth, St. Albans, Herts. AL1 2HT</p>
<p>Hamilton Lanphere Smith</p>	<div> </div> <p>Smith, Prof. H. L. Hamilton Lanphere Smith (1818-1903) Occupation - Businessman and Professor. Hobart College, Geneva, New York. Diatomist & photomicrographer. First President of the Southern California Microscopical Society Labels, light pink, cream colour Hamilton Lanphere Smith was born in New London, Connecticut, in 1818. He attended Yale College, graduating with an A.M. degree in 1839. While a college student, he constructed what was then this country's largest telescope. In 1849, Smith was appointed to the chair of natural philosophy and astronomy at Kenyon College in</p>

Gambier, Ohio. In 1868, he became Prendergast Professor of Astronomy and Natural Philosophy at Hobart College.

Smith became well-known internationally for his microscopic study of the diatomaceae and for the classification and arrangement of this group of cryptogrammic algae. He was the world's pioneer in tintypes and is credited with being the first in this country to discover the comet of 1844.

He was one of five professors who "formed a distinguished faculty which made Hobart College respected through all the vicissitudes" of the late 19th Century and was known as a confidant and benefactor of students and younger faculty. In 1871, he received an honorary Doctor of Laws degree from Trinity College in Hartford, Connecticut. From 1883 to 1884 he served as acting president of Hobart College.

Smith was widely published and authored many books, including *Natural Philosophy for School and Academies* (1842), *First Lessons in Astronomy and Geology* (1848), *A Few Remarks on Angular Aperture* (1879), and *Species Typicae Diatomacearum* (1885-87).

In 1900, Smith retired, receiving the honorary degree Doctor of Science. He died on August 1, 1903.

The Farlow Herbarium - Harvard University has the following - DIATOMACEARUM SPECIES TYPICAE. Centuries I-VI, numbers 1-600; supplement numbers 601-750. Boston (Stodder), 1876-1888. Specimens are strewn mounts on microscope slides.

Professor H. L. Smith recommends the employment of Shellac varnished paper rings to finish a slide.

An article concerning the Above was published in 'Science' and an abstract printed in the *American Monthly Microscopical Journal* page 183 1880. (If you have a photocopy of this article it would be appreciated). This was also mentioned in an article in *Science Gossip* December 1882 by W. J. S..

Is this the same H. L. Smith - 'A contribution to the life-history of the Diatomaceae' 1886-7. & 'A synopsis of the British Diatomaceae with remarks on their structure, functions, and distribution, and instructions for collecting and preserving specimens.' 1853-56 & 'List of British Diatomaceae' 1859.

Co-Author - DIATOMS : Directions for collecting, preserving, transporting, preparing and Mounting Specimens of the Diatomaceae. By Prof. Arthur Mead Edwards, M.D.; Prof. Christopher Johnston, M.D. ; Prof. Hamilton L. Smith. LL.D. ; and Frederic Kitton, Esq. - Published by the Industrial Publication Company, New York. 1878

Author - Notes of Diatomaceae, found near Gambia, Ohio. 8vo, pp. 3. London 1860.

In the 1872, 1873 QMC Honorary Foreign Members list - Prof. Hamilton L. Smith, President of Hobart College, Geneva, New York, U.S.A. - elected July 26th 1872.

In the 1874, 1875, 1876, 1877, 1878, 1879, 1880, 1881 QMC Honorary Members list - Prof. Hamilton L. Smith, President of Hobart College, Geneva, New York, U.S.A. - elected July 26th 1872.

Member of The American Society of Microscopists 1890 (Joined 1879)

Hamilton L. Smith, LL.D., Hon. F.R.M.S. @ Geneva, N.Y.

American Society of Microscopists - 1891:

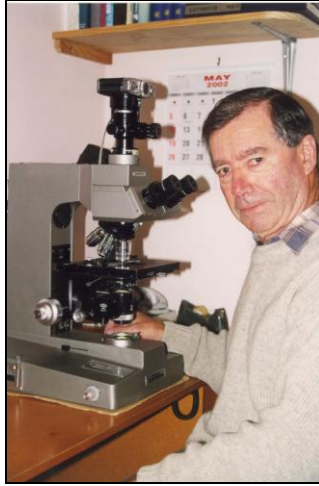
Smith, Hamilton L., LL.D., Hon.,F.R.M.S., joined 1879, of Geneva, N.Y.

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<p>Mike Smith</p>	<div> </div> <div> </div> <p> Elected to the QMC 9th February 1971 In the Quekett Microscopical Club Membership list of 1974: Smith, M.H., 304 Harehills Lane, Leeds 9, Yorks., LS9 7BG. Leeds 628145 Smith, M. H., 304 Harehills Lane, Leeds LS9 7BG In April 1998 was at 10 Moor Allerton Crescent, Moortown, Leeds. LS17 6SH </p>
<p>Paul J. Smith</p>	<div> </div> <p> <i>Paul Smith with plankton net – Snowdonia</i> </p> <p> Paul J. Smith, F.R.M.S, M.R.C.S., C.I.T.P. paul@smithp43.fsnet.co.uk 0207 701 3756 </p>
<p>W.A. Sokol</p>	
<p>James Solliday</p>	<p> In 1995 - James D. Solliday, 1130 Austin Street, Santa Ana, CA 92704, U.S.A. Diatom Bibliography Solliday, J.D. - Morphological variations in the Mono lake fossil diatoms : - pg.1-17, 4 pls. () [Pub.] Solliday, J.D. - The history of 19th century slide makers : unpublished manuscript - pg.12 pp. () [Pub.] </p>
<p>E. J. Steer</p>	
<p>Frithjof E. Sterrenburg</p>	<p> Elected to the QMC 10th October 1972 In the Quekett Microscopical Club Membership list of 1974: Sterrenburg, F.A.S., Westerstraat 47, Sybekarspel, N.H., Netherlands. 02299-377 </p>

S. R. Stidolph



My first experience with a microscope came as a young teenager when visiting my grandfather in Levin. From memory I think it was in the late 1940's. The instrument was an R and J Beck Wenham binocular model with a sliding prism to open or close off the breaches tube. It was missing the simple dark stop condenser but had two pairs of eyepieces and a 1" and 1/4" objective. It had a circular stage with a rectangular glass slide mount on top. The glass was fitted with a movable brass slide holder.

It transpired that after a few trips to Levin my grandfather gifted the microscope to me. So I arrived back at the family home in Masterton the proud owner of my first microscope.

The Wenham binocular microscope introduced me to the wonders of pond life protozoology. One of the habitats most abundant in a variety of life was a sewerage farm a few miles from my hometown for which I coined the name 'Stink Hole'. As I recall, the most abundant species by far were the Paramecium.

My first purchase of a modern microscope was in 1972. It was an Olympus model FHA with trinocular head, Negative High (NH) phase contrast objectives and Abbe 1.25NA phase contrast turret condenser.


With the purchase of the Olympus FHA I was able to greatly enhance my studies of protozoa using the phase contrast attachment. I photographed numerous forms in reproduction and became quite fascinated with the variety of microscopic life. That was until I discovered a beautiful diatom, *Nitzschia sigma*, gliding slowly across the field of vision. From then on I decided to make diatoms my line of research which has persisted to this day.

The FHA served me very well up to 1994 when I purchased a fine second hand Olympus model 'Vanox' instrument which is still in regular use. A picture of this is included. As a result of generous funding from the Lottery Grants Board I was able to obtain a range of S-Plan apochromatic objectives and NHK photo eyepieces to upgrade my instrument.


The purchase of the Olympus 'Vanox' enabled me to further refine my results with the aid of the superb Plan apochromats. Quite recently I converted to digital camera display via my laptop. This greatly relieved the strain on my ageing neck as well as allowing the production of attachments which I send to a colleague at Victoria University of Wellington with whom I have been collaborating for many years.


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<p>Dr. H. Stolterforth</p>	<p>Dr. H. Stolterforth, M.A. Scientific Secretary of the Chester Society of Natural Science Diatom Bibliography</p> <p>Stolterforth, H. - A simple method of cleaning diatoms : Microscopy, The Journal of the Quekett Microscopical Club - No. 44 pp.95-96 () [Pub.]</p> <p>Stolterforth, H. - On a new species of the genus <i>Eucampia</i> (<i>E. striata</i>) : Journal of the Royal Microscopical Society. - Vol. 2 pp.835-836. (1879) [Pub. 1879]</p> <p>Stolterforth, H. - On a new species of <i>Hydrosera</i> Wall. : Journal of the Royal Microscopical Society - Vol. 1 new series No. 3 pp.424, 2 fig. (1881) [Pub. 1881]</p> <p>Stolterforth, H. - Report on the marine diatomaceae of the L.M.B.C. district.[Pub.Liverpool : Biological Society, 1889.]</p>
<p>A. H. Symonds</p>	
<p>Dr. Malcolm Thain</p>	<p>Elected to the QMC 10th May 1966 In the Quekett Microscopical Club Membership list of 1969 & 1974: Thain, Dr. E.M., Bure House, 2 Middleton Road, Shenfield, Essex</p> <div style="text-align: center;"> <p>Eric Malcolm Thain: 1925–2007</p> <p>Malcolm was born on 29 November 1925, in Royston, Herts. After the family moved, he went to school at St Dunstan's College in Catford, London, and then on to what was then Battersea College, to be awarded London BSc and PhD degrees in chemistry. He had a series of posts, including a fellowship at Berkeley, California for a year, before joining the [Civil Service] staff of the Tropical Products Institute in 1957. At this time he and his family resided at Shenfield. Eventually he became director of what by then was called</p> </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  </div> <div style="width: 45%;"> <p>the Tropical Development and Research Institute in 1983; he retired in 1986, when he was made an honorary research fellow of the chemistry department of University College London. He was a fellow of the Royal Institute of Chemistry [later, the Royal Society of Chemistry].</p> <p>His professional life was devoted to chemical matters, and on occasion he and I spoke together of how things had changed in chemistry since we both graduated in the subject! He was the author of a great many papers on specialised aspects of chemistry, mainly on pesticides, and of government reports, between 1950 and retirement, and served on expert international committees on pesticides.</p> <p>In his private life he had developed much interest in bird-life, and served on the committees of local naturalist societies in East Anglia for many years. He enjoyed working in his garden, which provided many specimens for inspection.</p> <p>His interest in the microscope derived from this concern for natural history. He joined the Quekett in 1966, and was a contributor to gossip meetings on a variety of topics, some of them described in the Bulletin. For Malcolm, microscopy was a relaxing hobby that could be pursued at home, whereas chemistry couldn't! He kept his work-room set aside, cleaning it himself, so that work in progress would remain undisturbed.</p> <p>He was President of the Club 1978–1979, having to cut short his term of office on account of service requirements in his post. His Presidential Address, published in the journal in 1980, was on male moth pheromone organs. He contributed a further paper in 1993, on metallic particles in soil. He was elected an honorary member in 1980. More than once, Malcolm discussed with me his delight with the Club – personal friends made, meetings enjoyed, its publications avidly followed.</p> <p>In 1954 he married Nancy Key; they had a daughter and a son. He died unexpectedly but peacefully at home in his sleep on 7 July 2007, having had a heart condition for many years. The accompanying portrait, which he himself supplied, shows him in his professional capacity. Our sincere condolences go out to his wife and family: we shall all miss his gentle presence among us.</p> </div> </div> <p style="text-align: right;">Brian Bracegirdle</p> <p style="text-align: center;"><i>The Journal of the Quekett Microscopical Club</i> VOLUME 40, 2005-2008, Part 6, Pages 537 & 538</p>

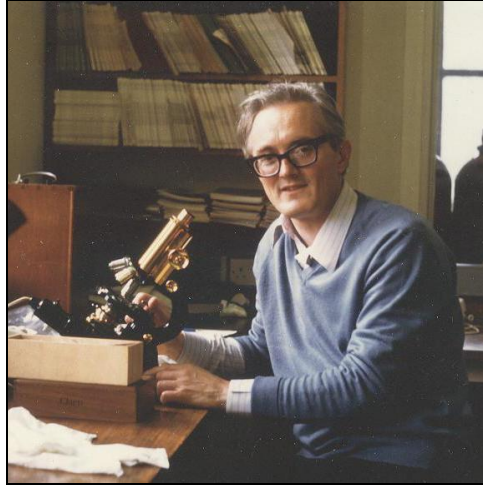
David Thomas	
I. Tittley	
Professor Trueman	
V. L. Vanderhoof	
<p>C. N. Walter</p>	<div> </div> <p>Elected to the QMC 26th June 1956 In the Quekett Microscopical Club Membership list of 1969: Walter, C.N., F.R.M.S., Rotherwood, 32 Stanley Avenue, Beckenham, Kent. BR3 2PX</p> <p>Cedric N. Walter Married to Violet. Possibly living at 368 Cherry Hinton Road, Cambridge at 13/9/67 Definitely at "Rotherwood", 32, Stanley Avenue, Beckenham, Kent on 27th August 1966</p> <p>In the 1851 Census @ 50 Castle End, Marylebone Thomas Walter, aged 60, a Porter, b. Warbleton, Sussex Caroline Walter, aged 46, b. Brampton, Kent Edwin Walter, aged 15, a Music Collector, b. London</p> <p>In the 1861 Census @ 24 Alfred Street, St. Giles, London Edwin Walter, aged 25, a Music Seller, b. Pimlico, London Sophia D. Walter, aged 25, b. Kinross, Scotland Edwin Walter, aged 18 months, b. St. Giles, London</p> <p>In the 1871 Census @ 14 Bernard Street, Bloomsbury Edwin Walter, aged 34, a Musical Instrument Tuner, b. London Sophia D. Walter, aged 34, a Dress Maker, b. Kinross, Scotland Edwin Walter, aged 11, b. London Ellen Walter, aged 9, b. London Arthur E. Walter, aged 7, b. London Arthur Walter, aged 10 months Sarah Allum (sophia's mother), a widow, aged 72, no occupation, b. Brompton, Kent</p> <p>In the 1881 Census @ 16 Burton Crescent, Marylebone Sophia Walter, a widow, aged 45, b. Scotland Edwin Walter, aged 21, a Solicitors Clerk, b. St. Giles, London Ellen Walter, aged 19, b. St. Giles, London Charles E. Walter, aged 17, a Gas and Water Engineer, b. St. Giles, London Arthur E. Walter, aged 10, a Scholar, b. Bloomsbury, London Sarah Allum (mother of Sophia), a widow, aged 84 (paralysed 12 years), b. Brompton, Kent</p> <p>BMD Birth Cedric Norman Walter, March Quarter 1891 Islington Vol.1b. pg.198. BMD Marriage Cedric N. Walter to Violet Kingsford, September Quarter 1914 Lewisham Vol.1d. pg.2300. BMD Marriage Edwin Walter to Sophia Dickson Allum, December Quarter 1858 Marylebone Vol.1a. pg.785.</p> <p>In the 1891 Census @ 159 Huddlestone Road, Islington Sophia D. Walter, a widow, aged 55, b. Culross, Scotland Thomas Walter (son-in-law), aged 33, an Actor, b. Islington Edwin Walter (son), aged 31, a Solicitor's Clerk, b. St. Giles, London Charles E. Walter (son), aged 29, a Plumber and Gas Fitter, b. St. Giles, London Ellen Walter (daughter), aged 29, an Actress, b. St. Giles, London (Ellen and Thomas are noted as married - but whether to each other is unknown, but must be assumed) Arthur E. Walter (son), aged 20, an Oil Colorman, b. St. Giles, London</p>

	<p>Cedric N. Walter (grandson), aged 4 months, b. Islington</p> <p>In the 1901 Census @ 11 Union Road, Islington Sophia Walter, a widow, aged 66, living on own means, b. Fifeshire, Scotland Thomas Walter (son-in-law), aged 43, a Theatrical Stage Manager, b. Islington– London Arthur E. Walter (son), aged 30, a Plumber, b. Bloomsbury, London Ellen Walter (daughter), aged 39, b. Bloomsbury, London (Ellen and Thomas are noted as married - but whether to each other is unknown, but must be assumed) Cedric N. Walter (grandson), aged 10, b. Islington Hubert N. Walter (grandson), aged 8, b. Islington, London Ellen A Walter (grand daughter), aged 1, b. Islington, London</p> <p>In the 1911 Census @ 3 Ivy Lane, Brockley, London, S.E.: Thomas Walter, aged 53, a Theatrical Manager, b. Islington, London Ellen Walter, aged 29, b. Bloomsbury, London Cedric Norman Walter, aged 20, a Chartered Accountant's Clerk, b. Islington, London Ellen Adeline Walter, aged 11, at School, b. Islington, London Albert Norman Walter, aged 8, at School, b. Islington, London</p> <p>BMD Marriage Ellen Walter to Thomas Walter, June Quarter 1889 Pancras Vol.1b. pg.153.</p>
<p>A. W. R. West</p>	
<p>Geo. West</p>	
<p>A.C Wheeler</p>	
<p>George White</p>	
<p>David Williams</p>	<p>Biatom Bibliography</p> <p>Williams, D.M. / Kociolek, J.P. - Unicell ontogeny and phylogeny: examples from the diatoms : Cladius - Vol. 3 No. 3 pp.274-284 (1987) [Pub. 1987]</p> <p>Williams, D.M. / Navarro, J.N. - Description of <i>Hyalosira tropicalis</i> sp. nov. (Bacillariophyta) with notes o : Diatom Research - Vol. 6 No. 2 pp.327-336 (Nov 1991) [Pub. 1991]</p> <p>Williams, D.M. / Round, F.E. - <i>Fragilariforma</i>, nom. nov., a new generic name for <i>Neofragilaria</i> Williams & : Diatom Research - Vol. 3 No. 2 pp.p. 265-267 (1988) [Pub. 1988]</p> <p>Williams, D.M. / Round, F.E. - Revision of the genus <i>Synedra</i> Ehrenb. : Diatom Research - Vol. 1 No. 2 pp.313-339 (1986) [Pub. 1986]</p> <p>Williams, D.M. / Round, F.E. - Revision of the genus <i>Fragilaria</i>. : Diatom Research - Vol. 2 No. 2 pp.267-288 (1987) [Pub. 1987]</p> <p>Williams, D.M. - An illustrated catalogue of the type specimens in the Greville diatom herba : Bulletin of the British Museum (Natural History) - Vol. 18 No. 1 pp.1-148, 74 pls. (28 Jul 1988) [Pub. 1988]</p> <p>Williams, D.M. - <i>Cavitatus</i> D.M. Williams, nov. gen.: A new genus of fossil diatom (Bacillari : Review of Paleobotany and Palynology - Vol. 58 pp.357-362 (1989) [Pub. 1989]</p> <p>Williams, D.M. - Cladistic analysis of some freshwater araphid diatoms (Bacillariophyta) wit : Plant Systematic and Evolution - Vol. 71 pp.89-97 (1990) [Pub. 1990]</p> <p>Williams, D.M. - Comparative morphology of some species of <i>Synedra</i> Ehrenb. with a new defini : Diatom Research - Vol. 1 No. 1 pp.131-152 (1986) [Pub. 1986]</p> <p>Williams, D.M. - Diatom nomenclature and the future of taxonomic database studies : Nova Hedwigia, Beiheft 106 - pg.21-31 (Mar 1993) [Pub. 1993]</p> <p>Williams, D.M. - <i>Distionella</i> D.M. Williams, nov. gen., a new araphid diatom (Bacillariophyt : Arch. Protistenkd. - Vol. 138 pp.171-177 (1990) [Pub. 1990]</p> <p>Williams, D.M. - <i>Fragilaria floridana</i> Hanna: Ultrastructure of the valve and girdle and its : Ouvrage dedie a H. Germain - pg.259-265, 2 pls. (1990) [Pub. 1990]</p> <p>Williams, D.M. - Observations on the genus <i>Tetracyclus</i> Ralfs (Bacillariophyta) II. Morpholog : Br. Phycol. J. - Vol. 24 pp.317-327 (1 Dec 1989) [Pub. 1989]</p> <p>Williams, D.M. - Observations on the genus <i>Tetracyclus</i> Ralfs (Bacillariophyta). I. Valve and : Brit. Phycol. J. -</p>

	<p>Vol. 22 pp.383-399 (1987) [Pub. 1987] Williams, D.M. - Proposal to conserve the generic name <i>Tetracyclus</i> against <i>Biblarium</i> (Bacill : Taxon - Vol. 35 pp.730-731 (1986) [Pub. 1986]</p>
<p>E. G. Williams</p>	<p>Edward "Ted" Gardner Williams Unable to find any BMD records! Elected to the Quekett Microscopical Club 12th May 1964 In the Quekett Microscopical Club Membership list of 1969 & 1974: Williams, E. G., MA, MChemA, FRIC, 10 Glan Aber Park, Hough Green, Chester, CH4 8LF. Chester 22408 Interests: Diatoms General, Food Microscopy, General Microscopy, Photomicrography, Pond Life</p> <div style="text-align: center;"> <p>OBITUARY</p>  <p>E. Gardner Williams (1894-1989)</p> </div> <p>TED (as he was known to his many friends) died in August 1989 at the great age of 95. Although interested in microscopy for many years previously, he only became a member of the Quekett Microscope Club in 1964. He was also a member of the Postal Microscopical Society and other scientific societies.</p> <p>It was the writer's good fortune to get to know Ted well soon after the end of World War II when he collaborated with me in the study of the ecology and microscopic organisms of some brackish pools at Leasowe, Wirral, Cheshire (now in Merseyside) to which study he contributed his knowledge of chemistry and of diatoms and other algae. Our joint study of these pools was published in 1948, but Ted had for many years previously been interested in the aquatic organisms of ponds and lakes. His earliest publication that I am aware of is on 'Fossil Plants' (published in Watsons Microscope Record, No. 26, 1932, pp. 377) but over the years he published many other papers in journals such as the <i>North Western Naturalist</i>, <i>Countryside</i>, <i>The Microscope</i>, <i>Proceeds of the Chester Society of Natural Science, Literature and Art</i>, the <i>British Phycological Bulletin</i> and <i>Nova Hedwigia</i>.</p> <p>He was especially interested in and had a wide knowledge of the nanoplankton, more particularly that of the River Dee near his home in Chester, and will be long remembered by his many friends for his helpfulness and encouragement in their own researches.</p> <p>The following is a list of publications by E. G. Williams known to me:</p> <ol style="list-style-type: none"> 1. 1932. Fossil Plants. <i>Watsons Microscope Record</i>, No. 26, pp. 377. 2. 1934. The Nanoplankton of Ponds. <i>Ibid.</i>, No. 33. 3. 1934. Atheyn Zacheariad Brun in Britain. <i>North Western Naturalist</i>, Dec. 1934. 4. 1934. Notes on the Survey of the Natural History of a Small Area, parts I to IV (with H. Britton). <i>Ibid.</i>, 1934. 5. 1935. Notes on Algae and Cnidocera from Mull. <i>Ibid.</i>, Dec. 1935. 6. 1936. Notes on the Plankton of some Lochs in the Island of Mull. <i>Ibid.</i>, March 1936. 7. 1940. <i>Azolla filiculoides</i> Lam. and its Occurrence in Cheshire. <i>Ibid.</i>, June 1940. 8. 1941. Two Plankton Algae of the Chester District. <i>Ibid.</i>, Sept. 1941. 9. 1942. Notes on the Plankton of Two Welsh Lakes. <i>Ibid.</i>, March and June 1942. 10. 1948. Microscopic Organisms of some Brackish Pools at Leasowe, Wirral, Cheshire. (With A. L. Galliford.) <i>Ibid.</i>, 1948, pp. 396/2. 11. 1949. Observations on the Micro-organisms of Bala Lake, Merioneth. <i>Proc. Chester Soc. Nat. Sci. Lit. & Art</i>, III, 1949. 12. 1951. Plankton Organisms of the River Dee near Chester, 1941-42. <i>Ibid.</i>, IV. 13. 1954. Plankton Organisms of the River Dee near Chester, 1951/52. <i>Ibid.</i>, V. 14. 1960. How to study Nanoplankton. <i>The Microscope</i>, 12 (6), 142/147. 15. 1960. Objects from a Microscopist's Cabinet, Part 1. <i>Ibid.</i>, 13, (2), 33/36. 16. 1961. Objects from a Microscopist's Cabinet, Part 2. <i>Ibid.</i>, 13, (3), 121/124. 17. 1962. Objects from a Microscopist's Cabinet, Part 3. <i>Ibid.</i>, 13, (6), 150/154. 18. 1962. Objects from a Microscopist's Cabinet, Part 4. <i>Ibid.</i>, 13, (9), 229/230. <p style="text-align: center;">362 MICROSCOPY 36 July - December 1989</p> <ol style="list-style-type: none"> 19. 1965. Plankton Algae from the Serpentine in Eaton Park, Chester. <i>Br. phycol. Bull.</i>, 1965, 2 (6), 429/430. 20. 1967. How to begin the Study of Freshwater Algae. <i>Countryside</i>, 1967, pp. 493/501. 21. 1967. Notes on Three Algae of Small Bodies of Water. <i>Br. phycol. Bull.</i>, 1967, 3 (2), 337/342. 22. 1968. Notes on Two Algae of Small Bodies of Water and a Note on <i>Quadracoccus laevis</i> Fott. <i>Ibid.</i>, 1968 3, (3), 515/518. 23. 1972. The Structure and Development of a Form of <i>Dinococcus oedogoni</i> (Geitler) Fott. (With J. W. G. Lund). <i>Nova Hedwigia</i> XXIII (1972), 493/513. <p>Those who have seen his published papers will appreciate the beauty and scientific accuracy of his drawings of algae, the originals of which were often in colour. Perhaps not many will know that he was also a fine artist in a more general sense, as on the walls of his home were hung a number of beautiful landscapes that he had painted while in the army during World War I.</p> <p style="text-align: right;">A. L. Galliford.</p> <p>Some Happy Memories of E.G. Williams by J.Alan Wright (January 2010) I first met Edward ("Ted") Gardner Williams about 1980 when he was already 90 years old. He was a widower living</p>

	<p>with Maeva Williams who was probably in her eighties and who had been adopted by Mr. Williams’ parents when she was a little girl. They lived in a large semi-detached house in a suburb of Chester and shared the running of the house with help from Social Services.</p> <p>Mr. Williams – I always called him Mr. Williams because it somehow seemed irreverent to call such an old man by his given name- was born in Liverpool, in a comfortable middle-class family. His father ran the family industrial business. He went to school on Merseyside and in 1914 went up to Cambridge to study chemistry.</p> <p>The outbreak of World War I interrupted his studies because he immediately volunteered for the army and was sent abroad with his brother to fight in one of the first battles. 1000’s of his comrades were killed but miraculously Mr. Williams and his brother both survived and were taken prisoner by the Germans. He was a Prisoner of War for nearly five years.</p> <p>Most people would have been overwhelmed by this but he took the opportunity to learn French and German and he read the only book he had – his bible- from cover to cover. He also taught English to the foreign prisoners in the prison camp.</p> <p>At the end of the war he went back to Cambridge as a “mature” student and graduated. He seemed to have had many different jobs throughout his life including working for the family business – which, apparently, did not appeal to him – running one of the tenanted farms on the Duke of Westminster’s Estate near Chester (he was probably the first person to run a Dairy Farm on strictly scientific principles) and ended up working in the Public Health Laboratory in Chester where his job involved analysing samples brought in by the local councils, businesses and members of the public.</p> <p>He was a very knowledgeable and capable person. He painted in water colours and he once showed me his wonderful paintings of life in the trenches – these were willed to the War Graves Commission on his death. He could converse authoritatively on most subjects – religion, literature, politics, etc. – and at the age of 92 bought a keyboard and taught himself to read music and then play this!</p> <p>His great passion in life, though, was Natural History, especially microscopic forms of life. He had a wonderful old, brass, Watson binocular microscope. He must have spent many happy hours peering down this, drawing what he saw and making copious notes.</p> <p>At the time I first met him he was analysing samples from local ponds for the Cheshire Wildlife Trust. I was allowed to help him with this work but not before he had made sure I thoroughly understood the classification system of plants and animals – something which I have benefited from ever since.</p> <p>It was while I was going through these pond samples that I first came across diatoms. These fascinated me right from the outset and when Mr. Williams saw this he suggested that I should sample the Dee Estuary, which I found was teeming with diatoms and which I subsequently visited many times. I later extended my diatom sampling to all kinds of habitats and whenever I took him a slide he would spend hours looking at this and writing out a very detailed list of all the species he found.</p> <p>He had an extensive natural history library which he left to me in his will and he also gave me a lot of scientific equipment which I still have and treasure.</p> <p>He was a dreadful diatom slide maker – perhaps his hands were not too nimble at this stage – and you can easily recognise a slide made by him from the great clumps of poorly-cleaned diatoms and mounds of surplus “Naphrax” which he never bothered to scrape off from around the coverslip!</p> <p>He once told me that he had seen Halley’s Comet as a schoolboy. So when it came around again some 80 years later I had to carry his favourite chair outside one very cold frosty evening and wrap him up in blankets to keep him warm. I expected to see a fiery streak suddenly appear across the heavens and was very disappointed to find out that it could only be seen as a very faint speck in the distance. Apparently, its movement could only be tracked by recording its position each night. This and the very cold weather turned me off astronomy for life.</p> <p>I used to have a wonderful photograph of him working at his microscope but, sadly, I have not so far been able to find it. So, instead, picture a little man with a round face, wearing glasses with small round lenses, grey hair and lovely clear blue eyes which always had a smile in them.</p> <p>His body eventually gave out when he was about 95 but his mind was sharp right up to the end. I well remember the last time I saw him in a geriatric ward in the old, long-demolished City Hospital: he said to me that he was not like the other people there. What he meant was that he was not senile like the rest of the patients. I re-assured him that I fully agreed with him!</p> <p>Looking back it was a real pleasure to have known him for some five years. I learnt so much from him and I am constantly reminded of him every time I use some of his equipment or one of the reference books he bequeathed to me.</p> <p>Possibly Rhodwen Maeve Williams, b. 18th January 1909 BMD Death, aged 84, Rhodwen Maeve Williams, September 1993 Chester and Ellesmere Port, D37/3401D/88</p>
<p>J. B. Woodworth</p>	
<p>Tom Worthington</p>	<p>Possibly In the QMC Membership list 1974: Worthington, T.S., 3 The Moorings, Strand-on-the-Green, Chiswick, London W4 3PG. 01-994-3872 Elected 9th April 1968</p>

J. Alan Wright



J. Alan Wright in the FBA laboratory, Windermere

The British Diatomists meeting at Nettlecombe Court, Exmoor National Park, Field Studies Centre.



Key to the individuals in the photograph above.

a	Anne-Marie Schmid
b	Debbie Oppenheim
c	Paul Smith (who kindly identified/confirmed the names of the individuals and provided the colour photograph on the previous page)
d	David George Mann
e	Roger Flowers?

The Bernard Hartley Sample and Strewn Slide Collection – Appendix A

a	Maurice O. Moss
b	Klaus-Dieter Kemp
c	Patricia (Pat) Simms
d	Ann Smith
e	Marjorie Carter (wife of John R. Carter)
f	Theresa Gow
g	Mary Mitchell
h	Gill Lockett
i	Peter Boyd
j	Elizabeth (Liz) Y. Haworth
k	Anthony Peabody
l	Robert Ross (14 th August 1912 – 2005)
m	Frank Round (1927 – 2010)
n	Horace George Barber (1 st September 1908 – 1982)
a	Robert (Bob) Isaac Firth (8 th October 1902 – 1982)
b	Barrie Paddock
c	Roger Flower?
d	John R. Carter (1908 – 1993)
e	Martin Davey
f	Neil Roberts
g	Mishka Hogan-Guzowska
	The forehead between g & h belongs to Sarah Metcalfe
h	Roger McLean
i	Gwen Barber
j	Karen Serieyssol
k	Bernard Hartley (1917 – 2007)
l	John Anderson
m	Pieter Houpt
n	Tony Chamberlain
o	Samir Antoine
p	Richard (Dick) Crawford
q	Henry Hardin Gleave (13 th April 1909 – 17 th March 1990)

