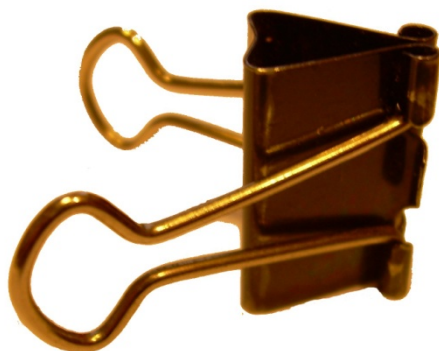


The Homemade Gem/Jewel Clamp

I have a slight interest in Amber Inclusions having acquired several pieces over the years but having looked no more deeply than with a X10 magnifying glass these mainly stay in a drawer as curiosities. However, I have obtained an amber bracelet from a car boot sale (something akin to a garage sale in the US). The pieces are quite small and I have tried to examine each stone with the aforementioned magnifying glass. This proves very unsatisfactory as the pieces are difficult to hold and manoeuvre between my thumb and forefinger. I have the reputation at work of having 'sausage fingers'!

Having tried the double sided tape as recommended on the internet, I searched for a method of clamping the pieces so I could use my stereo microscope to assist in my search for the smallest of inclusions in the smallest of amber pieces. It was on eBay that I found that actual Gem/Jewel clamps are manufactured in India for about £25 including postage. Now, I'm not saying I'm tight, but I do live in East Lancashire and have some slight affinity to my Yorkshire cousins over the border, so I thought to myself that surely I could make something to do the job for much less than this. As a result I present the Northern Man's version of the Gem Clamp.

The first item required was a clamp, I searched all my boxes of bits and pieces for something appropriate and having dismissed all kinds of clips, from hair to crocodile, I spotted a small Bulldog clip that would be perfect. Now you might think that a Bulldog clip is a bit over the top for a small piece of amber but it is a particular type of Bulldog clip I had found that would work.



Now I needed a method of holding the clip, I decided to drill through the spring steel! This was a mistake as my mini drill with a 1.5mm tungsten carbide bit would only scratch the surface, but did go over 12mm into my left thumb very easily when it slipped. Anyway, once the bleeding had stopped, I attacked the clip with small diamond grinding attachments and successfully made a hole for a 3mm screw.

So here I am with a suitable clip with a hole and a sore thumb, what can I connect to the clip to hold it in place? Glancing around I spotted my telescopic magnetic pick up tool, removed the 3mm screw from the clip and attached the clip magnetically to the pick up tool. This produced a reasonably strong bond, certainly sufficient for my requirements, so no drilling or grinding was required. I have marked the drilled thumb down to stupidity.



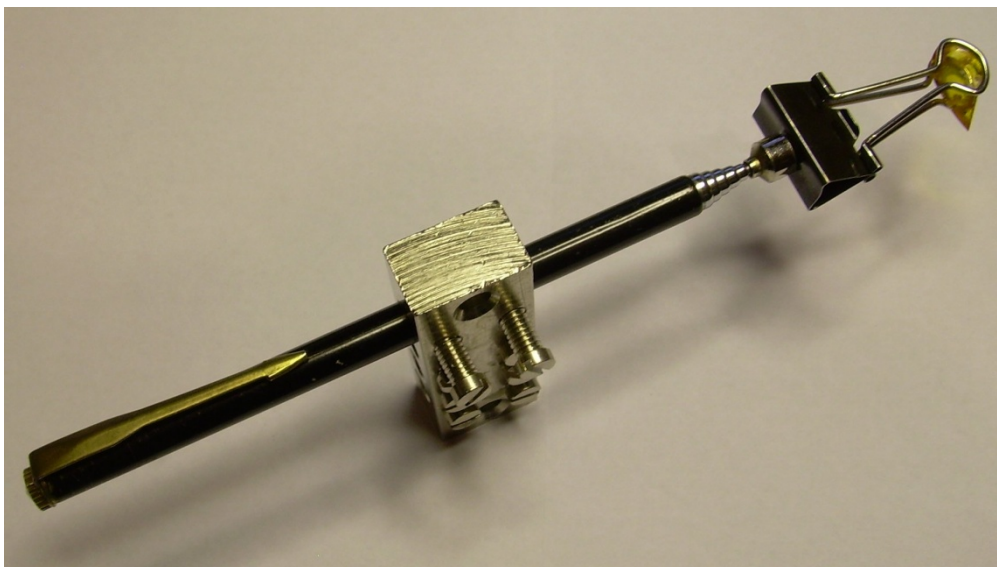
Now I needed a method of holding the 6.8mm diameter body of the pick up tool, so I went for a wander around the local DIY shop and found the ideal base for my gem clamp. This is in the form of a '4 Way Earthing Block' for around £2.

The block I found had 2 sizes of holes for the earth wires, one for 35 square mm cable and the rest for 25 square mm cable. The larger hole is exactly the right size for my pick up tool, it slides easily along the body once the thread burs have been removed and can be extended as required.

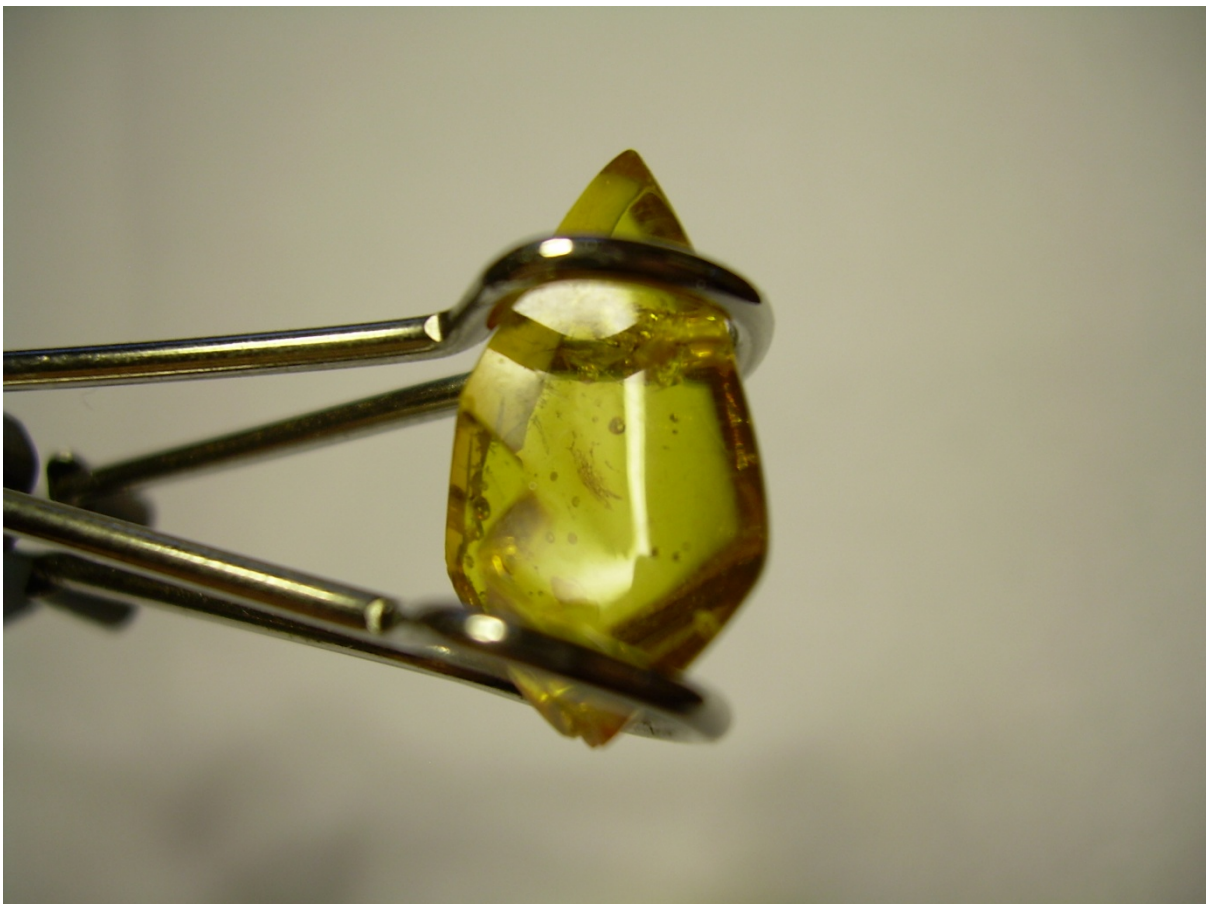


Note that it is necessary to unscrew and remove the pen style clip at the top of the pick up tool as the magnet has a larger diameter than the body. This can be replaced once the body has been slotted through the hole in the earthing block.

And there we have it, simple, no special tools required and no drilling if you get the same pick up tool as my 3!



Now you can see why the Bulldog clip had to be of this type. There is sufficient spring in the wires in this position to hold all sorts of interesting items for the stereo microscope and the large brass block is quite stable but can be clamped through it's mounting holes or just held using some double sided tape or BluTac.



Here is a closer shot of the clamp in action with a small chip of amber.

Thanks for looking, I hope this might inspire someone to improve on the design, if not, use as is, it works quite well.

Lawrence Hartley

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PS I know it was over 12mm because of the blood and flesh in the twists of the drill bit!!!!

Comments to the author at loz.efg@gmail.com welcomed.

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