A Sodalite Egg by Dennis Durham

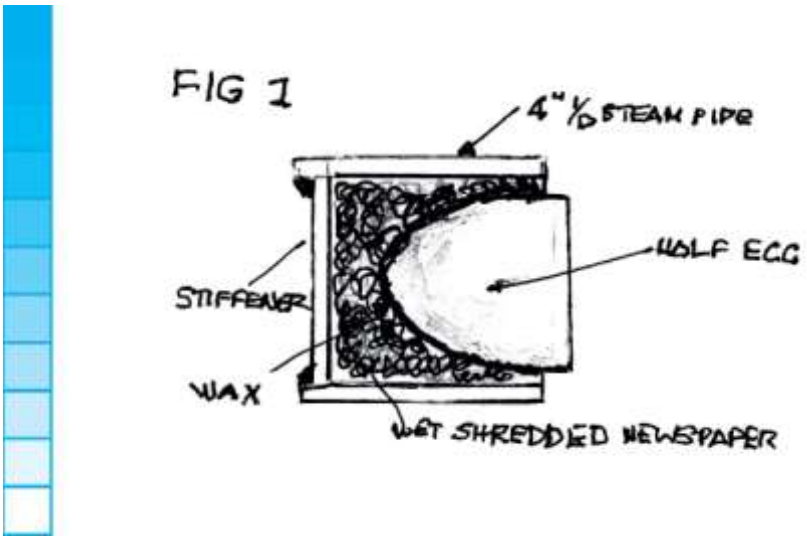
Having spent some time cutting stone eggs the size of chickens eggs it became obvious to me that I had exhausted my interest after cutting quite a number of eggs and I should try something else.

Some time later, when wandering around the local 'Gemstone' store in Hull, I came across a large piece of blue Sodalite which brought to mind the idea of creating a large egg. I thought it would be a challenging project considering I only had six inch silicone grinding wheels to produce an egg shape, creating much waste.

Anyway the piece of Sodalite was affordable, so I bought it and with the aid of templates I got the better of the chunk and proceeded to shape the egg, my calipers telling me that the finished size would be 80mm in diameter and 120mm in length. I Sanded with 600 grit cloth, followed by giving the egg a pleasing polish with cerium but I was not happy with the result as it lacked 'something'. I was disappointed with what I had created as it was too plain and looked bare despite the figuring and veining which contributed some attraction.

After very careful thought of what Faberge aspired to, I decided to have a try at a similar exercise. I have always held the view that what one clever 'B' could do another could follow. Not so!

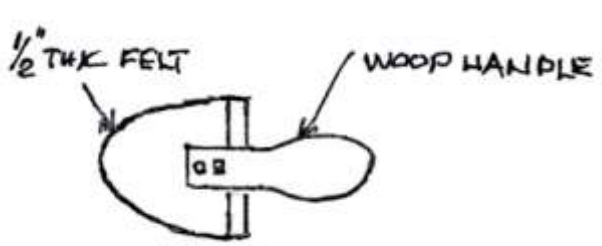
With a 10" saw I carefully cut the egg into two pieces at the maximum diameter. Oh dear what have I done now, I can't leave it like that! A decision was made to hollow out both halves however I did not possess any core drills and it was not possible to grind out the internals. The possibility struck me that I could turn it on the lathe using a half octohedral diamond fixed to the end of an old square file, anyway that was the only thing I could come up with. I took a short length of suitable steam pipe and closed one end with a plate stiffener by welding. See Fig 1.



The next job was to fill the open pipe with wet shredded newspaper and to form a mould using the half egg to press the wet paper down exposing

all but a half inch of the egg, removing it and leaving it to dry. I was then able to wax the inside and warm it take the half egg, checking the sawn end was square and true to the pipe.

On cooling it was returned to the lathe to hollow it out with the diamond tool. After some time and great care, progress was made with a hand held diamond tool and a tool rest. A template was used extensively to make sure I achieved the right shape and a wall thickness of 5mm. I paused for a moment and looked at the inside of my little shed and found that the whole inside was covered with a white powder, including myself. From now on I used a face mask! I smoothed the inside of the egg with grit paper cut into small pieces about an inch square and held in by my finger. I used dozens of such pieces both 220 and 600 grit to make the condition necessary to induce a nice polish with cerium oxide applied with a hard felt 'spade like' tool. (See Fig 2).

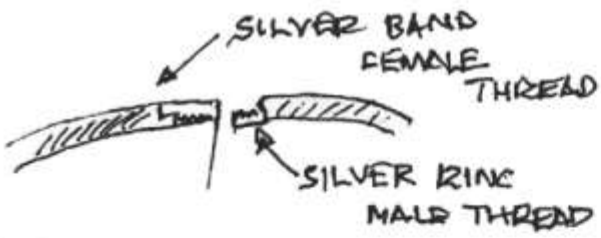


INSIDE FELT POLISHER

FIG. 2

A great deal of pressure hand held against a rotating egg was required for a good finish.

A spigot was lathe turned on the stone egg to accommodate a silver band . The same procedure was used to do the lower part of the egg. Joining the two halves of the egg in the centre required the making of two silver bands. These were cut from 6 x 2mm flat silver bar and bent to make the two bands. To allow one to screw into the other called for some detailed calculations for each band. These were silver soldered into bands. I chose screw threads of 20 per inch that would work. These were lathe turned on temporary mandrels to screw the male and female threads. (See Fig.3).



THREADED SILVER JOINT

FIG 3

The outer ring was made to accept setting recesses 5mm diameter x 0.05mm deep for 32 cabochon stones around its circumference. These were machined by using the lathe headstock gearing as a dividing head and plunging a 5mm end mill in an electric drill clamped in the lathe toolholder, thus giving accurate pitching of the indents. At this stage I was beginning to tire and felt that I had bitten off more than I could chew - press on!

As the two rings were a good fit it was easy to glue and press into position making sure each half of the egg screwed together neatly.

Finally I chose to cut 32 cabochons of red zircon from Tasmanian crystals to go in the recesses, secured by raising four claws for each stone in the silver ring. (See Fig 4). That's it done.

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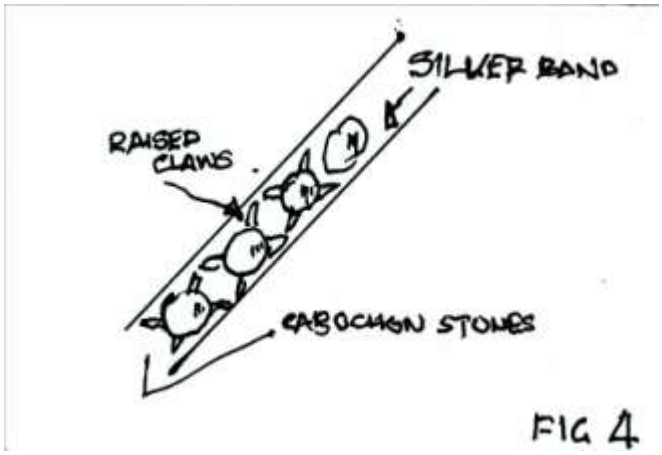

FIG 4

Often when one starts a project with a clear aim, one never knows how it will finish up. Well this was to be one of these occasions.