Making a Queen Rearing Cell Punch Kit

I attended a BIBBA lecture and heard Roger Patterson speak on how his preferred method of queen rearing was using the Cell Punch method, but that there are no commercial kits available now. Having done some more reading on the internet on Dave Cushman's website (http://www.dave-cushman.net/bee/cellpunch.html) there was mention of using 7.62 ammunition for the punches, but no further instructions. The following is therefore my attempt to create a Cell Punch kit using this shell case.

I am no expert at either woodwork or metalwork (only a CSE grade 1) and many may find fault or could improve on what I have done or suggest further improvements. I take no liability to any injury caused by anyone trying to follow these instructions, they are merely the process I went through and I hope they help others. Instructions for using the Cell Punch for Queen Rearing is here again on Dave Cushman's site: http://www.dave-cushman.net/bee/roger_punch_frame.html

7.62 Ammunition

Searching around the internet I found three suppliers of the spent cases, I ended up obtaining mine from the first company listed below:

www.simplyfirearms.co.uk www.rjMilitaria.com www.MilitaryMart.co.uk info@simplyfirearms.co.uk sales@rjmilitaria.com sales@militarymart.co.uk

Step 1: Cutting off the narrow piece The first step is to cut off the narrow end where the bullet has come out leaving the tapering. In order to stop the case being crushed by the vice I put a bold into the end of it (inside) so there was support.



Step 2: Cutting off the percussion cap It is tempting to cut off the cap at the point where the groove in the casing is, I learnt to my cost that this is not far enough in to take off the whole cap.



Step 2: Cutting off the percussion cap (cont) In reality you need to cut off the cap about 6mm from the end. See picture bottom right for amount to take off.

When cutting the end off I held it with pliers to try and get a cleaner cut, the case is quite thick and thus strong enough to take the pressure from the vice.







Step 3: Put the Cutting Edge On

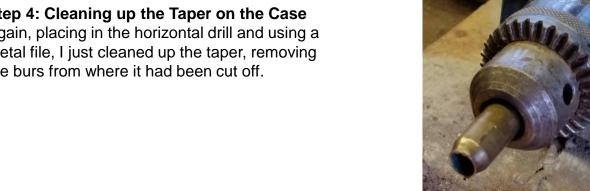
As can be seen, the case is quite thick and thus in order to provide a cutting edge, I placed each case into a drill, mounted horizontally. Using a metal file and the case spinning, I filed down the outer wall to create a cutting edge, see below.







Step 4: Cleaning up the Taper on the Case Again, placing in the horizontal drill and using a metal file, I just cleaned up the taper, removing the burs from where it had been cut off.



Step 5: Making the Punch cutting dowel The casing measures roughly 48mm end to end, after cutting both pieces off, allowing

10mm to be inserted into the top of larger dowel for holding it. I cut the 9mm dowel at 58mm lengths.

The 20mm dowel was cut in 20mm lengths, allowing for the 9mm dowel to be drilled and inserted 10mm into it. Firstly, I marked the centre of the 20mm dowel, then I used a vertical drill to ensure it stopped at 10mm deep.



Step 6: Tapering the Punch Dowel

Placing the wooden dowel in the horizontal drill, using sandpaper wrapped around a piece of wood, created a small taper to align to the bullet casing.







Step 7: Combining Dowels

Using wood glue I glued the 9mm wood into the 20mm wood and allowed to dry.



Step 8: Combining Dowels

Placing the thin end of the combined dowel back into the horizontal drill I then cleaned up the holding end.



Step 8: Marking out for the Clips

Starting 32mm from the left hand edge I marked and screwed in the clips to the wooden baton every 30mm, giving me 10 clips across the length.





Step 9: Making the Frame

I then made the frame up. I chose to use glue, nails and at key joints. Where I could, I predrilled and used a small screw to give greater strength to the overall frame.



The Finished Item

(I have since numbered them 1-10 so that when rearing queens I can keep notes against each)



List of Tools Used

- Drill
- 9mm Wood Drill Piece
- Horizontal Drill Stand
- Vertical drill stand
- Metal Files
- Compound Saw (ensuring 90 degree cut on wood)
- Screw Driver
- Metal Saw

Materials Required

- 10 x 7.62 Bullets
- 20mm dowel rod
- 9mm dowel rod (I found this at Jewsons)
- 1 x Brood Frame
- Mounting piece of wood for clips e.g. 10 15mm thick x 33mm long
- Bottom Bar rather than used the split bottom bars I used a solid piece of wood to strengthen the frame
- · Screws/Nails/Wood glue
- Sanding Paper
- Tool (Terry) clip closed type 10mm

Thanks hope you found this useful. David Parker, davidparker@polymathconsulting.com