

How to make a breast plate at Newman Brothers

This breast plate is made of tin and would later be engraved with the name and age of the person being buried in the coffin. It would be screwed onto the top of the coffin lid.



But what processes did it go through to be made?

1. Guillotining or cutting the sheet of tin to size

The thin sheet of metal is cut to size in a machine called a guillotine. Here is the tin before it is stamped.



2. Stamping



Stamping is carried out using a piece of machinery known as a “drop (or forge) stamp.” This machinery is still in use today within the Jewellery Quarter. A large heavy stamp would be dropped from a height onto a sheet of metal to make decorative patterns on the breast plate. The drop stamps at Newmans were powered by an electric motor which drove the line shafting above the machines. The stamps were operated from a pit dug into the floor behind them.

A rope stirrup around the operators left foot allowed control over the stamp, while the operator’s hands were busy rapidly sliding metal sheets onto the plate. The loss of a finger was not uncommon! Here is the tin with the decorative design ‘stamped’ into the metal. It is sat on the ‘Die’ (mould) which is the pattern which gives it the design.



Die sinking

Creating the mould is known as Die sinking. The Die sits at the base of the Drop (or forge) Stamper, it is made from a solid block of iron with the design of the object carefully carved out by a skilled craftsman. It is very hard work carving in iron; however this meant that the die could be used over and over again. They are so strong that many dies have survived.

The Force

The heavy weight dropped onto the metal is called the Force. The Force is made by casting; hot molten Stampers Metal is poured into the die to create an exact reverse impression to the die. When the Force is dropped onto the die the flat metal will be squashed between the die and the force to produce the design.

3. Pressing (fly-press machines)

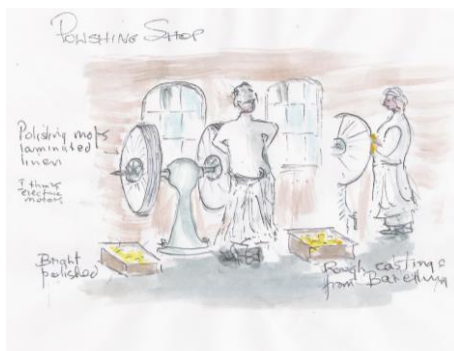


These machines were used to clip off surplus metal around the pressings to form cleanly finished fittings. The fly presses were also used to create smaller stamped items (see the crucifix shape below).



4. Polishing

Items were polished to remove marks, finger prints and give them a shiny, clean finish ready for packaging. In the late 1900s electrical polishing 'lathes' were used for hand polishing individual pieces. A line shaft would have powered earlier machinery before electric polishing machines were used. Polishing produced noxious dust which was sucked into extractor hoods and out into a 'hopper' courtyard in the



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