

(No Model.)

H. McDOUGALL.
MANUFACTURE OF THIMBLES.

No. 274,356.

Patented Mar. 20, 1883.

Fig. 2.

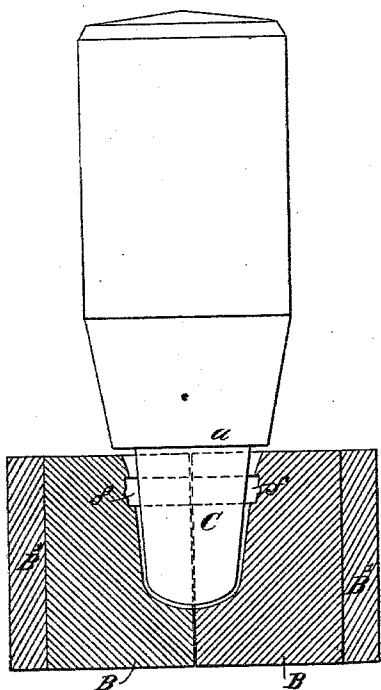


Fig. 3.

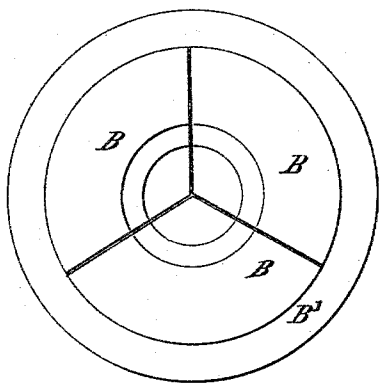


Fig. 1.

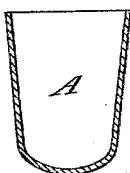


Fig. 4.

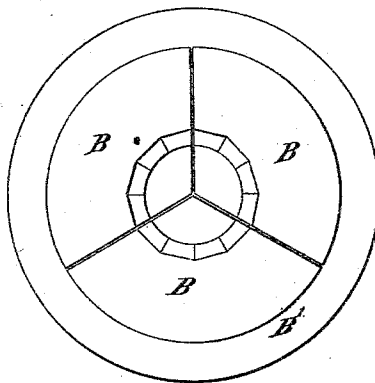


Fig. 5.



Fig. 6.

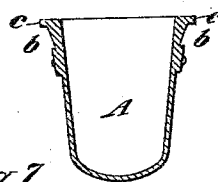
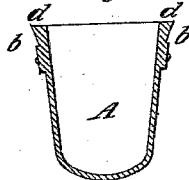


Fig. 7.



Witnesses:

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MANUFACTURE OF THIMBLES.

SPECIFICATION forming part of Letters Patent No. 274,356, dated March 20, 1883.

Application filed June 2, 1882. (No model.)

To all whom it may concern:

Be it known that I, HUGH McDOUGALL, of the city of New York, in the county and State of New York, have invented certain new and useful Improvements in the Art of Making Thimbles, of which the following is a specification.

My improvements relate to the method of forming a thickened edge upon sewing-thimbles; and it consists in first producing a cup-shaped thimble-blank, by drawing or otherwise, then upsetting the end portion of the blank, and simultaneously turning the edge outward and producing embossed ornaments upon the exterior of said blank, and finally cutting off the outwardly-turned portion of said edge, by turning or otherwise, as more fully hereinafter described.

In the accompanying drawings, Figure 1 is a sectional view of a thimble-blank. Fig. 2 is a view of a punch and die which I employ in carrying out my invention, the die being shown in section. Fig. 3 represents a plan of my sectional die. Fig. 4 represents a plan of a modified form of die. Fig. 5 is an exterior view of the embossed thimble-blank after it has been upset and the flange has been formed. Fig. 6 is a sectional view of the same. Fig. 7 is a sectional view of the thimble after the flange has been cut off.

Similar letters of reference designate corresponding parts in all the figures, and the drawings are made upon an enlarged scale, in order to more clearly illustrate my invention.

A, Fig. 1, designates the thimble-blank, which may be formed by drawing or otherwise, and which is of uniform thickness throughout.

B designates the sectional die, as shown in plan in Fig. 3, which is composed of three or more sections, B, fitted in a die-holder, B', and engraved upon their inner surfaces, at *f*, in a well-known manner.

C designates the punch which I employ to produce the upsetting of the end portion of the blank and to form the flange and the embossed ornamentation.

If the thimble is to have a polygonal exterior, the cavity in the die B should be polygonal in its horizontal section, as shown clearly in Fig. 4. The punch C is round, and is provided with a shoulder, *a*, and in Fig. 2 I have

represented the die and punch in the positions which they will occupy when their operation is completed. It will be observed that the punch is made with a straight taper extending up to the shoulder *a*, while the cavity in the die is made slightly flaring at the upper part, so that a wider space will be left between the punch and die at their upper parts than elsewhere. The blank A is placed in the die, and the punch is then forced into it, and the shoulder *a* acts upon the edge of the blank to upset its upper portion, *b*, so that it will fill the flaring upper portion of the cavity in the die, and to turn the edge outward so as to form a flange, and the punch will also force the metal of the blank into the engraved recesses *f* of the die, thus forming the embossed ornamentation *e* upon the blank A.

Fig. 5 represents a blank after it has been subjected to the punch and die, having the embossed ornamentation upon its exterior. The flange *c* is now cut off, by turning or otherwise, and the thimble is left with a thickened edge, *d*, as shown in Fig. 7, and is ready for further operations. The thimble will have a circular interior and a polygonal exterior when formed within a die of the form shown in Fig. 4.

The object of leaving a portion of metal in the blank to be turned outward to form the flange *c* is to insure the employment of sufficient metal to fully fill the die, and which could not be gaged exactly in the making of the blank.

What I claim as my invention, and desire to secure by Letters Patent, is—

The improvement in the art of making thimbles, consisting in first producing a cup-shaped blank, by drawing or otherwise, then upsetting the end portion of the blank and simultaneously turning the edge outward and producing embossed ornaments upon the exterior of the blank, and finally cutting off the outwardly-turned portion of said edge, leaving the thimble with a thickened edge and annular ornamentation, substantially as herein described.

HUGH McDOUGALL.

Witnesses:

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