

DEVICE FOR MAKING CLEW THIMBLES.

Patented Dec. 13, 1881.

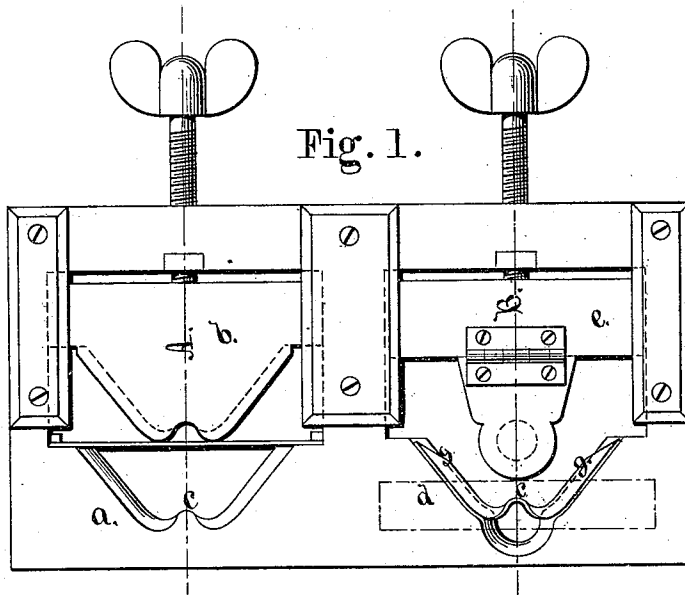


Fig. 1.

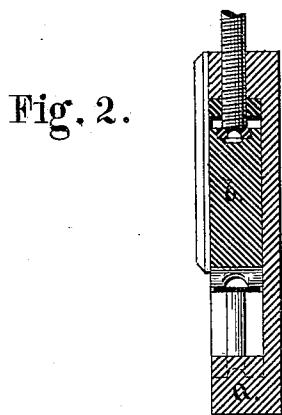


Fig. 2.

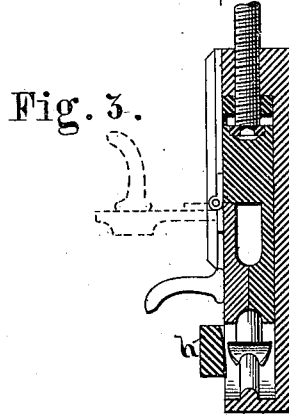


Fig. 3.

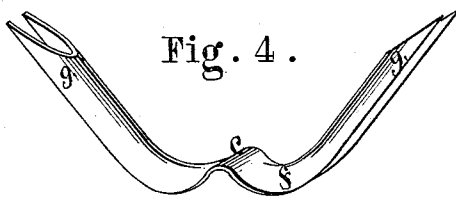


Fig. 4.

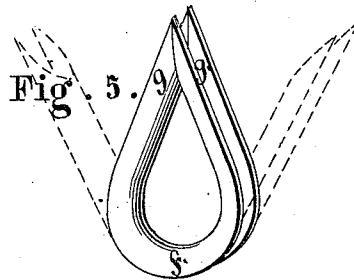


Fig. 5.

WITNESSES:

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DEVICE FOR MAKING CLEW-THIMBLES.

SPECIFICATION forming part of Letters Patent No. 251,003, dated December 13, 1881.

Application filed October 29, 1879.

To all whom it may concern:

Be it known that I, SAMUEL VANSTONE, of the city and county of Providence, and State of Rhode Island, have invented a new and Improved Method of and Apparatus for Making Clew-Thimbles; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to improvements in the art of bending or forming the clew-thimbles used in rope where a loop is formed, so as to prevent the wearing of the rope.

The invention consists in the novel manner of bending the metal, so as to facilitate the closing of the clew-thimble, as will be more fully set forth hereinafter.

Figure 1 is a view of two presses or stamps arranged to form thimbles. The followers are shown as operated by means of screws; but they may be operated in any of the manners stamps or similar devices are operated. Fig. 2 is a sectional view on the line A of Fig. 1, and Fig. 3 a sectional view on the line B of Fig. 1. Fig. 4 is a view of the thimble after being subjected to stamping in the first die and follower, the central portion, *c*, being left in the original flat condition, whereas the two ends *g g* are fully formed. In this form the clew-thimble is easily bent into the complete form shown in Fig. 5.

The state of the art previous to my invention is as follows: The blank, consisting of a strip of sheet metal, is first bent so as to form a semicircular channel. It is now heated and the central semicircular bend is made, as shown in broken lines in Fig. 5. It is now again heated and the two ends closed in; or by an improved process the thimble is stamped, while hot, out of the strip into the form indicated by broken lines in Fig. 5—that is, with the central semicircular portion formed and the two sides ready for closing in. In either of these methods the closing of the thimble is a difficult operation, as the metal on the inner portion of the thimble has to be upset, and the metal on the edges considerably stretched, to allow of the closing of the thimble, and it was always necessary to heat the metal twice before the thimble could be completed. By my improved process the metal on the inner portion of the thimble is but little compressed or upset, and thimbles may be readily made with one heat, and out of good homogeneous metal,

they can be readily bent cold, and a more perfect thimble-clew produced.

In the drawings, *a*, Fig. 1, is the die, and *b* the follower, sliding in proper guides. It will be seen that at the central portion, *c*, the strip of metal is left in its original condition, and that it would now readily bend at this point.

d is the second die, in which the central portion is bent by the double follower *e*, and at the same time the thimble is closed, guided by the follower, so that the ends *g g* will firmly meet, as shown in Fig. 5. The follower *e* is made in two parts, secured together so as to be readily opened for the purpose of withdrawing the thimble. It is shown as hinged and provided with a handle, but may be arranged to open and close automatically, if desired, and it may be made to pass between fixed slides when closing the thimble.

h represents the fixed slide, slightly beveled so as to allow the follower to enter freely.

By this device the thimble may be formed cold or in the heated state, and as the width of the die and follower *a b* is the length of the strip the beveled ends will be always in their proper position, and will meet fairly when the thimble is closed. Much time and labor are saved in the manufacture, and a better thimble is produced.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. As an improvement in the art of manufacturing thimble-clews, this step, namely: bending the two sides of the thimble-clew and leaving a part of the central portion unbent until the thimble is to be closed, substantially as and for the purpose set forth.

2. The improvement in the art of manufacturing clew-thimbles, the same consisting in bending the sides in suitable dies, leaving a portion of the center unbent, and then bending the center in another die, and also closing the thimble-clew, as described.

3. The combination, with the die *a*, of the follower *b*, arranged to operate substantially as described.

4. The combination, with the die *d*, of the follower *e*, arranged to bend the center of the thimble and close the same, as described.

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