

(No Model.)

I. F. PECK.
MANUFACTURE OF HOLLOW RIVETS.

No. 415,298.

Patented Nov. 19, 1889.

Fig. 1



Fig. 2

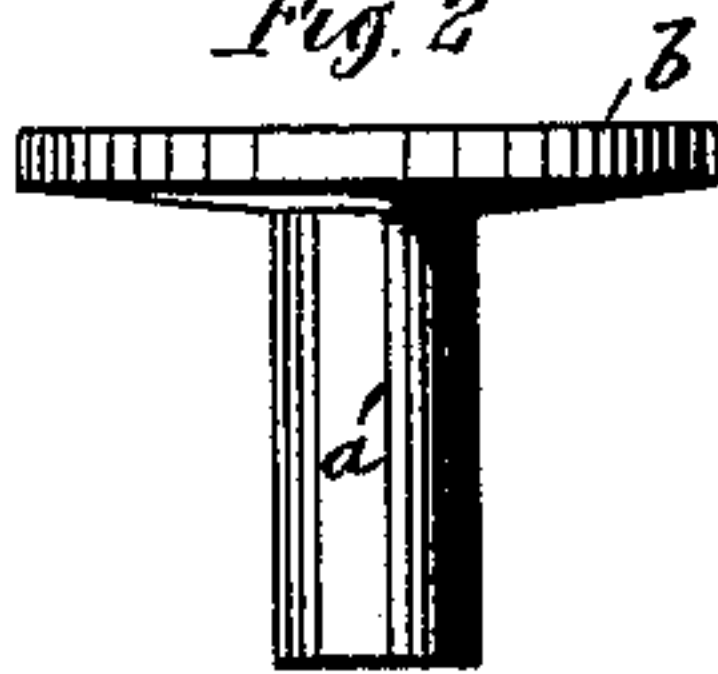


Fig. 3

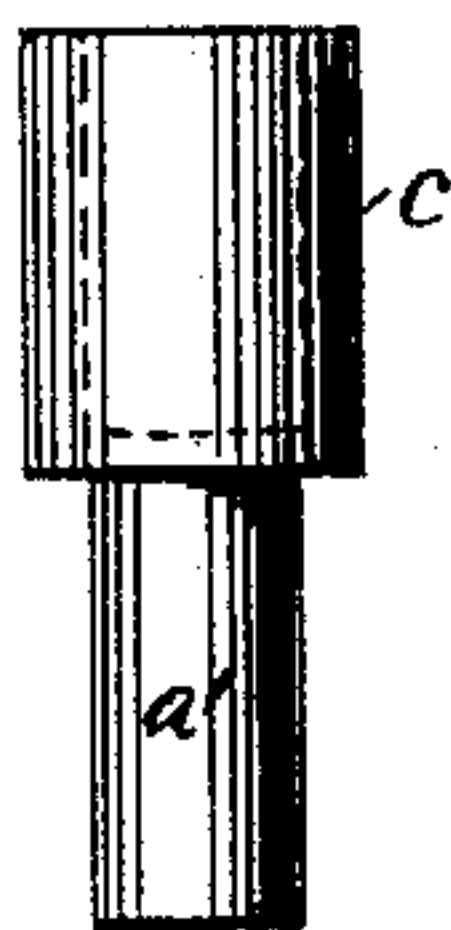


Fig. 4

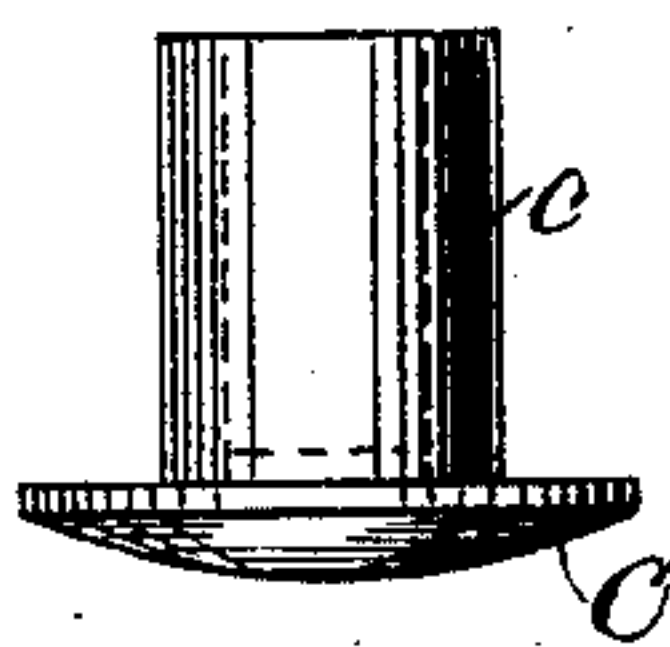
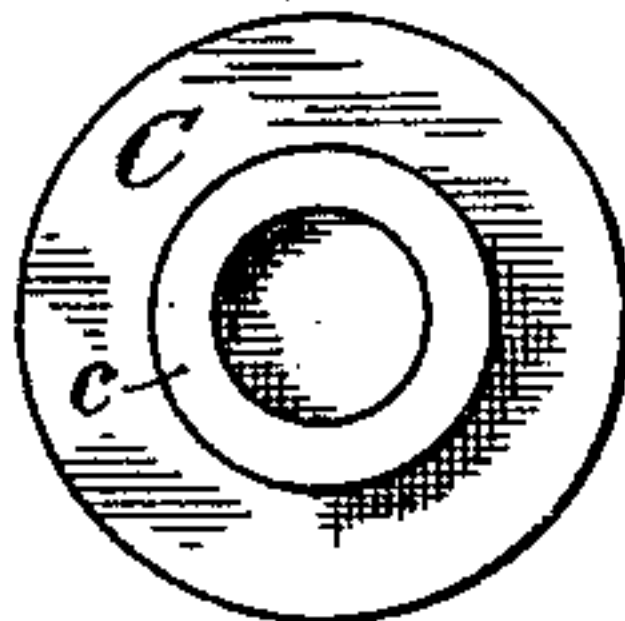


Fig. 5



Witnesses,

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UNITED STATES PATENT OFFICE.

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MANUFACTURE OF HOLLOW RIVETS.

SPECIFICATION forming part of Letters Patent No. 415,298, dated November 19, 1889.

Application filed March 18, 1889. Serial No. 303,776. (No model.)

To all whom it may concern:

Be it known that I, IRA F. PECK, a citizen of the United States, residing at Providence, in the State of Rhode Island, have invented
5 a new and useful Improvement in the Manufacture of Hollow Rivets, of which the following is a specification.

Heretofore hollow metallic rivets have been made from a solid rod of suitable size, which
10 was turned down and drilled to form the required hollow shank; but this operation, though performed by means of automatic machinery, is a comparatively slow and expensive one; and it is the object of my invention
15 to produce such rivets in a more economical and rapid manner.

My invention consists in forming up the rivets in suitable dies from pieces of solid wire of small diameter, as hereinafter fully
20 set forth.

Figure 1 represents a side view of the cylindrical piece of solid wire from which the hollow rivet is to be made. Fig. 2 represents a side view of the rivet-blank after the first
25 operation. Fig. 3 represents a side view of the rivet-blank after the second operation. Fig. 4 represents a side view of the finished hollow rivet after the third operation. Fig. 5 represents an end view of the finished hollow rivet.
30

In the accompanying drawings, A represents a cylindrical piece of solid wire cut off

at the proper length to form the desired hollow rivet; and in carrying out my invention the wire A is first placed in suitable
35 dies and one end portion *a* of the same is pressed to form the flattened disk *b*, Fig. 2, after which the disk *b* is to be drawn up in suitable dies to cup form, as shown in Fig. 3, thus forming the hollow shank *c* of the rivet,
40 and then the remaining portion *a'* of the original blank A is to be upset to form the head C of the hollow rivet, as shown in Figs. 4 and 5.

Hollow rivets can be very rapidly and economically manufactured by the method described, the rivets so made being of improved
45 quality, and in their manufacture the slow and expensive process of drilling out the hollow of the rivet as heretofore is avoided.
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I claim as my invention—

The described process of manufacturing hollow rivets, which consists in first upsetting one end of a solid wire blank to form a flattened disk, then drawing up the said disk to
55 form a cup, which will constitute the hollow shank of the rivet, and then upsetting the remaining solid portion of the blank to form the head of the rivet.

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Witnesses:

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