

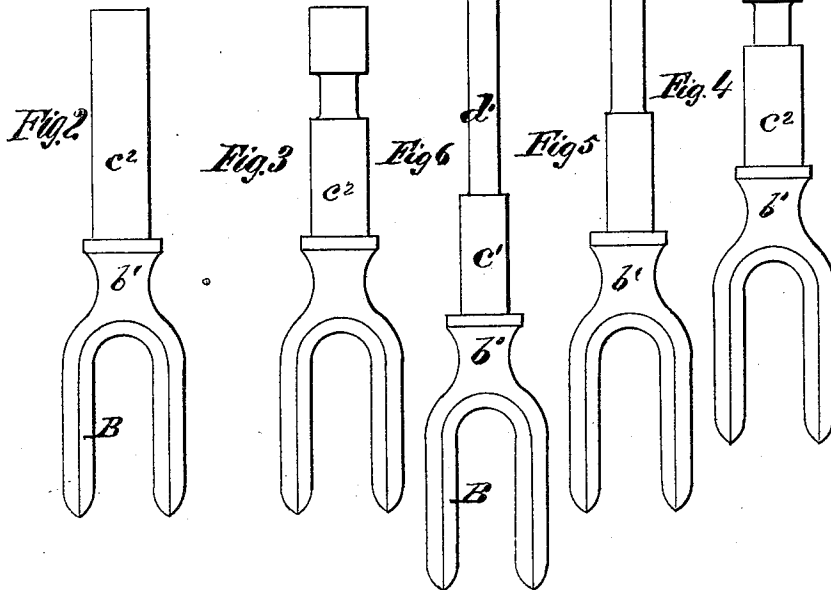
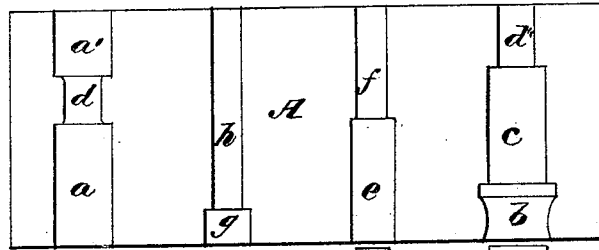
F. VAN PATTEN.

Dies for the Manufacture of Clip King-Bolts.

No. 141,680.

Patented August 12, 1873.

Fig 1



Witnesses.
R. V. Campbell
J. W. Campbell.

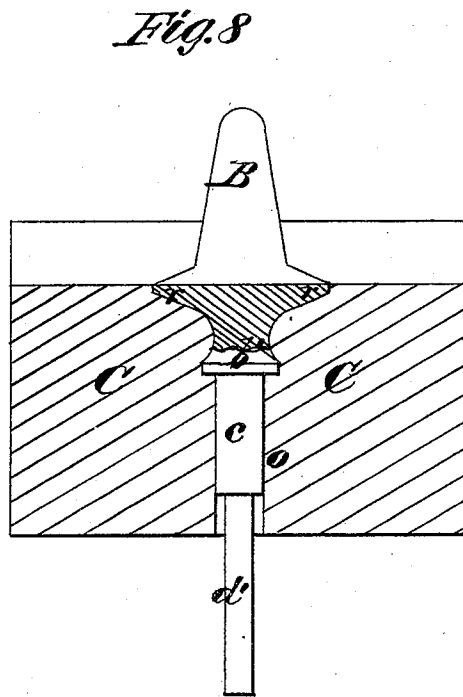
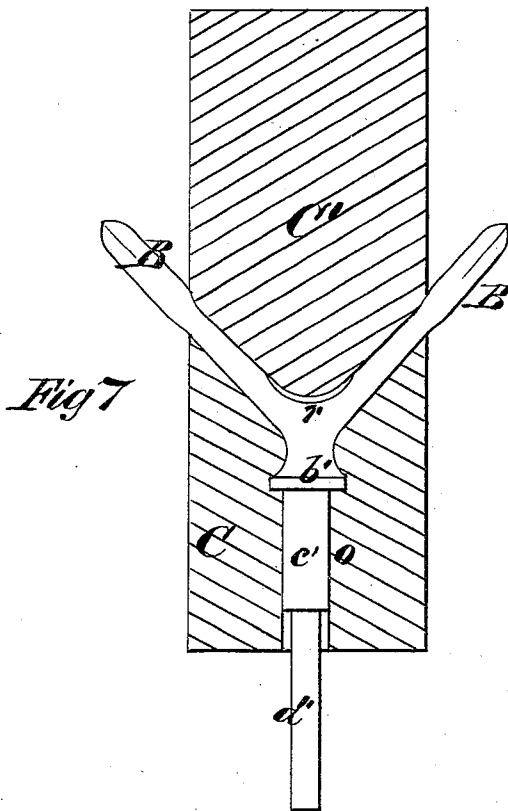
Inventor
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J. H. Campbell

Inventor
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by
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UNITED STATES PATENT OFFICE.

FREDERICK VAN PATTEN, OF AUBURN, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENTS, TO HIMSELF AND E. D. CLAPP, OF SAME PLACE.

IMPROVEMENT IN DIES FOR THE MANUFACTURE OF CLIP KING-BOLTS.

Specification forming part of Letters Patent No. **141,680**, dated August 12, 1873; application filed February 28, 1873.

D.

To all whom it may concern:

Be it known that I, FREDERICK VAN PATTEN, of Auburn, in the county of Cayuga and State of New York, have invented Dies for Centering and Reducing Stems of Clip King-Bolts and Finishing the same; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings making part of this specification, in which—

Figure 1, Plate 1, is a face view of one of the die sections for centering and reducing the stems. Fig. 2, Plate 1, is a view of the blank before its stem is finished or its prongs spread. Figs. 3, 4, and 5 represent three stages of reduction of the stems. Fig. 6 shows the finished stem. Figs. 7 and 8, Plate 2, show in section the spreading-dies and the finished article.

Similar letters of reference indicate corresponding parts in the several figures.

This invention has for its object the centering and reduction of the stems of clip king-bolts, and the spreading of the clip-prongs, as will be hereinafter explained.

The following description of my invention will enable others skilled in the art to understand it.

In the specifications accompanying cases "B" and "C," which bear even date with the filing of this, I have shown how to produce from a bar of metal the blank represented by Fig. 2, Plate 1, which consists of two parallel prongs, B, a neck, *b'*, wings or bearing-lugs, (indicated at *r* in Fig. 7,) and a cylindrical stem, *c*². I do not, therefore, claim under this application anything which is shown and described in said cases, marked, respectively, "B" and "C."

In Fig. 1, I have represented one-half of the die for reducing and centering the stems of the clip king-bolts. The other half of this die is constructed precisely like the above, and the two halves are suitably applied in any well-known drop-press which will afford the requisite power.

The first operation is to subject the stem *c*² of the blank to a reducing operation between the die-recesses *a*, *a*, and *a'*, which forms a neck in the stem, as shown by Figs. 3 and 4. The next operation is to subject the blank of

Figs. 3 and 4 to the die-recesses *b c d''*, which finishes the neck *b'*, and reduces and draws out the short cylindrical portion of the stem at the end thereof. The next operation is to subject the blank to the die-recesses *e f*, which still further reduce and draw out the stem; and the final operation is to produce the shouldered, elongated, and finished stem *c' d'*, between the die-recesses *g h*. At every forging operation the stem is centered with respect to the axis of the neck *b'*, and left perfectly cylindrical. The succeeding operation is to finish the article ready for the trade by subjecting it to the spreading-dies C C C', which spread apart uniformly the prongs B B, which form the clip.

The die C', which is the upper spreading-die, is V-shaped, and corresponds to the shape of the crotch and angle of the prongs. The lower die sections C C are recessed to correspond with the shape of the neck *b'*, the wings *r r*, and the angle to be given to the prongs B, as shown by the figures on Plate 2. The opening *o* through the lower sections C C, when they are brought together, receives the stem and centers the article in these dies. When the blow is struck the prongs and wings are properly set, and the article is finished and can be removed from the dies by separating the two sections C C.

These recessed sections C C are properly arranged in a box, and they may be separated and held firmly together by any well-known means for operating sectional under recessed die-sections. If desired, the prongs B may be separated, as just described, before finishing the stem.

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

1. The die for centering and reducing the stems of clip king-bolts, recessed and constructed as represented by Fig. 1.
2. The combination of the die sections C C and C' with the centering and truing die A, substantially as and for the purposes described.

FREDERICK VAN PATTEN.

Witnesses:

HORACE T. COOK,
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