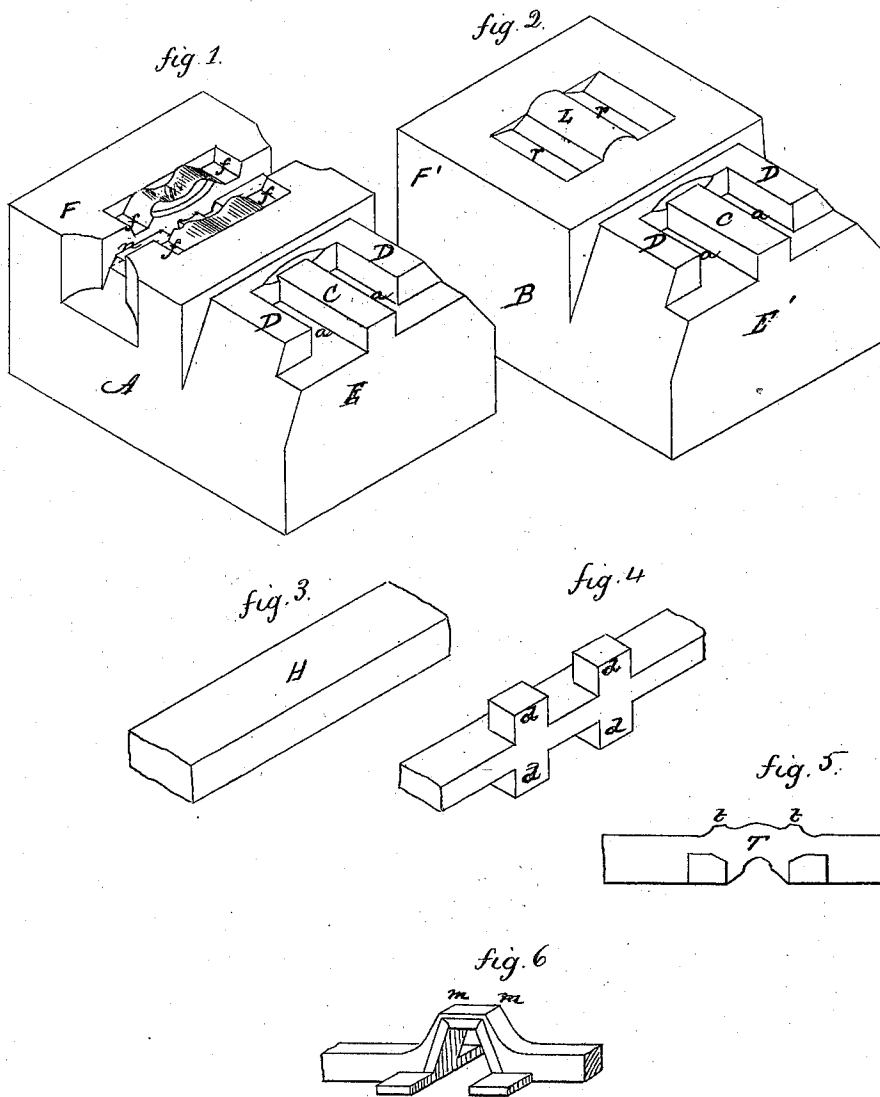


FRANCIS B. MORSE.

Improvement in Dies for Forming Blanks for Carriage-Clips.

No. 126,646.

Patented May 14, 1872.



Witnesses.

John H. Shumway
A. J. Libbitts

Francis B. Morse
Inventor

By his Atty

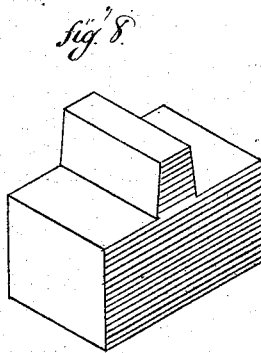
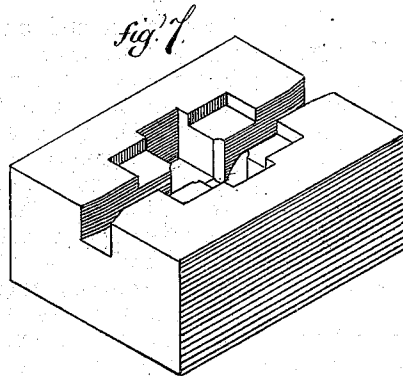
Wm. E. Earle

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Witnesses.

A. J. Tibbels
J. H. Humway

Francis B. Morse
Inventor

By his Atty.

Wm. C. Earle

UNITED STATES PATENT OFFICE.

FRANCIS B. MORSE, OF PLANTSVILLE, CONNECTICUT, ASSIGNOR TO H. D. SMITH & CO., OF SAME PLACE.

IMPROVEMENT IN DIES FOR FORMING BLANKS FOR CARRIAGE-CLIPS.

Specification forming part of Letters Patent No. 126,646, dated May 14, 1872.

To all whom it may concern:

Be it known that I, FRANCIS B. MORSE, of Plantsville, in the county of Hartford and State of Connecticut, have invented a new Improvement in Dies for Forming Blanks for Coach-Clips; and I do hereby declare the following, when taken in connection with the accompanying drawing and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawing constitutes part of this specification, and represents, in—

Figure 1, a perspective view of the lower die; Fig. 2, a perspective view of the upper die; Fig. 3, the blank as prepared for the first operation; Fig. 4, the same after the first operation; Fig. 5, subsequent operations, the blank in that form being complete for the forming of the clip seen in Fig. 6; Fig. 7, a perspective view of the last or finishing-die; and in Fig. 8, a perspective view of the follower for the said die.

This invention relates to an improvement in dies for forming blanks for what are termed coach-clips, such as are seen in Fig. 6, the object being to prepare the blank for the finishing or shaping die. This preparation is usually done by hand, except as in the patent granted to me September 7, 1869, in which the clip is formed by a peculiar process without bending; and my invention consists in the dies of peculiar construction shown in the accompanying illustration, and as hereinafter described. The finishing-dies shown in Figs. 7 and 8, are the dies usually employed for the manufacture of coach-clips, the blank being prepared as before described, by hand, the form of the lower die corresponding to the external shape of the clip.

A is the lower and B the upper die in two sections, E F and E' F'. On the meeting-sur-

faces, at one end, on the section E E', is a central bar, C, and at each side other similar bars, D, a space, *a*, being left between the said bars and this portion of the said dies alike. The blank H being properly heated is placed across the said three bars and the two dies struck together onto the blank brings it into the shape seen in Fig. 4. The projections *d* are formed in recesses *a* in the die. The blank is next placed in the part F, the projections *d* lying in the recesses *f* in the lower die, and the bar lying in a recess, *n*. The upper die is constructed with a similar recess, *r*, for the projections *d*, and with a central transverse projection, L, which strikes down upon the upper surface of the blank, forcing the central portion T of the blank down into the channel *n*, forming the blank as seen inverted in Fig. 5, the die being constructed to form projections *t* on the blank. This completes the blank for the finishing-die, the said finishing-die being common and well known. The projections *t* formed on the blank are to facilitate the filling of the angles on the clip. In the finishing-die shown in Fig. 7 the central portion T is bent down, the upper die striking upon the flat side, or in the inverted position in Fig. 6. By the use of these preparatory dies much labor and stock are saved, as the blank is formed at a single heat, and a very little trimming is required.

I claim as my invention—

The dies herein described, consisting of the two parts E E' and F F', constructed or formed in the manner described to shape the blanks of coach-clips, as specified.

F. B. MORSE.

Witnesses:

E. E. PADDOCK,
W. R. SMITH.