

MOSES SEWARD.

Improvement in Dies for Upsetting Metal Rods.

No. 126,495.

Patented May 7, 1872.

fig. 1

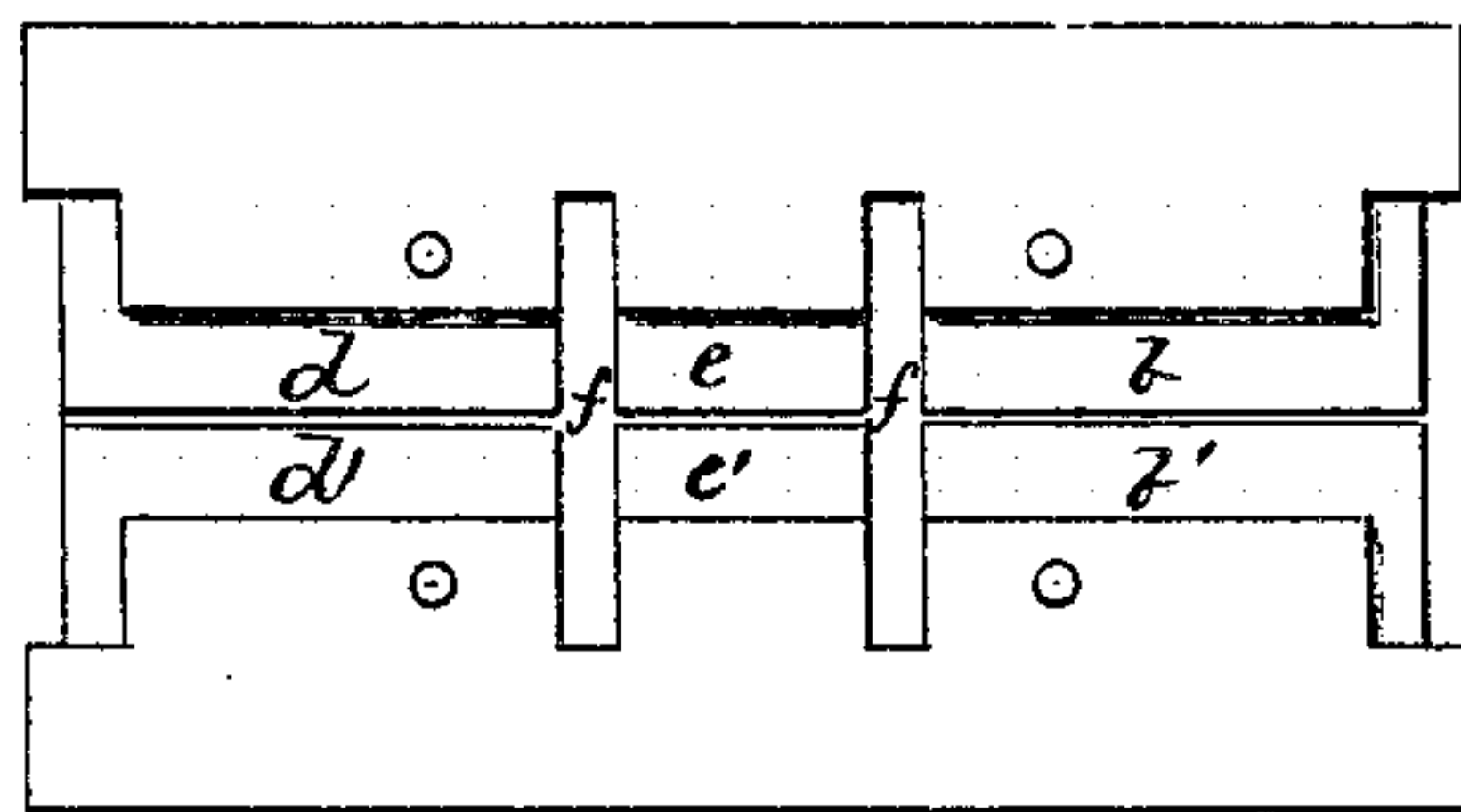


fig. 2

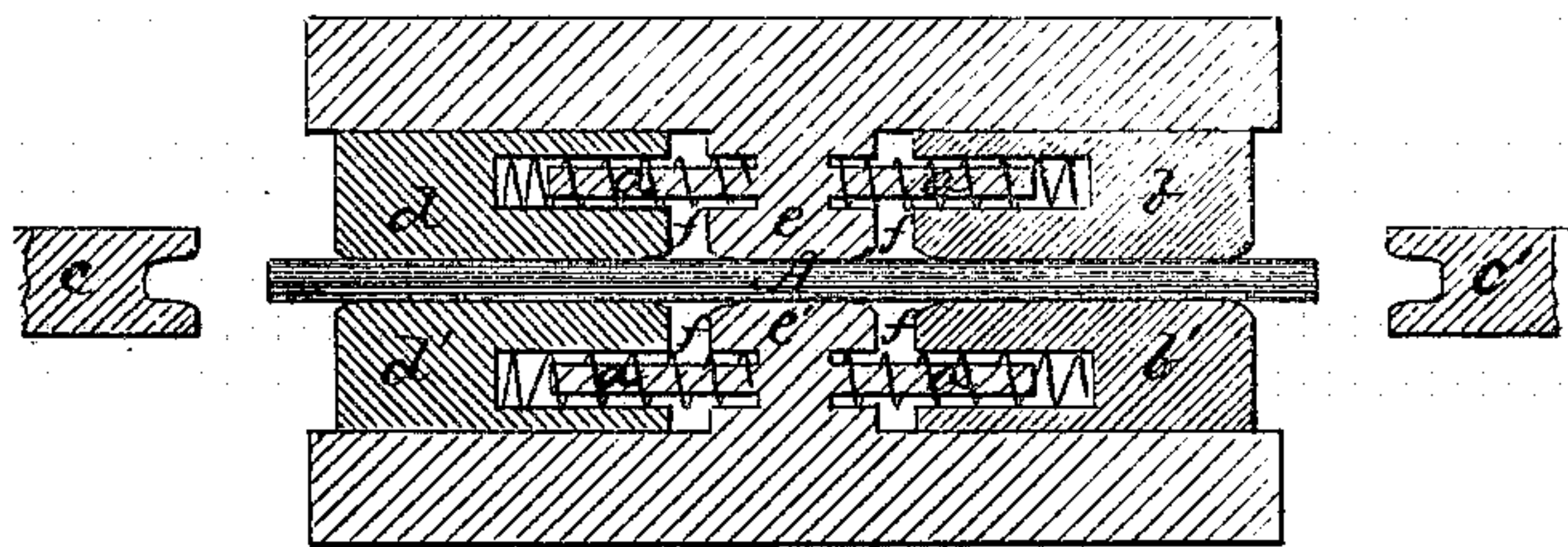
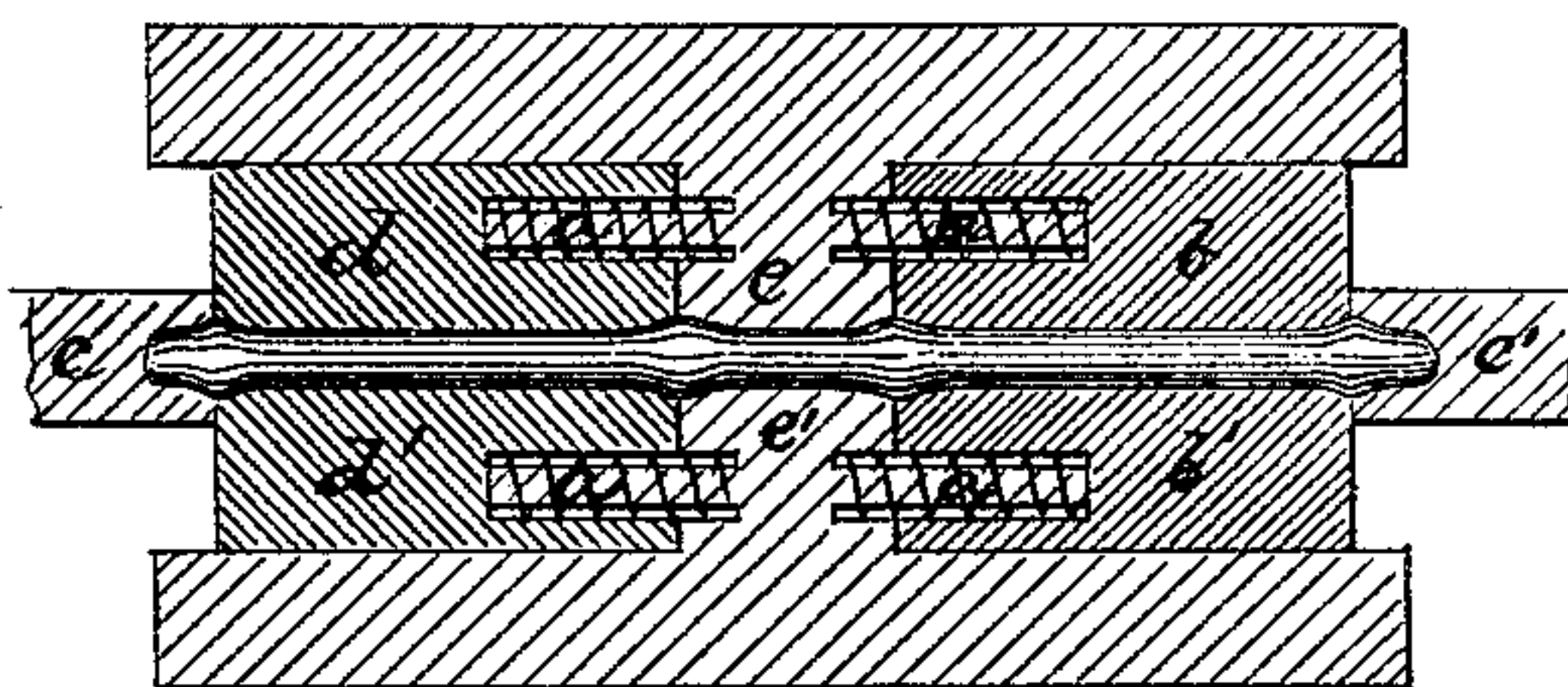


fig. 3



Witnesses.  
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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN DIES FOR UPSETTING METAL RODS.

Specification forming part of Letters Patent No. 126,495, dated May 7, 1872.

*To all whom it may concern:*

Be it known that I, MOSES SEWARD, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Machine for Upsetting and Forming Articles from Metal Rods or Bars; and 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 top or plan view; Fig. 2, a longitudinal central section, the dies clasp ing the blank; and in Fig. 3, the same after the upsetting has occurred.

This invention relates to an improvement in the machine for upsetting and forming articles from metal rods or bars patented to me November 6, 1866. In that patent (which has special reference to forming blanks for carriage-clips) the upsetting occurs at two points only, and that near the ends, so as to afford sufficient metal to perfectly form the clip. In the manufacture of clips, such as are termed square clips—that is, such as are bent to fit a square axle or other parts—it is difficult to make the angles perfect, more metal being required at the angles. To supply this metal is the object of this improvement; and it consists in combining with two stationary central holding-dies two pairs of dies in axial line therewith, and arranged for a longitudinal movement to and from the central dies, provided with springs or an equivalent device to throw the said sliding dies away from the said center die, and so that the said die, when grasping the blank,

will, when the principal upsetting-die strikes the end of the blank and upsets at that point, be forced in toward the central portion and upset the blank at the space between the said central portion and the sliding sections.

*e e'* are the central holding-dies, *c c'* the principal upsetting-dies. *d d'* and *b b'* are the other dies, arranged, in connection with the said dies *e e'*, so as to slide longitudinally to or from the said central dies; and between these springs *a* are arranged, the tendency of which is to hold the sliding dies away from the central portion, leaving a space, *f*, between. The blank *A* is placed between the holding-dies; and the holding-dies *e e'*, as also the dies *d b*, firmly grasp the blank in the position as seen in Fig. 2. The upsetting-dies *c c'* are then forced up, as described in my patent before referred to, upsetting the metal at the ends and forcing the sliding dies toward the center, also upsetting the blank between the said center and the sliding dies, as seen in Fig. 3, a recess being formed in the ends of the dies for that purpose. These central enlarged portions of the blank are made at the point where the angles are to be formed in bending the blank, this enlargement affording the necessary metal to perfectly form the angles.

I claim—

In combination with the holding-dies *e e'* and the upsetting-dies *c c'*, the sliding dies *d d'* and *b b'*, when arranged in the manner substantially as described.

MOSES SEWARD.

Witnesses:

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