

J. & J. KENNEDY.
Bolt-Heading Machines.

No. 153,773.

Patented Aug. 4, 1874.

Fig. 1.

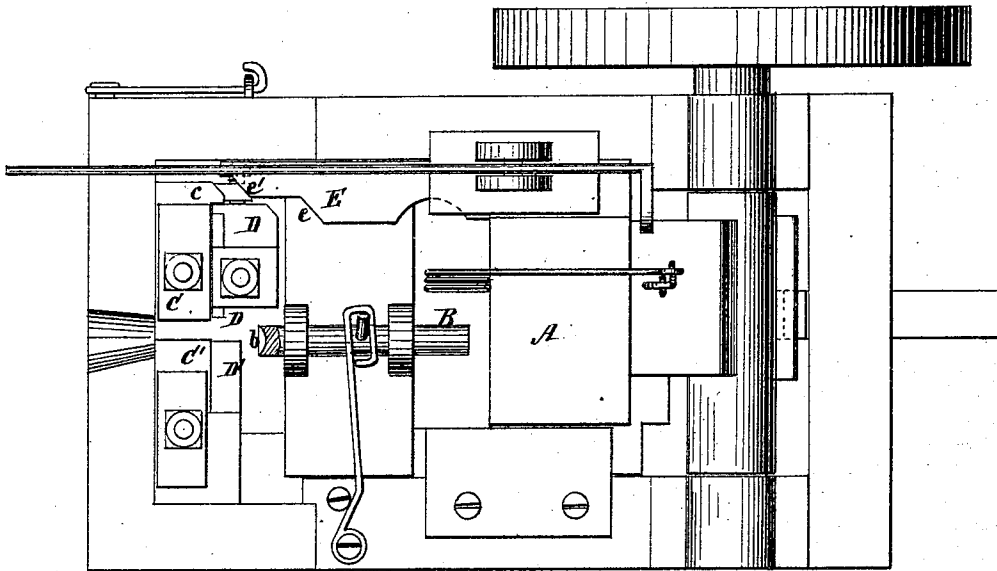


Fig. 2.

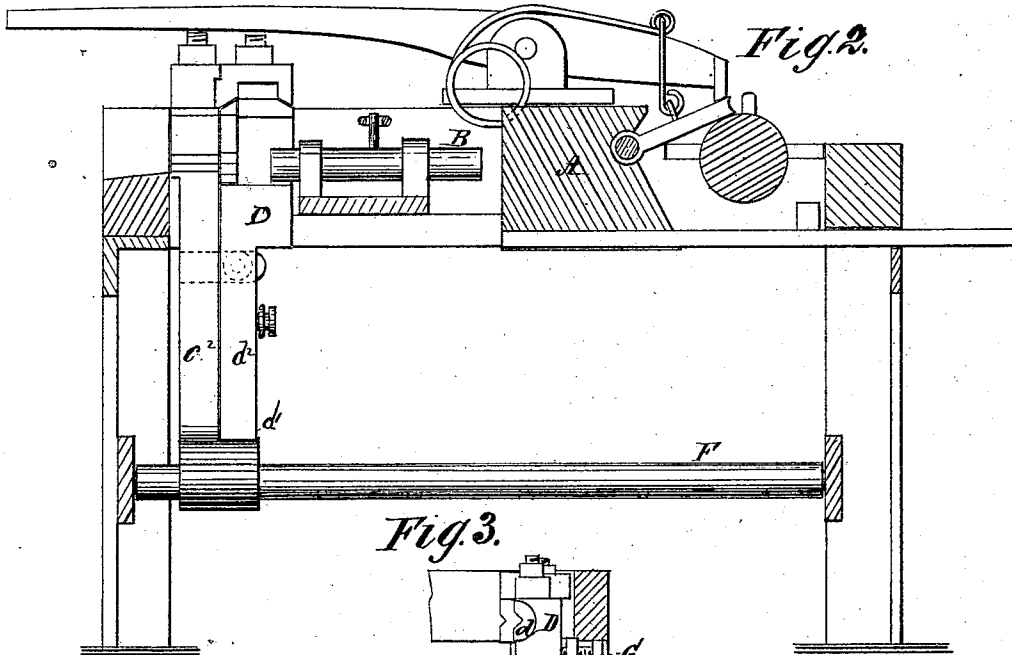
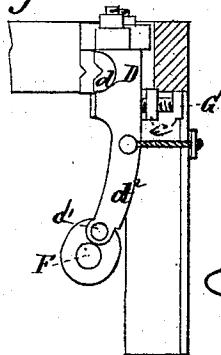


Fig. 3.



WITNESSES:

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JAMES KENNEDY AND JOHN KENNEDY, OF PLAINVILLE, CONNECTICUT.

IMPROVEMENT IN BOLT-HEADING MACHINES.

Specification forming part of Letters Patent No. **153,773**, dated August 4, 1874; application filed May 21, 1874.

To all whom it may concern:

Be it known that we, JAMES KENNEDY and JOHN KENNEDY, of Plainville, in the county of Hartford and State of Connecticut, have invented a new and Improved Bolt-Heading Machine; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a plan view; Fig. 2, a longitudinal section; and Fig. 3, a detail view in vertical section.

The invention will first be fully described, and then pointed out in the claim.

A represents the slide which operates the header B; C C', the clamping-dies; and D D', the neck-forming dies. The header has a cavity, *b*, corresponding to the form of head required, and the forming-dies D have cavities *d d* to suit the desired shape of neck. One of the clamps C C' has a beveled flange, *c*, against which rests the movable neck-die D, while the other clamp and neck-die are stationary, and made, preferably, in one piece. A is a slide that operates header, and has a projection, E, with two wedges, cams, or inclines, *e e'*, arranged so that both the movable clamp and neck-dies will be carried along together until the bolt-blank is clamped, when the incline *e* will act on the neck-die D at the same time that the header begins to move. Thus the squaring and staving up go on together, and both neck and head are simultaneously completed. The clamp C has its shank C² pivoted to a shaft, F, while the neck-squaring die D has its shank *d*² pivoted at *d'* to shank C², the clamp being provided with a back piece, C¹, through which passes a screw, G, against the

squaring-die. By connecting the dies C D in this manner the former always carries the latter as long as it moves, but does not prevent the continued movement of the neck-squarer afterward. The screw G therefore regulates the distance forward to which the clamp shall carry the die, and thus determines the relative time when the squarer shall commence to move with the header.

Of course, as the stock in rod will vary, the die C will require to be thrown more or less forward. If the stock is at a maximum the die D may rest against the shoulder of die C, but as the stock diminishes it must be thrown more and more forward by the set-screw G.

The three dies B C D being actuated by the same slide A, their relative action is not only necessarily positive and accurate, but is more economically produced.

Having thus described our invention, what we claim as new is—

1. The combination, with the same actuating-slide A, having cam-arms E *e e'*, of the three dies B C D, as and for the purpose described.

2. The combination, with a set-screw, G, of dies C and D, the former having its shank pivoted on the shaft F, and the latter having its shank pivoted to that of the former, as and for the purpose set forth.

3. The combination, with clamping-dies C C' D', of a neck-squarer, D, and a tool, B *b*, that both heads and upsets, in the manner specified.

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Witnesses:

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