J. L. BUXTON.

Machines for Making Shoe-Nails.

No. 156,909. Patented Nov. 17, 1874.

Fig. 1.

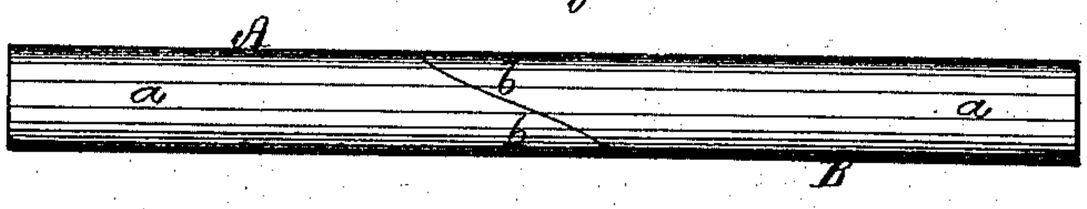


Fig. 2.

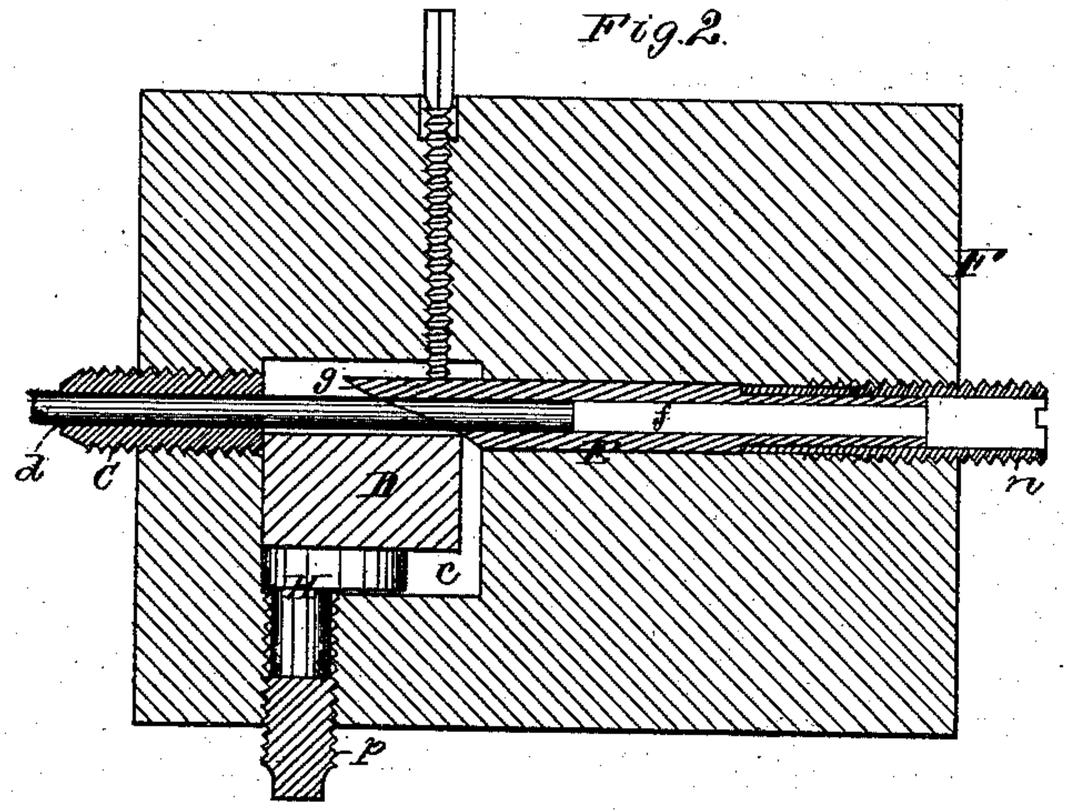


Fig. 3.

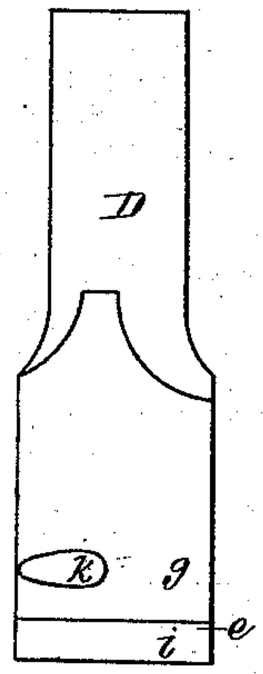


Fig. 4.

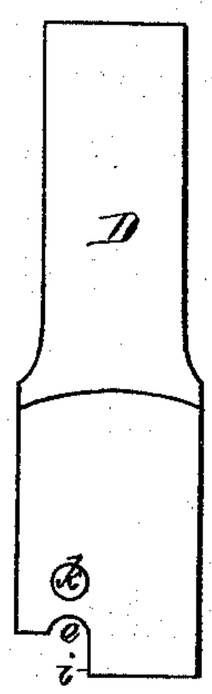


Fig. 5.

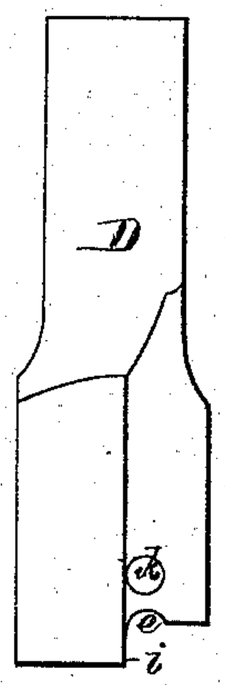


Fig. 6.

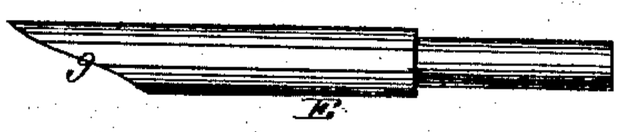


Fig. 7.

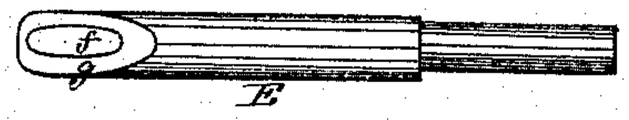


Fig. 10

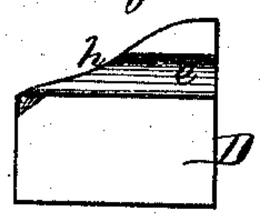


Fig. 8.

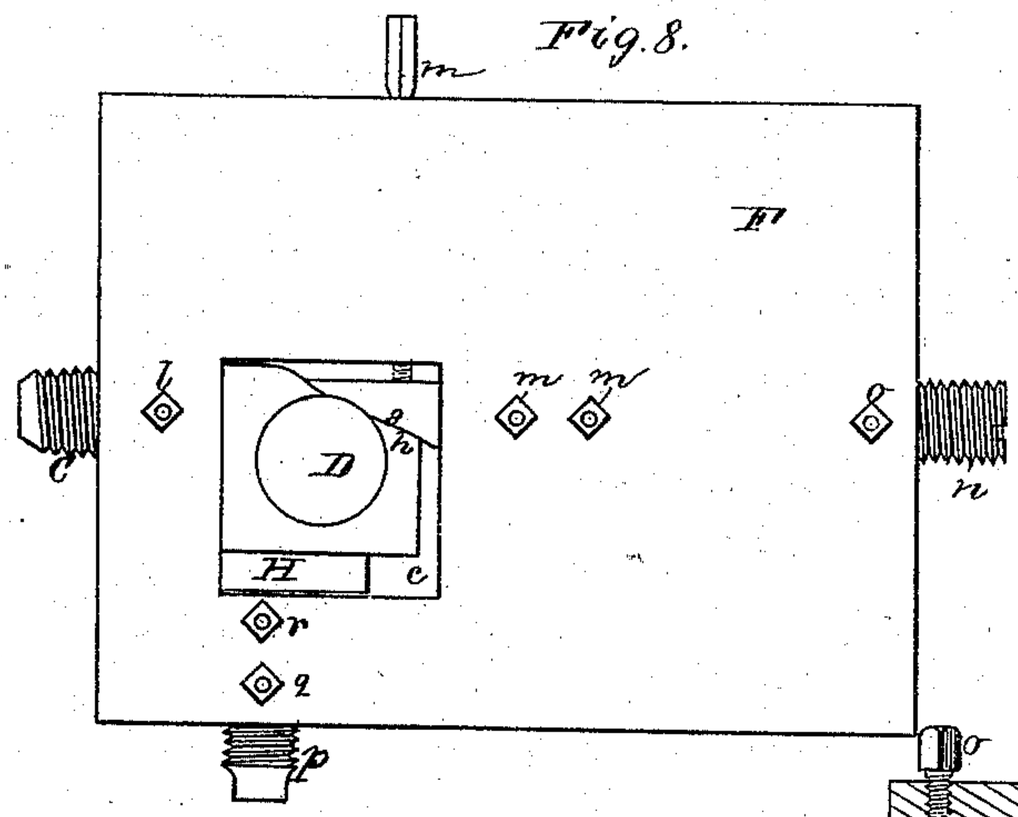
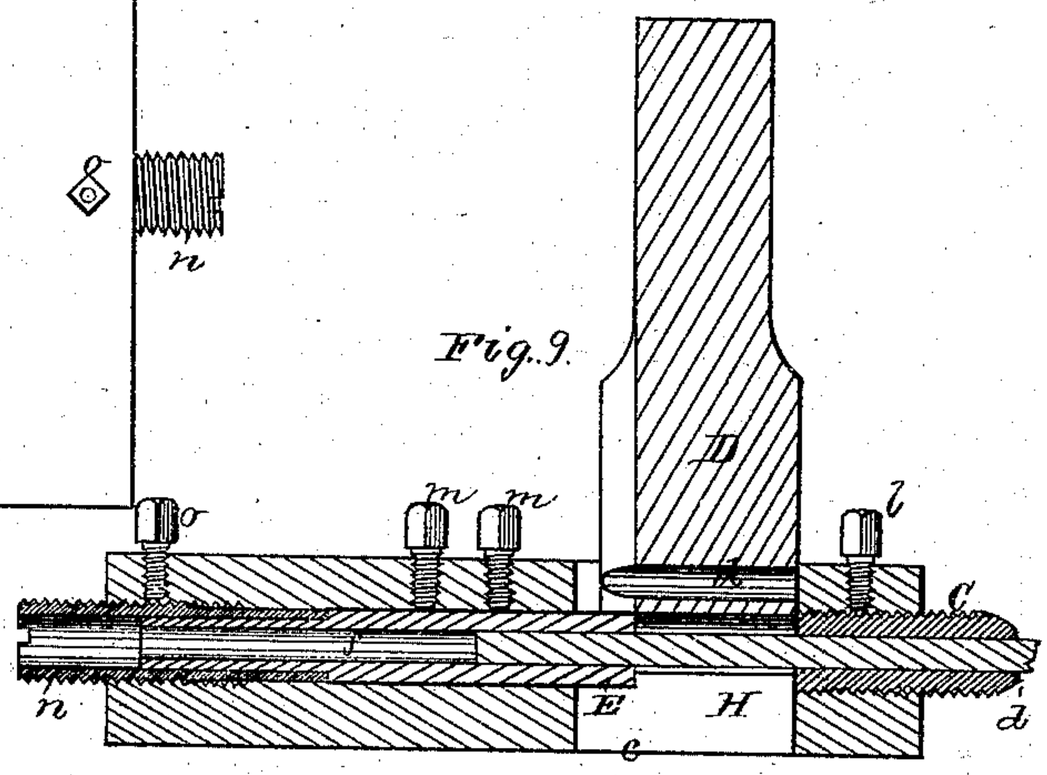


Fig. 9.



Witnesses.
S. W. Piper.
L. N. Holland.

Joseph L. Buxton.
by his attorney.
R. M. Eddy

UNITED STATES PATENT OFFICE.

JOSEPH L. BUXTON, OF MILFORD, MASSACHUSETTS, ASSIGNOR TO HIMSELF, HENRY S. CUSHMAN, AND JESSE B. CROSS, OF SAME PLACE.

IMPROVEMENT IN MACHINES FOR MAKING SHOE-NAILS.

Specification forming part of Letters Patent No. **156,909**, dated November 17, 1874; application filed October 22, 1874.

To all whom it may concern:

Be it known that I, JOSEPH L. BUXTON, of Milford, of the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Machinery for Making Shoe-Sole Nails; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 denotes a top view of a nail-blank as formed and cut by my mechanism into two nails, each having a shank with a wedge-point terminating in or at one side of the nail. Fig. 2 is a horizontal section of the mechanism. Fig. 3 is an inner side view, and Figs. 4 and 5 opposite edge elevations, of the movable cutting or pointing die D. Fig. 6 is a top view, and Fig. 7 an inner side view, of the stationary carrying and pointing die E. Fig. 8 is a top view, and Fig. 9 a vertical and longitudinal section, of the mechanism.

The nails are made by the mechanism from a rod or wire intermittingly advanced through the dies, each movement of the wire carrying it forward a sufficient distance for the formation of two nails, by severing from the wire a piece long enough therefor, and also cutting it transversely or obliquely into two nails, each having a shank and a wedge-point, as shown in Fig. 1, in which A B are the two nails, *a a*, their shanks, and *b b* the wedge-points. These nails may be nicked or grooved transversely, or may be without nicks or grooves, as may be desirable.

In the drawings, C D E denote three dies, two which, viz., the outer ones, C E, are stationary, and arranged in a straight line with each other in a block or carrier, F, provided with a passage, *c*, disposed in or through it, in the manner as shown, for reception and guiding of the middle or movable die D. The dies C D E are each provided with a bore or passage for the reception and guiding of the wire or rod, such bores or passages being shown at *d e f*. The die E laps on the die D, each having an oblique cutting-face, as shown at *g* and *h*.

The bore or passage of the middle die, D, I usually make to open downward, as shown at *i*, in order to discharge one of the nails of the pair, or allow it to fall out of the machine, the other nail being forced out by the wire when next fed forward.

Instead, however, of the bore being so made to open downward, it may be, as shown at *k*, without such opening, in which case the nails would be expelled from the mechanism or bores by the wire while being fed forward.

Fig. 10 is a bottom view of the movable die D, its open passage being shown at *e*.

The stationary dies C E are held in the carrier F by clamp-screws *l m m*, a tubular screw, *n*, provided with a set-screw, *o*, being applied to the carrier, and arranged with the die E, in manner as shown, its purpose being to advance the die E up to the cutting-face of the die D.

A slide, H, provided with an advancing-screw, *p*, screwed into the carrier, is arranged as shown, it serving to keep the movable die D against the opposite side of the opening in which it is placed. Set-screws *q r*, screwed into the carrier, (one operating against the screw *p*, and the other against the shank of the slide,) serve to fit such parts in position.

When a wire is in the dies, and the middle one, viz., that marked D, is forced downward sufficiently, it will cut into two nails the portion of the wire that may be in advance of the rear die C, one of which nails, if the die is open at bottom, will drop from it out of the machine, and the other will be left in the die E, to be expelled therefrom by the wire during its next advance.

The two nails will have wedge-points, as described, to their shanks.

Instead of the wire being fed from the die C into the die E, it may be fed in the reverse direction, or from the latter into the former of such dies, in which case the nail-blank will be pointed at its opposite ends, and cut transversely or at right angles to its axis through its middle, the blank in each case being reduced to two nails with shanks and wedge-points, as described.

I do not herein claim, in combination with two supporting or carrying dies, a die to operate between them, so as to cut or separate

from a wire, when in them, a portion thereof or wedge sufficient only to form upon the wire a wedged point.

I claim—

In combination with the carrying-dies C E, the cutting or pointing die D, constructed to sever from the wire a piece of a length sufficient for being made into two nails, and to divide said piece obliquely into two nails, each of them having a body or shank, and a wedge-point projecting therefrom, as represented.

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Witnesses:

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