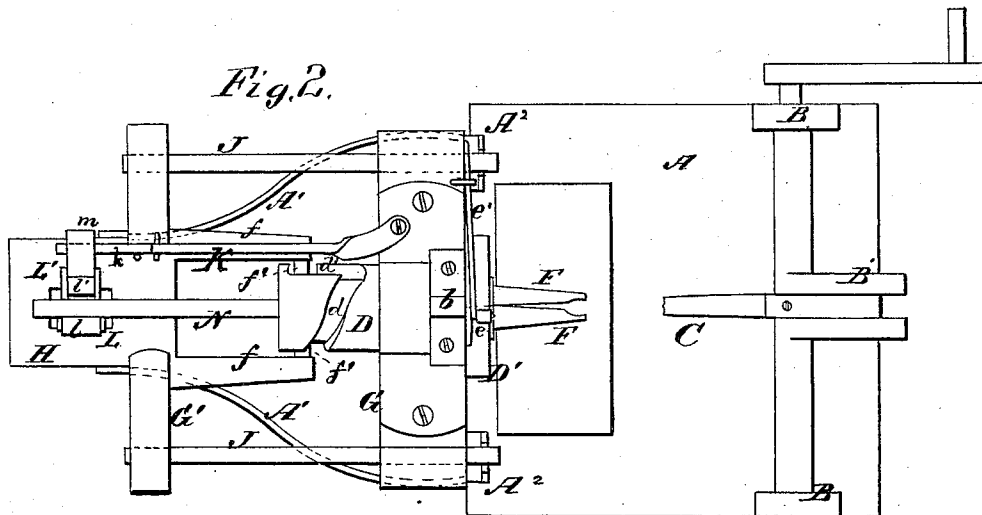
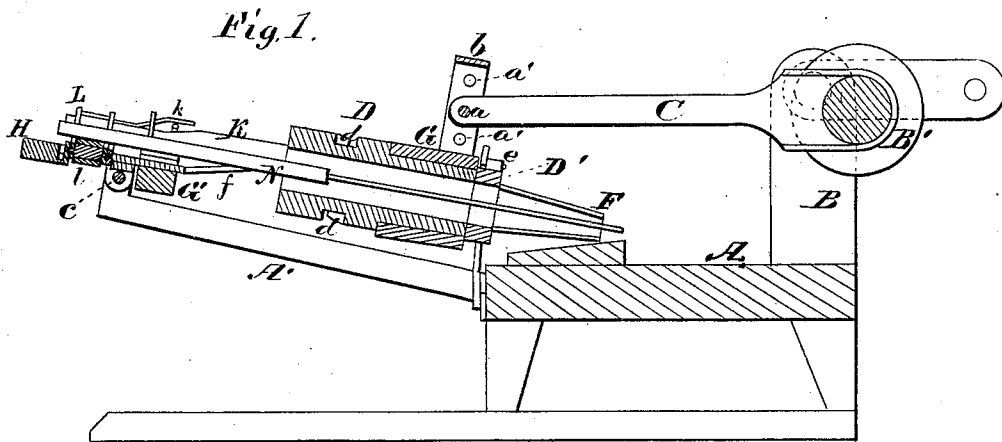


J. POULSON.
Nail-Plate Feeders.

No. 145,681.

Patented Dec. 16, 1873.



WITNESSES

WITNESSES
E. H. Bates.
Phil Measi.

By

INVENTOR
John Poulson,
Chipman & Poulson & Co

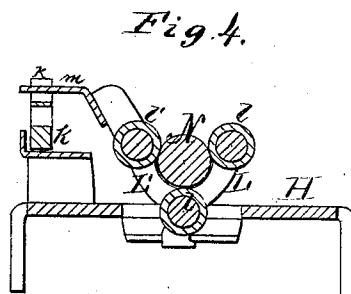
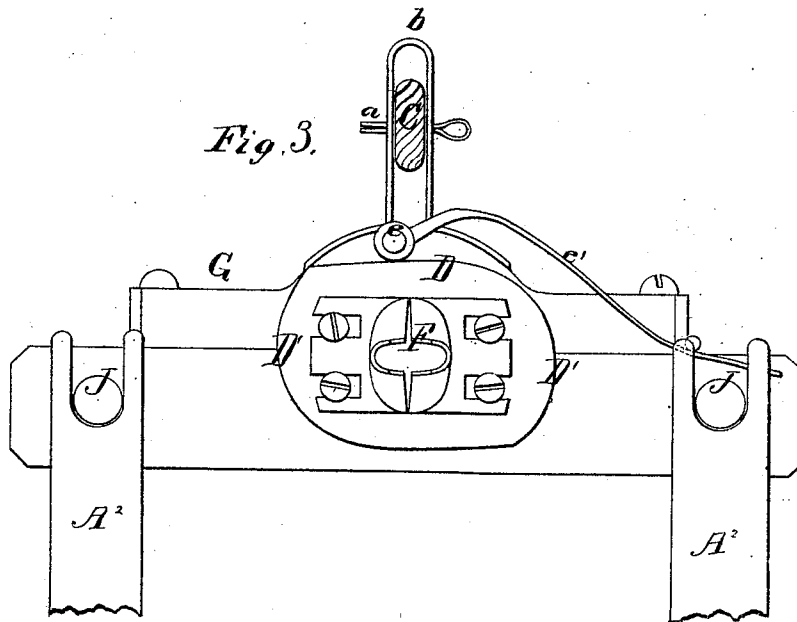
INVENTOR

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J. POULSON.
Nail-Plate Feeders.

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WITNESSES
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UNITED STATES PATENT OFFICE.

JOHN POULSON, OF FRENCHTOWN, NEW JERSEY, ASSIGNOR OF ONE-HALF HIS RIGHT TO MUNSON BALDWIN, OF SAME PLACE.

IMPROVEMENT IN NAIL-PLATE FEEDERS.

Specification forming part of Letters Patent No. **145,681**, dated December 16, 1873; application filed November 22, 1873.

To all whom it may concern:

Be it known that I, JOHN POULSON, of Frenchtown, in the county of Hunterdon and State of New Jersey, have invented a new and valuable Improvement in Nail - Plate Feeders; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a longitudinal section of my nail-plate feeder. Fig. 2 is a plan view of the same. Fig. 3 is a transverse and Fig. 4 a detail section of the same.

This invention has relation to machines which are designed for feeding nail-plates up to the nail-cutters, wherein the plates receive intermittent rotary motions, so as to present different sides to the cutters, and they also receive endwise or feeding movements as the work progresses. My improvements have especial reference to the means for rotating the gripping-jaws, holding them while the cutters are at work, and giving to them endwise movements. It also has reference to means for gripping the nipper-rod at proper times for feeding forward the plate, and also to the arrangement of the devices in a hinged frame, which can be turned over and convenient access obtained to these devices for oiling and repairing them.

The following is a description of my improvements:

In the annexed drawings, A represents the frame of a nail-cutting machine, and A¹ are inclined brackets secured to this frame for supporting the feeding devices. B B are standards rising perpendicularly from the frame A, and supporting a horizontal shaft, on which is an eccentric, B', that gives reciprocating motion to a cross-head, G, through the medium of a connecting-rod, C. This rod C is connected to a looped standard, b, by means of a pin, a, which may be adjusted into one or the other of the holes a', according to the distance it is desired to move the plate at each

backward stroke of the cross-head G. D represents a cylinder, which has its bearing in the cross-head G, and which has secured on one end an irregularly-shaped head, D', presenting two flat surfaces on its edge, on which a roller, e, is caused to press by means of a spring, e', thus holding the cylinder steady while the nail-cutters act on the plate. F F represent two flattened jaws, between which the plate is fed, which jaws are adjustably secured to the head D' by means of screws which pass through slots made through flanges formed on the largest ends of the said jaws, as shown in Fig. 3. The cylinder D is hollow to allow the nail-plate to be fed centrally through it to the jaws F; and in the periphery of this cylinder oblique grooves, d d, are made, which terminate in straight longitudinal grooves d' d'. In these grooves are received anti-friction rollers f' f', which are on the ends of arms f f, that are rigidly secured to a cross-head, G'. The cross-head G' is secured to a bed, H, which is pivoted, at e, to the ends of the brackets A¹, and to this cross-head the upper ends of guideways J J are secured, the lower ends of which rest in the forked ends of standards A², rising from the table A. On these guideways J J the cross-head G slides, during which movements the cylinder D receives an intermittent rotary motion for turning the nail-plate. At a proper time during each backward stroke of the cylinder D and jaws F it is necessary to move the nail-plate through the jaws a sufficient distance to form a nail. This I do automatically by means of the following contrivance: K represents a rod, which is secured at one end to the cross-head G, and provided on or near its opposite end with a spring-lifter, k. L L' are two jaws, which are provided with rollers, l l l', for supporting a nipper-rod, N, in line with the center of the cylinder D. The jaw L is rigidly fixed to the bed H, but the jaw L' is pivoted and allowed to vibrate, and is moved up by means of the lifter k acting on a lip, m, at the proper time during the backward stroke of the cylinder D to gripe and hold the nipper-rod N. If desirable, the lifter k may be adjustable on its rod, in which

case more or less lengths of nail-plate may be exposed beyond the ends of the nippers at each backward stroke of the cylinder D.

It will be seen from the above description that the entire feeding mechanism can be moved about the pivots *e* and turned completely over for oiling or repairing the parts; also, that the nail-plate is turned over and moved a proper distance through the gripping-jaws F at each backward stroke of the cylinder D; also, that the nipper-rod is firmly held between the jaws L L' during part of the backward strokes of the drum D. By making the two jaws F adjustable they are adapted for gripping nail-blanks of different widths.

What I claim as new, and desire to secure by Letters Patent, is—

1. The cylinder D, rotated by means described, and applied to a reciprocating cross-

head, G, in combination with the jaws F, holding-spring *e'*, and head D', as and for the purposes described.

2. The gripping-jaws L L', constructed as described, in combination with the spring-lifter *k* on a rod which is secured to the cross-head G, and with the centrally-perforated drum D and jaws F, substantially as described.

3. The cross-heads G G', bed H, and guide-ways J J, pivoted to the brackets A¹ at *e*, in combination with the forked supports A², as and for the purposes set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN POULSON.

Witnesses:

HERBERT A. HUMMER,
SAMUEL ROCKAFELLOW.