

(No Model.)

3 Sheets—Sheet 1.

F. F. RAYMOND, 2d.
NAIL FEEDING IMPLEMENT.

No. 531,645.

Patented Jan. 1, 1895.

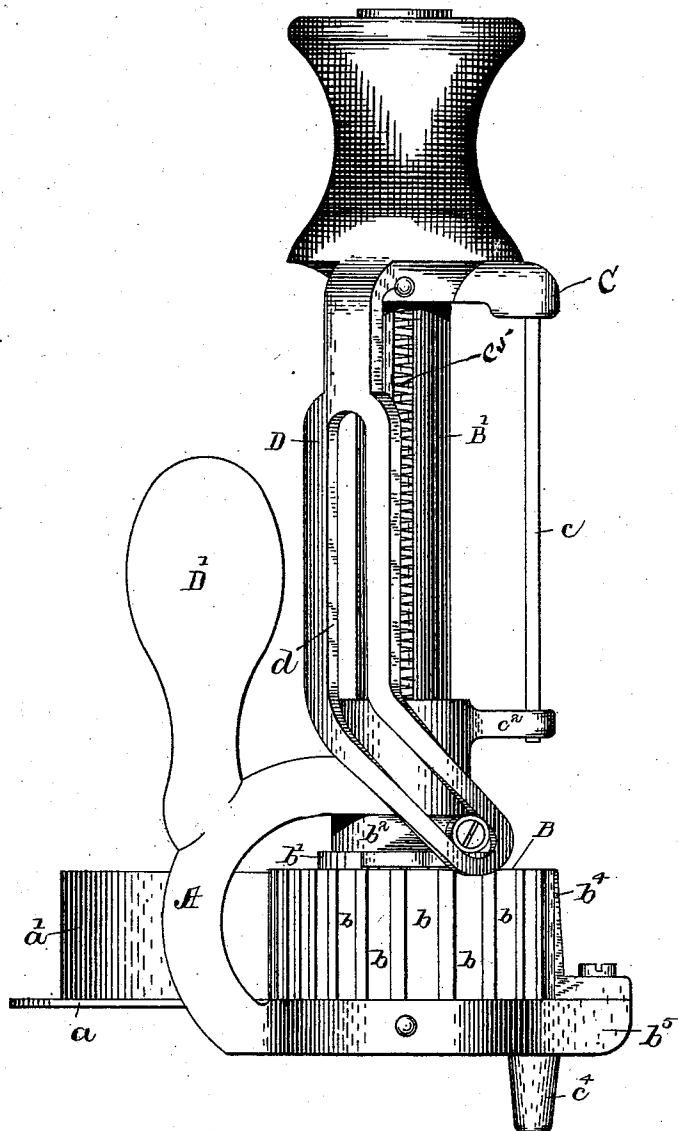


Fig-1-

WITNESSES.

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J. M. Dolan.

INVENTOR.
A. A. Raymond

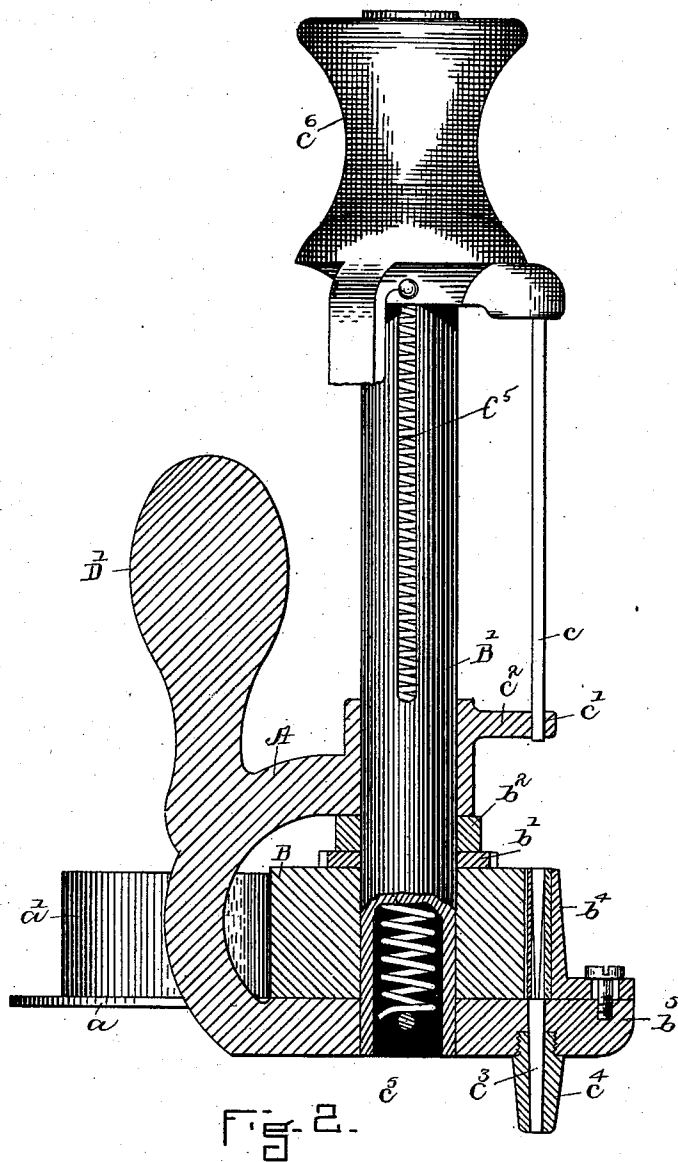
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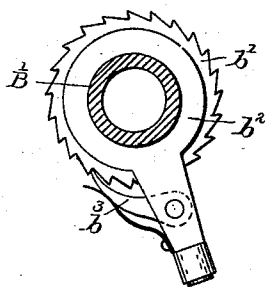
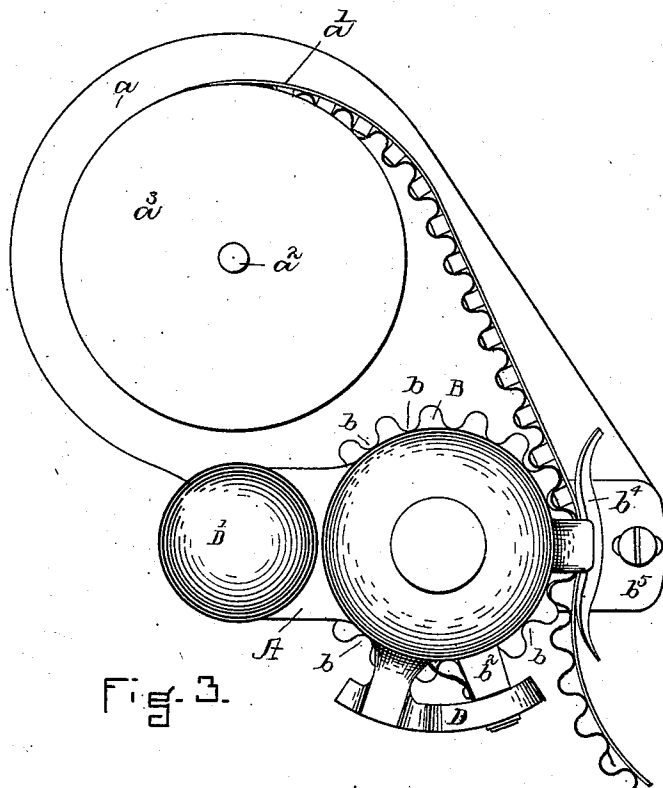
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3 Sheets—Sheet 3.

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Patented Jan. 1, 1895.



WITNESSES.

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Fig. 4.

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UNITED STATES PATENT OFFICE.

FREEBORN F. RAYMOND, 2D, OF NEWTON, MASSACHUSETTS.

NAIL-FEEDING IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 531,645, dated January 1, 1895.

Application filed May 2, 1890. Serial No. 350,315. (No model.)

To all whom it may concern:

Be it known that I, FREEBORN F. RAYMOND, 2d, a citizen of the United States, residing at Newton, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Nail-Feeding Implements, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature.

The principal object of the invention is to provide a means for feeding nails by hand and expeditiously to a distributor, nail carrier, templet, or to any place where nails may be required. It is also applicable for use in driving a single nail.

Referring to the drawings,—Figure 1 is a view in side elevation of a machine having the features of my invention. Fig. 2 is a view principally in vertical central section thereof. Fig. 3 is a view in plan of the machine, and Fig. 4 is a detail view to illustrate the relation between the ratchet wheel and the plunger.

The invention is designed for use in feeding and driving nails from a pocket nail strip.

In the drawings, A is the frame of the machine. Upon it is mounted a table a for supporting the coil a' of nail strip of the character specified, the table having a pin a^2 about which the strip is coiled. There is preferably arranged over the coil to rest upon it and hold it in place upon the table a flat plate a^3 . At the front end of the frame A is a strip feed wheel B having vertical corrugations b in its periphery. It is journaled on an upright B' of the frame, and it has a ratchet wheel b' fastened to it. A lever b^2 pivoted upon its center to the upright or post B' has a pawl b^3 to engage the teeth of the ratchet wheel. A curved face plate b^4 is arranged in front of the feed roll upon the frame projection b^5 , and preferably is adjustable in relation to the roll. Between it and the roll there is a feed way or passage through which the nail strip is fed by the feed roll, the face plate serving to bear against the back of the strip and to hold its corrugated surface in contact with the fluted surface of the feed roll.

C is a driver block or head. It is suitably supported to be vertically movable upon the post B', and has a driver c , which is arranged to play

through the throat c' in the section c^2 of the frame, and through a pocket of the nail strip in line therewith and into and through if desired the hole c^3 in the nozzle c^4 . The head C is vertically movable upon the post B' downward in opposition to the spring c^5 , the spring serving to lift the same upon the post. The head also has a handle c^6 by which it may be grasped and reciprocated. To operate the feed pawl there is attached to the driver block a bar or plate D having a slot d . This slot is straight at its upper end, and inclined at its lower end. It operates to reciprocate the pawl through the lever b^2 , the outer end of the lever having a roll which fits the slot d and plays therein. The inclined section of the guide slot is below the lower end of the driver c , so that a feed movement is not communicated to the feed roll B until after the lower end of the driver has cleared or been lifted from the pocket of the strip. The continued upward movement of the driver block then causes the feed roll to be turned by imparting a horizontal feeding movement to the feed lever. A detent pawl may be used to hold the feed roll stationary after the feed movement. Upon the downward movement of the driver the feed lever and pawl are moved back to engage another tooth of the ratchet wheel by the inclined section of the slot. The frame is also provided with a handle D' placed in close relation to the upright B'.

In operation the nail strip is placed upon the table a about the stud or pin a^2 , and its outer end passed between the feed roll B and the face plate b^4 , the pockets of the strip entering the grooved sections of the feed roll which are opposite the face plate. The downward movement of the driver causes a nail to be driven from a pocket and to be delivered at the lower end of the nozzle. The upward movement of the driver block causes the feed wheel to be turned after the driver has been lifted from the pocket of the strip from which the nail has been ejected sufficiently to bring the next pocket of the strip into register with the driver. If the implement is used simply for distributing nails, the driver can be moved easily by hand. If it is used for driving nails, then the driver will need to be struck by a mallet or moved forcibly in some other way.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. A portable nail feeding implement for feeding nails from a nail strip comprising a suitable frame having a support for the nail strip, a grooved or corrugated feed roll carried by said frame, a suitable strip feed and delivery way a driver adapted to be reciprocated, and a feed roll-turning mechanism, substantially as described.

2. In a portable nail driving implement for driving nails from a nail strip, an intermittently rotating corrugated or grooved feed roll, and an abutment or plate for holding the nail strip in contact with the feed roll, a suitable strip feed and delivery way and a driver adapted to be reciprocated, substantially as described.

3. The combination, in a portable nail feeding device, of the frame, an intermittently

rotating nail strip feed having a corrugated or grooved periphery, a face plate for holding the nail strip in contact with the grooved or corrugated feed wheel, a suitable strip feed and delivery way a driver adapted to be reciprocated connected with the feed roll to operate the same at the end of its upward movement, as and for the purposes described.

4. The combination in a portable nail feeding device, of the frame, the strip feed roll movable to feed the strip during the last part of the upward movement of the driver bar, a suitable strip feed and delivery way the reciprocating driver bar and driver carried thereby, a nozzle *c*¹, and the face plate *b*¹, substantially as described.

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Witnesses:

FRED. B. DOLAN,
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