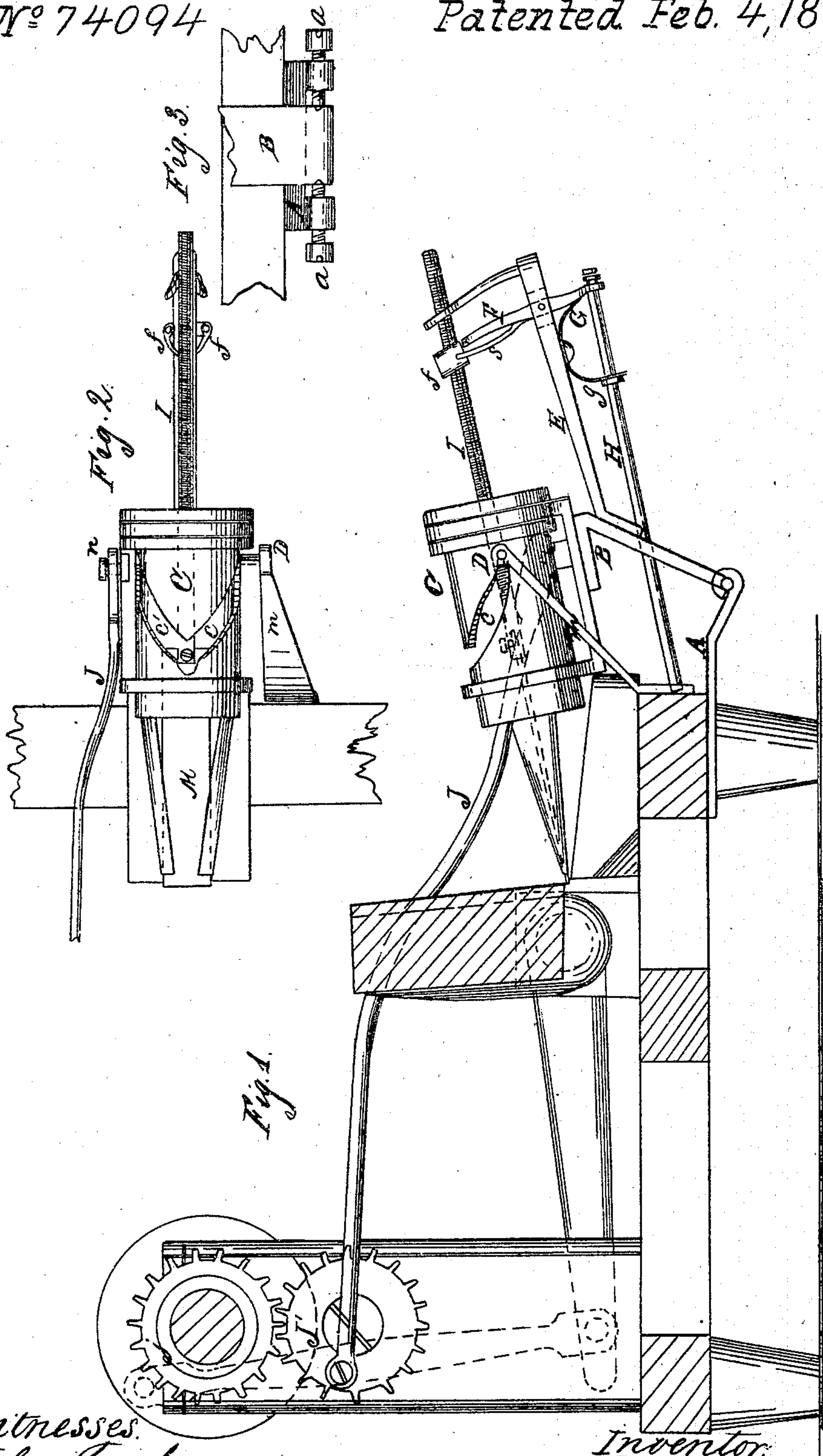


C. D. Hunt.

Nail-Plate Feeder.

N^o 74094

Patented Feb. 4, 1868.



Witnesses.
Thos. Tuschke
J. A. Fraser

Inventor.
C. D. Hunt
Per Munn & Co.

United States Patent Office.

CYRUS D. HUNT, OF FAIR HAVEN, MASSACHUSETTS.

Letters Patent No. 74,094, dated February 4, 1868.

IMPROVED NAIL-PLATE FEEDER.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, CYRUS D. HUNT, of Fair Haven, in the county of Bristol, and State of Massachusetts, have invented a new and useful Improvement in Cut-Nail-Plate Feeder; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

Figure 1 represents a side elevation of my improved cut-nail-plate feeding-apparatus as attached to a nail-cutting machine.

Figure 2 represents a top view.

Figure 3 represents a modification of a detail.

Similar letters of reference indicate corresponding parts.

This invention relates to a new and useful improvement in feeding-apparatus for turning or reversing and feeding nail-plates in a nail-cutting machine automatically.

This improvement consists in a cylinder, through which pass the nipper-rod and nail-plate, which are reversed by an oscillating motion given to the cylinder by a pin or friction-roll working in a double or right-and-left spiral slot, groove, or flange, on the side of the cylinder, while, at the same time, the operation of feeding the nail-plate is performed by means of rods, levers, springs, and clasps, on the nipper-rod, as herein-after minutely described.

A represents the support for the cylinder-rest; *a a* are two screws for supporting the cylinder-rest, and admitting of movement around a point on line drawn through the same as a centre, as shown in fig. 3; B represents the cylinder-rest; C represents the cylinder; *c c'* are spiral slots or grooves in the cylinder; D, a pin or friction-roll to fit in the grooves *c c'*, and attached to the machine; E represents the feed-rest, attached to the cylinder-rest; F represents the feed-lever; *f f* are two catches on the feed-lever F; G represents the spring set against the feed-lever F to throw it forward; *g* is a spring to overcome the power of the spring G; H is the feed-rod; I is the nipper-rod, which is a screw with nippers or clamp on the end to hold the nail-plate, the thread being cut so as to allow the catches *f f* to move the same forward; J represents the connecting or driving-rod; *j j*, two gear-wheels; M is the nail-plate; *m*, a standard for the pin or roll D; *n*, a pin on connecting-rod J; *s s* are catch-springs.

The support A is attached to the machine by one or more screws, and is connected with the cylinder-rest B by a hinge-joint; or it may better be connected by projecting ears, with two set-screws, *a a*, acting as centres to support the cylinder-rest, and also to adjust the nail-plate by moving the same, as shown in red lines in fig. 3. The cylinder-rest B, being thus supported, can be easily turned on the screws *a a* to and from the machine, or can be turned down entirely out of the way of the cutting-knives, when the same require adjusting, by disconnecting the pin D and driving-rod J.

The cylinder C, being supported by one or two bearings (as circumstances may require) on the rest, can be easily turned or rotated on its bearings.

The cylinder C has a spiral slot on one side, or a flange or groove, which runs one-quarter around the cylinder, when it turns and runs nearly at right angles another quarter around the cylinder, till it has described one-half of the cylinder in the form of right-and-left screw-cuts. Into these slots, *c c'*, a pin or friction-roll, D, is inserted, and firmly attached to the bed of the machine by a standard, *m*.

Attached to the cylinder-rest is the feed-rest E, in which is the feed-lever F, which is moved forward by the spring G.

On the top of the feed-lever F are two catches, *f f*, against which press two springs, *s s*, to make them clasp the nipper-rod I.

Leading from the spring G to the spring *g* is a rod, so set as to allow the stiffer spring *g* to overcome and throw back the lever F. The rod H is carried forward to strike against the bed-piece of the machine just before the cylinder-rest with its attachments has reached the maximum point forward, thus pressing back the spring *g*, and allowing the full power of the spring G to act against and throw forward the lever F, which, by the action of the catches *f f* in the thread of the nipper-rod I, throws forward with the force of the spring G.

The driving-rod J is connected with the gear-wheel *j* by a crank-pin, set out of the centre a sufficient distance to give the required movement, and is also attached to a pin or bolt, *n*, in the cylinder-rest.

As the machine turns, the rod J throws back the cylinder, which is made to rotate one-quarter by the pin or friction-roll D, playing in the grooves *c c'*. The feed-rod H relaxes its pressure on the spring *g*, which overcomes the spring G, and the feed-lever F falls back for the catches *ff* to slip back on the nipper-rod I.

With the machine in motion, at its ordinary speed, the momentum of the cylinder B carries it over the centre point of the grooves *c c'*; and, as the cylinder C is drawn forward, the pin or friction-roll causes the cylinder to rotate the other quarter, thus completing the inversion of the nail-plate in the cylinder. As it is carried forward, the feed-rod H strikes the bed-piece, throwing back the spring *g*, which thus permits the force of the spring G to throw forward the lever F, which, by the catches *ff*, carries forward the nipper-rod I, and the nail-plate M is thus forced between the cutting-knives, against the gauge, with the power of the spring G.

After the blank for the nail is cut from the plate, the cylinder-rest and all its attachments are thrown back, and the cylinder with the plate again inverted, as before described.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent—

The method of feeding the nail-plate by means of the hinged rest B, feed-rest E, feed-rod H, the springs G *g*, the lever F, the catches *ff*, and the nipper-rod I, constructed and operating substantially as described.

CYRUS D. HUNT.

Witnesses:

RUSSELL HATHAWAY, Jr.,

JOEL D. STETSON.