

R. E. CADY.

Conductor for Nail-Rolling Machines.

No. 165,474.

Patented July 13, 1875.

Fig. 1.

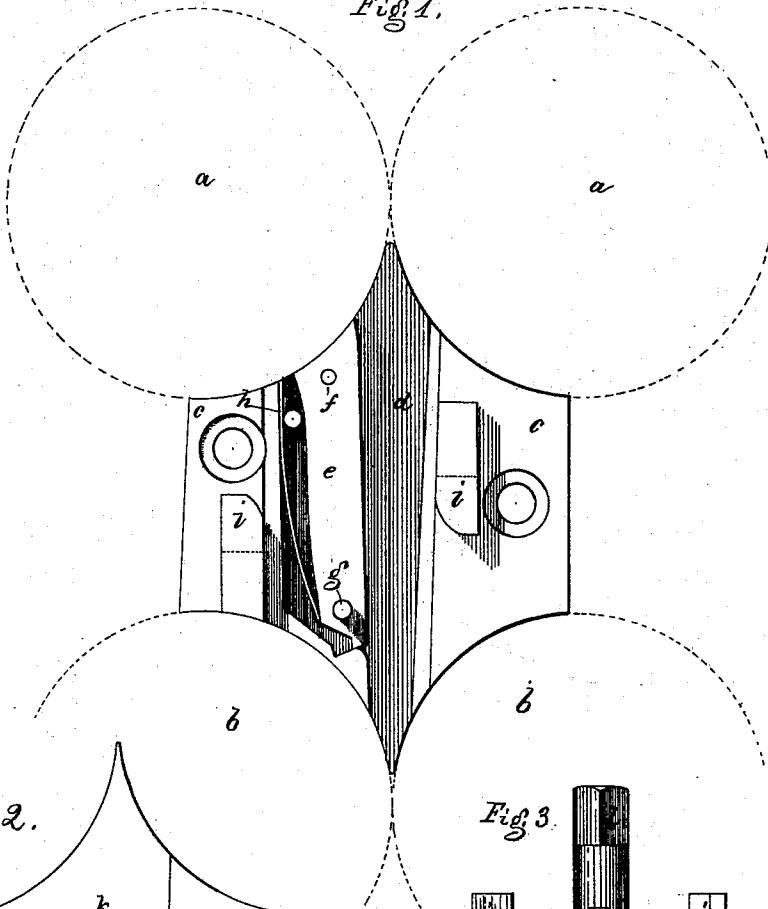


Fig. 2.

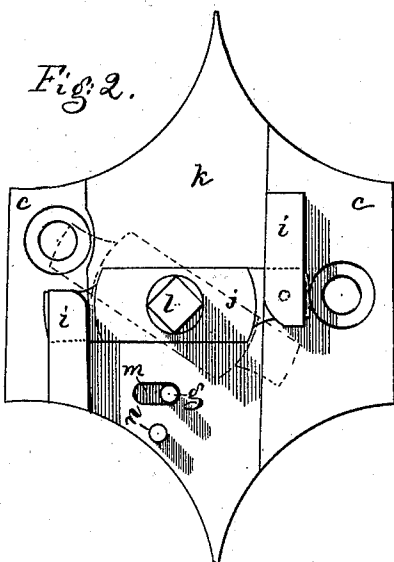


Fig. 3.

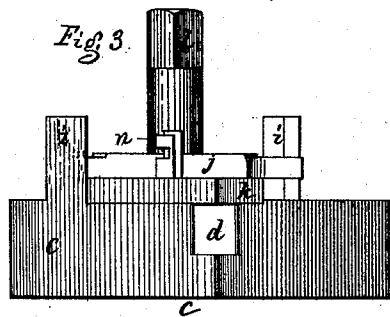
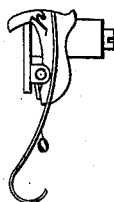


Fig. 4.



WITNESSES.

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UNITED STATES PATENT OFFICE

RANSOM E. CADY, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO GLOBE NAIL COMPANY, OF SAME PLACE.

IMPROVEMENT IN CONDUCTORS FOR NAIL-ROLLING MACHINES.

Specification forming part of Letters Patent No. **165,474**, dated July 13, 1875; application filed May 18, 1875.

To all whom it may concern:

Be it known that I, RANSOM E. CADY, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Conductors for Nail-Rolling Machines, of which the following is a specification:

The United States Letters Patent No. 134,948 show two pairs of successively-operating rolls of a machine for rolling horse or cattle shoe nails. The rolls are shown as connected by means of a conductor having side walls flaring toward the front, and the front wall, formed as a gate or door, is held closed by a catch so long as the nail-blanks pass in regular succession one by one; but when a blank becomes detained, so that a following blank cannot pass it, the pressure of the blanks one on the other is sufficient to force one of the blanks, through the action of the flaring sides of the conductor, outward against and to open the gate, the nails in the conductor being thrown out. The gate in its movement moves a wire projecting from the nail-interceptor, which is thereby turned to cut off the passage of the nails to the conductor.

The automatically-operating gate referred to in the above patent has been found objectionable because the nails thrown out by the action of the machine very often fall into the nipper mechanism of the nail-machine and disarrange it, injuring such mechanism and causing much delay for necessary repairs. If these ejected nails do not fall into the nipper mechanism they do fall on the floor and get mixed with nails of other lengths, and have to be picked up and assorted before being again fed through the rolls. With the locked conductor, as hereinafter described, the attendant has only to remove its face and pick out the nails, and they may be returned to the supplying box or hopper, thereby saving time. The automatically-operated gate is often forced open by simply a crooked nail, whereas the yielding plate of the locked conductor will not open the conductor, but will simply throw the interceptor into action, and the action of the rolls will crowd the nail down and between the next rolls, and will properly deliver it.

This invention consists in a conductor for nail-rolling machine provided with a remova-

ble front plate and locking-bar, whereby, by the movement of the bar, the front plate may be removed; also, in a conductor having connected with it a removable front plate, and a movable channel-piece and finger projecting therefrom, to operate as hereinafter described; also, in a conductor composed of a back plate having a channel, and provided with a movable channel-piece and finger, in combination with a face-plate and a holding-pin to hold a piece projecting from an interceptor, as hereinafter described.

Figure 1 represents the rollers in dotted lines, with the conductor in position between them, but with its face removed. Fig. 2 represents the conductor with its face in position; Fig. 3, a top view of the conductor, and Fig. 4 a view of the interceptor.

In the drawing, *a b* are the pairs of successively-operating rolls, between which the nails are fed in the usual manner, the upper pair presenting to, and the lower pair taking the nails from the conductor. This conductor is composed of a back plate, *c*, adapted to fit between the pairs of rolls, and provided with a channel or way, *d*, having a movable piece, *e*, to form one side of the channel. This movable channel-piece *e* is pivoted to the back plate *c* at *f*, is provided with a projecting finger, *g*, and is pressed toward the center of the channel *d* by a spring, *h*. Attached to the back plate *c* are two slotted projections, *i*, adapted to receive the ends of the locking-bar *j*, pivoted to the front plate *k*, and movable, preferably, by means of a key or wrench applied to an irregular post, *l*, projecting from the locking-bar. The removable front plate *k* is provided with a slot, *m*, through which projects the finger *g* of the movable channel-piece *e*, and on the front plate *k* is a notched holding-pin, *n*, which receives the piece *o*, projecting from the interceptor *p*, which operates with reference to the rolls and the conductor, as does the interceptor described in the patent before cited.

When the channel *d* becomes unduly crowded the channel-piece *e* is pressed back against its spring *h*, and the finger *g* thereon, projecting through the slot *m* on the front plate *k*, removes the piece *o* of the interceptor from the

notch in the notched holder *n*, and permits the interceptor to cut off the supply of nails to the conductor; then the attendant, with a wrench applied to the post *l*, turns it and the ends of the locking-bar into the position shown in Fig. 2, dotted lines, and removes the front plate *k*, when the nails may be removed from the conductor and be replaced in the usual hopper.

I claim—

1. A conductor for nail-rolling machines, consisting of the back plate and the removable front plate and locking-bar, adapted to operate substantially as described.

2. In a conductor for nail-rolling machines, the removable front plate and the movable

channel-piece and finger projecting therefrom, substantially as described.

3. The combination of the back plate *c* and the movable spring-operated channel-piece and its finger with the front plate and the notched holding-pin *n*, all adapted to operate substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

RANSOM E. CADY.

Witnesses:

G. W. GREGORY,
WM. PRATT.