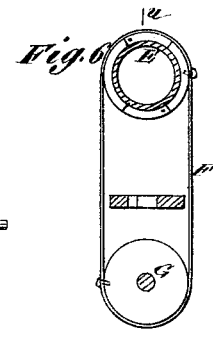
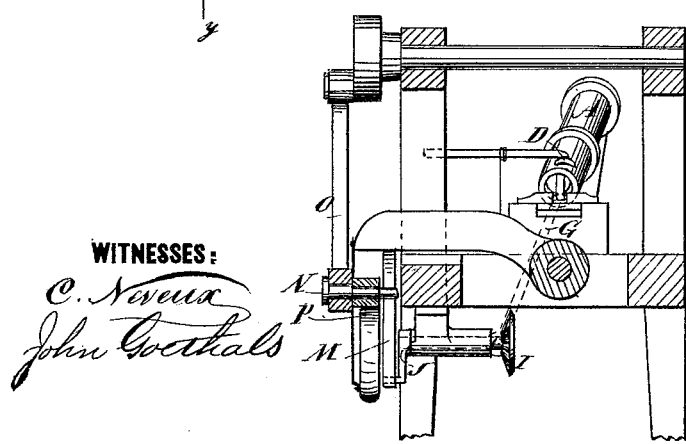
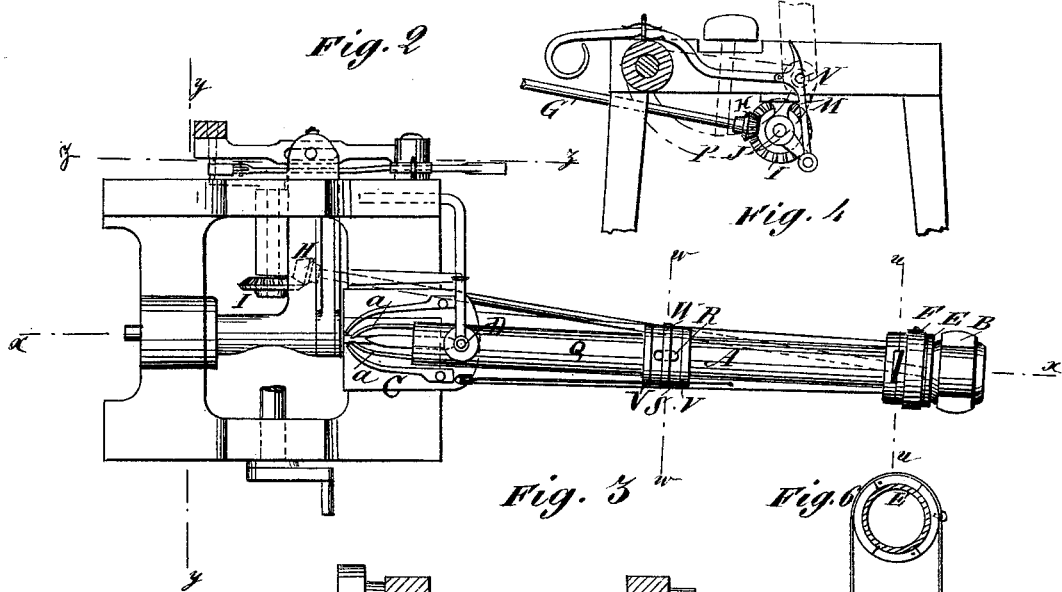
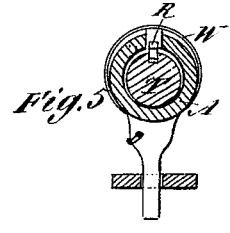
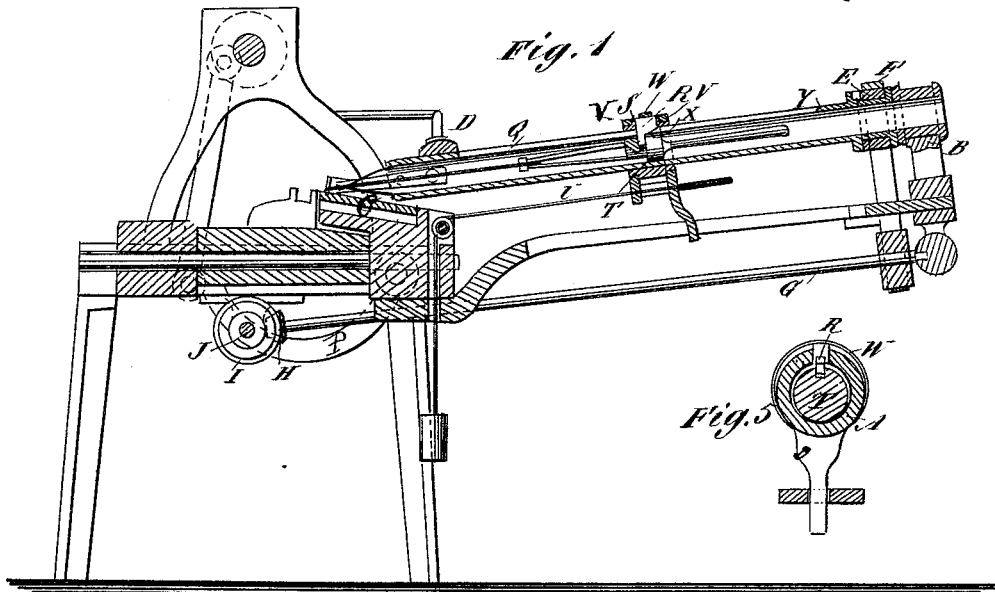


W. H. RITTENHOUSE.
NAIL-PLATE FEEDERS.

No. 180,928.

Patented Aug. 8, 1876.



WITNESSES:
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UNITED STATES PATENT OFFICE.

WILLIAM H. RITTENHOUSE, OF NORRISTOWN, PENNSYLVANIA.

IMPROVEMENT IN NAIL-PLATE FEEDERS.

Specification forming part of Letters Patent No. **180,928**, dated August 8, 1876; application filed April 18, 1876.

To all whom it may concern:

Be it known that I, WM. H. RITTENHOUSE, of Norristown, in the county of Montgomery and State of Pennsylvania, have invented a new and Improved Tack - Machine Feeder, of which the following is a specification:

The invention will first be described in connection with drawing, and then pointed out in the claims.

Figure 1 is a sectional elevation of my improved machine, taken on the line *x x* of Fig. 2. Fig. 2 is a plan view. Fig. 3 is a section on line *y y*. Fig. 4 is a section on line *z z*. Fig. 5 is a section on line *w w*, and Fig. 6 is a section on line *v v*.

Similar letters of reference indicate corresponding parts.

A is the barrel, which turns in the bearing B, and on the bed-plate C, under the spring-bearing D, being turned by a ratchet pulley-ring, E, belt F, and oscillating shaft G, the ratchet being contrived to turn it a half-revolution to each operation. The shaft is geared by pinion H and wheel I with the rocking crank-shaft J, the crank of which is coupled by latch M with the stud of pin N, which couples the connecting-rod O of the main crank-shaft to the lever P, which gives motion to the header. The barrel has a slot, Q, extending along its whole length between the bearings, through which slot a pin, R, couples the feed-ring S with the nipper-head T, so that the nipper can be fed by a weighted cord, U, at the same time that the barrel revolves. The ring S works between two collars, V, sliding on the barrel, but not turning with it, and having the weight attached to them, and is thus free to revolve with the barrel while being fed along by the weight. The pin R is pressed in by the spring W, and it is raised out of the nipper-rod by its incline X running

up the ledge Y when the feeder is set back, detaching it automatically.

a represents the two spring nose-pieces of the barrel, which I employ instead of the one rigid one heretofore used, in order that when the barrel is turning over on one of them its weight and the pressure of the bearings D will spring it, and so nip the plate that it will not feed while turning.

The blank from which the nail is cut obliquely across has one edge longer than the other, necessarily. As the reciprocal feed turns the long and the short edge up alternately, in ordinary nail-plate feeders, high speed is not possible, because the moving knife lifts the plate from the bed-knife when, in turning, the long edge is up. On the other hand, when the short edge is up, and the nose-piece made to spring and bind the plate, the moving knife will clear it every time, and there is no limit to the speed, so far as the feed is concerned.

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

1. The pin R, spring W, ring S, and collar V, combined with the nipper-head T, revolving barrel A, and weighted cord U, substantially as specified.

2. The pin R, having incline X, in combination with spring W and ledge Y, substantially as specified.

3. The ratchet-ring E, belt F, oscillating shaft G, wheels H I, and crank-shaft J, coupled to the header-lever, and combined with the revolving barrel, substantially as specified.

WILLIAM H. RITTENHOUSE.

Witnesses:

H. K. WEAND,
C. P. M. MISSIMER.