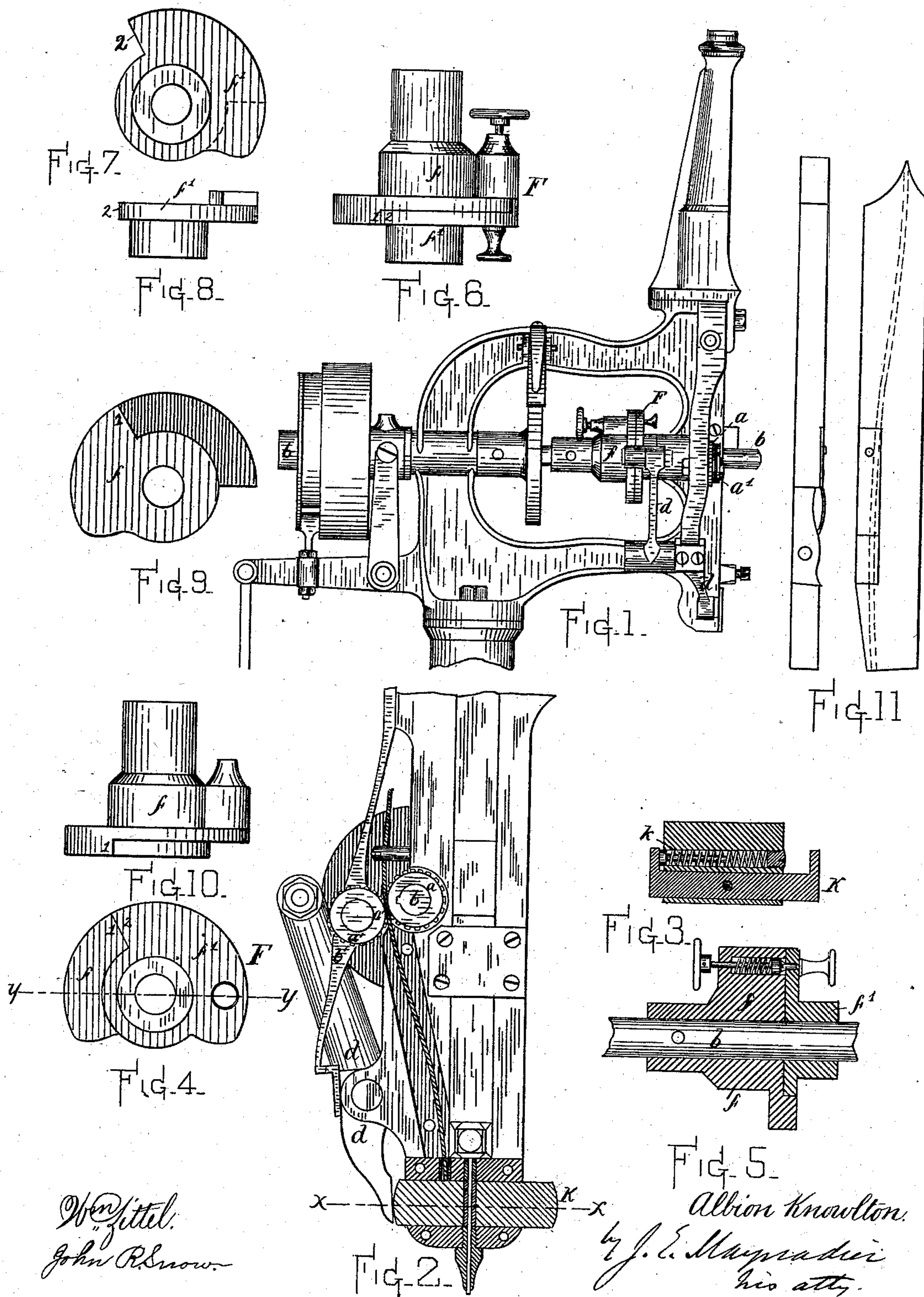


(No Model.)

A. KNOWLTON.  
Nailing Machine.

No. 241,550.

Patented May 17, 1881.





# UNITED STATES PATENT OFFICE.

ALBION KNOWLTON, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE CORRUGATED WIRE FASTENING COMPANY, OF HARTFORD, CONNECTICUT.

## NAILING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 241,550, dated May 17, 1881.

Application filed March 30, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, ALBION KNOWLTON, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Nailing-Machines, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, making part hereof, in which—

Figure 1 is a side elevation. Fig. 2 is a front elevation, partly in section. Fig. 3 is a section on line *xx*, Fig. 2. Fig. 4 is a plan of cam F. Fig. 5 is a section on line *yy*, Fig. 4. Fig. 6 is an elevation of cam F. Figs. 7, 8, 9, and 10 are details of the cam F. Fig. 11 is a detail of face-plate covering the wire groove shown in Fig. 2.

My invention relates to the means for feeding the wire in such a manner that the length of the wire nail or peg may be readily changed; and it consists, mainly, in an adjustable cam of a novel construction.

The parts not lettered in the drawings will be understood without description by all skilled in this art, and are substantially the same as are fully described in Patent No. 224,339, dated February 10, 1880.

The feed-wheel *a* for feeding the wire is fast to the shaft *b*. The other feed-wheel, *a'*, is journaled on spring *b'*, so that the wire is fed only when it is nipped between the two feed-wheels *a a'*, as described in the patent above named. Consequently, if spring *b'* were not moved so as to carry feed-wheel *a'* away from feed-wheel *a*, the wire would be fed continuously as long as shaft *b* revolved; but as soon as spring *b'* and feed-wheel *a'* are moved far enough to relieve the wire from the nip of the feed-wheels the wire is no longer fed forward, but remains stationary. This motion of the feed-wheel *a'* is of course very slight, and need not be enough to unmesh the gear-teeth by which the feed-wheel *a* drives the feed-wheel *a'* from operative contact with the wire between it and the feed-wheel *a*.

Spring *b'* rests upon lever *d*, as shown clearly in Fig. 2, and lever *d* is controlled by the length-gaging cam F, which is fast to the main shaft, and which is so shaped as to keep the upper end of lever *d* in the position shown in Fig. 2 during a certain part of the revolution of shaft

*b*. During the rest of the revolution of the shaft the upper end of lever *d* is thrown and held nearer to the axis of shaft *b*, as will be well understood without further description.

Were the cam F made in one piece, as in the patent above mentioned, the feed of the wire could take place only when cam F did not hold lever *d* in such a position as to prevent feed-wheel *a'* from pressing the wire upon feed-wheel *a*, and consequently the length of wire fed would be the same at each revolution of shaft *b* and cam F, (unless cam F were splined upon shaft *b* and shaped and moved upon the shaft as in that patent.)

The present invention, then, consists, mainly, in making cam F in two parts—one part, *f*, fast to the shaft, and the other part, *f'*, adjustable on part *f* in such a way as to increase or diminish the length of that part of the cam which acts to hold feed-wheel *a'* out of operative contact with the wire, and thereby acts to prevent the feed of the wire.

As shown in the drawings, the cam is formed in two leaves, *f* and *f'*. The hub of *f* is fast to the shaft *b*, so that *f* must move with that shaft. The other leaf, *f'*, is secured to *f* by any suitable means (as, for instance, the latch shown in Figs. 5 and 6) which will admit of *f'* being adjusted on *f*. To feed the maximum length of wire pegs or nails the shoulder 1 of piece *f* is adjusted as far as possible from shoulder 2 of piece *f'*, and vice versa to feed the minimum length. A scale can be readily engraved upon this cam, showing just where to set piece *f'* for any desired length of peg. The carrier K is forced by spring *k* to the left and against the lower end of lever *d*; but the spring *b'* is the spring mainly relied upon to keep the cam-roll on the upper end of lever *d* against the periphery of the cam.

What I claim as my invention is—

In a nailing-machine, the adjustable cam F, formed of the two leaves *ff'*, the leaf *f* being fast to the shaft, and the leaf *f'* secured adjustably upon leaf *f*, and operating substantially as described.

ALBION KNOWLTON.

Witnesses:

J. E. MAYNADIER,  
JOHN R. SNOW.