

(No Model.)

2 Sheets—Sheet 1.

H. WEEKS.
NAILING MACHINE.

No. 291,443.

Patented Jan. 1, 1884.

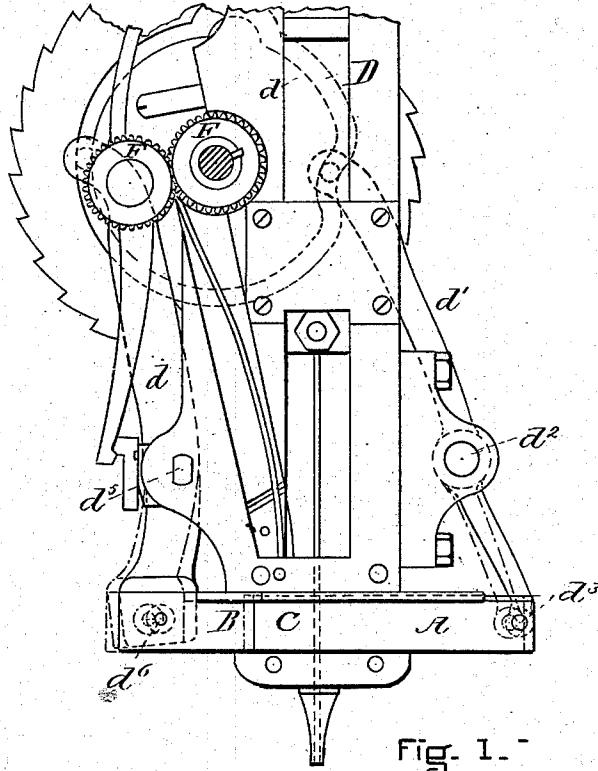


Fig. 1.

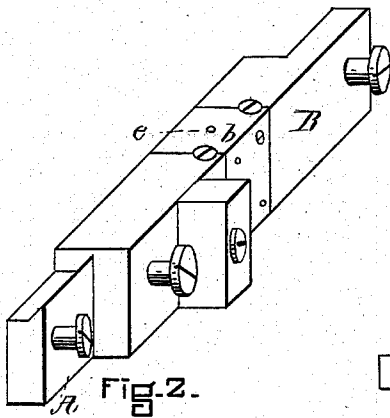


Fig. 2.

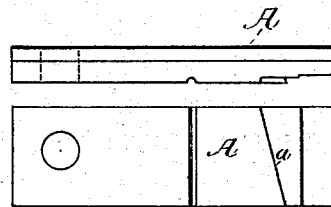


Fig. 3.

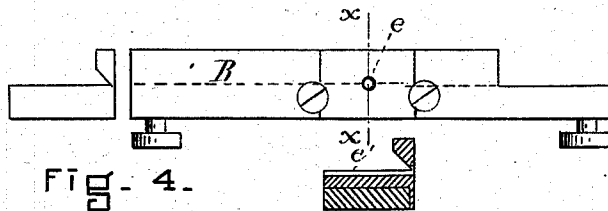


Fig. 4.

WITNESSES

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Fred. B. Nolan.

INVENTOR

Horace Weeks
by his attys
Clark & Raymond.

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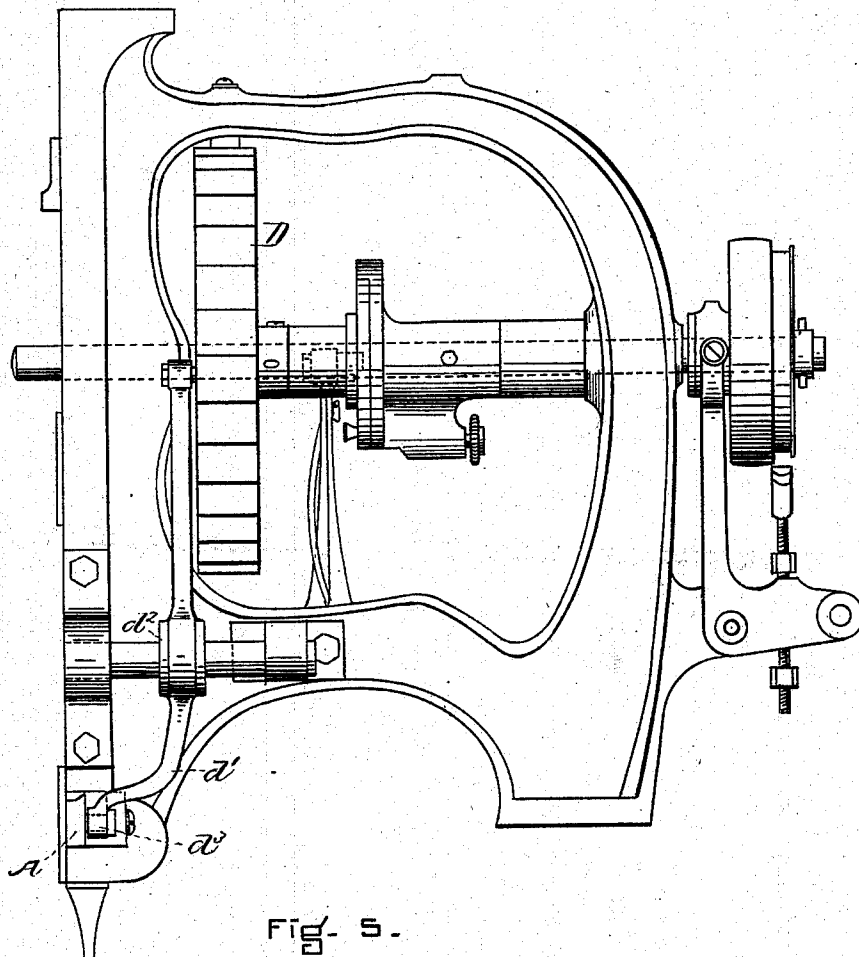


Fig. 5.

WITNESSES

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UNITED STATES PATENT OFFICE.

HORACE WEEKS, OF BOSTON, MASSACHUSETTS.

NAILING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 291,443, dated January 1, 1884.

Application filed October 15, 1883. (No model.)

To all whom it may concern:

Be it known that I, HORACE WEEKS, of Boston, in the county of Suffolk and State of Massachusetts, a citizen of the United States, have invented a new and useful Improvement in Nailing-Machines, 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, in which—

Figure 1 is a front view of a nailing-machine having my improvements. Fig. 2 is a view in perspective of two movable jaws containing the waste cutting, cut-off, and feeding devices. Fig. 3 is a view in elevation and plan of one of the movable jaws, hereinafter more fully described. Fig. 4 is a view in plan and a vertical section on the line $x x$ of the other movable jaw, and Fig. 5 is a side elevation of the machine.

The invention is an improvement upon that described in my Letters Patent No. 280,267, dated June 26, 1883, and relates to the devices therein termed "cutting-off" and "carrying" devices—that is, mechanism for cutting away or severing a piece from the nail-wire to form the shank and barb of the nail, for severing the nail from the wire, and for feeding the nail to the driver. In said patent I describe mechanism for this purpose consisting of a movable and a fixed jaw, by which a nail-blank is first severed from the wire, and then its shank and barb formed.

In the present invention I use two movable jaws instead of one movable and one stationary, and I cut the waste from the end of the wire to form the shank and barb of the nail before the nail is completed by being severed from the wire.

Referring to the drawings, A represents the movable jaw which cuts off or removes the waste, and B the movable jaw which severs the nail from the wire and feeds it into position under the driver C. The movable jaw A is provided with the cutting-edge a , which is like that described upon the movable jaw of said patent, with the exception that it is placed near one end of the jaw instead of centrally, as in the patent. This jaw is moved horizontally by means of the cam-groove D in the cam-disk d on the main shaft of the machine,

and the lever d' , whose fulcrum is at d'' , and lays hold of or is pivoted to the jaw d^3 . Upon the removal or cutting of the waste the jaw A comes to rest, and the other jaw, B, is then moved by means of the cam-groove D, lever d' , having its fulcrum at d'' , and pivoted to the end of the jaw B at d^3 , cutting or severing the nail from the wire, as described in said patent, and feeding it into position beneath the driver C. The wire is fed by any suitable feeding device, and I prefer that described in the Knowlton patents, No. 225,527, dated March 16, 1880, and No. 241,550, dated May 17, 1881, referred to in my said patent.

In Fig. 1 a portion of the wire-feeding mechanism—namely, the feed-rolls FF'—is shown. These rolls are caused to move the wire to a stated distance equivalent to the length of the nail which it is intended to form, and by suitable means, described in said Knowlton patents, the extent of this feed may be varied so that nails of any make may be formed. It enters between the jaws through the hole e in the jaw B, and is held by the recess e' in said jaw, and upon the movement of said jaw the nail-blank of course is severed therefrom, and the nail-blank is moved by it into position under the driver, as above explained. The edge of the hole e acts as a cutter in severing the nail-blank from the wire upon the movement of the jaw B, and in this respect it acts like the cut-off described in the Knowlton patent of 1881. The jaw A has a vertical groove, a' , which, when it finally comes to rest after cutting the waste from the shank of the nail, comes in line with the driver C. The inner surface of the movable jaw A is cut out to form sufficient clearance for the escape of the waste of the nail, which is moved forward by the jaw and drops from the machine; and for the same reason the inner surface of the jaw B, from the throat-plate b , is also cut away. The throat or the passage through which the wire is fed in the jaws and in other passages of the machine through which it passes may be round, if round wire is used, may be diamond-shaped, if wire diamond-shaped in cross-section is employed, or may be of any suitable cross-section to correspond to the cross-section of the wire.

Having thus fully described my invention, I

claim and desire to secure by Letters Patent of the United States—

5 1. The movable jaw A, provided with a cutting-edge cavity, *a*, and driving-recess *a'*, with the movable jaw B, having the cutter *c* and nail-holding recess *c'*, all substantially as and for the purposes described.

2. The combination of the cam D, the movable jaws A B, as described, and levers *d'* *d''*,

whereby the waste is cut from the wire by 10 the movement of one jaw, and the nail then severed from the wire and fed under the driver by the movement of the other jaw, all substantially as and for the purposes described.

HORACE WEEKS.

Witnesses:

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