W. H. FIELD.

Nail-Plate Feeder.

No. 160,314. Patented March 2, 1875.

Fig: 1.

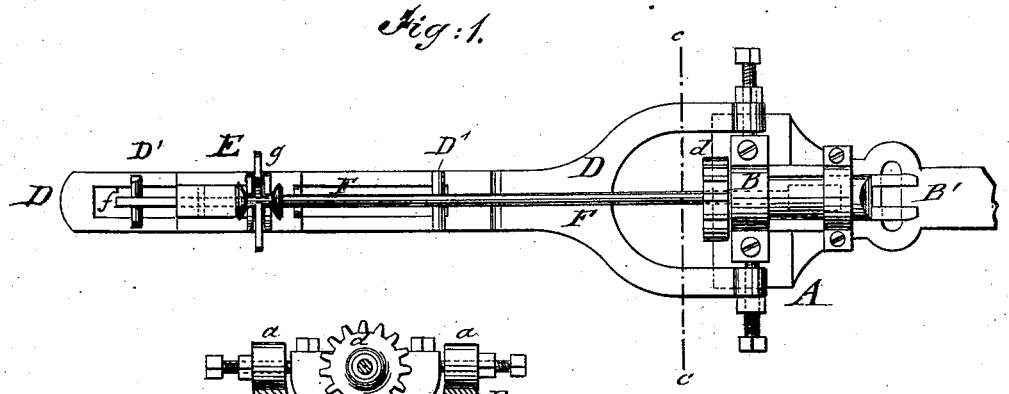


Fig: 2.

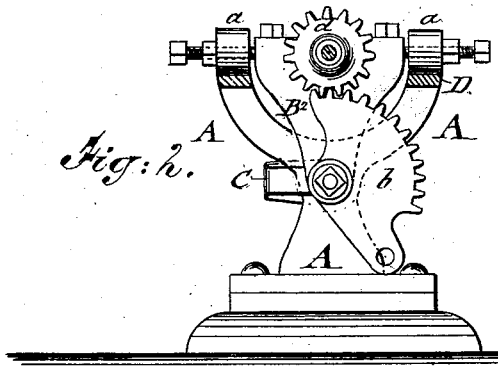


Fig: 3.

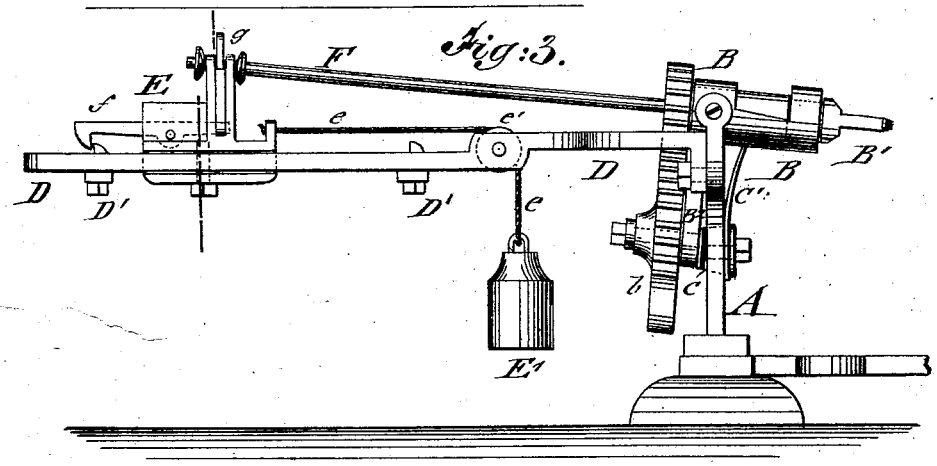
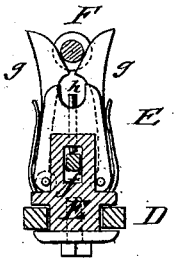


Fig: 4.



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UNITED STATES PATENT OFFICE.

WILLIAM H. FIELD, OF TAUNTON, MASSACHUSETTS.

IMPROVEMENT IN NAIL-PLATE FEEDERS.

Specification forming part of Letters Patent No. **160,314**, dated March 2, 1875; application filed January 11, 1875.

To all whom it may concern:

Be it known that I, WILLIAM H. FIELD, of Taunton, in the county of Bristol and State of Massachusetts, have invented a new and Improved Nail-Plate-Feeding Machine, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a top view of my improved nail-plate-feeding machine; Fig. 2, a vertical transverse section on the line *c c*, Fig. 1; Fig. 3, a side elevation of the same, and Fig. 4 a detail section of the sliding feeder-head.

Similar letters of reference indicate corresponding parts.

The invention will first be fully described, and then pointed out in the claims.

In the drawing, A represents the upright main standard of my improved nail-plate feeder, which has a yoke-shaped upper part, with suitable bearings *a*. The shoe B, that carries the nail-plate-guiding nose-piece B^1, is hung or centered to the yoke-standard A, for allowing the nose-piece to be raised and lowered simultaneously with the semi-rotations of the nose-piece in feeding the nail-plate to the cutting-knife. The downward-extending rear part B^2 of shoe B is cushioned by a bent band or other spring, C, while the front part is similarly acted upon by a spring, C′, which imparts the required degree of flexibility to the motion of the turning and vibrating nose-piece. The rear part B^2 carries the segment-gear *b*, that meshes with a cog-wheel, *d*, keyed to the hollow rear part of nose-pieces B^1, imparting, by reciprocating motion of the segment-gear, rotary reciprocating motion to the nose-piece B^1 simultaneous to the vibrations of the pivoted and spring-acted shoe during the feeding of the nail-plate to the knife. A rearward-extending slightly upward-inclined feeder bar or support, D, is bolted firmly to the upper yoke of standard A, being of forked or yoke shape, with slotted rear parts. Adjustable stops D′ of the slotted part of the feeder-bar define the extent of motion of the feeder-head E, which is guided by side extending plates along the feeder-bar, and fed forward by a weight, E′, hung to a cord, *e*, passing over a pulley, *e′*, at the end of the slot. The rear stop, D′, is rounded off at one side for admitting the ready passage of the latch-hook *f*, which is pivoted in longitudinal direction to the feeder-head, extending at the rear part of the same. Pivoted and spring-acted jaws *g* are applied sidewise to the feeder-head, for the purpose of locking the loose sleeve end of nipper-rod F when introduced between the same. The nipper-rod F presses on a vertically-sliding pin, *h*, as long as held fast by the jaws, and the pin presses then on the arm of latch *f*, so as to raise the hook end of the same.

The feeder-head E is locked to the rear stop D′ by the latch-hook, and detached therefrom on being raised by the action of the pin *h*, so as to cause, in connection with the weight, the forward feeding of the nipper-rod F, which carries at its front part the nail-plate, and follows the movements of the nose-piece as the same is recessed at its front part for guiding the nail-plate. After the whole nail-plate has been fed, the feeder-head is carried back and the nipper-rod taken out by spreading the jaws, which releases the pin and carries thereby the latch-hook over the rear stop, for retaining the feeder-head until the nipper-rod is provided with a nail-plate and replaced into the jaws of the feeder-head. The insertion of the nipper-rod detaches the feeder-head from the stop, and admits the instant feeding of the nail-plate and the more rapid cutting of the nails.

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

1. The forked and slotted feeder-bar or rear extending standard, being attached to the main yoke-standard and provided with adjustable stops, in combination with the sliding and weighted feeder-head guided thereon, substantially as specified.

2. The sliding feeder-head, having pivoted and spring-acted jaws for taking hold of the flanged sleeve end of the nipper-rod, substantially as described.

3. The sliding feeder-head, provided with a rear extending latch-hook and vertically-sliding pin, acting on the opposite arm of the same, for raising the latch from the rear stop, and detaching the feeder-head on the insertion of the nipper-rod and the consequent depression of the pin, substantially as set forth.

WILLIAM HENRY FIELD.

Witnesses:

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