

J. COYNE.

Apparatus for Assorting Nails.

No. 139,548.

Patented June 3, 1873.

Fig. 1.

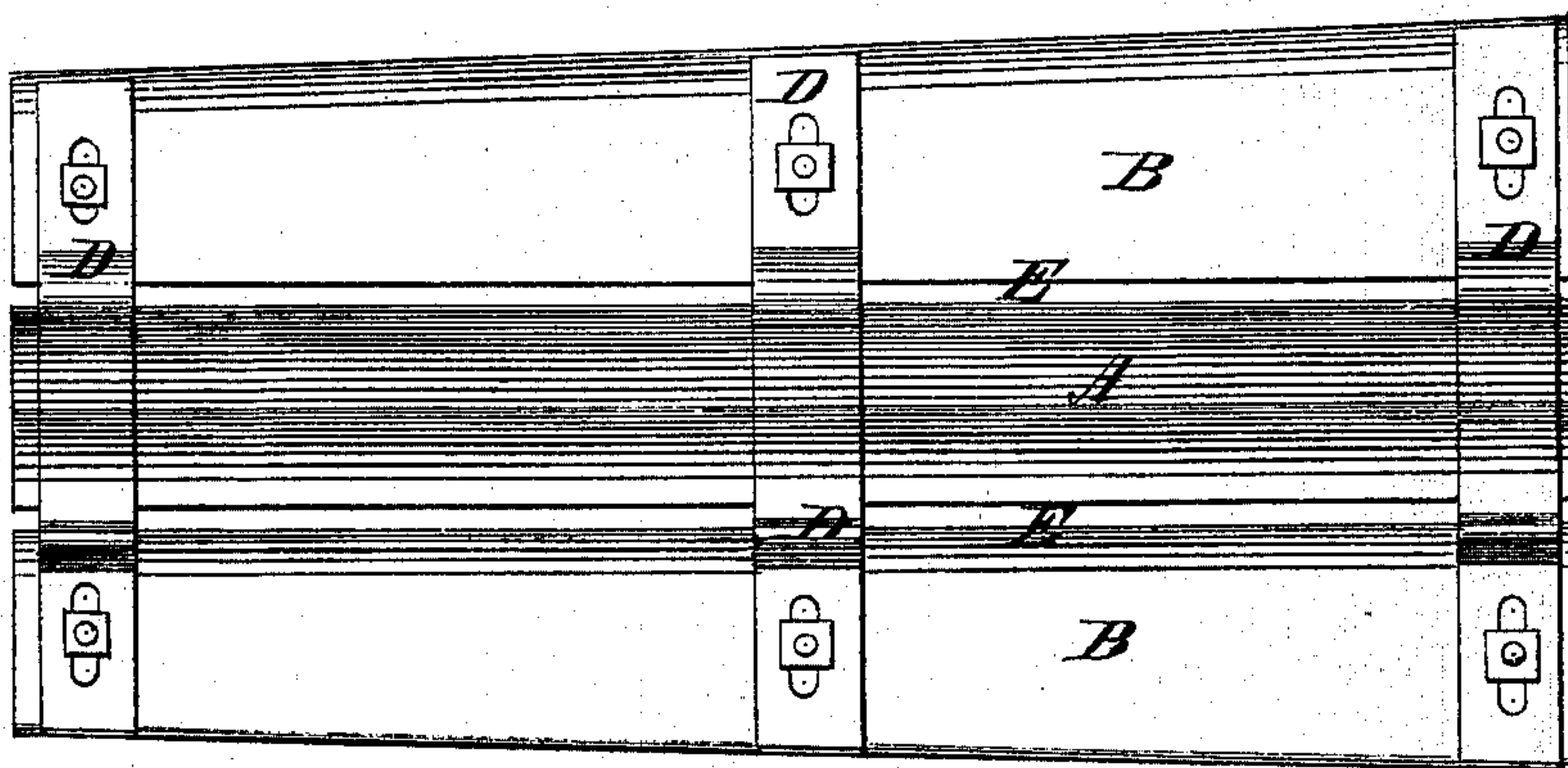


Fig. 2.

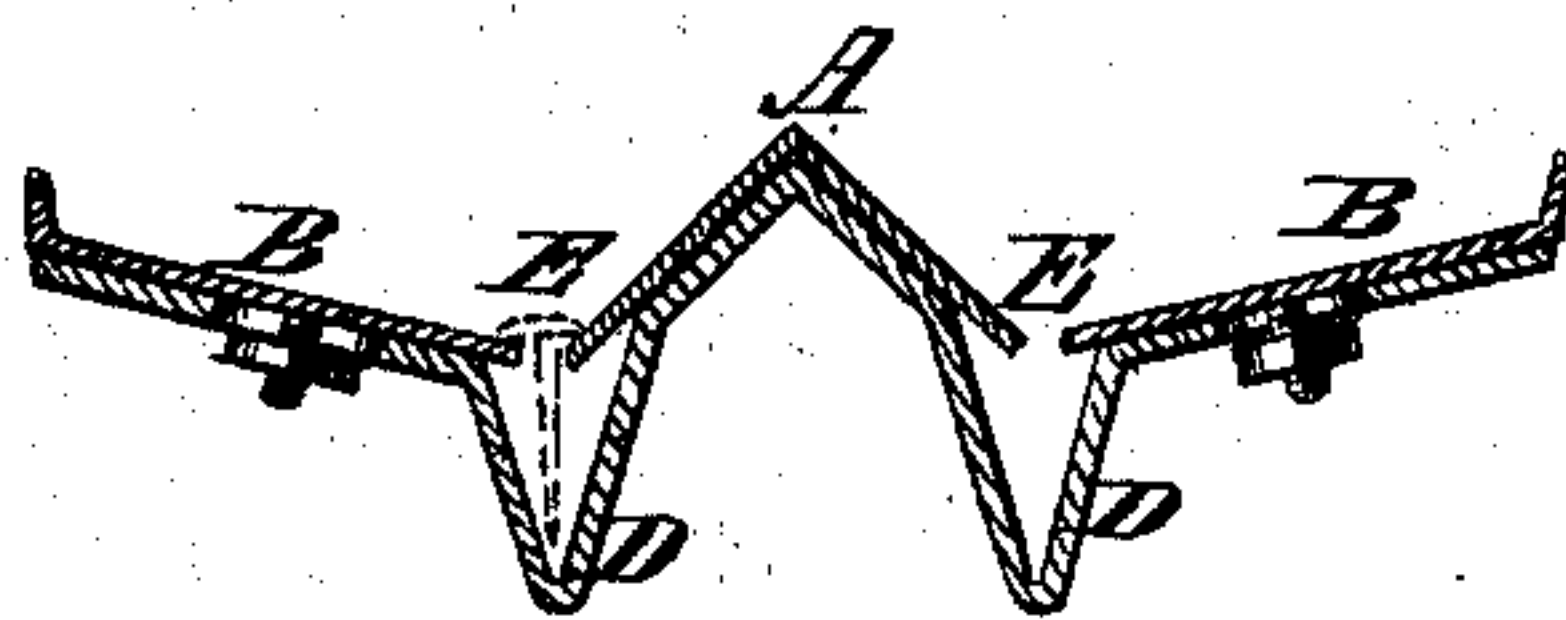
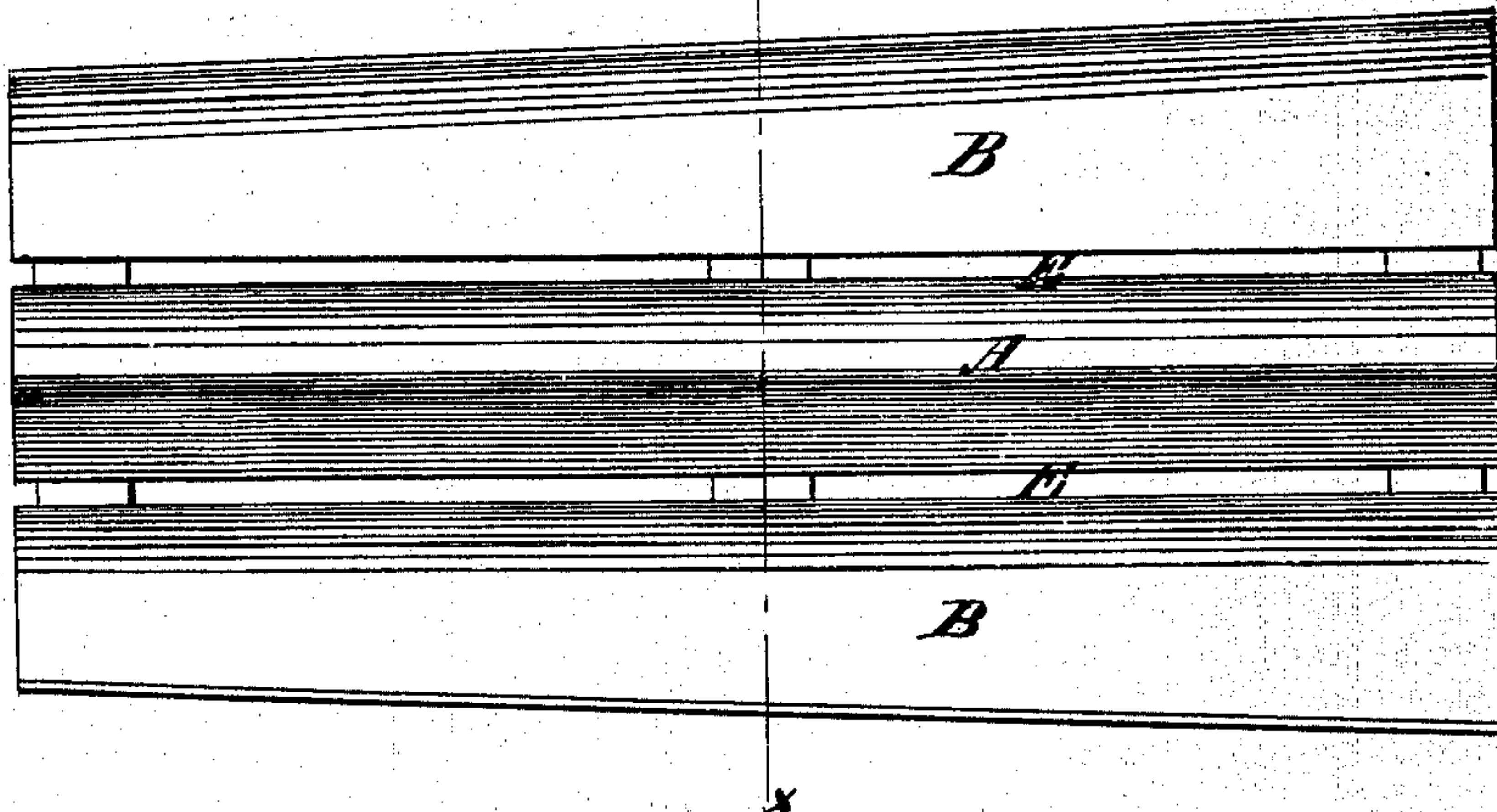


Fig. 3.



Witnesses:

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PER

UNITED STATES PATENT OFFICE.

JOHN COYNE, OF PITTSBURG, ASSIGNOR TO HIMSELF AND ROBERT CHESSMAN; OF THE BOROUGH OF ETNA, PENNSYLVANIA.

IMPROVEMENT IN APPARATUS FOR ASSORTING NAILS.

Specification forming part of Letters Patent No. **139,548**, dated June 3, 1873; application filed March 23, 1872.

To all whom it may concern:

Be it known that I, JOHN COYNE, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Cut-Nail Sorter, of which the following is a specification:

My invention has for its object to provide a simple yet perfectly reliable apparatus or device for assorting cut nails.

Heretofore this work has been done by hand so far as done at all; and the result is that, on an average, from two to five pounds of imperfect or headless nails, and scrap, and cinder, are sold with every keg of nails; and in view of the fact that between five and six millions of such kegs are made and sold every year in the United States, and these mainly by one or two cities, the necessity of such an invention in this country alone is sufficiently apparent.

I construct my apparatus somewhat on the plan of certain screw-feeders in use in this country and in England—that is to say, of inclined plates so arranged with a central angle-plate as to form slotted or open channels or gutters between them, through which the refuse metal and headless nails will pass, and thus be ready for removal for economic purposes. To adapt the apparatus for separating nails of different sizes, as carpet-tacks from shingle-nails, &c., or for analogous purposes, I make the inclined side plates laterally adjustable, all as hereinafter described.

In the accompanying drawing, Figure 1 is a view of the bottom or reverse side of the apparatus. Fig. 2 is a top side view. Fig. 3 is a cross-section taken on the line *xx* of Fig. 2.

Similar letters of reference indicate corresponding parts.

In this example of my invention I show a central angle-plate, A, and on either side an adjustable plate, B, inclined toward the angle-plate A, forming two slotted gutters. The plates B B are made adjustable by means of slots and screws, the slot-holes being made in the transverse straps D, which hold the parts

together, as seen in Fig. 1. These plates B B are made adjustable for varying the width of the slot-openings E E. There are three, more or less, of the cross-straps D bent down beneath the openings E E, as seen in Fig. 3, to allow a nail to hang by its head and slide down, as represented.

The apparatus thus constructed, is placed in an inclined position, so that the nails from the machine will fall upon the central angle-plate A, and slide in either direction to the openings E E. The imperfect nails, scraps, cinders, &c., will pass through the openings, while the perfect nails or those with heads will catch and slide down, and thus be separated from the headless nails and other waste.

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

1. An improved nail separating and assorting apparatus, formed of the inclined side plates B B and the central angle and dividing plate A, arranged as shown and described, to form longitudinal openings or slots E E, one on each side of the angle-plate, whereby the imperfect nails will be delivered through said openings into suitable receptacles, and the perfect nails will be delivered at the lower end of the apparatus, as specified.

2. The combination of inclined plates B, angle-plate A, and slotted transverse straps D with their set-screws, by means of which the said plates B are made adjustable, as shown and described, for the purpose specified.

3. In an apparatus for assorting and separating nails, the inclined plate or plates B, made adjustable laterally with respect to the plate forming the opposite side of the trough for reception of the nails, as shown and described, whereby the width of the longitudinal opening or openings E E may be varied according to the special work to be done, as set forth.

JOHN COYNE.

Witnesses:

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