

No. 607,941.

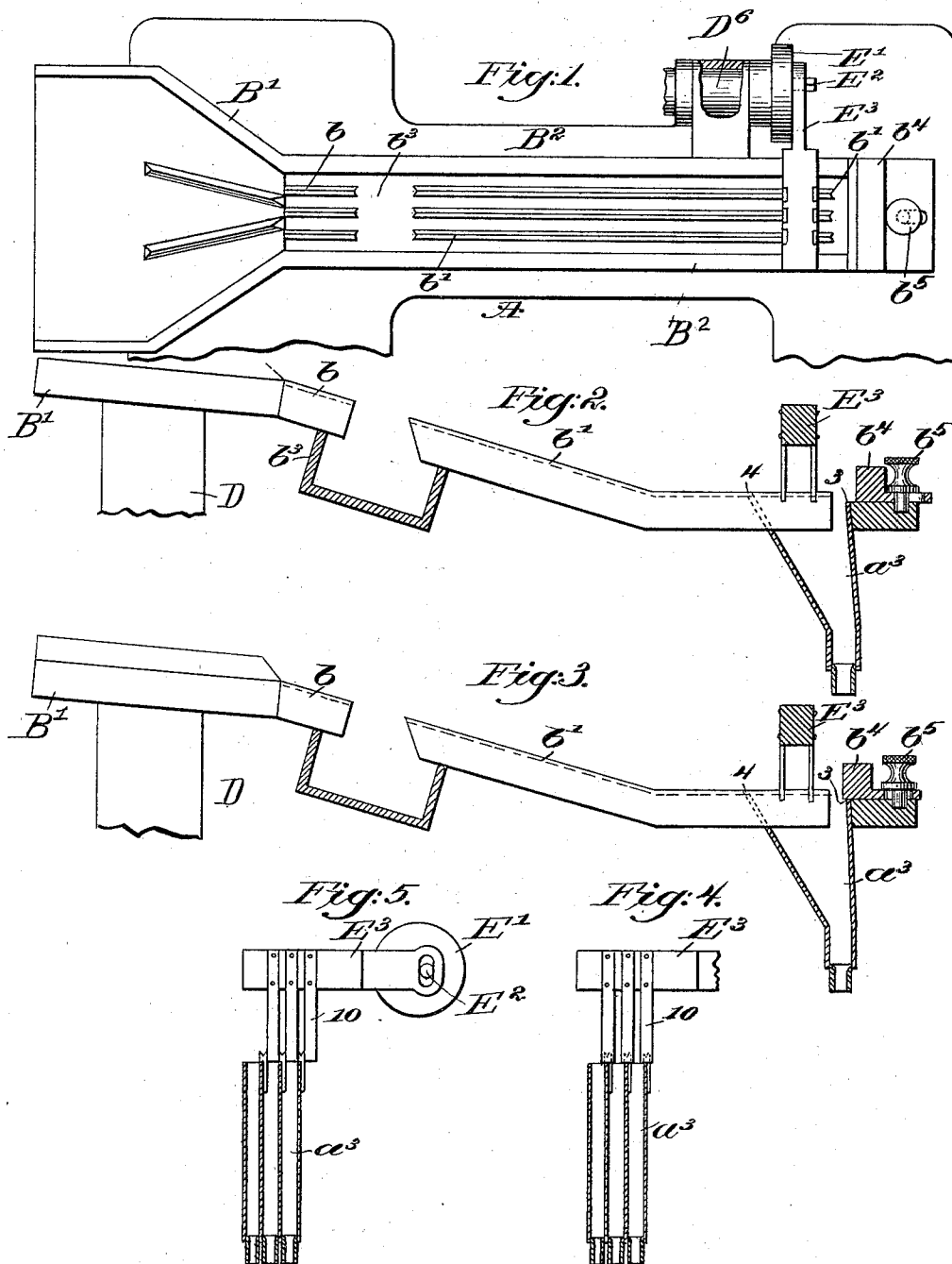
Patented July 26, 1898.

B. F. MAYO.

NAIL ASSORTING MECHANISM.

(Application filed Aug. 27, 1897.)

(No Model.)



Witnesses.

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UNITED STATES PATENT OFFICE.

BENJAMIN F. MAYO, OF SALEM, MASSACHUSETTS, ASSIGNOR TO JAMES W. BROOKS, OF PETERSHAM, AND JOHN BROOKS, OF CAMBRIDGE, TRUSTEES FOR THE MCKAY-BIGELOW HEELING MACHINE ASSOCIATION, OF BOSTON, MASSACHUSETTS.

NAIL-ASSORTING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 607,941, dated July 26, 1898.

Application filed August 27, 1897. Serial No. 649,732. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. MAYO, of Salem, county of Essex, State of Massachusetts, have invented an Improvement in Nail-
5 Assorting Mechanism, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like parts.

10 This invention has for its object an improved construction of nail-assorting apparatus whereby nails fed indiscriminately into a series of raceways with points and heads in different directions may be assorted and
15 collected either point or head first, as may be desired.

In this my present invention all the nails discharged from the hopper head first fail to arrive on and travel down the raceways, and
20 at the delivery end of the raceways they are discharged either point or head first, as may be desired, into pockets arranged at the sides of the raceways, the fact of the nails being discharged head or point first depending on
25 the location of the end stop crossing the delivery ends of the series of raceways with relation to point and head arresters, the adjustment of said end stop in one or the other direction determining which arrester shall
30 become effective and which end of the nail shall lead.

Figure 1 is a top or plan of a sufficient portion of a nail-assorting machine with my improvements added to enable my invention to
35 be understood. Fig. 2 is a detail in side elevation to show one of the raceways, a pocket, and end stop in position to discharge the nail head first. Fig. 3 is a like view showing the same parts, but in a changed position, to enable the nail to be discharged point first.
40 Figs. 4 and 5 are details showing a plurality of raceways, pockets, and a transferrer in different positions.

The shaft D⁶, its crank E', crank-pin E²,
45 and transferrer E³, having suitable fingers 10 to contact with the sides of the nails to push them off from the raceway, some of said series of fingers also acting as stops to keep

back the nails next above the ones being discharged, are and may be all as shown and described in my application, Serial No. 649,319,
50 filed August 24, 1897, and hence I need not herein fully illustrate the means for rotating the shaft D⁶.

The bed A (only partially shown) will in
55 practice have suitable upright D to support the hopper B', having side pieces B², and said bed is and may be as in said application, and in practice said hopper will be jarred or reciprocated slightly to facilitate the travel of
60 the nails by means substantially such as provided for in said application.

The hopper at its lower end has extended from it short nail-starts b, which terminate
65 at a greater or less distance from the upper ends of a series of raceways b', according to the length of the nails being assorted. The nails passing from the hopper onto the nail-starts head first drop from the said starts into a suitable box or receptacle b³, while
70 those passing onto the starts point first pass readily onto the raceways b' and slide down thereon to the end stop b⁴. This end stop is made adjustable by a suitable adjusting device b⁵ toward and from the ends of the race-
75 ways b', and when the said stop is adjusted away from said ends to leave exposed a point-arrester, herein shown as a shoulder or part 3 of a hopper c³, located at one side of the
80 raceway, so that the point of a nail pushed off from said raceway by said transferrer, it for such purpose moving from the position
Fig. 4 into the position Fig. 5, meets said arrester, thereby checking temporarily the descent of the point of the nail, letting the
85 heavier unobstructed head end continue to fall, and consequently the head leads into the pocket. On the contrary, if said end stop b⁴ be so adjusted, as in Fig. 3, to stop the point of the nail less than a nail's length
90 from the head-arrester 4, it being herein shown as a part of the wall of the pocket—the wall nearest the hopper—then in such condition when the transferrer acts to push a nail
95 laterally from a raceway the head end of the nail will strike the said head-arrester, and

the head being checked in its descent gives the point a chance to fall freely and lead the nail down point first in the said pocket.

5 The hopper and raceways in operation will be jarred or reciprocated as provided for in my said application.

10 This invention is not limited to the exact form or shape shown for the transferrer, nor to the particular means referred to by which to move it, and the point and head arresters instead of being parts of the pockets may be independent pieces suitably located, as described, to arrest either the point or head, as desired.

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

20 In a nail-assorting mechanism, a suitable hopper to receive the nails to be assorted, preliminary starts for the nails, and from which the nails arriving thereon head first

drop, raceways to receive from said starts the nails coming thereon point first, a series of pockets arranged at the sides of said raceways, a movable transferrer having fingers 25 to meet said nails laid point first on said raceways and push them laterally into said pockets, combined with an end stop which may be adjusted to make operative either a point or head arrester as it is desired to deliver the 30 nails into the pockets head or point first, the head leading when the point meets an arrester, and vice versa, substantially as described.

In testimony whereof I have signed my 35 name to this specification in the presence of two subscribing witnesses.

BENJAMIN F. MAYO.

Witnesses:

GEO. W. GREGORY,
EMMA J. BENNETT.