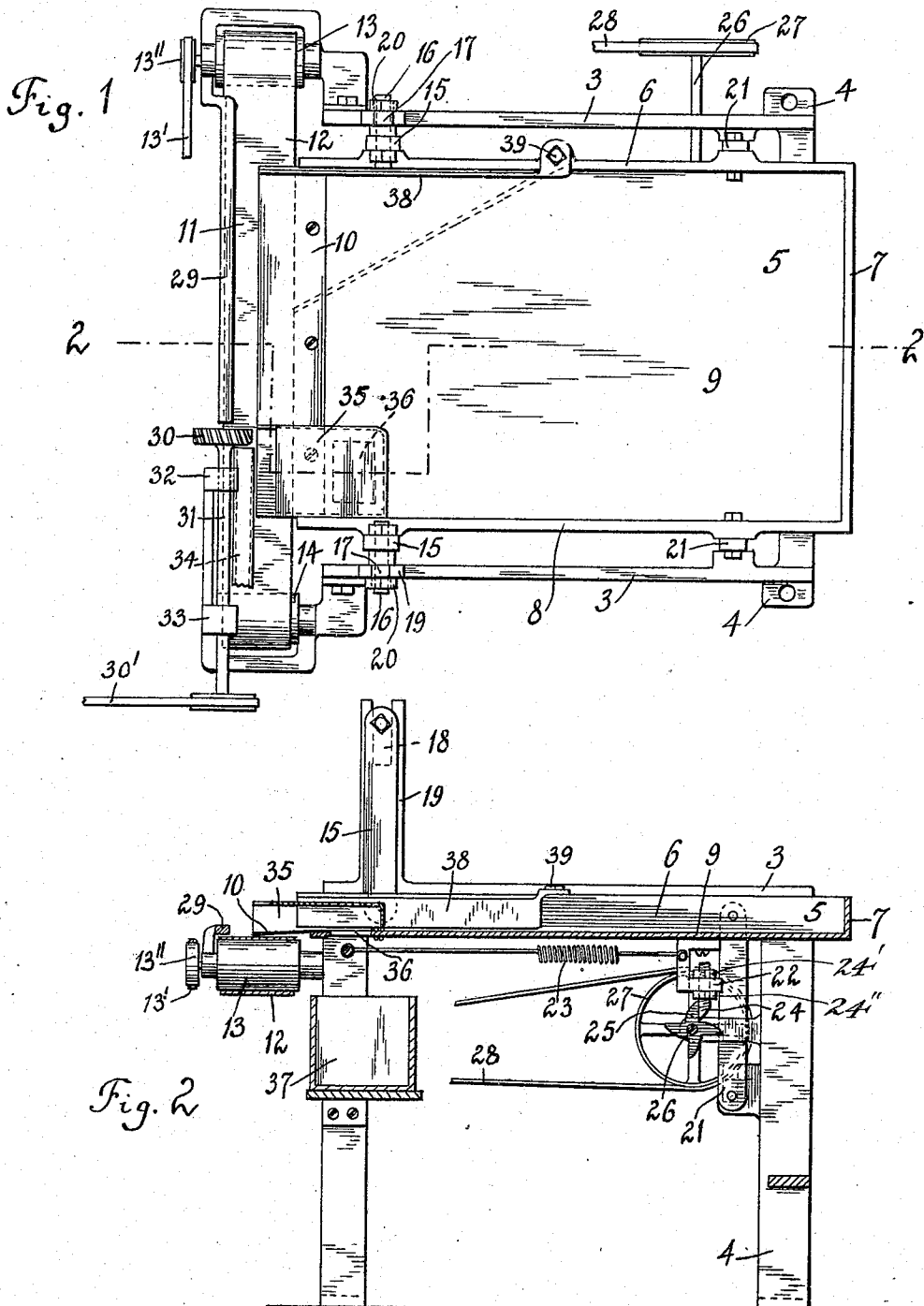


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ATTACHMENT FOR BUTTON BLANK DISTRIBUTING MACHINES.
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932,767.

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ATTACHMENT FOR BUTTON-BLANK-DISTRIBUTING MACHINES.

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Specification of Letters Patent. Patented Aug. 31, 1909.

Application filed January 25, 1909. Serial No. 474,058.

To all whom it may concern:

Be it known that I, IGNAZIO DE FRANCISCI, a subject of the King of Italy, and resident of the city of New York, in the county of Kings and State of New York, have invented certain new and useful Improvements in Attachments for Button-Blank-Distributing Machines, of which the following is a specification.

The present invention relates to an attachment for apparatus for delivering button blanks or similar articles to special devices, whereon the blanks are worked upon in any suitable manner for the purpose of making finished buttons therefrom.

The new and useful features of the invention, forming the subject matter of the present application for Letters Patent, comprise that part of the button machine upon which the button blanks or similar articles are placed to be fed onto a conveyer which transports the same to the distributing device of the machine. In other words, the invention relates to a delivery table, from which the button blanks or similar articles are passed gradually to the working part of the machine. Heretofore for this purpose usually an inclined table has been used, the lower end of which is controlled by a suitable distributing mechanism, or a hopper-like structure has been made use of. The former device, that is the inclined table, necessitates a rather complicated controlling means, while the second device, that is, the hopper-like structure, must be provided with means for presenting the blanks to the conveyer so that the surface thereof to be operated upon is arranged in the proper manner.

The object of the present invention is to provide a device of the character specified, which is simple in construction, efficient in operation, and which does away with the complicated controlling means of the inclined table, and with the presenting means of the hopper-like structure.

Other objects and advantages of the invention will be apparent in reading the specification and from an examination of the drawings, forming part of the present application for Letters Patent.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 illustrates a plan view of the device, and Fig. 2 a section taken on line 2, 2 of Figure 1.

The frame of the apparatus is shown at 3, and supported, in the present case, by standards or legs 4, 4, although it is obvious that the frame may be attached to the main frame of the button machine. The delivery table is indicated at 5, and consists of the sides 6, 7 and 8, to which is attached a bottom 9. The inner end of the bottom 9 carries a smooth, slightly inclined plate 10, extending through the whole width of the table, whereby the blanks fed thereto will slide down onto the conveyer 11, to be carried to that part of the machine, which distributes the same in a manner well known in the art. In the device, illustrated in the drawings, the conveyer 11 is of the belt type, and consists of an endless band or belt 12, running over pulleys 13 and 14, respectively. It will be, however, easily seen that the table is not limited to the use in connection with a belt conveyer, but may be employed to feed the blanks to conveyers of any suitable type and construction.

The table 5 is oscillatably arranged on the frame 3 of the apparatus by pivoting to the front portions of the sides 6 and 8 arms 15, the other ends of which carry pins 16, 16, engaging bearings 17, 17, arranged in the slots 18, 18, which are formed in the standards 19, 19 of the frame 3. The bearings are kept in position in the slots by means of nuts 20, 20, engaging the screw threads of the bearings 17, 17. It is obvious that thus the positions of the bearings may be varied in the slots 18, 18, whereby the position of the table may be adjusted at will. The rear end of the table carries pivotally secured thereto arms 21, 21, the lower ends of which are pivotally attached, in the same manner as the upper ends of the arms 15, 15, to the frame 3 of the apparatus.

To the underside of the bottom of the table 5 is attached a bracket 22, engaged by a spring 23, the other end of which engages the frame 3, whereby the finger 24, which is adjustably carried by the bracket 22, is kept in engagement with a star wheel 25, mounted on a shaft 26, journaled in the frame 3 and rotated by means of a pulley 27 and belt 28 from the main shaft of the apparatus.

The blanks fed onto the conveyer 11 are guided in their movement on the same by means of a guide rod 29, and are brought within the reach of an oblique toothed wheel 30, mounted upon a shaft 31, supported by

bearings 32 and 33, arranged on the frame 3 of the apparatus, and operated by the belt 30' from the main shaft of the machine.

The oblique toothed wheel forces the blanks in the manner described in United States Letters Patent No. 910,511 into a passage 34, in which the blanks are conveyed within the reach of the distributing device. Should the belt 12 convey two blanks at a time, one on the top of the other, to the oblique toothed wheel 30, the upper blank will be thrown by the said wheel into a pocket 35, arranged in line with the wheel on the bottom 9 of the delivery table 5, which pocket is provided with a hole 36, formed in the delivery table, whereby the blanks will be caused to fall into a receptacle 37, arranged under the hole 36 of the pocket 35, wherefrom the same may be brought again onto the delivery table 5.

The belt 12 is operated by any suitable means, for instance, by a belt 13' driven from the main shaft of the apparatus and engaging a pulley 13'' secured to the pulley 13.

The operation of the device is as follows: The button blanks are placed with their faces to be operated upon upward on the delivery table 5. In rotating the pulley 27 of the shaft 26, the table will be oscillated by the star wheel 25 in engagement with the finger 24 of the table. The star-wheel moves the table to the right and, as this wheel is disengaged from the finger 24, the table will be moved by the action of the spring 23 toward the belt 12 and suddenly come to stop. The blanks, however, persist in their state of motion toward the inner end of the table and are brought onto the belt 12, hereinbefore described. The outlet of the table 5 may be varied by means of an adjusting plate 38, arranged upon the side 6 of the table 5, the position of which adjusting plate may be varied so as to adjust the size of the outlet of the table by means of a screw bolt 39 or its equivalent, engaging the plate 38 and the table 5.

In order to vary the stroke of the storage table, the distance between the lowermost point of the finger 24 and the lower surface of the table may be varied in any well known manner. For this purpose, for instance, the finger 24 may be provided with screw-

threads, in mesh with nuts 24' and 24'', bearing against the upper and lower faces, respectively, of the bracket 22.

What I claim is:

1. In an attachment for a button feeding machine, the combination with a conveyer, of a delivery table arranged substantially in the plane thereof, and means for oscillating said delivery table.

2. In an attachment for a button feeding machine, the combination with a conveyer, of a delivery table arranged substantially in the plane thereof, means for oscillating said delivery table, and means for predetermining the length of the stroke of said table.

3. In an attachment for a button feeding machine, the combination with a conveyer, of a delivery table arranged substantially in the plane thereof, a finger attached to said table, and means operatively engaging said finger for oscillating the same and the table to which the same is attached.

4. In an attachment for a button feeding machine, the combination with a conveyer, of a delivery table arranged substantially in the plane thereof, a finger attached to said table, means operatively engaging said finger for oscillating the same and the table to which the same is attached, and means for varying the position of said finger on said table to predetermine the length of the stroke thereof.

5. In an attachment for a button feeding machine, the combination with a conveyer, of an oblique toothed wheel rotatably arranged above the plane of the same, a delivery table located substantially in the plane of said conveyer and being provided with a hole in the bottom of the same, means for oscillating said table whereby the buttons are fed onto said conveyer, and guiding means arranged between said oblique toothed wheel and the hole in said table, whereby the buttons thrown out by said wheel are caused to pass to said hole.

Signed at New York, in the county of New York and State of New York, this 20th day of January, A. D. 1909.

IGNAZIO DE FRANCISCI.

Witnesses:

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