S. J. BEAUCHAMP.

CATALOGUE LABELING MACHINE.

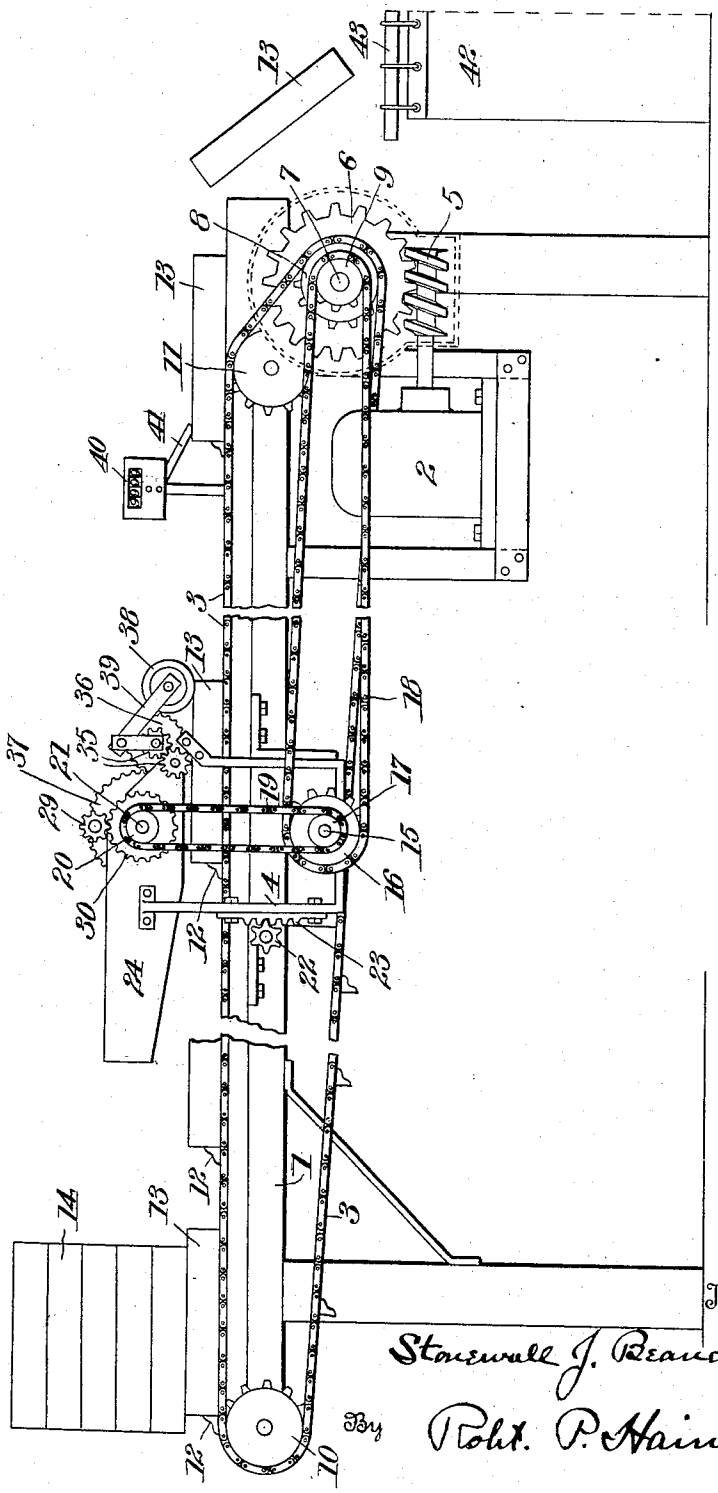
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1,219,907.

Patented Mar. 20, 1917.

2 SHEETS—SHEET 1.

Fig. 1.



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2 SHEETS—SHEET 2.

Fig. 3.

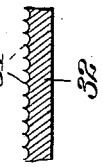


Fig. 2.

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CATALOGUE-LABELING MACHINE.

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To all whom it may concern:

Be it known that I, STONEWALL J. BEAUCHAMP, a citizen of the United States, residing at Little Rock, in the county of Pulaski and State of Arkansas, have invented a new and useful Improvement in Catalogue-Labeling Machines, of which the following is a specification.

This invention relates to mechanism for pasting labels on catalogues, and has for its object to provide an improved and simplified machine for feeding the catalogues one at a time past the label pasting mechanism, automatically pasting a label upon each catalogue as it passes, automatically counting the number of catalogues labeled, and finally delivering the finished catalogues to a mail bag or other collection receptacle.

A special object is to provide label pasting mechanism which may be adjusted to adapt it for applying labels to catalogues of various thicknesses. Another object is to simplify and generally improve the driving means for the catalogue conveyer and label pasting mechanism. Other objects will appear as the description proceeds.

The invention will be first hereinafter described in connection with the accompanying drawings which constitute part of this specification and then more specifically defined in the claims at the end of the description.

In the accompanying drawings, wherein similar reference characters are used to designate corresponding parts throughout the several views.

Figure 1 is a side elevation of a machine constructed substantially in accordance with this invention,

Fig. 2 is a broken view of the label affixing mechanism drawn to a larger scale, and

Fig. 3 is a detailed cross section of the apron leading from the paste applying roller to the feeding rollers, showing the sharp grooves in the surface of the apron for preventing the paste from being removed, as the labels move over said apron.

The operating mechanism is mounted on a table 1 and consists essentially of a motor 2, an endless conveyer 3 for feeding the catalogues, label pasting mechanism mounted on a vertically adjustable frame 4, and means for driving said conveyer and label pasting mechanism from the motor. As illustrated, the driving shaft of the motor is fitted with a worm 5 meshing with a worm gear 6 carried by a shaft 7 suitably journaled at the right hand end of the table 1. The shaft 7 also carries two sprockets 8 and 9, the latter being smaller than the former.

The conveyer 3 is preferably made in the form of a sprocket chain which is operatively passed over the driving sprocket 8 at one end of the table and an idle sprocket 10 at the other end of the table. Another idle sprocket 11 is journaled at the same end of the table as the shaft 7 and is arranged on the same level with the sprocket 10. The chain conveyer 3 is also passed over the sprocket 11, whereby the upper bight of the chain is supported in a horizontal position. The chain 3 has brackets 12 fastened thereto at intervals for withdrawing the catalogues 13 one at a time from the bottom of a pile 14 at the left hand end of the table, and for impelling said catalogues along the horizontal upper bight of the chain.

The vertically adjustable frame 4 is preferably mounted at about the center of the table and has a shaft 15 suitably journaled in its lower portion and carrying two sprockets 16 and 17. A sprocket chain 18 is operatively passed over the sprocket 16 and also around the driving sprocket 9 on the shaft 7. Another sprocket chain 19 is passed around the sprocket 17 on the shaft 15 and also around a sprocket 20 on the shaft 21 journaled in the upper part of the adjustable frame 4. It will thus be seen that the shaft 21 will be driven through the sprocket 20, chain 19, sprocket 17, shaft 15, sprocket 17, chain 18, sprocket 9, shaft 7, worm gear 6 and worm 5 on the driving shaft to the motor. It will also be noted that the frame 4 may be raised and lowered by means of the gear 22 and rack 23 without interfering with the driving connections just mentioned.

A paste receptacle 24 is mounted on the upper end of the frame 4 and is adapted to contain a quantity of paste 25, Fig. 2. The shaft 21 extends through the paste receptacle 24 and carries a roller 26 which dips into the paste 25 and carries a filmy coating thereof on its periphery up to the top of the casing or box 24, a suitable slot or opening 27 being formed in the top of said box to permit the periphery of the roller 26 to extend upward flush with the top of the paste-box. A presser roll 28 is arranged above the roller 26 and is driven by a gear 29 meshing with a gear 30 on the shaft 21 for feeding the labels 31 one at a time over the roller 26

which applies the paste thereto. A pile of labels may be conveniently placed on the left hand end portion of the top of the box 24, and one of the labels taken off of the pile and introduced between the rollers 26 and 28 by the operator at suitable intervals. After the label is placed between the rollers 26 and 28 it is conveyed to and pressed upon the catalogue automatically.

From the opening or slot 27 in the top of the paste box, an apron 32 leads downward to a pair of feed rollers 33. The upper surface of the apron 32 has sharp grooves 34 formed therein for preventing the paste from being wiped off of the labels as they pass along said apron from the rollers 26 and 28 to the feed rollers 33. Said feed rollers are geared together as at 35 so that they will rotate in opposite directions, and the upper one of said feed rollers is driven through a gear 36 meshing with a gear 37 carried by the shaft 21.

The catalogues 13 impelled by the brackets 12 along the upper bight of the conveyer 3, pass directly below the lower one of the feed rollers 33, and the labels after having paste applied thereto by the roller 26 are fed onto the upper surfaces of said catalogue as they pass below the feed rollers. The labels are pressed firmly and smoothly down upon the catalogue by a roller 38 carried by a hinged frame 39. The roller 38 may be weighted or forced downward in order to exert a sufficient pressure upon the labels for insuring said labels being permanently affixed to the catalogues.

To automatically count the number of catalogues which are run through the machine, a register 40 of any suitable construction may be mounted on the table between the label pasting mechanism and the delivery end of said table. Said register may be provided with a tripping arm 41 adapted to be raised for actuating the register each time the catalogue passes below said arm, as clearly shown in Fig. 1. After passing below the register tripping arm 41, the catalogues are discharged from the right hand end of the table into a mail bag 42 or other suitable collection receptacle. The mail bag may be conveniently supported upon a fixed bracket arm 43 as shown at the right of Fig. 1.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. In a machine of the character described, the combination with a table, of a conveyer mounted thereon, a vertically adjustable frame, a rack on the side of said frame, a gear mounted on the table and meshing with said rack for moving the frame vertically with respect to the table, and label pasting mechanism carried by said frame.

2. In a machine of the character described, the combination with a conveyer for catalogues, of means arranged above the path traveled by the catalogues on the conveyer for feeding labels to said catalogues as they pass below said feeding means, means for applying paste to the labels before they reach the feeding mechanism, and an apron for guiding the labels from the paste applying means to the feed mechanism, extending from the paste applying means to the feed mechanism, said apron having sharp grooves in its upper surface for the purpose specified.

3. In a machine of the character described, the combination with a conveyer for catalogues, of means arranged above the path traveled by the catalogues on the conveyer for feeding labels to said catalogues as they pass below said feeding means, means for applying paste to the labels before they reach the feeding mechanism, an apron for guiding the labels from the paste applying means to the feed mechanism, extending from the paste applying means to the feed mechanism, said apron having sharp grooves in its upper surface for the purpose specified, and a roller for pressing the labels onto the catalogues after they pass below said feeding mechanism.

4. In a machine of the character described, the combination with a conveyer for catalogues, of a frame vertically adjustable with respect to said conveyer, a paste box carried by said frame, a paste applying roller arranged in said box and having its upper face flush with the top thereof, a presser roll coöperating with the paste applying roller, feeding rollers also mounted on the frame just above the path traveled by the catalogues on the conveyer, an apron for guiding the labels from the paste applying rollers to the feeding rollers, and means for driving all of said rollers in any adjustment of the frame.

5. In a machine of the character described, the combination with a conveyer for catalogues, of means for pasting labels on said catalogues as they are moved along by the conveyer, and means actuated by the catalogue as it is moved along for automatically counting said catalogues before they leave the conveyer.

6. In a machine of the character described, the combination with an endless conveyer for catalogues, of means for pasting labels on said catalogues as they are moved along by the conveyer, a vertically adjustable frame carrying said label pasting means, whereby the machine is adapted to operate upon catalogues of different thicknesses, and means for driving said label pasting mechanism in any adjustment of the frame, said driving mechanism including a sprocket on the frame, a driven sprocket arranged

substantially on the same level therewith but at a distance therefrom, and a sprocket chain connecting said sprockets.

7. In a machine of the character described, the combination with a sprocket chain for conveying catalogues, of a driven shaft, a sprocket carried by said shaft for driving said conveyer chain, means for pasting labels on the catalogues as they are moved along by the conveyer chain, a frame vertically adjustable with respect to said conveyer and carrying the label pasting means, and means for driving said pasting mechanism in any adjustment of the frame, said driving mechanism including a sprocket on the frame, another sprocket on the driven shaft, and a sprocket chain connecting said latter sprockets.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."