

No. 872,392.

PATENTED DEC. 3, 1907.

A. VON AUW.

MACHINE FOR GUMMING OR MOISTENING LABELS.

APPLICATION FILED DEC. 10, 1904. RENEWED MAY 3, 1907.

Fig. 1

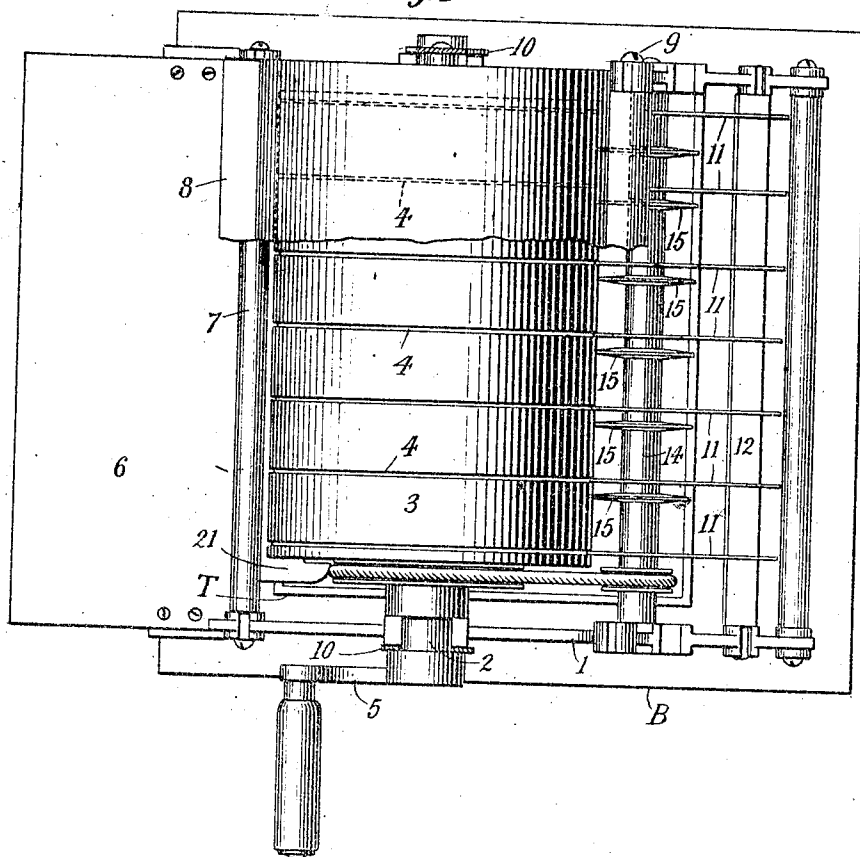
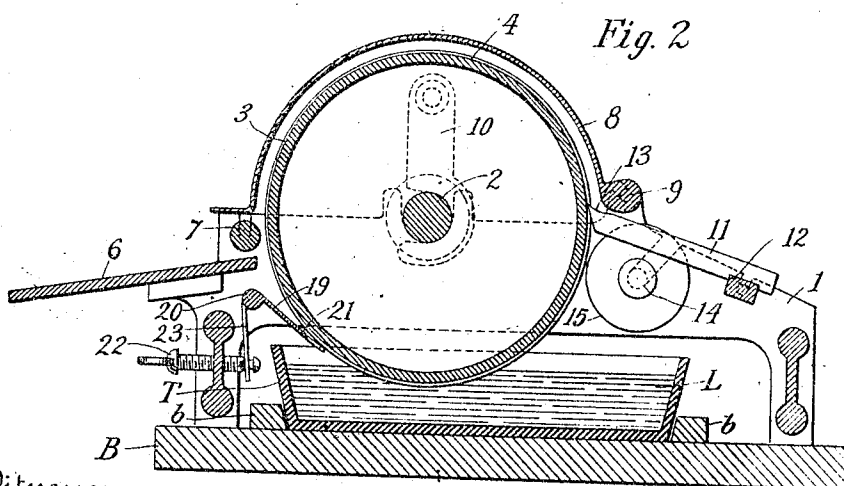


Fig. 2



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MACHINE FOR GUMMING OR MOISTENING LABELS.

No. 872,392.

Specification of Letters Patent.

Patented Dec. 3, 1907.

Application filed December 10, 1904, Serial No. 236,345. Renewed May 3, 1907. Serial No. 371,625.

To all whom it may concern:

Be it known that I, ALWIN VON AUW, a citizen of the United States, residing in New York, county of Kings, and State of New York, have invented certain new and useful Improvements in Machines for Gumming or Moistening Labels or the Like, of which the following is a specification.

This invention relates to machines for gumming or moistening labels or the like, and the principal object of the invention is to provide a simple, compact and inexpensive machine for the purpose mentioned in which the roller commonly employed for producing counter-pressure on the labels or other slips of material upon which the machine operates is done away with and all possibility of moistening or gumming the top surface of the labels thereby obviated.

Other objects of the invention will appear as the same is more fully disclosed.

One embodiment of the invention is hereinafter described in detail, reference being had to the accompanying drawings, in which corresponding parts are designated by similar characters of reference, and the scope of the invention is clearly set forth in the appended claims.

In the drawings: Figure 1 is a plan view of the machine, a portion of the shield or cover over the applying roller being removed to show the upper surface of the roller. Fig. 2 is a view in longitudinal vertical section through the complete machine.

Referring to the drawings by the reference characters marked thereon, B designates a bed plate upon which the machine is preferably mounted, and 1 denotes the supporting frame of the machine, which is preferably a metal casting, but which may be constructed in any suitable manner. In the sides of the frame 1 open bearings are formed to receive the spindle or shaft 2 of a relatively large, liquid applying roller 3, which is preferably made hollow in order to reduce the weight thereof and which is also provided on its cylindrical surface with a plurality of circumferential grooves 4, the purpose of which will hereinafter appear. The liquid applying roller 3 is rotated in its bearings by means of a small crank 5 mounted upon the shaft or spindle 2, and the lower portion of the roller lies in the liquid L which is contained in a tray T of any suitable material which is sup-

ported upon the bed B of the machine beneath the liquid applying roller, as best seen in Fig. 2. The tray T is preferably removable from the bed and is kept in position upon the bed by cleats b secured upon the bed to define the proper position of the tray.

The labels or other slips of material to be gummed or moistened by the machine are introduced thereinto from a feed table or feed plate 6, which is rigidly mounted at the front end of the frame 1 and is preferably set in a plane substantially normal to the adjacent portion of the surface of the liquid applying roller in order to insure complete contact of the slips with the roller. Slightly above the feed table or plate 6 and adjacent to the liquid applying roller, a guide roller 7 is supported in open bearings formed in the sides of the frame 1, and this guide roller 7 insures proper contact of each label or other slip of material with the liquid applying roller as it passes into the machine. In order to keep the labels or other slips in proper contact with the liquid applying roller after passing under the guide roller 7 and also to prevent the lodgment of dust or other foreign particles upon the surface of the liquid applying roller, a shield or cover 8 is provided over the liquid applying roller. This shield or cover corresponds approximately to the contour of the roller and is preferably provided with pivots 9 at one margin which turn in open bearings formed in bosses upon the sides of the frame 1. The shield or cover is held in proper relation to the liquid applying roller when the machine is in operation by a pair of pivoted catches 10 provided on the ends of the shield or cover and adapted for engagement with the axis or spindle of the liquid applying roller.

When the machine is in operation, the liquid applying roller is turned by means of the crank 5, and the labels or other slips of material fed to the roller by being passed over the feed plate or table and under the guide roller 7 are carried over with the liquid applying roller to which they adhere until they reach a point diametrically opposite the guide roller, where they are removed from the surface of the liquid applying roller by means of suitable stripping devices. These stripping devices consist preferably of a plurality of fingers 11 of thin metal, the stripping ends of which enter the grooves 4

formed in the cylindrical surface of the liquid applying roller. These fingers 11 lie in parallel vertical planes and are mounted upon a cross bar 12 having at its ends trunnions 5 which engage open bearings in the sides of the frame 1 of the machine. At their stripping ends the fingers 11 are slightly scooped out on their upper edges, as shown at 13, in order to facilitate the slipping of the edges of the labels or other slips of material over the 10 fingers.

The action of the stripping fingers 11 in removing labels and other slips of material from the liquid applying roller is assisted by 15 a shaft 14 provided at intervals with disks 15 fixed thereon and disposed parallel with the axis of the liquid applying roller in suitable open bearings formed therefor in the frame of the machine, the position of the shaft 14 20 being such that the edges of the disks 15 mounted on the shaft rise a trifle higher than the upper edges of the stripping fingers 11, and the parts of the disks nearest the liquid applying roller barely escape contact therewith. The shaft 14 is rotated by means of a 25 belt 16 preferably of resilient material, such as an endless coil spring, which runs over a suitable pulley 17 mounted at one end of the liquid applying roller and a smaller pulley 30 18 fixed upon the adjacent end of the shaft 14. A belt of resilient material is employed to transmit movement from the shaft of the liquid applying roller to the shaft 14 in order to permit the ready removal of the liquid 35 applying roller and shaft from the normal position above the tray. The relative diameters of the pulleys 17 and 18 are such that the peripheral speed of the disks 15 is at least as great as the peripheral speed of the liquid 40 applying roller when the machine is in operation. Consequently, as the labels or other slips of material are stripped from the surface of the liquid applying roller by means of the fingers 11, they are engaged by the rotating 45 disks 15 on the shaft 14 and are carried toward the rear of the machine where they may be conveniently removed from the stripping fingers and applied to parcels or used in any other preferred manner.

50 As the thickness of the coating of liquid upon the surface of the applying roller 3 must be uniform to insure good results, I provide a "doctor" or scraper 19 below the feed plate or table 6, and this "doctor" or 55 scraper is preferably carried by a horizontal rod 20 which is loose in bearings formed in the sides of the frame 1 of the machine. The "doctor" or scraper presents a downwardly inclined blade 21 which may be adjusted 60 with reference to the liquid applying roller by means of an adjusting screw 22 mounted in the frame 1 of the machine and engaging an arm 23 of the "doctor". When the liquid to be applied is highly fluid, the "doctor" 65 need not be employed, but when a

thick or gummy liquid is to be applied, it is desirable to adjust the "doctor" carefully to insure a coating on the outer surface of the liquid applying roller which is uniform in thickness and which will not cause the application of a surplus of liquid to the labels 70 or other slips.

As will have been seen from the foregoing description, the entire machine is very simple in design, and the parts are so constructed and arranged that they may be 75 readily removed to facilitate the cleaning of the machine when necessary, or to permit the change of the liquid contained in the tray. It will also have been noticed that 80 owing to the relatively large diameter of the liquid applying roller there is no necessity for employing means for positively pressing the labels or other slips of material to be gummed or moistened into contact with the 85 surface of the liquid applying roller. Labels of ordinary thickness conform readily to the curvature of the roller as they pass into the machine and become moistened by the paste or other liquid carried upon the surface 90 of the roller. If, however, a label should be stiffer than usual and not conform readily to the curvature of the liquid applying roller, the shield or cover over the roller will prevent the label from passing out of 95 contact to the roller to any considerable extent, and the guide roller 7 will insure the contact of every portion of the label with the liquid applying roller as it passes into the machine. 100

While I have described in detail only a single embodiment of my invention, it will be obvious that changes in the details of construction and in the proportions of the parts may be made without departing from the 105 spirit of the invention or sacrificing the advantages thereof, and I do not, therefore, limit myself to the precise form of the invention described and shown, but reserve the right to make changes therein within the 110 scope of the appended claims.

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

1. In a machine for gumming or moistening 115 labels and the like, the combination with an applying roller, of guiding and feeding devices at one side of the roller, stripping fingers on the other side of the roller substantially opposite the guiding and feeding 120 devices, and a shield or cover extending above the roller in close proximity thereto, one margin of said shield lying adjacent to the guiding and feeding devices and the opposite margin of the shield lying adjacent to 125 and extending over the stripping fingers.

2. In a machine for gumming or moistening labels or the like, the combination with an applying roller of relatively large diameter, of a feed table at one side of the roller 130

and disposed substantially perpendicular to the adjacent portion of the surface of the roller, a guide roller above said table and spaced slightly therefrom, a scraper or doctor
5 extending parallel to the roller beneath the feed table and pivoted at its lower edge, said scraper or doctor presenting a downwardly inclined lip or plate at its free edge, stripping devices diametrically opposite the

feed table, and a removable shield extending 10 over the upper portion of the applying roller in close proximity thereto.

In testimony whereof I affix my signature in presence of two witnesses.

ALWIN VON AUW.

Witnesses:

H. RICHARD WÖBSE,
BAXTER MORTON.