J. A. STOCK.

SQUEEGEE MECHANISM FOR LABELING MACHINES.

APPLICATION FILED JUNE 26, 1913.

1,128,543. Patented Feb. 16, 1915.

2 SHEETS—SHEET 1.

Fig. 2

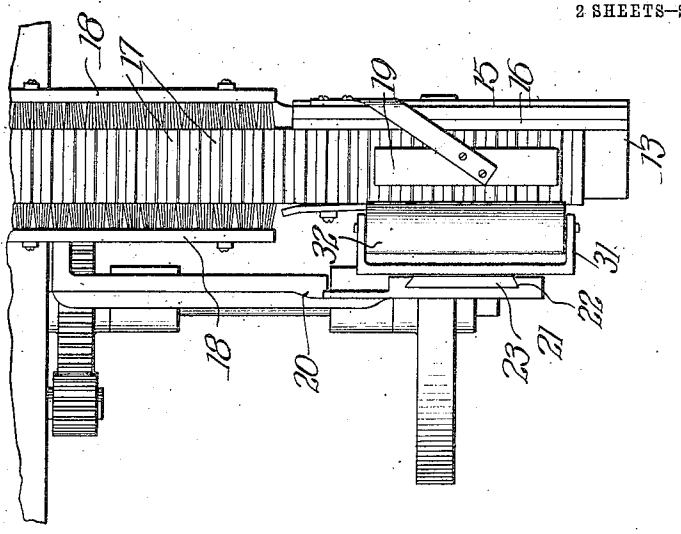
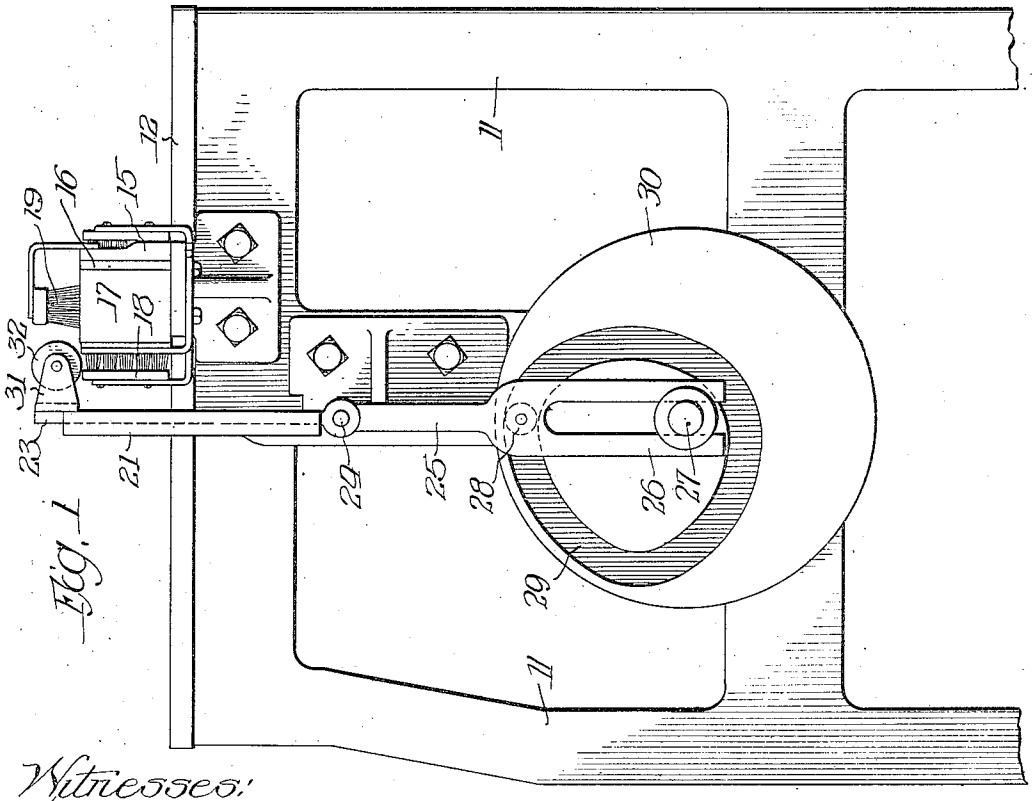


Fig. 1



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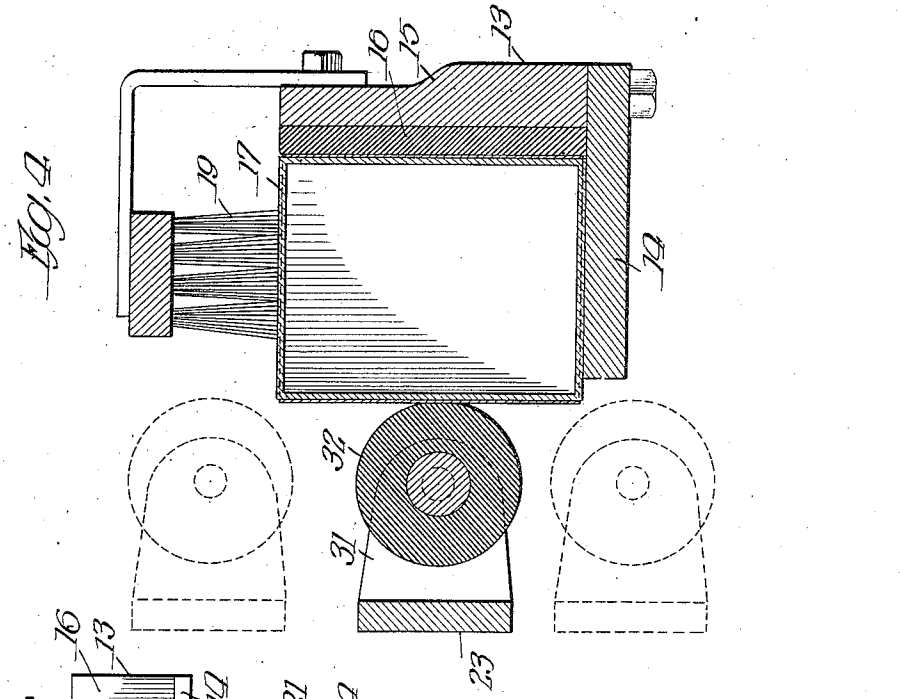


Fig. 4

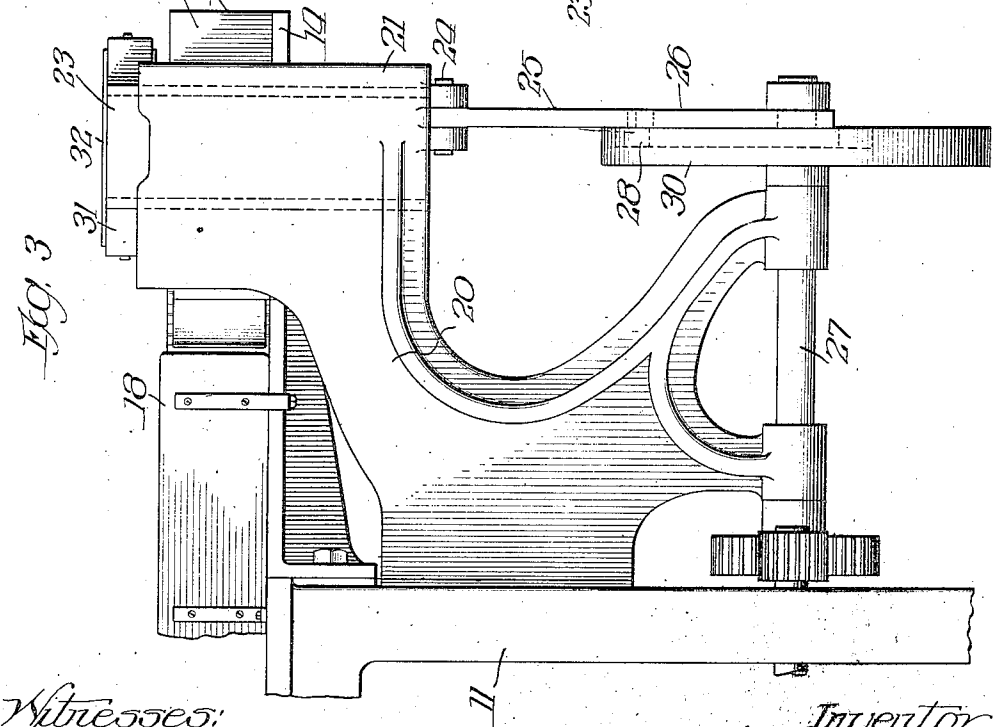


Fig. 3

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UNITED STATES PATENT OFFICE.

JULIUS A. STOCK, OF CHICAGO, ILLINOIS, ASSIGNOR TO W. C. RITCHIE & COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

SQUEEGEE MECHANISM FOR LABELING-MACHINES.

1,128,543. Specification of Letters Patent. Patented Feb. 16, 1915.

Application filed June 26, 1913. Serial No. 775,852.

To all whom it may concern:

Be it known that I, JULIUS A. STOCK, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Squeegee Mechanism for Labeling-Machines, of which the following is a specification.

This invention has for its object the provision, in connection with a label applying machine of any approved type, of means for imparting a final smoothing operation to the label whereby to remove air bubbles and the like and secure a more perfect adhesion of the label to the box.

In the accompanying drawings and in the description based thereon a preferred embodiment of the invention is set forth. As, however, the invention is capable of embodiment in other and varied constructional forms the drawing and description are to be taken in an illustrative and not in an unnecessarily limiting sense.

In the drawings: Figure 1 is an end view of the machine embodying the invention; Fig. 2 is a top plan view of so much of the machine as is requisite for an understanding of the invention; Fig. 3 is a side elevation of Figs. 1 and 2; and Fig. 4 is a transverse section through the smoothing roller and box-discharge chute.

The reference numeral 11 designates machine standards supporting a table 12 upon which is adapted to be mounted any approved form of label affixing mechanism from the discharge end of which projects a box chute 13, the said chute preferably being open above and to one side and having a smooth bottom 14 and a vertical wall 15, the latter of which is faced with a resilient lining 16 of sponge rubber or the like.

The boxes 17 are caused to travel through the chute in a continuous series and preferably upon edge as indicated in contact one with another. The initial portion of the chute may be advantageously open upon both sides, the boxes traveling in frictional contact with brushes 18, 18 while above the terminal portion of the chute is disposed a brush 19 in frictional contact with the upper edges of the boxes.

A bracket 20 extends from the end of the table and has a portion 21 arranged immediately adjacent the open side of the terminal portion of the chute cut away upon its inner face to form a dove tail guide way 22 within which is guided a correspondingly shaped plate 23 which latter is hinged at 24 to a rod 25 having a bifurcated lower end 26 which is in engagement with the end of the shaft 27 driven from any suitable source of power. A roller 28 carried by the rod 25 travels within a cam groove 29 of the disk 30 whereby the rod 25 and the plate 23 are caused to reciprocate vertically within the guide 21.

Upon the upper end of the plate 23 is fixed a yoke 31 within which is mounted a squeegee roller 32 of resilient material such as soft rubber, the disposition of the roller 32 with reference to the chute being such that the yielding face of the roller will bear against the vertical edges of the boxes 17 as the latter pass through the chute to the discharge end thereof. The roller is of sufficient length to operate simultaneously upon a plurality of boxes.

As the boxes pass through the chute the labels are caused by the brushes 18 to adhere to the edges of the boxes by being rubbed into contact therewith in a horizontal direction. As they enter the terminal portion of the chute their progress is frictionally retarded by means of the brush 19 and while under the influence of such brush the label is squeegeed into intimate contact with the edges of the boxes by means of the roller 32 which reciprocates vertically in a right line across the box edge between the extremes of position shown in dotted lines in Fig. 4 whereby any air bubbles or surplus adhesive are removed and labels caused to adhere intimately to the box edges.

I claim:

1. In a box labeling machine, the combination with a chute, and means to cause the labeled box to travel therethrough with a side exposed, of a squeegee mounted to reciprocate transversely of the chute in progressive contact with the exposed side of the labeled box to cause the better adherence of the already applied label, and means to reciprocate said squeegee, substantially as described.

2. In a box labeling machine, the combination with a chute, and means to cause the labeled box to travel therethrough with a side exposed, of a squeegee roller mounted to reciprocate transversely of the chute in progressive contact with the exposed side of the labeled box to cause the better adherence

of the already applied label, and means to reciprocate said roller, substantially as described.

3. In a box labeling machine, the combination with a chute, and means to cause the labeled box to travel therethrough with a side exposed, of a squeegee roller mounted to reciprocate in a right line transversely of the chute in simultaneous progressive contact with the exposed sides of a plurality of boxes, and means to reciprocate said roller, substantially as described.

4. In a box labeling machine, the combination with a chute, and means to cause the labeled box to travel therethrough with a side exposed, of a squeegee mounted to reciprocate transversely of the chute in progressive contact with the exposed side of the box, means to reciprocate said squeegee, and a brush held in frictional contact with another exposed side of the box, substantially as described.

5. In a box labeling machine, the combination with a chute open at one side and above and having the other side provided with a resilient lining, and means to cause the labeled boxes to travel therethrough in a continuous series with a side exposed opposite the lining, of a squeegee mounted to reciprocate transversely of the chute in progressive pressure contact with the exposed sides of the boxes, and means to reciprocate said squeegee, substantially as described.

6. In a box labeling machine, the combination with a chute open at one side and above and having the other side provided with a resilient lining, and means to cause the labeled boxes to travel therethrough in a continuous series with a side exposed opposite the lining, of a squeegee roller mounted to reciprocate in a vertical line transversely of the chute and in progressive pressure contact with the exposed side of the box, and means to reciprocate said roller, substantially as described.

In witness whereof I have hereunto signed my name in the presence of two witnesses.

JULIUS A. STOCK.

Witnesses:
T. S. TREDWELL,
R. H. RITCHIE.