

(No Model.)

D. COX.
CAN LABELING MACHINE.

No. 543,175.

Patented July 23, 1895.

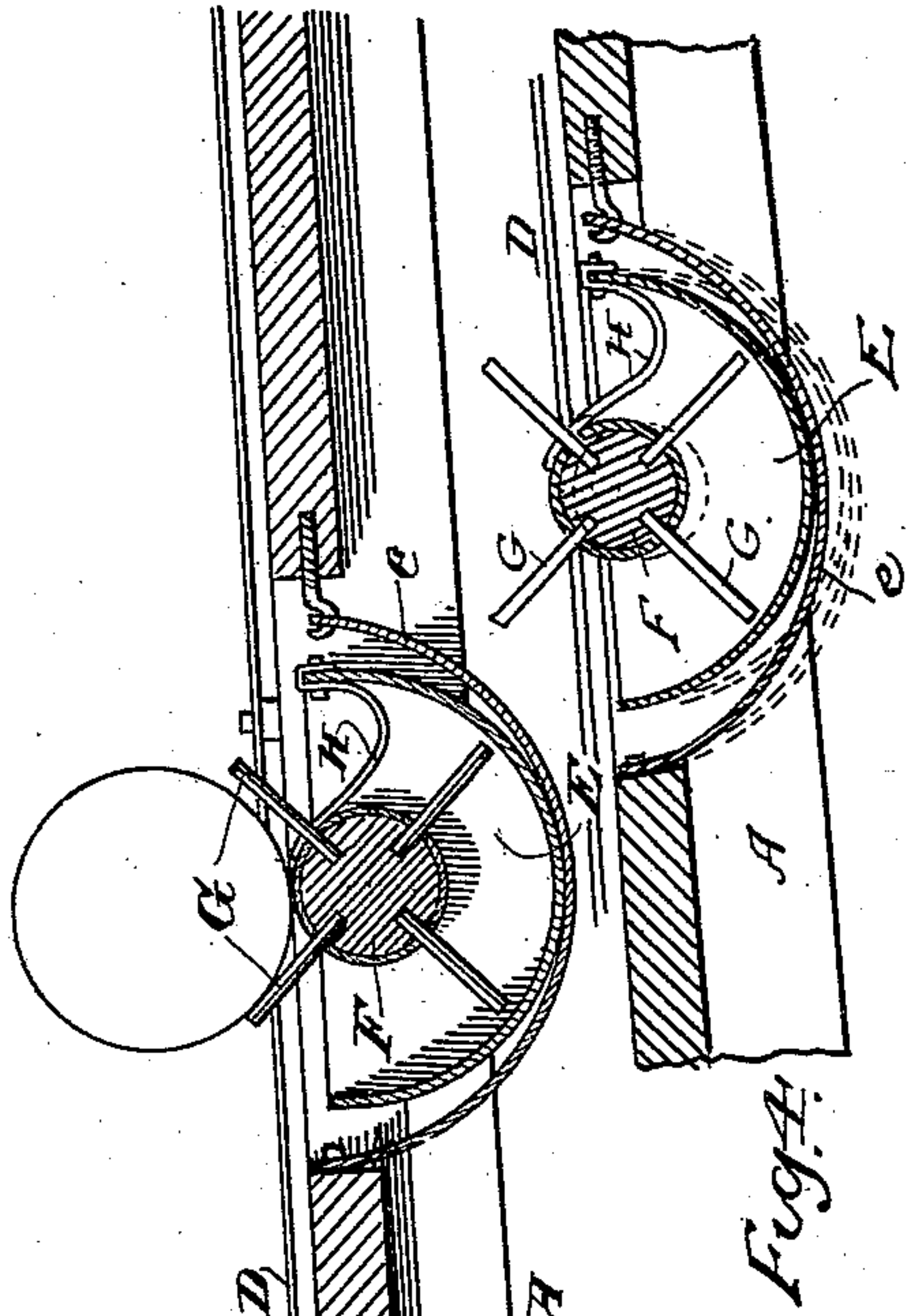
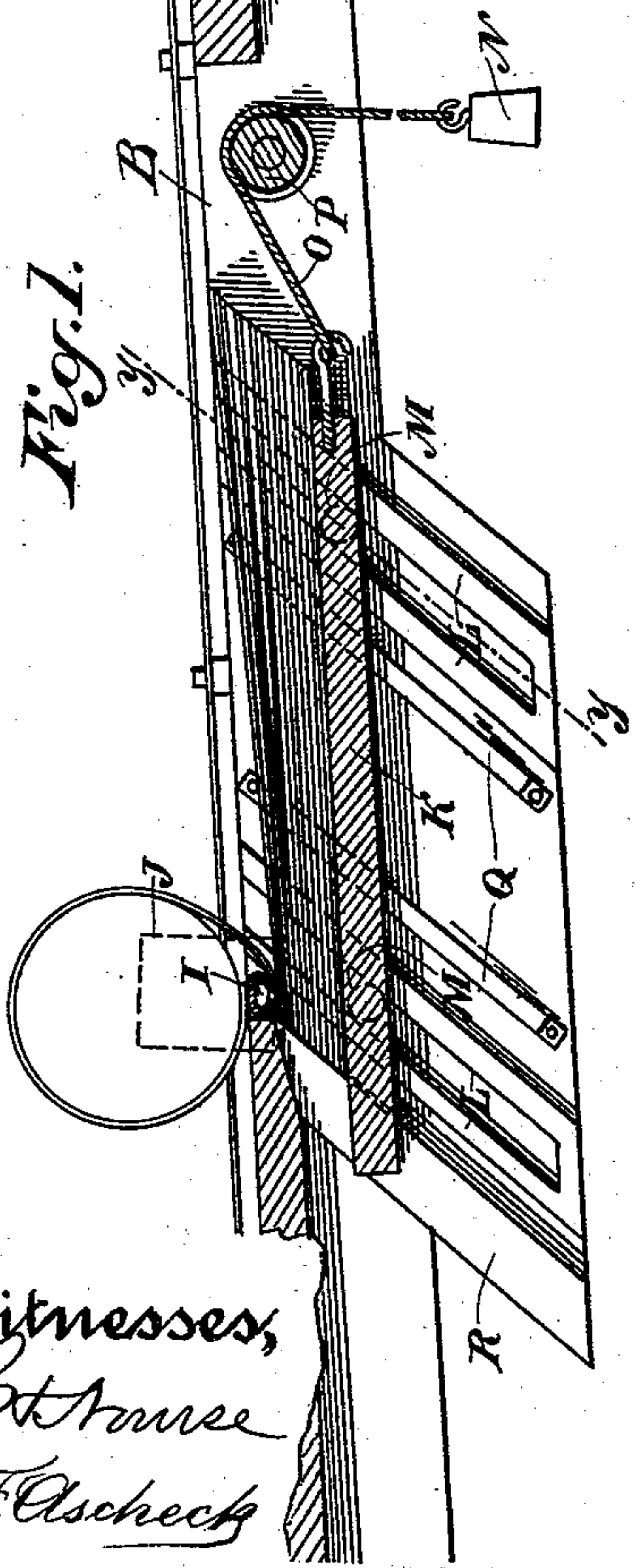


Fig. 4.



Witnesses,
J. H. Morse
H. F. Aschertz

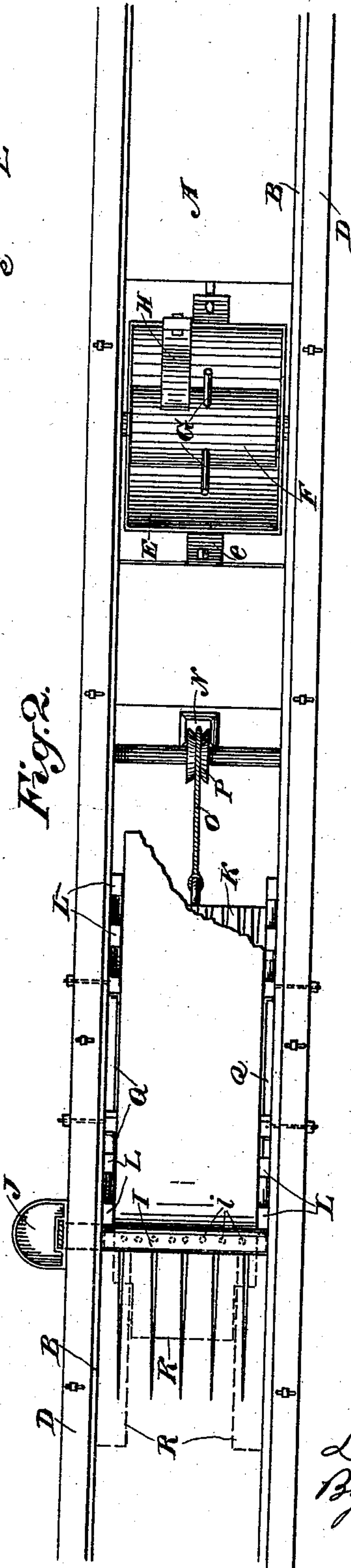


Fig. 2.

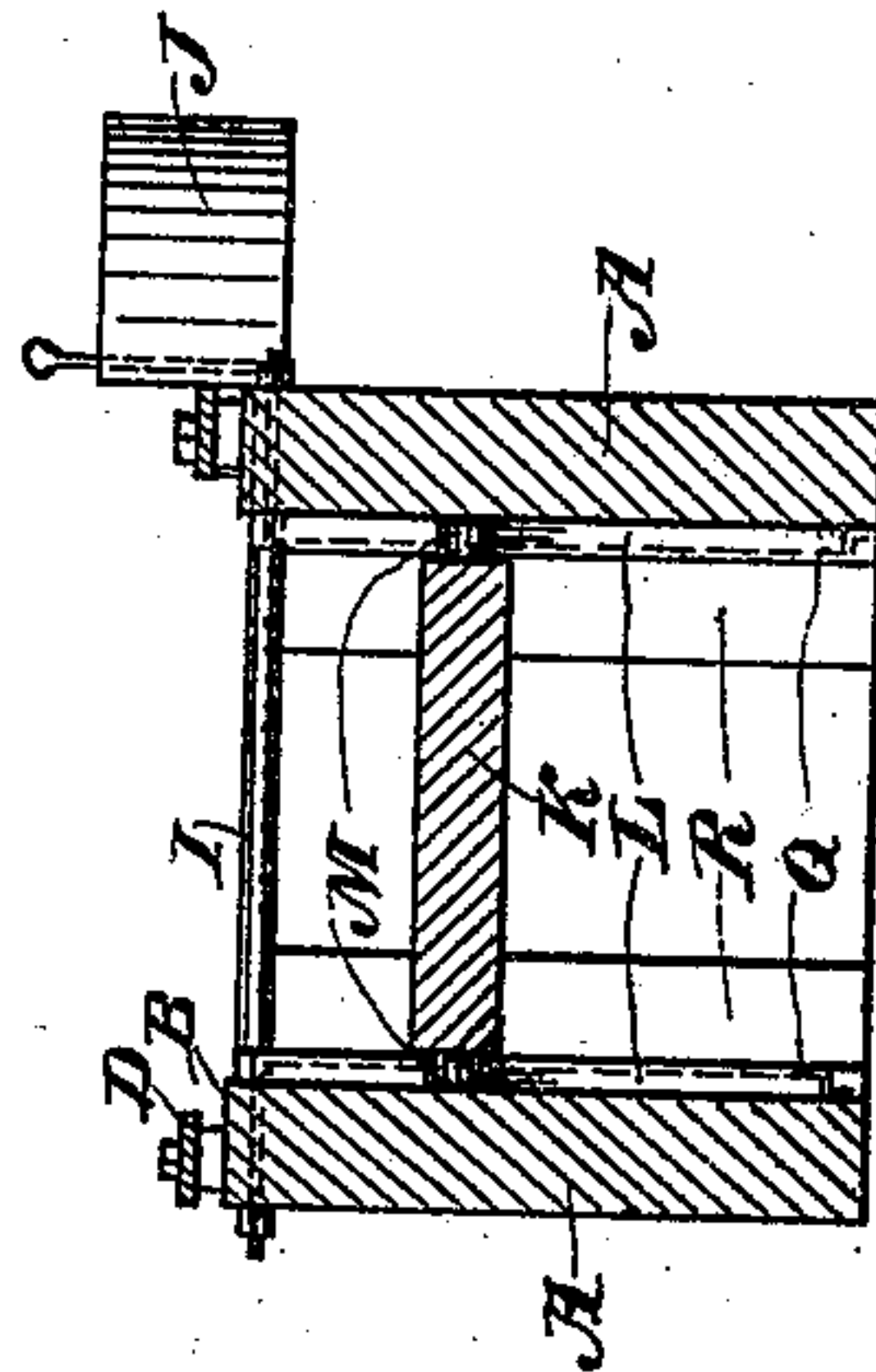


Fig. 3.

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UNITED STATES PATENT OFFICE.

DAVID COX, OF SACRAMENTO, CALIFORNIA.

CAN-LABELING MACHINE.

SPECIFICATION forming part of Letters Patent No. 543,175, dated July 23, 1895.

Application filed December 15, 1894. Serial No. 531,944. (No model.)

To all whom it may concern:

Be it known that I, DAVID COX, a citizen of the United States, residing at Sacramento, county of Sacramento, State of California, have invented an Improvement in Can-Labeling Machines; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to an apparatus for labeling cans.

It consists in certain details of construction, which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a longitudinal vertical section taken through the apparatus. Fig. 2 is a plan view. Fig. 3 is a vertical section on line *y y* of Fig. 1. Fig. 4 is a sectional detail showing the pan, in full lines, in its elevated position, and showing it in its depressed condition in dotted lines.

The object of my invention is to provide a simple mechanism for automatically applying paste to the cans as they pass, transferring the rolling cans over labels in such a manner that each can will pick up a label by one end and roll it upon itself, a means for applying paste to the overlapping final end of the label and drawing the label tight upon the can and completing the pasting of it thereon, and in certain details of construction.

A is a support of any suitable description having fixed upon it rails B, upon which the cans are adapted to travel, being delivered thereon from any suitable chute or other container.

The track is inclined sufficiently to cause the cans to roll by gravitation, and upon each side are guard-rails D, which serve to keep the can in line and rolling straight upon its track.

E is a paste-receptacle supported by springs *e* or by weighted cords, so as to hold it up approximately close to the tracks over which the cans pass and adjust it properly with relation to the cans. Within this receptacle is journaled a roller F, extending transversely across beneath the line of the track and having its surface made of any material which will absorb or take up a portion of the paste from the receptacle.

G G are arms projecting radially from the

roller, so that when projecting upwardly they extend above the line of travel of the cans, and each can as it rolls will come in contact with one of the pins.

H is a spring adapted to press upon the roller with sufficient force to produce the necessary tension, so that the roller will just be rotated by the weight of the passing can.

As the can strikes one of the pins or arms G it causes the roller to turn a quarter of a revolution and in doing so applies paste along one side of the can. The can then rolls on over the table until it reaches the label pile, the distance of which is so regulated with relation to the paste-roller that the can will make a revolution and bring its pasted strip down upon the nearest edge of the label pile, thus causing the topmost label to adhere to the can and be rolled upon it as the can continues to roll above the label pile. The opposite end of the topmost label extends beneath a holder and supply-pipe I, which extends across between or just below the tracks upon which the can rolls and at such position relative to the rear ends of the labels that the latter are constantly pressed upward against the lower part of this tubular device.

The holder I may be of any suitable shape which its purpose renders desirable and is connected at one side with a paste-supply J.

The holder has holes or openings *i* made in it which allows the paste to pass out upon the edge of the uppermost of the labels as they lie. When the can has rolled so far as to bring a tension upon this end of the label the label is drawn out from under the paste tube and holder and the little tension necessary to so withdraw it stretches the label so that it will be perfectly smooth upon the can, and the edge of the label as it is drawn out will adhere to the can, and as the can makes another revolution upon the track the next revolution brings this portion of the label down upon the table or surface over which the can is rolling, so as to complete the pressing of the edge of the label into place, after which the can may pass to any desired point.

In order to supply the labels properly and to hold them in such position that they will be delivered so that a can is not liable to pick up more than one label at a time, I employ a movable table K, upon which the pile of labels

is placed, the labels being so arranged upon the table as to present in side view a rhomboidal form, in which the acute angle at the top is presented toward the approaching cans, and this projects the uppermost label always a little in front of the next one below, so that it will be picked up and separated from the others as the can passes over it.

In order to raise the labels as the pile is decreased, I have shown guides L, upon or between which projections M from the table are caused to travel. If desired, these projections may be in the form of antifrictional rollers, or they may be made to slide between the guides, it only being necessary that they move with sufficient ease to always keep the pile of labels up close to the line of travel of the cans. This is preferably done by means of a weight or weights N and a cord or cords O passing over a pulley at P, having one end attached to the weight and the other to the front edge of the table, so that the cord from the pulley to the table is essentially in the diagonal line upon which the table rises. This always presents the rhomboidal mass of labels at the same point as they are raised, so that each can as it passes will take one from the top and separate it from the others.

In order to guide the labels sidewise I have shown springs Q, which are adapted to press upon each side of the label pile and keep it in proper position as it rises.

Guides R are fixed with relation to the rear ends of the labels, so that the latter are adjusted against them, and as these guides stand in the same diagonal line upon which the labels are raised the relative position of the label pile will always be properly maintained.

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

1. In a can labeling machine, a runway and tracks upon which the cans are caused to travel, raised guides exterior to the line of track and between which the ends of the cans pass, whereby they are retained in position, a paste receptacle adjustably suspended beneath the line of tracks having a roller journaled transversely upon it, with radially projecting arms in the path of the can, whereby the passage of each can causes the roller to be rotated and paste transferred from its surface to that of the can.

2. In a can labeling machine, a runway having tracks upon which the ends of the can travel, raised guides exterior to the tracks which serve to guide the can as it rolls, a paste receptacle having a roller journaled upon it so that the lower side dips into the paste, radial arms projecting from the roller in the path of travel of the can, whereby the roller is rotated a part of a revolution by the passage of each can, a tension spring or

springs by which the rotation of the roller is regulated, and a means for suspending the paste receptacle so that it will be always held close to the line of travel of the cans, but is allowed to yield to any pressure brought upon the top.

3. In a can labeling machine, the runway having the tracks and guides, a paste receptacle yieldingly suspended and carrying a roller provided with radial arms arranged in the path of the can, whereby the roller is rotated by the can in its passage and paste transferred from its surface to that of the can, a label-holding table adjustable in vertical planes and having the pile of labels thereon arranged to present a rhomboidal outline, and means for adjusting the table.

4. In a can labeling machine, a runway and track, guides over which the cans pass, a paste receptacle yieldingly suspended and provided with a roller by which paste is transferred from the receptacle to each can, said roller being automatically rotated by the cans as they pass to the label table, a diagonally movable label table upon which the labels are placed in the same diagonal position, a tubular holder against which the rear ends of the labels are pressed as the table is made to rise, said holder being connected with the paste supply and having openings made in it whereby the paste is delivered upon the rear end of the uppermost label.

5. In a can labeling machine, a runway or track and guides upon and between which the cans are movable, an adjustable paste receptacle, a roller journaled across the receptacle having radial arms projecting upward in the line of travel of the cans whereby the roller is partially rotated by each passing can and paste applied thereto, a label table adjustable in vertical planes, guides at the rear end of the table against which the rear ends of a pile of labels are placed whereby the label pile is made to assume a rhomboidal shape in side elevation with the front edge of the uppermost label always projecting slightly beyond the next below, whereby the can will separate each label from the others when its pasted surface arrives and is rolled over the label pile, a paste supply and holder beneath which the rear edges of the labels are retained and from which the uppermost label is drawn by the tension caused by the rolling of the passing can to which its front edge has already been pasted whereby the label is stretched smoothly upon the can and the rear edge is pasted thereon as it leaves the holder.

In witness whereof I have hereunto set my hand.

DAVID COX.

Witnesses:

S. H. NOURSE,
H. F. ASCHECK.