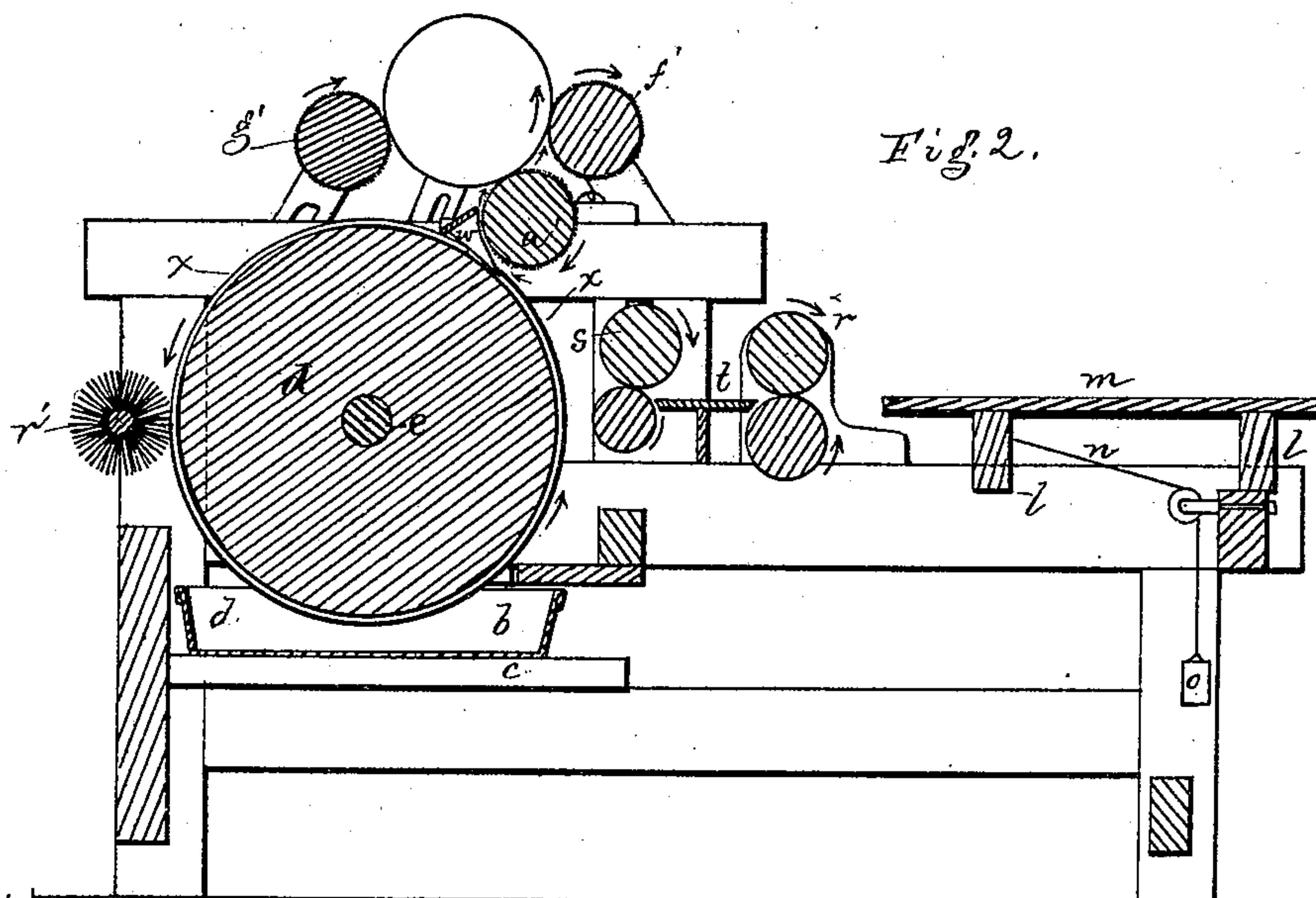
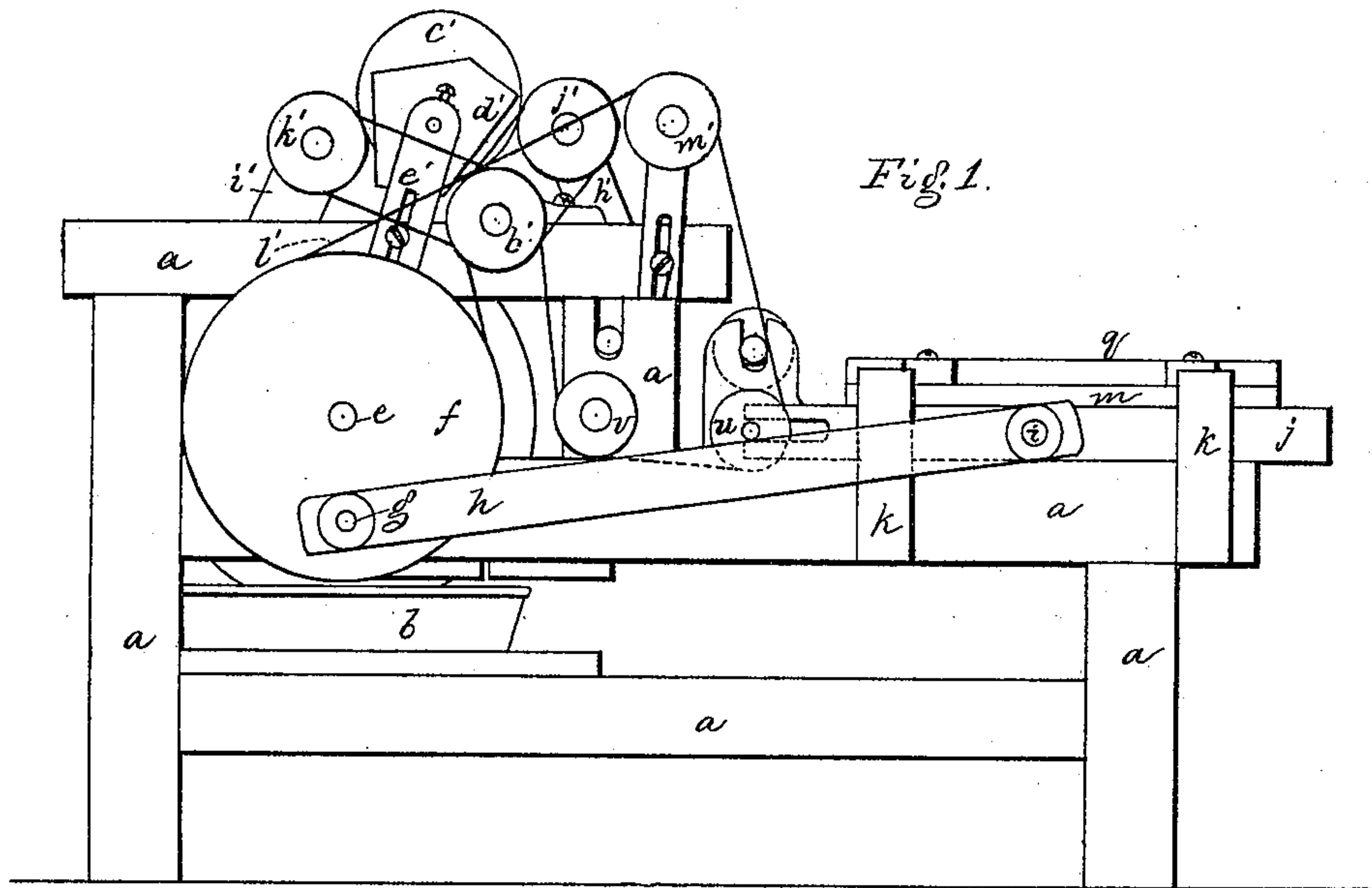


F. RUSSELL.
LABELING-MACHINE.

No. 174,576.

Patented March 7, 1876.



Witnesses.
L. H. Cratimer.
W. J. Pratt.

Inventor.
Fisk Russell
per Henry Gregory Atty.

UNITED STATES PATENT OFFICE.

FISK RUSSELL, OF CAMBRIDGEPORT, MASSACHUSETTS.

IMPROVEMENT IN LABELING-MACHINES.

Specification forming part of Letters Patent No. 174,576, dated March 7, 1876; application filed February 7, 1876.

To all whom it may concern:

Be it known that I, FISK RUSSELL, of Cambridgeport, Middlesex county, State of Massachusetts, have invented Improvements in Labeling-Machines, of which the following is a specification:

This invention relates to a machine for automatically pasting labels on fruit, milk, and other cans and boxes of tin, paper, or wood. In this machine I place the label to be pasted on a reciprocating carriage adapted to project the label forward between feeding-rollers, by which the label is taken and applied to the surface of a pasting-roller, grooved to permit the introduction of lifting-fingers under the edge of the pasted label, and direct it over a roller of a set of lapping-rollers adapted to support and rotate the can and apply the label smoothly.

This invention consists in the combination, with the carriage, of the feeding and pasting rollers; also, in the combination of the paste-holding trough and label-lifters with a pasting-roller provided with grooves for the reception of the label-lifters, and with a label-applying roller, substantially as described.

Figure 1 is a side elevation of a machine provided with this invention, and Fig. 2 is a longitudinal section.

The frame *a* of the machine is properly constructed to support the working parts. The pan *b*, to contain the paste, is supported on a removable slide, *c*, and the periphery of the pasting-roller *d* dips into the trough. This pasting-roller is supported on a shaft, *e*, driven by means of a suitable pulley on the shaft, and a second pulley provided with a crank-pin, *g*, is joined by a link, *h*, with a pin, *i*, attached to a slide-bar, *j*, guided in ways *k*; and this pin *i* projects sufficiently far across the frame *a* to strike one of the lugs of the carriage properly supported on frame *a*, and provided with a cord and weight, *n o*, or a suitable spring, to move the carriage backward after it has been moved forward by the pin *i*. An adjustable guide, *q*, placed on the carriage controls the edge of the label to be delivered to the pasting mechanism. Two sets of feeding-rollers, *r s*, are placed between the carriage and pasting-roller, and the lower roller of each pair has a belt-pulley. (See *u v*.)

A rest-plate, *t*, between the two sets of rollers supports the label, and prevents it from falling. The label-lifter is a bar or rod provided with fingers *w*, two or more, with their points adapted to enter the annular grooves *x* in the pasting-roller, and lift the end of the label from the pasted surface of the pasting-roller, a label previously laid on the carriage having been projected by the forward movement of the carriage between the feeding-rollers *r* and *s*, and having been applied to the pasting-roller by the set of rollers *s*. The can or box, or other cylindrical article, *c*, to be supplied with a label, is placed between adjustable gages or end guides *d'*, one at each side the machine, and carried by journals mounted on adjustable arms *e'*, and the can or box rests on the periphery of the applying-roller *a'*, the auxiliary rollers *f' g'*, mounted on adjustable arms *h' i'*, also bearing against the periphery of the can or box, and assisting to apply the label and move the can. The end of the label so lifted is, by the action of the lifter and the movement of the pasting-roller and the label-applying roller *a'*, drawn or passed in the direction of the small arrows, Fig. 2, and the pasted side of the label is brought or placed against the periphery of the can or box, and it is caused to adhere to and move with the can under the action of rollers *a' f' g'*, and is wrapped about the can, these rollers being preferably provided with a plush or rubber or other soft cover, to press the label on the can. The roller *a'* has a belt-pulley, *b'*, the roller *f'* a pulley, *j*, and *g'* a pulley, *k'*. A band, *l*, passed about the pulley *f*, also passes about pulleys *b'* and *u* and a band-tightening pulley, *m*, this band driving the feed-rollers *r s* and applying-roller *a'*, and bands from pulley *b'* extend to pulleys *j'* and *k'* and drive rollers *f' g'*. The rollers *f' g'* are made adjustable to adapt them to boxes or cans of various sizes or diameters.

When applying a label to a paper box not filled it is best to set a circular block of wood in the open end of the box to give it sufficient weight to remain down on the rollers with the proper degree of force.

Instead of belts it is evident I might use gears of proper construction, and between the feeding-rollers *r s* I might use an endless belt.

The lifter might be made with a thin edge and take the label from a plain-surfaced pasting-roller, and I may use a brush or cleaning-roller, r' , to clean the face of the roller just before it enters the paste-trough.

The plush-covered rollers will be provided with plush to extend from one to the other end of the can, and, being soft, the surfaces of the rollers will not break the pasted paper, yet moist.

I claim—

1. The combination, with the pasting-roller, of a label-lifter and an applying-roller, substantially as described.

2. The combination of the elastic or soft-surfaced applying-roller and the auxiliary rollers with a label-lifter and pasting-roller, substantially as described.

3. The combination, with the feeding-rollers, of the pasting-roller, label-lifter, and applying and auxiliary rollers, adapted to operate substantially as described.

4. The combination, with the pasting-roller and label-lifter, of the adjustable rollers $a' f' g'$ and the end gages d' , substantially as described.

5. The carriage and feeding-rollers, in combination with the pasting-roller, label-lifter, and applying and auxiliary rollers, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FISK RUSSELL.

Witnesses:

G. W. GREGORY,
S. B. KIDDER.