G. H. BURROWS.

LABELING MACHINE.

No. 181,635. Patented Aug. 29, 1876.

Fig: 1.

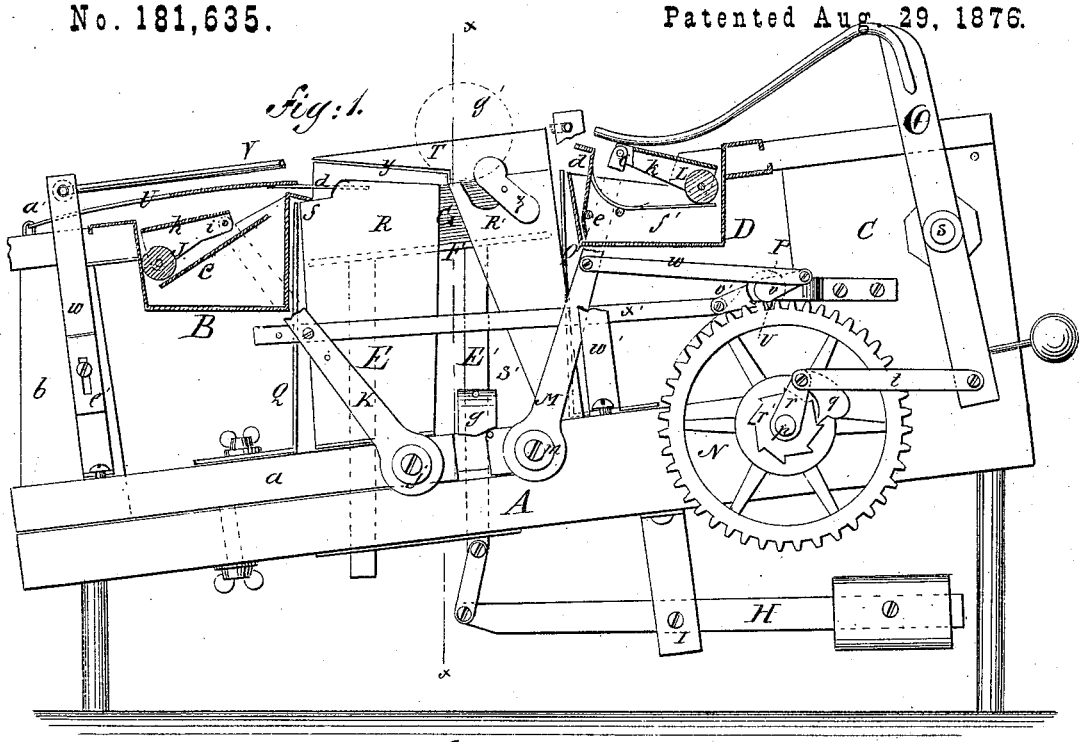


Fig: 2.

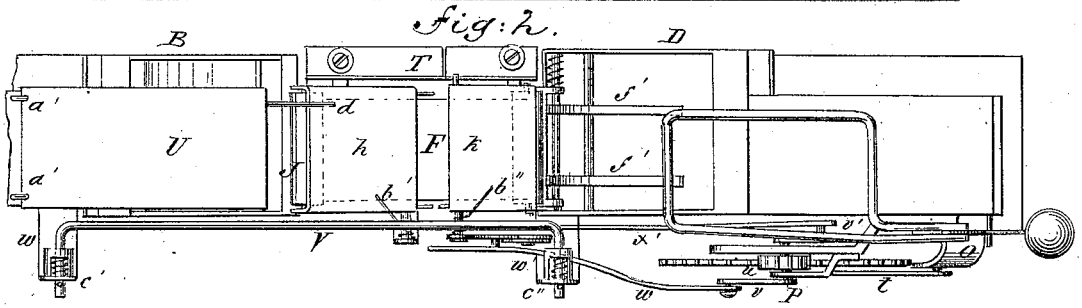
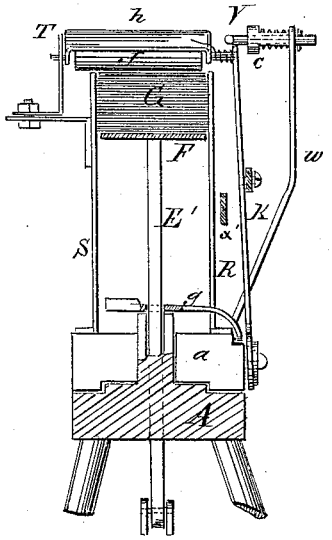


Fig: 3.



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UNITED STATES PATENT OFFICE.

GEORGE H. BURROWS, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN LABELING-MACHINES.

Specification forming part of Letters Patent No. **181,635**, dated August 29, 1876; application filed July 15, 1876.

To all whom it may concern:

Be it known that I, GEORGE H. BURROWS, of Boston, county of Suffolk and State of Massachusetts, have invented a new and Improved Labeling-Machine, of which the following is a specification:

Figure 1 is a side elevation of my machine with portions broken away to show the internal construction more clearly. Fig. 2 is a plan. Fig. 3 is a transverse section on line *x x*, Fig. 1.

My invention relates to apparatus for labeling packages; and it consists of a combination of levers, worked by suitable gearing, and paste-rollers and paste-troughs, in such a way that by moving a hand-lever, the rollers charged with paste are thrown out of the paste-troughs onto the ends of the label and back again into the troughs. It also consists of a platform carrying the labels, which is counterbalanced by a weight in such a way that the pile of labels placed on the platform is always held by the counter-balance against a retaining-lip, so that the upper label in the pile is always at a given point. It further consists of a guard thrown over the free end of the label by the action of one of the paste-rollers. The whole is arranged and operated as hereinafter more fully described.

Referring to the drawing, A is a frame supported on legs, or otherwise, in an inclined position. A slide, *a*, is fitted to ribs at the top of the frame, and has a standard, *b*, attached to it, that supports a paste-trough, B. *c* is an inclined shelf or table, that is attached to the ends of the trough, but is narrow enough to leave a space at each side, between it and the sides of the trough. A standard, C, is rigidly fixed to the frame A and supports a paste-trough, D, which is similar to the one just described, but has a swinging guard, *d*, that is hinged at *e*, that is thrown over the free ends of the label by the paste-roller. Fingers *f'* are attached to the swinging guard *d*, that support the roller L when it is in the paste-trough. E E' are bars, that support a table, F, upon which the labels G are placed with their backs or unprinted side uppermost. A weighted lever, H, having a fulcrum, at I, is connected with the bar E', and counterbalances the table F and tables G. A lip, *f*, is turned on the edge of the paste-trough B, against which the labels are pressed by the weighted lever H. A clamp, *g*, is placed on the bar E', which allows the bar to move upward, but holds it so that the additional weight of the package when placed on the pile of labels, cannot overbalance the weighted lever H. J is a paste-roller resting in the paste-trough B, and journaled in a guard or cover, *h*, which is placed on a pin, *i*, that projects from upper end of the arm K at one side. The said arm swings on the pivot *j*. L is a paste-roller resting in the trough D, and journaled in a guard or cover, *k*, which is placed on a pin, *l*, that projects from the side of the arm M. The said arm swings on a pivot, *m*. N is a spur-wheel turning on a post, *p*. A weighted pawl, *q*, is pivoted to an arm, *r*, that swings on the post *p*, and it engages with a ratchet, *r'*, attached to the spur-wheel N. A weighted lever, O, having its fulcrum at *s*, is connected with the pawl-arm *r* by the rod *t*. P is a short shaft placed in a suitable support, and carrying the pinion *u*, which meshes with the wheel N and the cranks *v v'*, which are arranged on the shaft in positions diametrically opposite. The crank *v* is connected with the arm M by a rod, *w*, and the crank *v'* is connected with the arm *k* by the rod *x'*. Q Q' are guides for the ends of the labels, and R R' and S S' are guides for the sides of the labels. T is a guide for the package to be labeled, that is divided diagonally at *y*. One part of it is attached by means of brackets to the guide S, and the other part is attached in the same way to the guide S'. The guides Q, R, and S, are attached to the adjustable part *a* of the supporting-frame, so that as the frame is extended to take in a longer label the said guides will go with the movable part. *z* is a weighted lever pivoted to the guide R', which prevents the labels from slipping over the top of the said guide. A cover, U, is hinged at *a'*, and rests on the paste-trough B, and is capable of being raised by the guard *h*, as it is moved out of the trough. A finger, *d*, prevents the cover from dropping behind the guard *h*. At *b' b''* are fingers attached to the levers K and M to keep the guards *h* and *k* from rising above a prescribed distance. A guide, V, is supported on standards W W', and is bent at

a right angle at each end and passes through sleeves c' e''. It is shouldered to bear against springs in the sleeves, and is prevented from being thrown out too far by pins that pass through projecting ends of the guide. The standard W is made adjustable by the slot and screw e'.

The operation of the machine may be described as follows: A quantity of labels, G, being placed on the table F are held by means of the weighted lever H against the lip f, and the paste-trough B and D being charged with paste, the lever O is pressed down, causing the wheel N to turn sufficiently to give one revolution to the cranks v v'. This motion is communicated to the arms K and M, which, in turn, move the rollers J and L, which are charged with paste, so that they touch opposite ends of the label, applying enough paste to stick the label to the package, and are returned to the paste-troughs. The roller L, in its passage out of the trough D, moves the guard d on the end of the label, retaining it in its place until the paste-roller leaves it. The case or package is now placed between the guides T and Y upon the pasted portion of the free end of the label; it is then rolled toward the lower end of the machine, carrying the label with it. As it passes the lip f it draws the end of the label from under the lip and rolls over the cover U, and is carried away by a chute or by hand. This operation can be rapidly repeated. The lever H constantly feeds the labels up against the lip f.

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

1. The swinging-guard d, having fingers f' that support the roller L in the paste-trough D, as shown and described.

2. The automatic label-feeding device, consisting of the weighted lever H, the table F, standard E, clamp g, and retaining-lip f, substantially as shown and described.

3. The combination of the guides Q Q′ R R′ S S′, and table F, substantially as shown and described.

4. The combination of the weighted lever O, rod t, arm r, ratchet r', wheel N, pinion u, cranks v v', rods u x', arms K and M, and rollers J L, as specified.

5. The combination of the guards h, roller J, finger b, and lever K, as shown and described.

6. The combination of the diagonally-divided guide T, and the guides S S′, as shown and described.

7. The combination of the guides Q R S, lever K, paste-trough B, and movable part a of the frame A, substantially as shown and described.

8. The combination of the weighted lever z, and guide R′, as shown and described.

9. The guide V bent at the ends, passing through sleeves and supported by shoulder and pin against springs, as and for the purpose specified.

10. The combination of the hinged cover U, finger d, paste-trough B, and roller j, substantially as described.

GEORGE HENRY BURROWS.

Witnesses:

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