

(Model.)

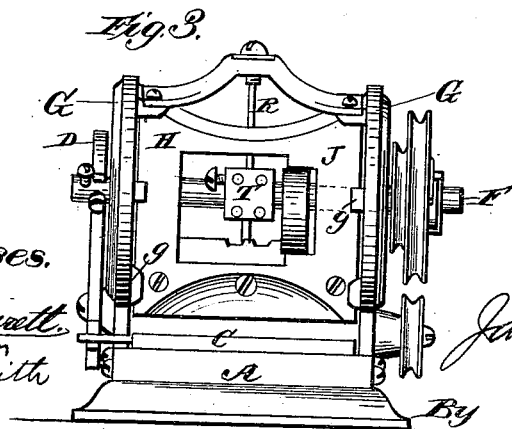
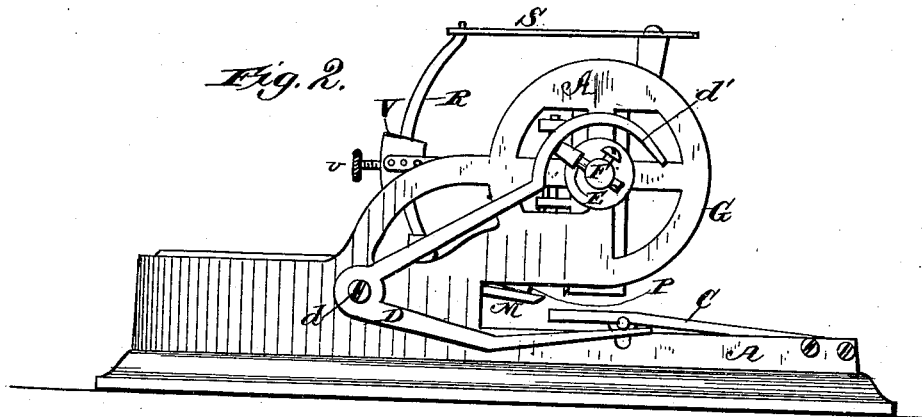
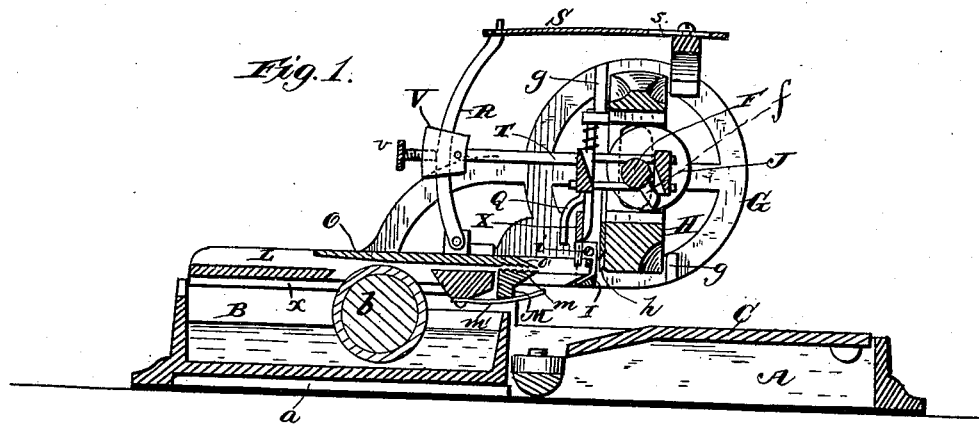
J. C. RICHARDSON.

2 Sheets—Sheet 1.

LABELING MACHINE.

No. 266,314.

Patented Oct. 24, 1882.



Witnesses.

Phil Enatt.
W. L. Smith

Inventor.

James C. Richardson

By T. S. Smith

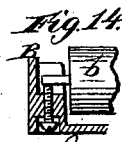
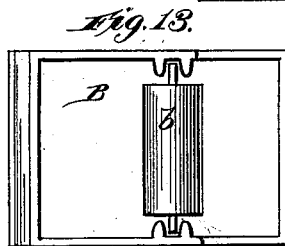
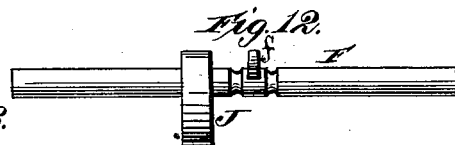
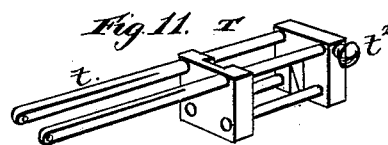
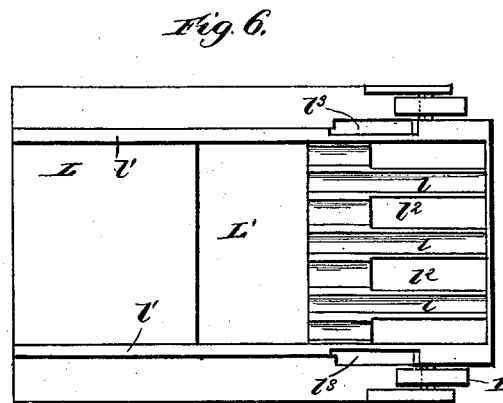
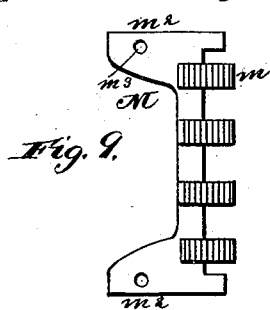
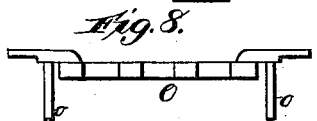
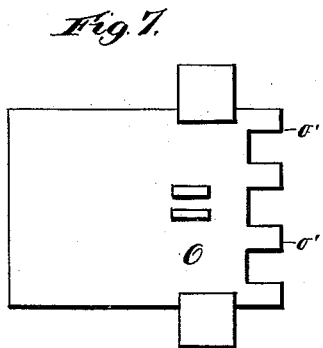
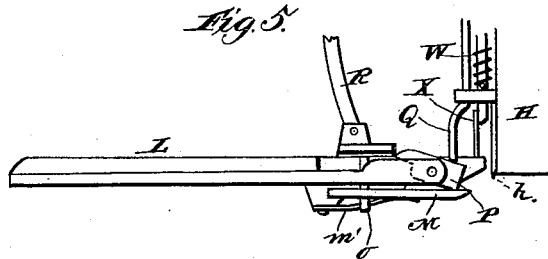
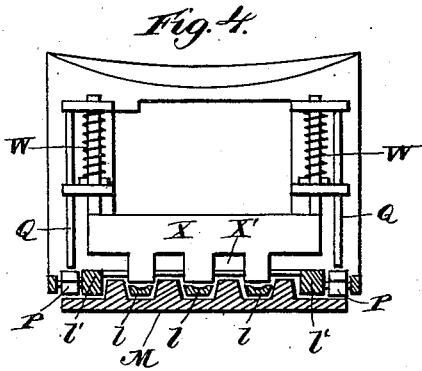
Atty.

J. C. RICHARDSON.

LABELING MACHINE.

No. 266,314.

Patented Oct. 24, 1882.



Witnesses.
Robert Everett,
Attest.

Inventor:

James C. Richardson
By T. L. Smith atty.

UNITED STATES PATENT OFFICE.

JAMES C. RICHARDSON, OF BOSCOBEL, WISCONSIN.

LABELING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 266,314, dated October 24, 1882.

Application filed October 24, 1881. (Model.)

To all whom it may concern:

Be it known that I, JAMES C. RICHARDSON, a citizen of the United States, residing at Boscobel, in the county of Grant and State of Wisconsin, have invented certain new and useful Improvements in Labeling-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to a machine for securing labels to newspapers or the like, peculiarly adapted for service in newspaper-offices where the list of subscribers are printed upon slips or strips of paper and have to be severed and applied to the issuing paper, magazine, or the like; and the novelty consists in the construction and arrangement of parts, as will be more fully hereinafter set forth, and specifically pointed out in the claims.

The objects of the invention are essentially to apply adhesive material to the said strips of paper, to feed such strips forward toward an operating-table upon which the paper or magazine is placed by an operator, to sever the several addresses upon the printed slip, and to provide the operating-table with means for elevation at proper intervals, the whole being operated automatically in such a manner that the feed of the slip is entirely at the will of the operator. The machine is capable of several adjustments, enabling the operator to accommodate the severed slips to any thickness of paper, any sized type, or distance, as printed, the said adjustments being integral parts of the machine.

In the accompanying drawings, Figure 1 is a central longitudinal section; Fig. 2, a side elevation; Fig. 3, an end elevation. Fig. 4 is a front elevation of the vertical reciprocating plunger, holding-plate, and a portion of the feeding devices in action; Fig. 5, a side view of the base-plate and feeding devices; Fig. 6, a top view of the base-plate; Figs. 7, 8, 9, and 10 are detail views of the feeding devices; Fig. 11, a detail view of the horizontal reciprocating frames, and Figs. 12, 13, and 14 detail views of portions of the device.

To enable others skilled in the art to which the invention relates to make and use the same, I will describe the construction and mode of operation of the same, referring by letter to the said accompanying drawings.

A represents a main frame, having guideways *a*, in which slides a rectangular tub or box, B, adapted to contain an adhesive material, and having a feeding-roller, *b*, journaled therein and adapted to apply gum to the paper slips, and also having a hinged or pivoted table, C, as shown. This table C is elevated, as desired, by means of a frame, D, pivoted at *d*, having a segmental surface, *d'*, in which operates an arm, E, which is adjustably secured to the main shaft F. This arm E allows the operator to adjust the throw of the table C to accommodate different thicknesses of paper—single, duplicate, or triple sheet, magazines, pamphlets, tracts, and the like.

Secured to or formed in one with the main frame A are the heads or frames G, in which the main shaft F is journaled, and in these frames G are formed guideways *g*, in which operates a vertically-reciprocating platen or plunger, H, carrying a cutting-knife, *h*. This knife *h* operates in connection with a stationary knife, I, rigidly secured in the frame A at *i*, and is reciprocated by means of a cam-wheel, J, which is rigidly secured to the shaft F. It will be observed that the plunger or platen H obtains its vertically-reciprocating movement from the cam-wheel J through the shaft F and power, and that the same shaft and power oscillates the operating-table upon which the paper or the like is placed.

Located in guides *x* in the frame A is a base-plate, L, having a recess, *L'*, in which the roller *b* operates, and concave fingers *l*. This base-plate L is also provided with guides *l'*, through which the paper slip is fed, and with longitudinal slots *l''*, which receive the serrated arms or fingers *m* of a frame, M, held in contact with the plate L by means of a spring, *m'*. The frame or plate M is provided with arms *m''* and perforations *m'''*, which coincide and operate in conjunction with pins *o* upon a plate, O, having serrated fingers *o'*, which correspond with the fingers *m* upon the frame or plate M. The pins *o* operate through slots *p* in the plate L, and in that plate are pivoted levers P, which, by the action of rods Q, rigid

with the platen H, are operated in such a manner that with each downward stroke of the platen the rods Q are forced down on the levers P, which action forces the frame M and plate O apart, and allows them to be forced sufficiently toward the rear of the machine, without friction upon the paper, until the next or upward motion of the platen allows the spring *m'* and spring-arm S to bring the serrated surfaces *m o'* together, grasp the paper slip, and feed it forward to the knives, as will readily be seen.

Upon the plate O, in proper bearings, is journaled a curved arm, R, the upper extremity of which connects with a spring-plate, S, having a slot, *s*, through which said plate S is secured to the frame A in such a manner that the oscillating sweep of the said lever R may be adjusted at will.

T represents a frame composed of two plates, each of which is provided with two rigid arms and two perforations, the arms of one operating loosely in the perforations of the other. The arms *t* have a series of holes, and extend rearward and embrace a plate, V, to which they are adjustably secured by a proper pin. The plate V is hung upon the curved rod R, and is adjusted at will upon said arm by means of the thumb-screw *v*. The plates which form in part the frame T may be adjusted in relation to each other by means of the set-screw *t'*, and this adjustment varies the stroke of the feed according to the width of print on the label-strip, the arm *f* upon the shaft F which strikes the said plates alternately having an arbitrary stroke, which affects the feed only as the said plates are acted upon, and the closer the plates are together the longer will necessarily be the stroke of the feed. The several adjustabilities may be enumerated as follows: First, the table C is adjustable by means of the frame D *d'* and arm E; second, the adjustment of the spring-plate S *s* with the rod R and feed, so as to always throw the label-strip properly up to the knife without regard to the other adjustments; third, the adjustment of the stroke of the feed by means of the frame V and thumb-screw *v*; fourth, the adjustment of the stroke by the relative positions of the plates of the frame T in regard to the stroke of the arm *f''*. It will be observed that when the paper slip does not intervene between the plate O and roller the said roller moves with the plate in either direction; but when the slip is in place the frame X X', with its spring pressure, holds the paper until the plate has made its backward stroke idly, and that the plate only affects the feed in one direction.

Spiral or other springs W serve to hold a frame X, having recesses X', in such position that the paper slip will be held secure against the fingers *l* until the plate O has made its idle return movement.

The operation of my invention is obvious from the foregoing description.

Modifications in details of construction may be made without departing from the principle

or sacrificing the advantages of my invention, the essential features of which will be readily understood.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. The combination of the gumming box and roll, the plate O, frame X X', and spring W, with the plate L, having grooved fingers, and operating means, substantially as and for the purposes herein specified.

2. The combination of the plate O, having serrated fingers *o'*, with the frame M, having serrated fingers *m*, the levers P, rods Q, and spring *m'*, as and for the purposes set forth.

3. The plate O *o'* and frame M, having serrated fingers *m*, combined with levers P, rods Q, lever R, and spring-arm S, and with the spring *m'*, as set forth.

4. In a labeling-machine, the combination of the lever R and adjusting-plate V, having set-screw *v*, with the frame T *t*, spring-arm S, having adjusting-slot *s*, and set-screw, by means of which the feed may be adjusted at will, as described.

5. The combination of the lever R, plate V, having set-screw *v* and spring-arm S *s*, with the frame T *t*, having the plates, as shown, the arm *f* upon the shaft F, the set-screw *t'*, and the feed-frame, as and for the purposes set forth.

6. The table C and frame D, pivoted as shown, combined with means, substantially as described, for adjusting the sweep of the said table, substantially as specified.

7. The combination of the table C and frame D, substantially as described and shown, with the power-shaft F, arm E, and set-screw, as set forth, for the purposes specified.

8. The spring-plate S, having slot *s*, combined with the pivoted lever R and the feed-frame, whereby the proper conjunction of the slip with the knife is obtained whatever the stroke of the feed or width of label, as specified.

9. The frame X X' and springs W, combined with the plate L, having concave fingers *l*, and with the plate O *o'* and frame M *m*, whereby the paper slip is locked during the backward stroke of the feed-frame, as specified.

10. The plate L, having recess L', concave fingers *l*, slots *l'*, and guides *l''*, combined with the plate O *o'*, box B, roll *b*, frame M *m*, and spring *m'*, as and for the purposes specified.

11. The combination of the plate L L' *l l'* *l''*, frame M *m*, plate O *o'*, and gumming devices B *b* with the frame X X', spring W, platen H, and knife I, as and for the purposes specified.

12. The plate L, having slot *l'* and slots *l''*, combined with the frame M *m*, plate O *o'*, and pin *o*, whereby the said frame and plate are made to reciprocate together, as specified.

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

JAMES C. RICHARDSON.

Witnesses:

H. CLAY SMITH,

D. S. TOWNSEND.