E. LONGLEY.

Addressing-Machine.

No. 164,925. Patented June 29, 1875.

Fig. 1

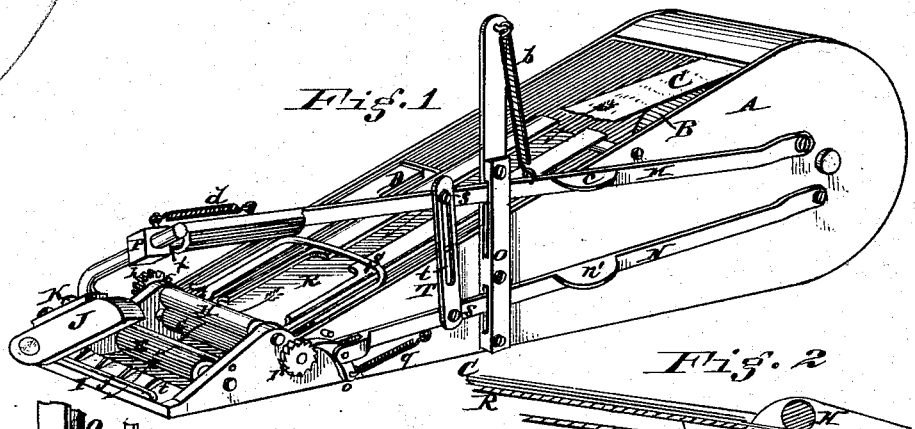


Fig. 2

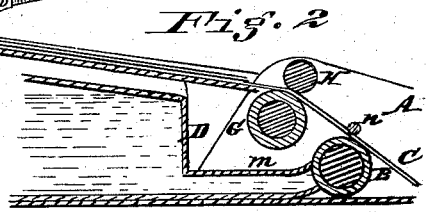


Fig. 3

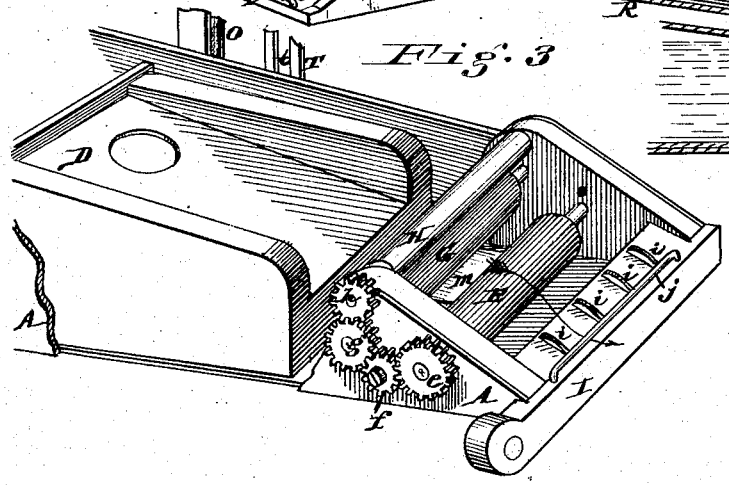
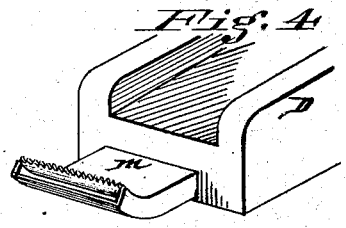


Fig. 4



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UNITED STATES PATENT OFFICE.

ELIAS LONGLEY, OF CINCINNATI, OHIO.

IMPROVEMENT IN ADDRESSING-MACHINES.

Specification forming part of Letters Patent No. **164,925**, dated June 29, 1875; application filed January 18, 1875.

To all whom it may concern:

Be it known that I, ELIAS LONGLEY, a resident of the city of Cincinnati and State of Ohio, have invented certain new and useful Improvements in Addressing-Machines, of which the following is a specification:

This invention relates to machines for addressing papers and packages of written or printed matter; and it consists in the construction, combination, and arrangement of some of the parts of which it is composed, as will be more fully explained hereinafter.

In the accompanying drawing forming part of this specification, Figure 1 represents, in perspective, an addressing-machine embodying my improvements. Fig. 2 represents a vertical central longitudinal section of so much of the same machine as exhibits portions of the fountain for the reception of paste, and the guide for guiding the label-strip to the feeding-rollers, and the rollers for feeding and the roller for pasting the label-strip, and its accompanying guide-bar. Fig. 3 represents, in perspective, a portion of the same machine which is shown in Fig. 1, portions of the machine having been removed to show the fountain, feeding-rollers, pasting-roller, the gear whereby they are simultaneously revolved, and the guards and guide-bar upon the stationary shear; and Fig. 4 represents, in perspective, the front end of the fountain and its peculiar nozzle or spout for delivering paste to the pasting-roller.

A represents the frame of the addressing-machine; B, the roller in the rear thereof, on which is wound the label-strip C, which is to be passed through the machine. D represents the fountain for the reception of paste. The top of this fountain is beveled down from rear to front. The nozzle or spout *m* of the fountain projects forward from the latter, and is turned up at its mouth sufficiently to meet the pasting-roller E. The latter is placed behind the stationary shear, and in front of the feeding-rollers. Immediately above roller E is a bar, *n*, which almost touches the periphery of the latter roller, being close enough to the roller to prevent the label-strip from leaving the surface of the roller. G represents the lower feeding-roller, and H the upper feeding-roller. Both of these rollers have a positive feed-motion. Their journals project beyond the right-hand side of the machine, and are provided with appropriate gear, meshing together; the journal of roller G being provided with gear *g*, and the journal of roller H with gear *h*. Roller G is preferably larger than roller H, and the gear *g* is as much larger than gear *h* as is necessary to cause the periphery of roller G to pass over as much space as roller H in the same space of time. That end of the journal of roller E which is on the right-hand side of the machine projects beyond the side of the machine, and is provided with a gear, *e*. The latter gear meshes into a gear, *f*, rotating on an independent journal. Gear *f* meshes also into gear *h*. The size and number of teeth in the gears *e f* are so proportioned to the size and number of teeth in gear *h* that the periphery of roller E passes with the same speed as the periphery of roller H. I is the stationary shear, and J the movable shear, hinged together at the right-hand side of the machine, so that the upper shear, when forced down, shall slide alongside and in front of the stationary shear. On the top of the stationary shear are placed two or more small bars or bearers, *i*, the preferred number of which is three. These bars are for supporting the label-strip, and for preventing it, while moist or covered with paste, from buckling or being retarded while passing over the upper face of the said shear. A rod, *j*, is attached to each side of the machine, and extends directly across the latter over the bars, and sufficiently close to the bars to prevent the strip from doubling back or rising with the movable shear, and to cause it to lie in proper position for the label to be cut therefrom. To the movable shear an arm, K, is attached. This arm K extends forward parallel to the length of the shear J, and toward the outer or hand side of the machine, and terminates in a round bar, *l*, shouldered down at a small distance from the end. On this small bar is fitted a socket, P, provided with an arm, *x*, at right angles to the axial line of the socket. On the outside of the addressing-machine are fastened the upper lever M and lower lever N. These levers are held in position by means of a slotted guard, O, fastened to the side of the machine. Lever M is connected to the movable

or upper shear J by means of the socket P and arm *x*. The movable shear J is kept close against the outer face of the stationary shear I by means of the spiral spring *d*, at one end connected to the lever M, and at the other connected to the socket P. A projection, *c*, is formed on lever M, to place the thumb upon in operating the lever. The lower end of lever N is in the form of a slotted hinge, and in it is hinged a pawl, *o*, working in the ratchet-gear *r*, attached to the journal of roller G, and on the left-hand side of the machine. The pawl *o* is kept in place and against the teeth of the ratchet by means of a spring, *q*. Attached to the outside of levers M and N is a connecting-rod, *t*, having a slot running parallel through it about half its length. This rod is fastened by screws *s s* to the levers M N. There is also a projection, *u*, formed on lever N, for placing the finger upon when desirable in operating. For facilitating the operation of the machine, a spring, *b*, is attached to the lever M and to the top of guide O, in such a manner that when said lever has been pressed down for the purpose of cutting off a slip from the label-strip it shall act to return the lever and the movable portion of the shear to their elevated position. The link T, having in it a slot, *t*, is used for connecting the levers M and N, in such a manner that throughout a portion of their travel upward and downward they move simultaneously; but throughout another portion thereof the lever M moves independently of the other. Their arrangement is such that as the lever M is forced down by the operator it will carry down the movable shear J and at the same time the lever N; or said lever may be allowed to fall by its own gravity, and thus cause the pawl in its end to be moved upon its ratchet-wheel one or more notches, according to the length of slip that it is desirable to cut from the label-strip. Owing to the fact that the link T is slotted, the lever M is allowed to rise throughout a portion of its movement without imparting to lever N any motion, owing to which fact the shear-blade J is carried up far enough to permit the label-strip to be advanced without coming in contact with said blade. After the lever M has been elevated throughout a portion of its distance, as just described, the pin or screw which connects it to the link comes in contact with the upper end of the slot *t*, and thus causes the lever N to be raised to such an extent as to impart to the feeding-rollers and the pasting-roller the required amount of movement.

In addressing papers and other packages it frequently becomes necessary to vary the lengths of the slips cut from the label-strip, owing to the fact that the post-office address and the name of the person to whom the papers are to be addressed vary in length, and consequently in the number of lines which they occupy upon the label-strip.

In order that provision may be made for advancing the label-strip under the conditions just named, or any others requiring a greater length of slip than the machine is arranged to cut, a thumb-piece or projection, N′, is attached to the side of lever N, in such a manner that it may be operated by pressing upon said projection to such an extent as to advance the label-strip slightly without depressing the shear-blade to such an extent as to cause it to cut said slip; and by continuing to alternately press upon and relieve the lever N, in the manner described, the slip may be advanced any required distance, and the point where it is desirable to cut it be brought directly under the shear-blade, when, by pressing upon the lever M, the cutting will be done, and any number of slips of the ordinary length may be cut without using the projection upon lever N; but, upon the approach of one which requires to be longer than others, the pressure is again applied to said projection, and the slip is advanced as before.

In machines of this character, which are to be used under circumstances in which time is of vital importance, as in addressing the current issue of a daily paper, it is important that all of its parts should be so constructed and arranged as not to be subject to derangement, or to liability to be gummed or retarded in their movements by the material used for causing the strip to adhere to the package.

For providing against these contingencies I use a long hinged guide, R, which is pivoted to the frame or box A, just in the rear of the feed-rollers, it having a solid smooth bottom, which effectually prevents any paste from coming in contact with the under side of the label-strip while passing over the paste-reservoir to the feed-rollers. The sides of this guide are flanged in such a manner as to leave a space between them and between their inwardly-projecting and overhanging portions sufficient for the strips to pass freely, and yet be accurately guided to the feed-rollers.

Another and a very important provision against the clogging of the machine by the paste used is the placing of the paste-distributing roller in front of the feed-rollers, and thus cause it to paste the strip immediately before the slips are cut therefrom, and after that portion to which the paste is applied has passed all of the moving parts of the mechanism, as well as to aid in feeding the strip to the cutting-point.

Owing to the fact that the paste-distributing roller is located forward of the feed-rollers and in such close proximity to the shears, a peculiar construction of paste-fountain is required, in order that the paste may be conducted from the body of said fountain to the roller. To meet this requirement a vessel, D, is provided, which is made separate from the frame or case A of the machine, and which may be inserted therein or removed therefrom at pleasure, in the rear of the feeding-rollers, and which has a neck that reaches under said rollers to the pasting-roller. The mouth of this neck is made to fit so closely to the pasting-roller that only

a thin coating of paste is drawn out of it by the movements of said rollers through the openings caused by the serrations formed in its upper surface, by which means the paste is prevented from flowing out of said reservoir faster than it is used.

The hinged guide enables the operator to remove the paste-reservoir at any time for the purpose of refilling it, or for cleaning or repairing.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a machine for addressing papers and other packages, the combination of a spring for returning the movable shear-blade to its open position after it has been closed down upon the fixed blade, a lever for operating the movable shear-blade, another lever for operating the feed and pasting rollers, a slotted link for connecting the lever which operates the shear to the one which operates the rollers, two rollers for feeding the label-strip to the shear, a roller for pasting said strip and for aiding in carrying it forward, and shears for cutting the same, the parts being arranged to operate substantially as and for the purpose set forth.

2. The combination of the lever M, the socket P, spring *d*, arm K, and movable blade J, whereby said blade is kept in position while being used, substantially as set forth.

3. The combination, in a machine for addressing papers, of two feeding-rollers and a pasting-roller, said pasting-roller being operated by the feed-rollers, and arranged between them and the slip-cutting mechanism, whereby it is made to act as an auxiliary feed-roller, substantially as set forth.

4. The hinged and flanged guide R, in combination with the feed-rollers, substantially as and for the purpose set forth.

5. The removable paste-reservoir D, having a neck for extending to the paste-roller, and a serrated mouth, in combination with a pasting-roller, substantially as set forth.

ELIAS LONGLEY.

Signed in presence of us:

D. P. KENNEDY,

CHAS. MUNROE.