(No Model.)

H. N. BOWMAN.

ADDRESSING MACHINE.

No. 327,993. Patented Oct. 13, 1885.

Fig 1

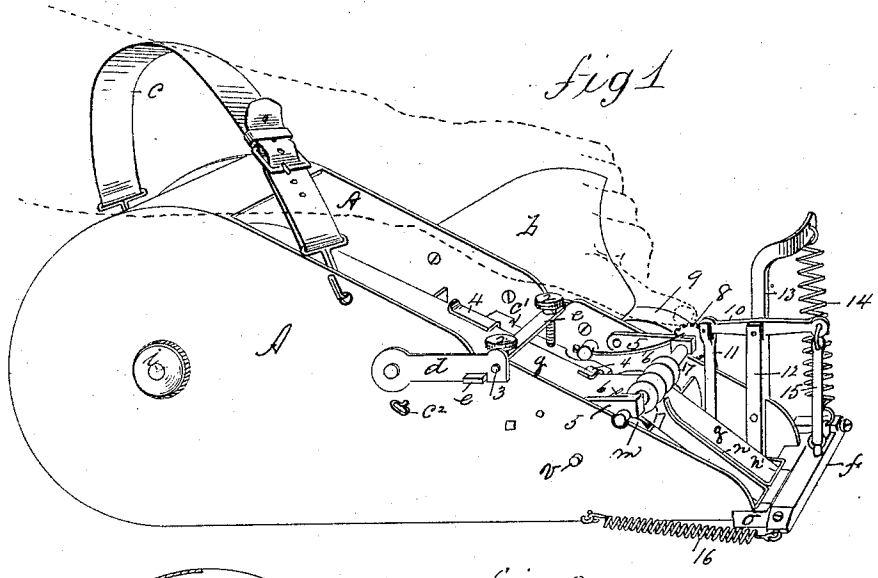


Fig 2

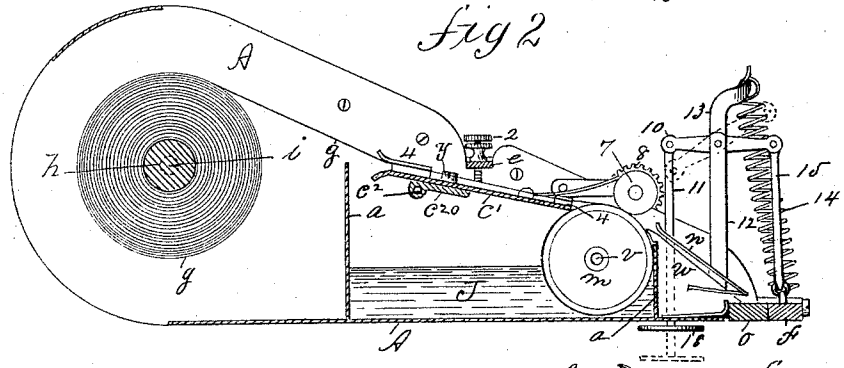


Fig 3

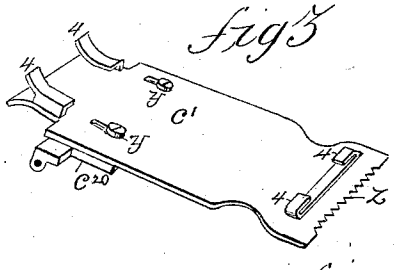


Fig 4

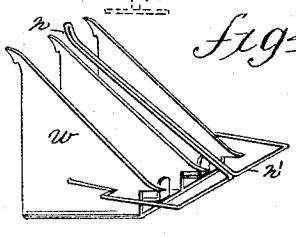
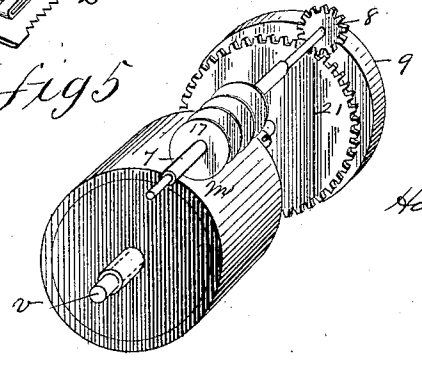


Fig 5



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HENRY N. BOWMAN, OF SPRINGFIELD, MASSACHUSETTS.

ADDRESSING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 327,993, dated October 13, 1885.

Application filed December 1, 1884. Serial No. 149,233. (No model.)

To all whom it may concern:

Be it known that I, HENRY N. BOWMAN, a citizen of the United States, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Addressing-Machines, of which the following is a specification.

This invention relates to improvements in addressing-machines, the object being to provide in such machines improved means for holding and manipulating the machine, for operating the cutting devices, improved paste devices, and means for governing the distribution of paste on the strip-pasting roller, improved means for surely drawing forward the strip and directing its end between the cutters, and for operating the paste and feeding roller in conjunction, and an improved strip-guide between the pasting-roller and the cutters.

In the drawings, forming part of this specification, Figure 1 is a perspective view of an addressing-machine constructed according to my invention. Fig. 2 is a vertical longitudinal section. Fig. 3 is a view of the strip-apron, and Fig. 4 of the strip-guide, both detached from the machine. Fig. 5 is a view of the pasting-roll and pressure-roll detached from the machine, but shown in their operative relations.

In the drawings, the sides and bottom A, of sheet metal or other suitable material, constitute the body of the machine, and within the latter, formed by the vertical end pieces, *a a*, is the paste-box holding the paste J. A pasting-roll, *m*, is hung on a shaft, *v*, which has its bearings in the sides A, and is rotated in the paste by means of a pulley, 9, secured to shaft *v* outside of the side A, upon which the operator presses his thumb, thereby turning the roll *m* intermittently. Close by the side of the pulley 9, on shaft *v*, is fixed a gear, 21. Over the roll *m* is hung a pressure-roller, 7, consisting of a shaft having a series of disks, 17, thereon, whose peripheries are adapted to bear on the surface of the roll *m*.

The shaft to roller 7 is fitted freely in the sides A, and is held in position while it turns by two arms, 5 5, pivoted on the inner sides of the body, which fit onto the top of said shaft, and springs 6 bear on the arms 5, and thus force the edges of said disks against the surface of roll *m*. A pinion, 8, is fixed on the shaft of roller 7, and engages with the gear 21 on shaft *v* of the pasting-roll, whereby said roll and roller are simultaneously rotated.

A strip-roll, *h*, hung on a shaft, *i*, passing through the sides A, is located as shown in Fig. 2, and on said roll *h* the paper strip *g* is carried, and therefrom is delivered to be pasted and cut, as hereinafter set forth. The strip *g* has the various addresses printed thereon, as is usual for use in machines of this class.

Between the strip-roll *h* and the pasting-roll *m* is located the strip supporting and guiding apron and paste-distributer and governor *c'*. Said apron consists of a flat plate having one end, *z*, serrated, and adapted to bear on the roll *m*, and having secured to its face the strip-guides 4 4 4 4. The said apron is secured to a flat-sided support, c^{20}, which is hung on a shaft, c^2, which passes through the sides A. Said shaft is adapted to be easily removed to provide for taking out the apron to clean it. The apron *c'* is secured to the support c^{20} by two screws, *y*, which pass through slots in the apron, and whereby the apron is adjusted toward and from the roll *m*.

Located over the apron *c'* are two adjusting-screws, 2 2, working in a cross-bar, *e*, extending across the body, and secured to the upper edges of the sides A by an arm, *d*, pivoted on the sides and adapted to engage with each end of bar *e*, as shown, and to be held down against the latter by the pin 3 in the side A, over which the end of the arm springs when brought down. The ends of the screws 2 2 bear against the upper side of the apron *c'*, and thereby the serrated end thereof is given the requisite bearing-force against roll *m*. The end adjustment of the apron, provided for, as aforesaid, together with its vertical adjustment, as just described, enables the operator to so arrange the apron as to adapt the extent of its bearing and the pressure of its serrated end upon roll *m* to the thickness of the paste, and so regulate the apron as to govern the amount of paste carried over by the said roll and applied to the strip *g*.

Directly in front of the roll *m* is located the removable strip-guide *w*, which is held in place by being sprung in between the rear side of the fixed knife *o* and the end *a* of the

paste-box. Said guide consists of three vertical plates, as shown, over the edges of which the strip *g* passes, and a guide-rod, *n'*, extending from side to side, and having an arm, *n*, thereon reaching upward about midway between the outer sides of the guide, and standing above the middle plate of it. The guide *w* is made removable from the machine for convenience in cleaning.

The fixed cutter *o* is secured at the end of the machine, and the movable cutter *f* is pivoted by one end to the end of the former, as clearly shown in Fig. 1. A spring, 16, having one end attached to the side of the machine and the other to the end of cutter *f*, keeps the latter in close contact with the edge of the fixed cutter *o*, and thereby insures the proper operation of the cutters.

A lever, 10, is pivoted at the end of a vertical post, 12, the latter being properly secured to one of the sides A, and one end of lever 10 is connected with the knife *f* by a bar, 15, and ring-connections, as shown, and to the opposite end of lever 10 is pivoted a connecting-rod, 11, which extends through the bottom of the machine, and has a button, 18, on its lower end. A post, 13, is secured to one of the sides A of the machine, having an arm on its upper end, and a spring, 14, has one end attached to said arm and the other end secured to the knife *f*.

When the machine is carried downward against an object upon which an address is to be fixed, the button end of rod 11 is forced upward, thereby driving knife *f* down and giving it a shearing motion against knife *o*, against the retractive force of spring 14; but when the machine is lifted up, freeing rod 11, spring 14 draws up knife *f*, and the button 18 is projected below the bottom of the machine, as shown in dotted lines in Fig. 2.

The machine is held in one hand, (the one herein shown being adapted for the left hand, the dotted outlines of the same and the wrist being shown in Fig. 1,) a hand-piece, *b*, of wood or other material, being secured to the side of the machine, and adapted to be grasped by the fingers, the thumb being free to act upon the periphery of the pulley 9. The rear end of the machine is attached to the arm of the operator by the strap *c*, which, by a buckle therein, can be made of suitable length, and is attached to the sides A by a hook on each end.

The operation of the machine is as follows: The end of the address-strip is taken from roll *g* between the strip-guides 4, over the apron *c'*, thence between the pasting-roller *m* and the pressure-roller 7, thence under arm *n* and the guide-rod *n'*, (the latter holding the end of the strip down when knife *f* moves upward,) and when knife *f* is held up by spring 14 the end of the address-strip extends between the knives. The operator then turns pulley 9 just sufficient to feed strip *g* forward far enough to pass one printed address beyond the edge of knife *o*, and in so turning pulley 9 roll *m* is turned in the paste J, bringing up on its surface as much paste as requires to be applied to the strip. The operator then presses the machine downward, cutting off the end of the strip, and knife *f* bears the severed piece against the object upon which it is to be affixed, making it adhere thereto. Thus by intermittently turning the feeding and pasting rollers *m* and 7, and moving the machine up and down, the addresses are affixed to the newspaper or other object, as described.

To facilitate the labor of cleaning the paste-box and pasting-roller *m*, the shaft *v* is adapted to be drawn out of said roller by drawing the pulley 9 from one side of the machine, said pulley being fixed on the shaft, thus leaving the roller free to be taken out, and the roller 7 is detached from the sides A for a like purpose by lifting up the arms 5 and disengaging the roller-shaft therefrom.

What I claim as my invention is—

1. The movable-strip guide *w*, consisting of three vertical plates suitably connected, the guide-rod *n'* in front of said plates, and the spring-arm *n* over the central plate, as set forth.

2. The pasting-roller *m*, the pressure-roller 7, hung in yielding supports, the apron *c'*, having one end serrated and pivotally connected with the sides A, and the screws 2 2, combined and operating substantially as set forth.

3. As means for feeding and pasting the address-strip *g*, the paste-box, the pasting-roller hung to rotate in the latter, and having the pulley 9 thereon, the pressure-roller 17, having a geared connection with the pasting-roller, and the apron *c'*, combined and operating substantially as set forth.

4. The apron-support c^{20}, the apron *c'*, having the serrated end *z*, adjustably attached to said support, and having the guides 4 thereon, and the pasting-roller *m*, combined and operating substantially as set forth.

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Witnesses:
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