(Model.) 2 Sheets—Sheet 1.

J. DENNIS, Jr. & D. S. YORK.

ADDRESSING MACHINE.

No. 303,922. Patented Aug. 19, 1884.

Fig. 1.

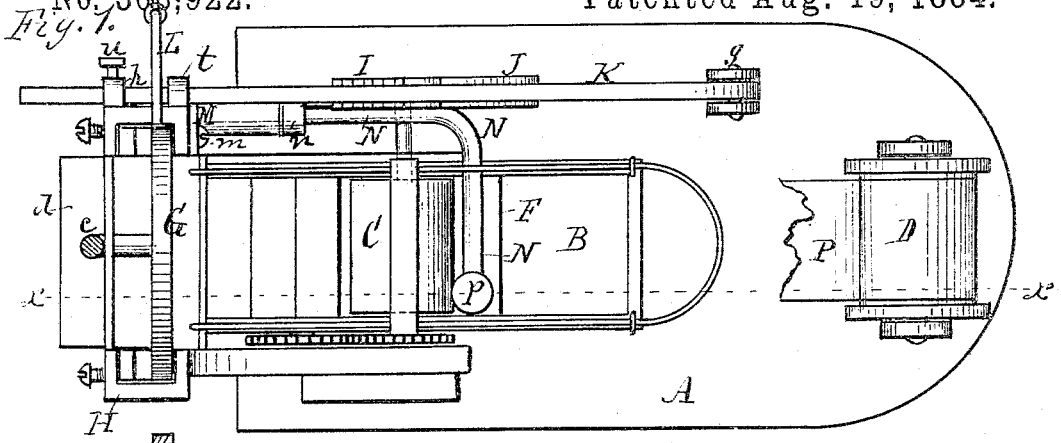
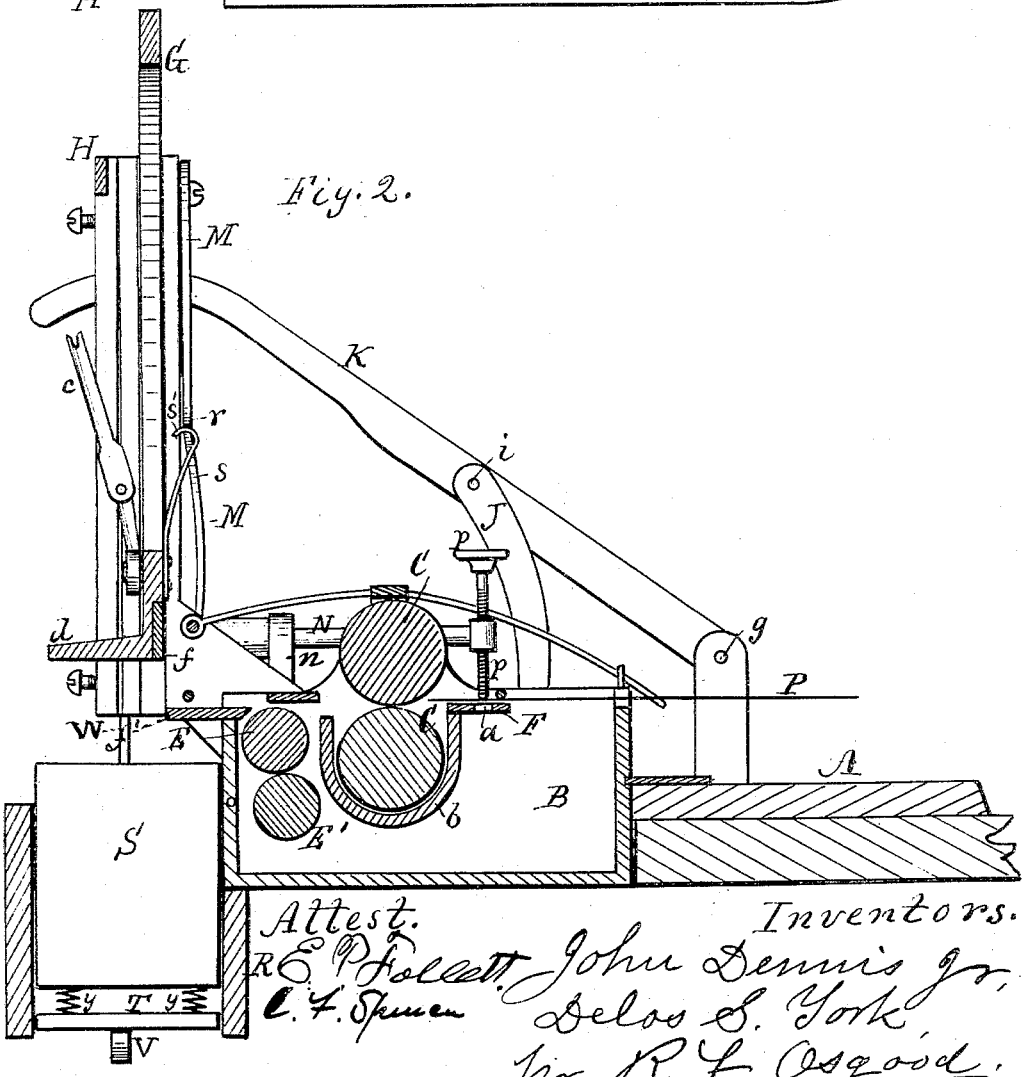


Fig. 2.



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(Model.) 2 Sheets—Sheet 2.

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Fig. 3.

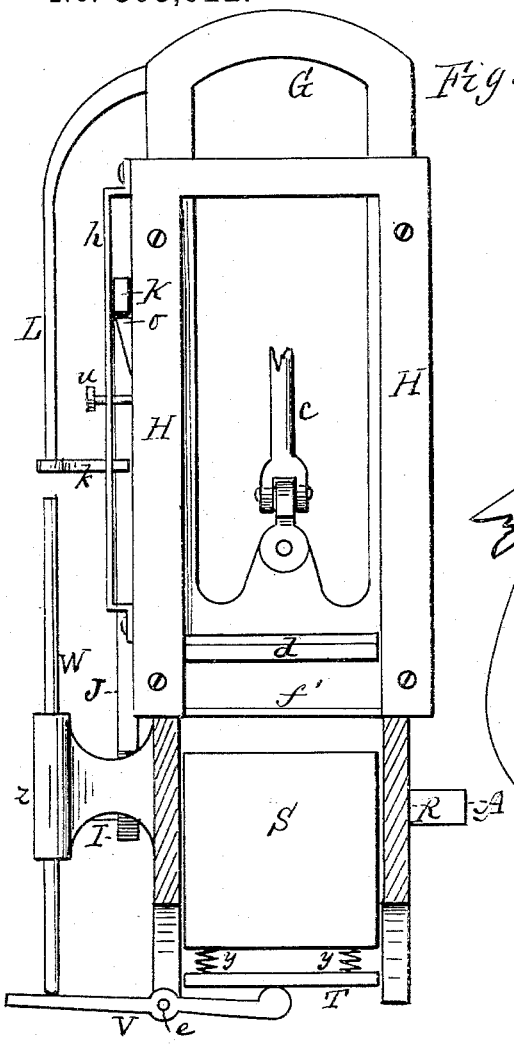


Fig. 4.

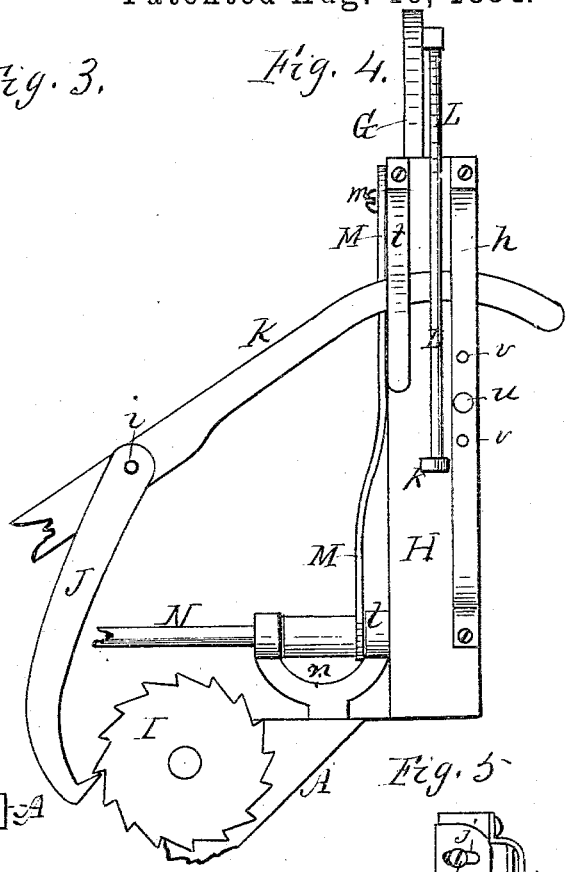


Fig. 5.

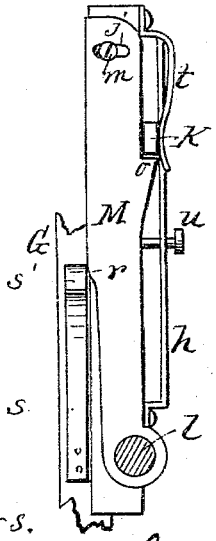


Fig. 6.

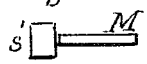
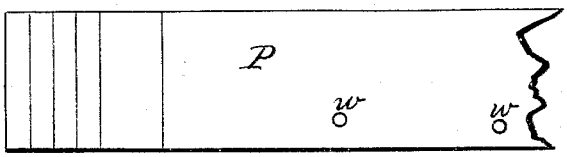


Fig. 7.



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UNITED STATES PATENT OFFICE.

JOHN DENNIS, JR., OF ROCHESTER, AND DELOS S. YORK, OF GENEVA, ASSIGNORS TO PETER YORK, OF GENEVA, NEW YORK.

ADDRESSING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 303,922, dated August 19, 1884.

Application filed September 4, 1882. (Model.)

To all whom it may concern:

Be it known that we, JOHN DENNIS, Jr., of Rochester, Monroe county, New York, and DELOS S. YORK, of Geneva, Ontario county, New York, have invented certain new and useful Improvements in Addressing-Machines; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a plan of the machine. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is a front end elevation, the lower portion being in section. Fig. 4 is an elevation of a portion of the machine looking on the opposite side from Fig. 2. Figs. 5 and 6 are detail views showing the apparatus for changing the feed. Fig. 7 is a view of a portion of one of the printed strips containing the addresses.

This improvement relates to addressing-machines in which a strip of paper with the addresses printed thereon is run through the machine, the addresses being cut off in slips and automatically affixed to the newspapers, envelopes, or other articles by a descending knife and platen.

The object of the invention is, first, to change or adjust the feed automatically by the running of the machine itself, so that addresses of greater or less width can be cut accurately without attention of the operator, the machine adjusting itself exactly to the work to be done; and, second, to enable the addresses to be affixed to single sheets beneath the platen, or to a greater or less thickness of sheets, all as hereinafter described. Means have heretofore been used for effecting the last-named purpose—such, for instance, as that described in Letters Patent No. 236,387, dated January 4, 1881; but we have invented greatly improved means for effecting the purpose.

In the drawings, A shows the frame upon which the working parts are mounted.

B is the paste-tank, set into the frame and provided with feeding-rollers C C, which feed the printed strip along from the reel D, upon which it is wound.

E E′ are the pasting-rollers which paste the under side of the strip.

F is a flat bar, over which the strip passes before entering between the feed-rollers, and this bar is provided with a hole, *a*, through which the pin passes to change the feed, as will presently be described. *b* is a curb beneath the feed-rollers, the construction of the paste-tank and its connections being the same as that shown in the patent of York and Uhl, September 26, 1882.

G is a vertically-reciprocating gate, which rests in ways H H, and is operated by a pitman, *c*, or any other suitable means. At its lower end is a platen, *d*, by which the cut addresses are carried down and affixed to the papers, envelopes, or other articles beneath; also a knife, *f*, which acts in conjunction with the fixed shear *f′*, by which the addresses are cut from the strip.

I is a ratchet-wheel on the shaft of the lower feed-roller, C.

K is a rock bar or lever pivoted, at *g*, to a bearing rising from the frame, the opposite end passing through a guideway, *h*, at the side of one of the standards H, which retains it in position against the standard, but allows it to rise and fall.

J is a weighted pawl pivoted at *i* to the lever, its lower hooked end engaging with the ratchet as the pawl is raised.

L is an arm attached to the gate, extending down vertically outside the frame, and provided with a right-angled finger, *k*, which extends inward and rests under the lever K, as shown in Fig. 3. As the gate is raised, the lever K will also be raised by the finger *k* striking under it, and as the gate falls the lever will fall of its own weight. By this means a regular intermittent motion is given to the feed-rollers, which feed the printed strip forward to the knives.

M is a rock-arm, pivoted at *l* to one of the guide-standards H, and having a lateral vibration to a limited extent around said pivot. This movement is limited at the top by a screw, *m*, which passes through a slot, *j*, of the rock-arm, Fig. 5.

N is a curved arm or elbow mounted in bearings of a U-shaped bracket, *n*, attached to the rock-arm on its pivotal center, and extending around in rear of the upper feed-roll-

er, C, and its end resting over the hole *a* in the bar F. Through this end passes a pin, *p*, which rests on top of the printed strip and directly over said hole. This pin is preferably a screw, as shown, which can be turned up or down to adjust its length. As the arm M is vibrated upon its pivot, the arm N will be correspondingly rocked and the pin *p* be raised.

o is a square shoulder, forming a stop on the outer edge of the arm M.

r is an incline, forming a cam-face on the inner edge of said arm.

s is a spring attached to the gate, moving up and down with it, and having a hook-shaped head, *s'*, which bears against the inner edge of the arm.

t is a flat spring on the outside of the standard H, open at its bottom, which presses in against the lever K, opposite the stop *o*, and holds the lever against the standard, so that it will catch the stop in falling. *u* is a removable pin, which fits in any of a series of holes, *v v*, in the guide *h*, and forming also a stop to the fall of the lever.

P is the strip of paper upon which the addresses are printed. These are printed at regular distances apart with spaces between, except that occasionally some addresses are longer and occupy more printed space than others. In such case, in conjunction with such long addresses, the printed strip has holes *w w*, which come in line with the hole *a* in the bar F and with the pin *p* as the strip passes over.

The operation of this part of our invention is as follows: As the printed strip passes through the machine the pin *p* rests on top of it, and the rock-arm M is consequently thrown out, so that the lever K in its fall will strike on the stop *o* and be gaged by it. In this case the throw of the lever is just sufficient to cause the pawl J to engage with and move the ratchet-wheel I forward one notch, thereby feeding the strip forward between the knives just the width of the narrowest address. When one of the holes *w* in the printed strip comes beneath the pin *p*, the latter will drop through the hole, thereby causing the rock-arm M to move inward and withdraw the stop *o* from under the lever K, and the latter will then fall till it strikes the stop-pin *u* below. This causes the pawl J to slide down over two or more of the teeth of the ratchet, according as the stop-pin is placed higher or lower in the holes *v v*. The next up movement of the lever will give a correspondingly long movement of the feed-rollers, and move the address-strip along the width of the wide address. In this manner the cutting of addresses of varying widths is accomplished in an automatic manner. After the pin has fallen through the hole of the printed strip, and before the latter begins to feed forward, the end *s'* of spring *s* strikes the cam-face *r* on the edge of the rock-arm M and throws the latter outward, thereby raising the pin from the hole free of the paper and preventing tearing of the latter. The spring disengages at the top of the rock-arm and allows the pin *p* to fall back on the printed strip.

R is a guideway or socket below the platen, in which rests a follower, S, which moves up and down freely. The top of this follower is the bed upon which the papers are placed to be addressed.

T is a supplementary follower or head below the follower S, also moving freely in the socket, and having one or more springs, *y y*, interposed between it and the follower S.

V is a lever, pivoted at *e*, one end resting loosely under and supporting the head T, the other end projecting out beyond the follower, as shown in Fig. 3.

W is a rod or plunger which passes loosely through a pipe-bearing, *z*, its lower end resting upon the projecting end of lever V, and its upper end resting under and in line with the arm L, which is attached to the gate. At every downstroke of the gate the arm L will strike the rod W, depressing the same, and the latter, through the medium of lever V, will operate on head T and force the follower S up to meet the platen *d*. The follower resting on a spring will adapt itself to any thickness of papers or other articles to be addressed, from a single sheet up to a great number of them piled one on top of another, the spring action producing just enough pressure under all circumstances to receive the pasted slip upon the upper sheet.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In an addressing-machine, the combination, with feeding-rollers, of a bar having a hole therein, over which the printed strip passes, a pin resting on the strip and above the hole, an elbow or shaft which supports the pin, and a rock-arm, to which the elbow is attached, the rock-arm being provided with a stop for arresting the fall of the pawl-lever, and with a cam-face for receiving rocking motion from the gate, the printed strip being also provided with holes which come in line with the pin, as herein set forth.

2. In an addressing-machine, the combination of the bar F, provided with hole *a*, the pin *p* resting above the hole, the elbow N, to which the pin is attached, the rock-arm M, provided with the stop *o* and cam-face *r*, and the spring *s*, provided with a head, *s'*, for acting against the rock-arm, as shown and described, and for the purpose specified.

3. In an addressing-machine, the combination of the bar F, provided with hole *a*, the pin *p*, the elbow N, the rock-arm M, provided with stop *o* and cam-face *r*, the lever K, the pawl J, and the ratchet-wheel I, attached to the shaft of one of the feed-rollers, as herein shown and described.

4. In an addressing-machine, the combination, with the lever K, pawl J, ratchet I, reciprocating gate G, and rock-arm M, of the

stop-pin *u*, adjustable higher and lower in holes *v v* of the guide *h*, as herein shown and described.

5. The combination, with the lever K, pawl J, ratchet I, reciprocating gate G, and rock-arm M, of the spring *t*, as shown and described, and for the purpose specified.

6. The combination of the follower S, the platen *d*, spring or springs *y*, head T, lever V, rod W, and vertical arm L, as shown and described, and for the purpose specified.

In witness whereof we have hereunto signed our names in the presence of two subscribing witnesses.

JNO. DENNIS, JR.
DELOS S. YORK.

Witnesses:
E. F. OSGOOD,
JOHN E. BEAN.