3 Sheets—Sheet 1.

DeL. F. BELL.

Addressing-Machine.

No. 213,315. Patented Mar. 18, 1879.

Fig. 1.

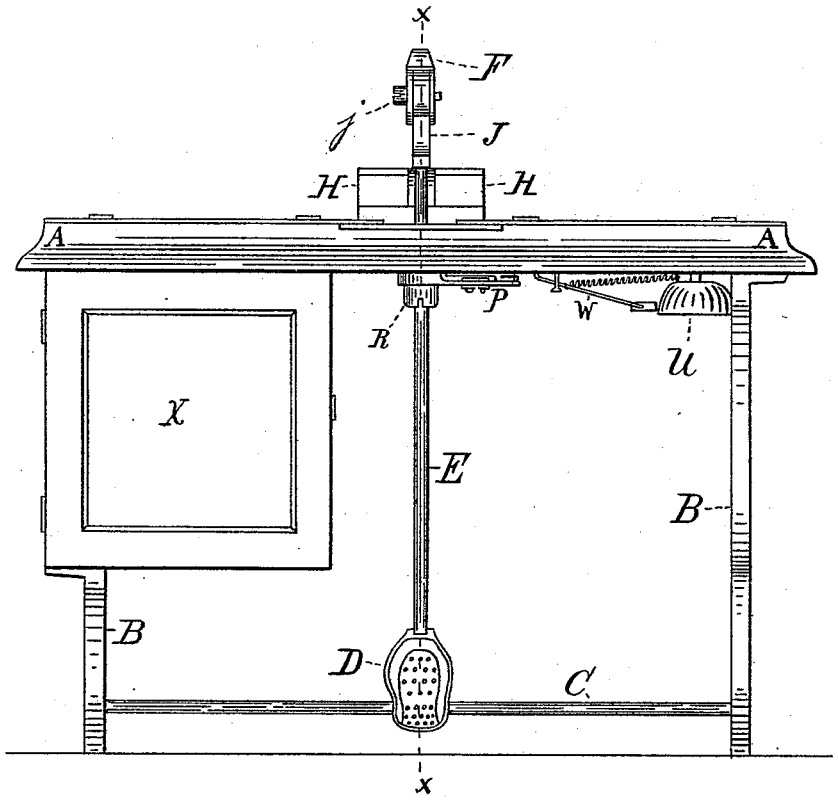

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Fig. 2.

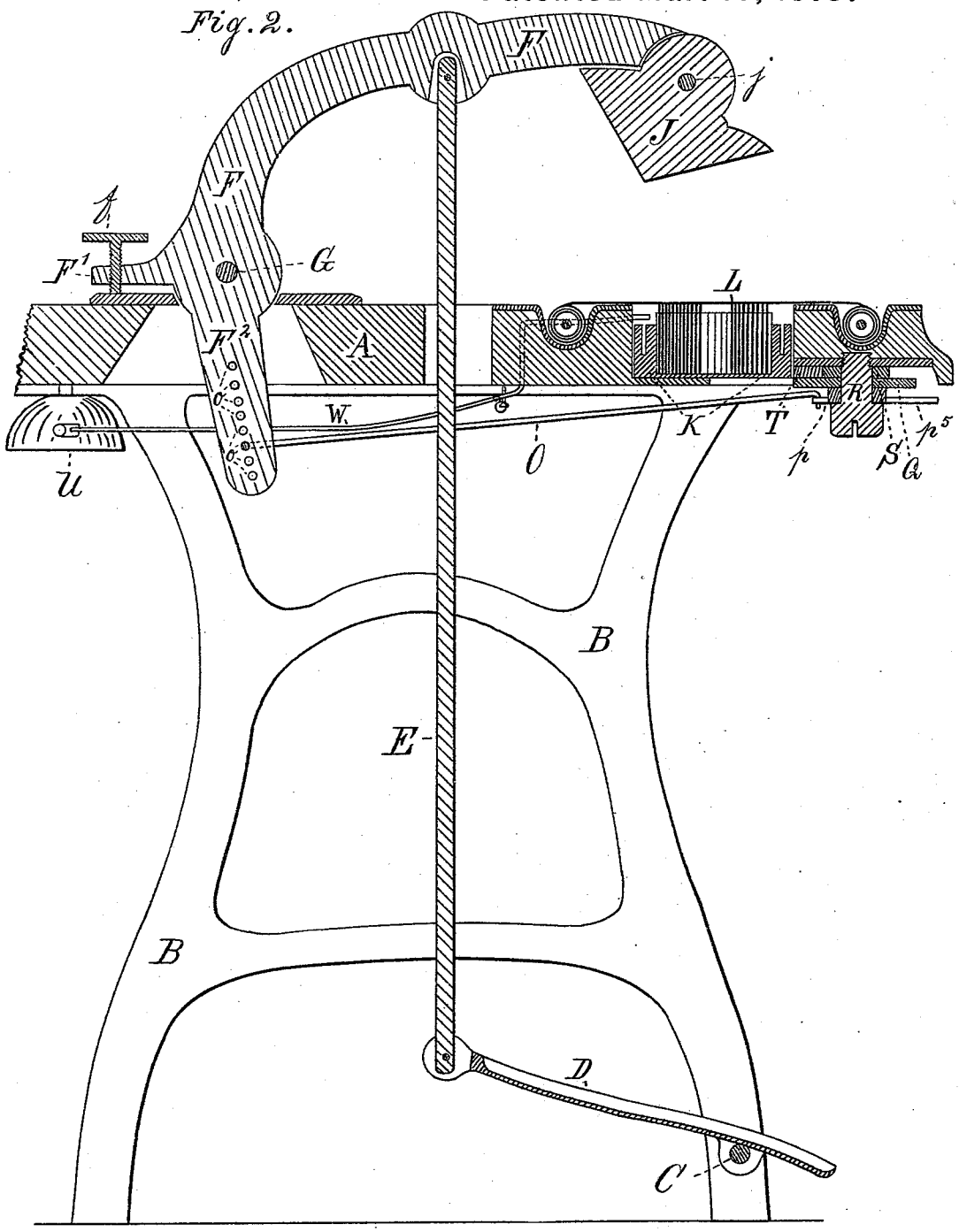

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Fig. 3.

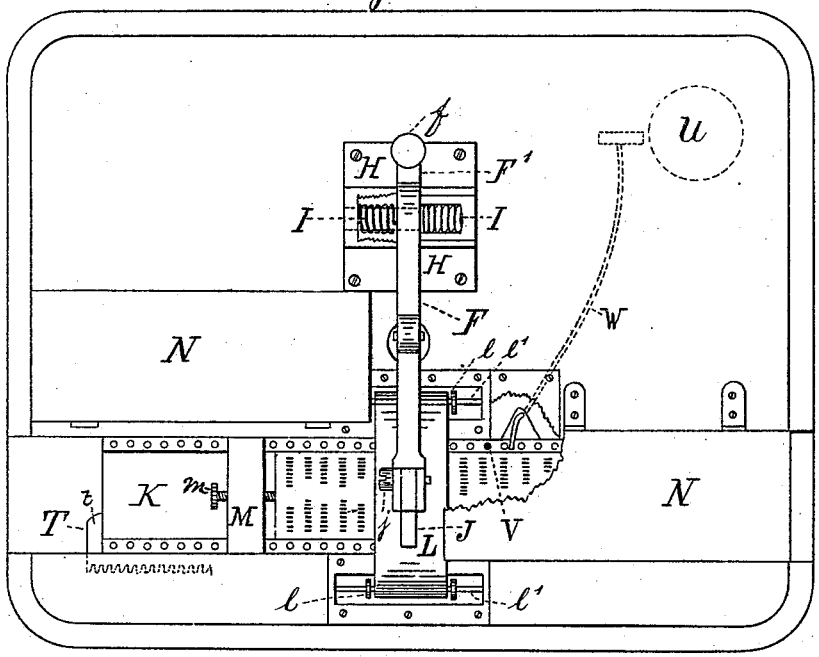
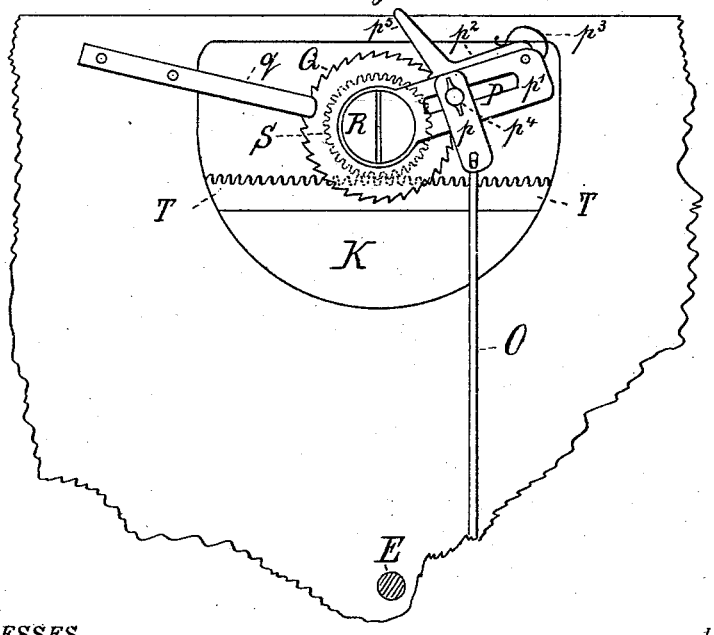


Fig. 4.



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UNITED STATES PATENT OFFICE.

DE LOS F. BELL, OF KOKOMO, INDIANA.

IMPROVEMENT IN ADDRESSING-MACHINES.

Specification forming part of Letters Patent No. **213,315**, dated March 18, 1879; application filed November 20, 1878.

To all whom it may concern:

Be it known that I, DE LOS F. BELL, of the city of Kokomo, county of Howard, and State of Indiana, have invented certain new and useful Improvements in Newspaper-Addressing Machines, of which the following is a specification:

Reference is had to the accompanying drawings, which are made part hereof, and on which similar letters of reference indicate similar parts.

Figure 1 is a front elevation of a machine embodying my invention. Fig. 2 is a transverse vertical sectional view looking to the right from the dotted line *x x* in Fig. 1. Fig. 3 is a top or plan view of the machine. Fig. 4 is a plan view of a portion of the operating mechanism, attached to the under side of the table, as seen from underneath the machine.

In this specification, because of the greater convenience of so describing them, the various portions of the machine are designated by the names of the letters of reference connected therewith in the drawings.

The purpose of this machine is to conveniently and expeditiously stamp upon newspapers the names and addresses of persons to whom they are to be sent, and it operates and is constructed as hereinafter specified.

The papers are first placed upon the table A, and are then successively inserted underneath the head J and over the galley of addresses, which is arranged to pass underneath said head. Upon a shaft, C, is the treadle D, connected by the rod E to the vibrating arm F, which carries the head J. A pressure of the foot upon the treadle, consequently, pulls the head J downward and forces the paper upon the type, which are thus made to imprint upon it, by means of the ink-ribbon L, the required address.

The vibrating arm F is mounted upon the shaft G, which is secured to the table A by the bearings H H. In these bearings are spiral springs I I, which are so connected to the arm F as to keep it always raised from the table, when not forced down by the treadle or such other means as may be employed.

Running through the projection F', at the rear of the arm F, is the set-screw *f*, which acts as a stop, and by which the height to which the arm F shall rise is regulated. As the arm F^2 is rigidly attached to the arm F, its movements are also controlled to some extent by this stop, and through it those of the pawl and other mechanism to which it is connected.

Upon the forward end of the arm F is an adjustable head, J, having preferably two platen-faces. One of these, when two are used, is wide enough to strike two lines of type at once, and the other only one. The first can then be used on those galleys of addresses which contain but one name to each post-office, and the second on those containing several names to each address. The change is made by simply loosening the pivot-screw *j* and adjusting the head to the desired position.

Directly underneath the head J is the galley K, containing, in type, the addresses of subscribers, properly arranged. Over this galley runs the ink-ribbon L. This is mounted on spools *l l*, which are, in turn, mounted on rods *l' l'*, which are considerably longer than the spools. The latter are thus enabled to be moved endwise along the rods, and the full width as well as length of the ribbon thus utilized.

The sides of the type-galley have a number of holes drilled therein, in which pins on the foot-stick M will engage. This foot-stick is placed behind the type in the galley, as close as is convenient, and the set-screw *m*, being screwed up, holds said type firmly in position.

Doors N N are attached to the table, and cover the recess in which the galley of names is placed while the machine is being operated, and keep the papers or whatever else may be upon the table from coming in contact with the type except directly under the head where the papers are placed to receive their addresses.

The arm F has a continuation, F^2, which reaches below the shaft G to a point sufficiently below the table to operate the mechanism which drives the galley forward as the addresses are successively imprinted on the papers. A rod, O, being connected with this arm, and also with the arm *p* on the pawl P, the latter is thereby operated at every movement of the treadle. This pawl engages with the ratchet-wheel Q, and at each movement of the former the latter is forced forward. This

ratchet-wheel is prevented from being easily moved backward by the friction-spring *q*.

Upon the same shaft with the ratchet-wheel Q is the pinion S, which engages with the rack-bar T. The pawl, the ratchet-wheel, and the pinion are all supported by the short vertical shaft R.

The rack-bar T is, by suitable means, connected to the galley K, and the latter is thereby driven forward a certain distance each time the other mechanism is operated. The proper relative sizes of the various parts having been secured, this distance will exactly correspond with that between the several addresses placed in type in the galley.

The pawl P is given peculiar construction, in order to adapt it to this especial work. The larger piece or bar p^1, to which the other parts are attached, is comparatively rigid, only moving on the shaft R. The dog p^2 is pivoted to this bar p^1, and is held engaged with the ratchet-wheel by the spring p^3.

The arm *p*, to which the rod O is connected, is made movable, so that the ratchet can be given a greater or less movement, and consequently propel the galley a greater or less distance each time it is operated by said rod. This is accomplished by attaching said arm *p* to the bar p^1 by a thumb-screw, p^4, which passes through a slot in said bar p^1, which enables it to be moved farther from or nearer to the shaft R, at pleasure. This gives said bar p^1 at each movement of the rod O a greater or less throw at its outer end; and as the dog p^2 is permanently affixed to this outer end, the greater its movement the greater will be the movement of the ratchet-wheel, and consequently the greater will be the distance that the rack-bar and the galley attached thereto will be driven.

A thumb-lever, p^5, is attached to the dog p^2, by which said dog can be disengaged from the ratchet-wheel by hand, in order that the galley may be moved back to its starting-point and a new list of addresses inserted.

In galleys of addresses in which there are several names to each post-office it is necessary that some means should be taken to inform the operator when he has reached the end of each list. A bell, U, is therefore provided. A pin, V, is inserted in a hole in the edge of the galley at the proper place, and this, as it moves along, pushes against the end of the rod W, and the latter, when it escapes from this pin, operates to strike the bell and thus give notice that the list of names is exhausted.

I usually provide a cabinet, X, containing shelves, drawers, &c., in which to place galleys, tools, and such other matters as are necessary to the proper working of the machine. I also prefer to have the galleys driven from left to right, as shown in the drawings; but these matters, as well as some other details, can be varied without destroying the essential value of my invention.

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

1. The combination of the downwardly-projecting arm F, having adjusting-holes *o o*, rod O, adjustable arm *p*, pawl P, and ratchet-wheel Q, substantially as herein shown and specified.

2. The combination, with the type-galley K, having a series of holes formed in the edges of its sides, of the adjustable foot-stick M, having corresponding downwardly-projecting pins to engage in said holes, and a set-screw, *m*, to secure the type in place, substantially as shown and specified.

3. The combination of the type-galley K, having a series of holes in its edge, the removable pin V, rod W, having spring attached thereto, and signal-bell U, substantially as herein shown and specified.

4. The combination of the treadle E, vibrating arm F, downwardly-projecting arm F^2, having holes *o o*, and rod O, substantially as shown and specified.

5. The combination of the arms F F^2, rod O, pawl P, ratchet-wheel Q, pinion S, rack-bar T, galley K, and ink-ribbon L, arranged and operating substantially as herein shown and described, and for the purposes specified.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 16th day of November, A. D. 1878.

DE LOS F. BELL. [L. S.]

In presence of—

C. BRADFORD,

WM. J. MILLNER.