(No Model.)

R. MORGAN, Dec'd.

O. S. KLINE, Administrator.

ADDRESSING MACHINE.

No. 342,375. Patented May 25, 1886.

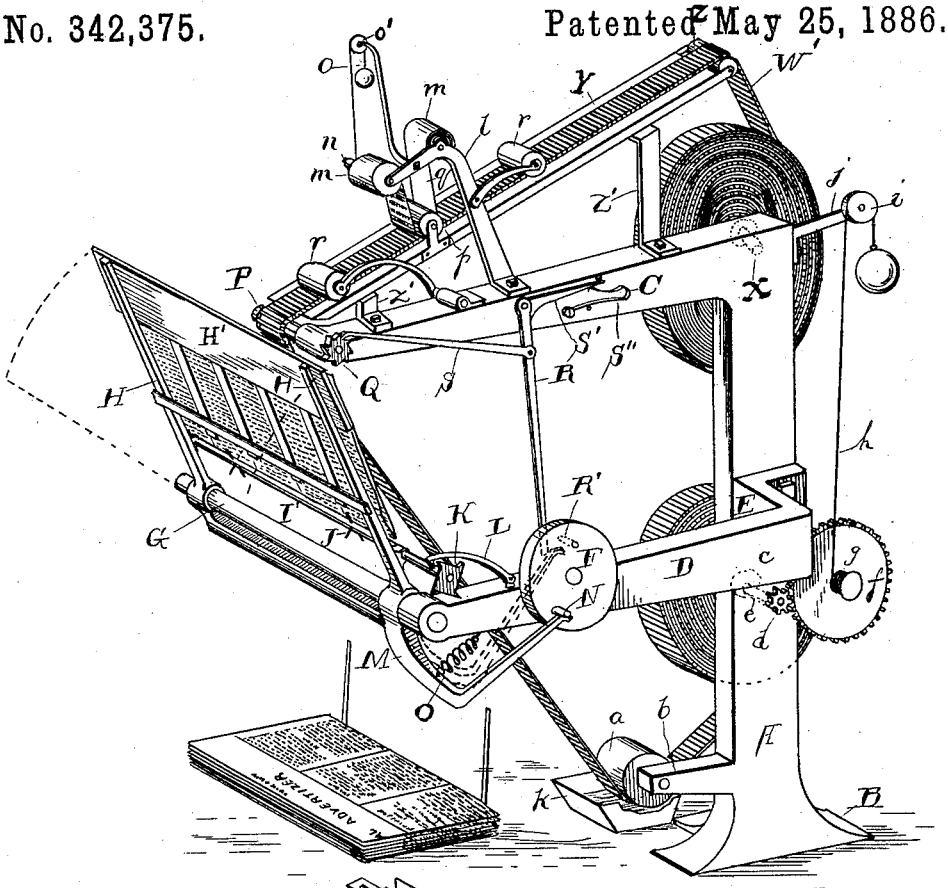

Fig. 1.

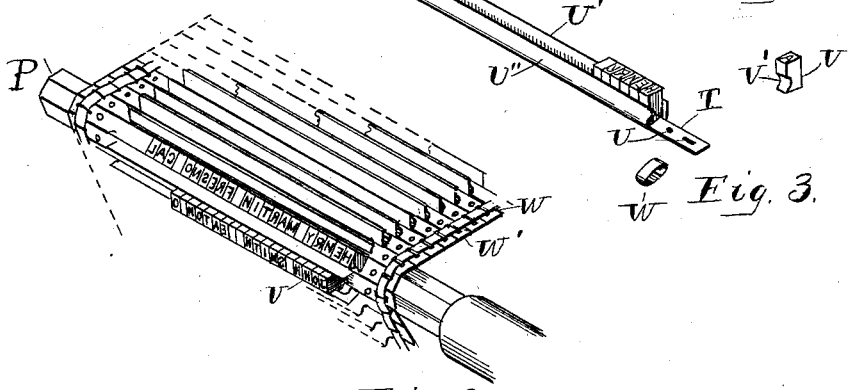

Fig. 3.

Fig. 2.

WITNESSES:

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UNITED STATES PATENT OFFICE.

ROBERT MORGAN, OF CINCINNATI, OHIO; O. S. KLINE ADMINISTRATOR OF SAID MORGAN, DECEASED; ASSIGNOR, BY MESNE ASSIGNMENTS, TO SAID O. S. KLINE, OF LOUISVILLE, KENTUCKY.

ADDRESSING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 342,375, dated May 25, 1886.

Application filed August 22, 1884. Serial No. 141,211. (No model.)

To all whom it may concern:

Be it known that I, ROBERT MORGAN, of Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and useful Improvement in Addressing-Machines, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a perspective view of my improved addressing-machine. Fig. 2 is an enlarged perspective view of the roller and a portion of the belt bearing the type pallets or holders; Fig. 3, an enlarged perspective view of the pallet.

The present invention relates to an improved machine for addressing newspapers, circulars, wrappers, envelopes, &c.; and it consists of an upright frame having horizontal arms, to the outer end of which is journaled a roller, over which a belt composed of a series of pallets to receive the name and address is passing. A fly, designed to receive thereon the newspaper, &c., to be addressed, is operated by means of an arm engaging with a lug on the driving-pulley, and impresses the paper, &c., against the horizontal pallet on the roller. Suitable weights and pulleys are provided for winding up the belt after passing the impression-roller, and also for operating a series of rollers carrying thereon a tape, by means of which a proof of the addresses may be taken. By means of this device the papers may be addressed as fast as they are received from the press or folding-machine, all of which will now be fully set forth in detail.

In the accompanying drawings, A is an upright post formed of any suitable material, but preferably metallic. This post is provided with a suitable base, B, by means of which it may be secured in position. An arm, C, is provided at the upper end extending out at right angles thereto. Intermediately between the base and the arm C, I provide a second arm, D, parallel with the said arm C, but brought out somewhat laterally by means of the angle E. Outwardly upon the arm D a pulley, F, is journaled, to receive the motive power for the device by means of a belt; or a crank may be attached to the outer face of said pulley, so that if found desirable the motive power may be applied in that manner. The outer end of said arm D has a transverse shaft, G, journaled thereto at one end, and upon the said shaft I provide a pair of arms, H, and connecting therewith a series of transverse pieces, the whole forming a fly, H′. Inwardly at the lower part of this fly I provide a transverse shaft, I, having therein lugs or pins J, which are designed to receive the lower edge of the paper which rests thereon. A ratchet-wheel, K, is placed on the end of this shaft I, and has a pawl, L, secured on the upper face of the arm D, which is designed to engage therewith. An arm, M, extending downwardly from the shaft G, and curving nearly at right angles, engages with a lug, N, on the face of the pulley F. A spring, O, is designed to be secured to the arm M at one end, and the opposite end secured to the lower side of the arm D. By means of this said spring O, the fly H′ when in its normal position has its upper end extending outwardly somewhat at an angle, as shown by the dotted lines. The said outer end of the arm C is provided with a roller, P, journaled at one end thereto. On one end of the roller a ratchet, Q, is secured. A lever, R, secured at its upper end to the side of the arm C, projects downwardly and engages at its lower end with a lug, R′, on the inner face of the pulley F. A short distance downward from the upper end of the lever R, I provide a pawl, S, pivoted thereto at one end, the upper end extending to and engaging with the ratchet Q. An arm, S′, extends from the opposite side of the lever K and has a spring, S″, engaging therewith.

Fig. 3 shows a form of pallet or type-holder to be used with this device, consisting of a metallic piece, T, having at the ends openings U. One side of this said metallic piece is turned up at right angles, U′, while the opposite side is also turned upwardly, but having a longitudinal crease, U″, inwardly. Within the space formed by these two upturned sides I place a series of type provided with recesses V′, to correspond with the crease U″ of the pallet. This type is shorter than the ordinary type, and is firmly held by means of said crease. The type is slipped into said pallet from one end. I design to provide a large

number of these pallets T, which are connected together by means of links W through the slots at the ends of the pallet. These pallets connected together form the belt W'. This belt W' is wound upon the spool X, journaled at the upper end of the post A. An inclined plane, Y, extends upwardly from a point inwardly from the roller P, and is provided at its upper end with a roller, Z, and the whole secured in position by means of suitable brackets, Z'. The end of the belt W', extending up over the roller Z, passes down the inclined plane around the roller P, and thence downwardly around the roller *a*, journaled to the arm *b*, extending outwardly from the post A, after which it is wound around a spool, *c*. A pinion, *d*, is placed upon the shaft *e*, and engaging therewith is a gear-wheel, *f*, journaled to the side of the post A. The outer face of this said gear-wheel *f* is provided with a spool, *g*. Around this spool *g*, I provide a weight and cord, *h*, extending upwardly and passing over a pulley, *i*, journaled to the arm *j*, extending outwardly from the post A. A receptacle, *k*, containing benzine or lye, is placed beneath the roller *a*, for the purpose of immersing the type within the pallets in passing beneath the said roller, for the purpose of cleaning the type. Brushes (not shown in the drawings) may be placed in this receptacle to aid in effecting this purpose. An arm, *l*, extending upwardly from the arm C, has journaled thereto a pair of rollers, *m*. One of the said rollers is designed to have the spool *n*, at one end of which is secured a weight and cord, *o*, extending over the pulley *o'*. Beneath the said roller *m*, I provide a roller, *p*, journaled to the inclined plane Y. A paper ribbon, *q*, wound around one roller *m*, passes beneath the roller *p*, and, pressing upon the type within the pallets, takes an impression therefrom, and is wound upon the opposite roller by means of the cord and weight *o*. This impression is taken for the purpose of correcting the list. Suitable inking-rollers, *r*, are provided over this inclined plane Y for the purpose of inking the type-belt W'.

On the application of power to the pulley F the lever R, engaging with the lug R', is moved laterally, carrying with it the pawl S, which, engaging with the ratchet Q, turns it slightly. This brings one of the pallets of the belt W' out horizontally on the face of the roller T. Then the lug N, on the opposite side of the pulley from the lug R', engages with the end of the arm M, which moves it downward, thus bringing the fly H' containing the newspaper, &c., up against the said pallet containing the type. The type within the pallets of belt W' are inked by means of rollers *r*. The paper upon the fly being impressed against a single pallet containing the name and address of the subscriber, the said paper is addressed. The revolution of the pulley F releases the stud N from the arm M up into the position, as shown by the dotted lines, and the fly H' is moved outwardly from the pallet or type-holder by spring O, as indicated by the dotted lines. The outward movement of the fly engages the ratchet K with the pawl L, which turns the shaft I and the pins J, thus permitting the paper, &c., upon the said pins J to be detached from the fly and fall beneath. The papers, &c., being fed in from the top, the succeeding movements of the device are similar for the impression upon the paper as those just described. The weight and cord *h*, attached to the gear and pinion *g* and *d*, acting on the spool *c*, winds the belt W' thereon as fast as it is unwound from the roller above by the action of the machine.

I design to place this device in such a position relative to the press or folding-machine, so that the papers therefrom may be deposited upon the fly as fast as printed or folded. When used in this connection, it will be necessary to gear the device to a speed corresponding with the said press or folding-machine. If, however, this is not desirable, the speed may be regulated as found convenient, or it may be used separately by itself.

What I claim is—

1. In an addressing-machine, the combination, with the main frame, of the type-carrying belt, the spool X, pulley Z, inclined plane Y, roller P, its intermittent actuating device, constructed and operating as described, the roller *a*, spool *c*, the gears therefor, and the winding-up device, substantially as described.

2. In an addressing-machine, the combination, with the type-carrying belt actuated intermittently, as described, of a fly, the arm M, and spring O, applied to its oscillating shaft, and the tappet or stud on pulley F for giving intermittent vibration to said fly, substantially as described.

3. The combination of the fly H', the shaft I, bearing pins J, and a ratchet-wheel, K, the pawl L, engaging with said ratchet-wheel, arm M, and wheel F, substantially as described.

4. In an addressing-machine, the combination, with the type-carrying belt and its inclined guides, of a standard fixed to the main frame, the rollers *m m j*, the ribbon thereon, and a winding-up device, substantially as described.

5. The combination, in an addressing-machine, of the type-carrying belt, the inking and proofing devices, as described, the pawl and ratchet Q S, the inclined plane, the fly and its actuating device, as described, and a driving-pulley common to both the roller P and the said fly, substantially as described.

6. The combination, in an addressing-machine, of a type-carrying and type-inking device, as described, a proof-taking device, as described, and a fly, all actuated intermittently, and receiving their movement from a single pulley, F, through the means substantially as described.

7. The combination, in an addressing-machine, of a type-carrying belt, its winding-up and unwinding devices, as described, a fly, an inking device, as described, a roller, *a*, and a receptacle, *k*, adapted to contain a type-cleaning fluid, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 5th day of July, 1884, in the presence of witnesses.

ROBT. MORGAN.

Witnesses:
C. D. ZERBE,
A. BRENNAN.