

(No Model.)

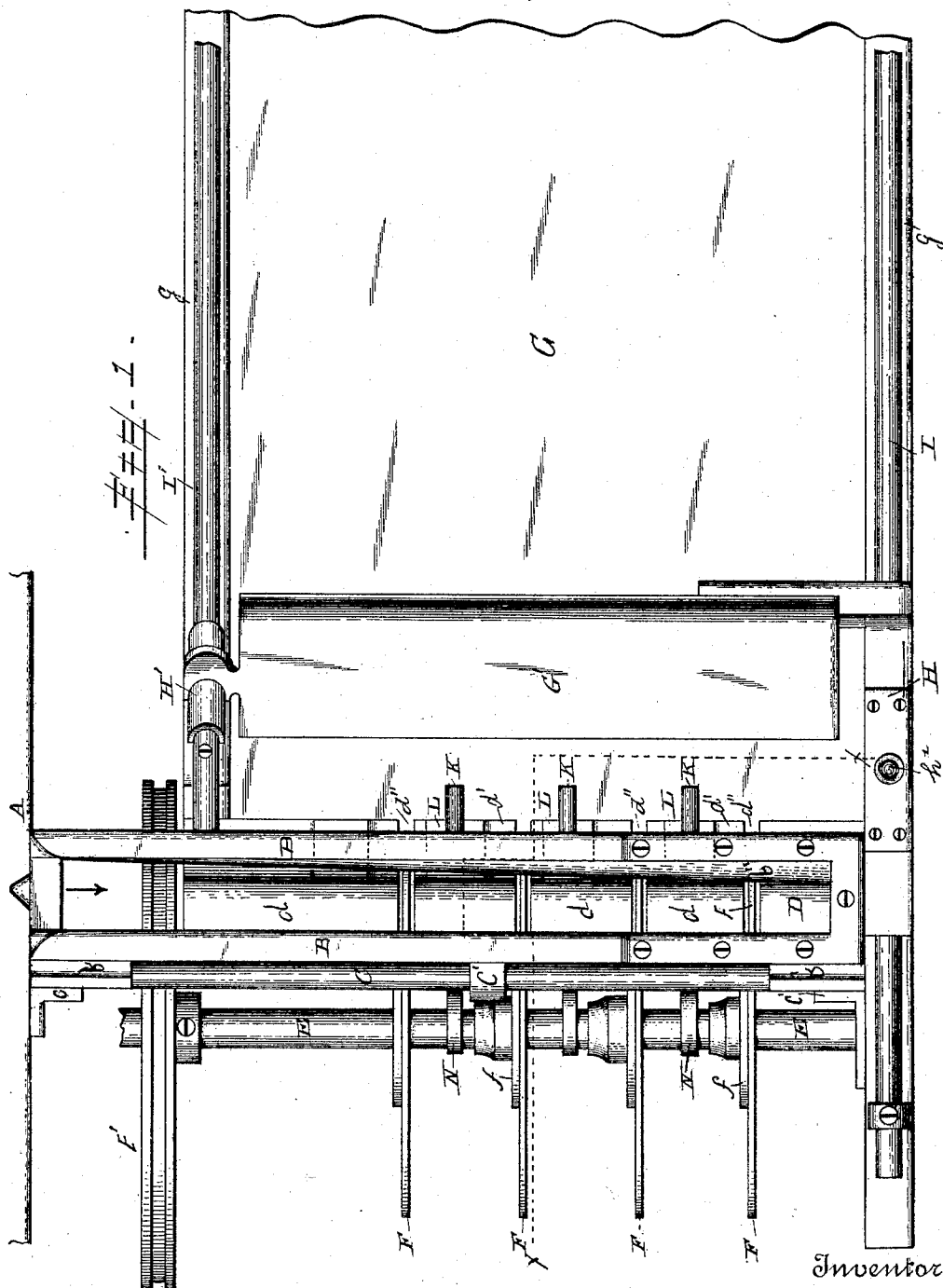
2 Sheets—Sheet 1.

M. J. DOLPHIN.

DELIVERY APPARATUS FOR POSTMARKING MACHINES.

No. 467,682.

Patented Jan. 26, 1892.



Witnesses

Albert B. Blackwood
Jas A. Blackwood

Inventor

Matthew J. Dolphin

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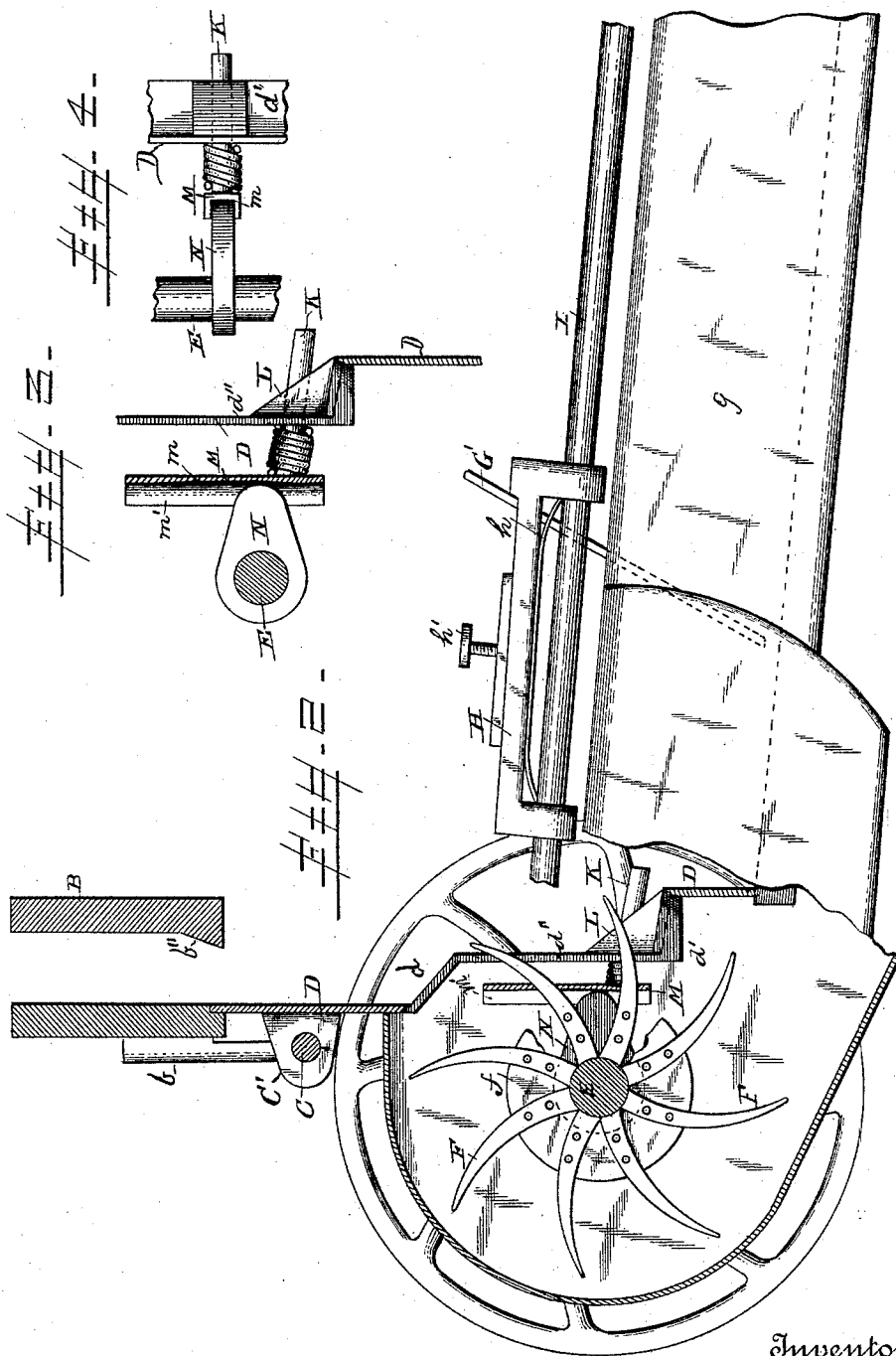
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UNITED STATES PATENT OFFICE.

MATTHEW J. DOLPHIN, OF BROOKLYN, NEW YORK.

DELIVERY APPARATUS FOR POSTMARKING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 467,682, dated January 26, 1892.

Application filed February 15, 1890. Serial No. 340,626. (No model.)

To all whom it may concern:

Be it known that I, MATTHEW J. DOLPHIN, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Delivery Apparatus for Postmarking-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a delivery mechanism designed more particularly to be employed as an attachment to machines for post-marking letters, cards, packages, &c., and canceling the stamps thereon, though it is equally well adapted for use with other machines.

It has for its object the improvement of the stacking-machine, which is the subject of my application for a patent, filed September 14, 1889, Serial No. 323,945, whereby the letters and packages passing through the canceling and post-marking machine are received by the stacker and packed in an efficient and orderly manner upon an adjacent tray.

The invention embraces a guide passage or chute, into which the letters are projected, a deflector for guiding them from said passage or chute, a flier-conveyer for receiving the letters from the deflector and placing them one against the other on the tray, and a series of automatic push-bars which press the letters as they are delivered from the flier-conveyer against a follower, sliding along the receiving table or tray.

The invention consists in the several novel details of construction and combinations of parts as hereinafter described, and set forth in the appended claims.

In the accompanying drawings, Figure 1 is a plan view of my improved device with the outer portion of the tray broken away and with the shield removed from around the working parts. Fig. 2 is a sectional view on the line *xx* of Fig. 1 and showing the tray and follower in elevation. Fig. 3 is a detailed view showing the construction of the push plate and bar with its operating-cam, and Fig. 4 is a plan view of the same.

Similar letters of reference indicate corresponding parts in all the views.

A represents a small portion of the table of the letter-marking machine, which machine may be of any desired construction. The letters pass in a longitudinal upright position through the feed-rollers and then through the marking and impression rollers of the machine, and are fed therefrom in the direction of the arrow.

The guide passage or chute B comprises two parallel plates secured in a vertical position at a proper distance apart, Fig. 2. It is open at the bottom and at the end adjacent to the marking-machine and closed at the opposite end. From the ends of the guide-chute depend arms *b b'*, to which are secured a rod C, which passes through a bracket C', secured at the rear of the plate D.

To the edge of the table A is secured a rest *c*, and to the side frame of the stacker a rest *c'*, Fig. 1, in which rests are supported the ends of the rod C when the guide-chute is in position for work. When so desired, the chute may be slid away from the table until the depending arm *b'* comes in contact with the bracket C', and the chute may be swung backward and downward, the bracket and rod C forming a hinge-joint. The chute may thus be moved out of the way to give access to the parts beneath. The outer end of the chute is supported on the side frame of the stacker, and when in working position the open end rests on a lug on the edge of the machine-table.

On the frame of the stacker is mounted the deflector D, extending vertically downward from one side of the open bottom of the guide-chute B, Fig. 2, and having an offset *d* extending under the chute and inclined toward the receiving-tray G. From this offset the deflector is again vertical to a step *d'*, and thence again vertical to the base of the tray. On this step are mounted a series of triangular guide-blocks L, the outer faces of which are inclined toward the tray.

In the rear of the central vertical part of the deflector D there is journaled in the framework the shaft E of flier-conveyer F. The shaft bears at one end a pulley E', to which

rotating motion may be applied from any convenient part of the main machine. On the shaft E are mounted a number of hubbed disks *f*, to each of which is secured a series of curved fingers, which, in the rotation of the shaft, extend through slots *d''* cut for them in the deflector-plate D.

In bearings slightly inclined in the guide-blocks L are mounted pressure-bars K, to the rear ends of which are secured upright contact-plates M, having slightly-curved bearing-surfaces *m*, Fig. 3, and provided with side wings or flanges *m'*, which embrace cams N, carried by the shaft E and keep said contact-plates in a vertical position. On the bars K, between the deflector D and the plates M, are placed spiral springs, which, keeping said plates in contact with the cams, serve to retract said bars within their bearings.

The table or tray G may be of any desired construction and supported in any suitable manner, with its inner edge adjacent to the deflector D. It is here shown as having side flanges *g*, and downwardly inclined to facilitate the movement of the stacked letters over it.

Above the sides of the tray are supported guide-rods I I'. On one of these, as I, is mounted a sliding bracket H, the vertical arms of which embrace said rod. To the bracket is secured one end of the follower G', the other end of which bears an open sleeve, resting on the guide-rod I'. The body of the bracket carries a spring *h*, the frictional bearing of which on rod I is adjusted by a set-screw *h'*.

In order to secure the horizontal position of the letters as they are fed out from the marking-machine into the guide passage or chute B, so that they may drop squarely from the chute when free of the machine, one of the walls of the chute is provided on its lower edge with a flange *b''*, tapering longitudinally, Fig. 1, and having its face beveled or curved, Fig. 2.

In the operation of the mechanism the letters, cards, packages, &c., issuing from the marking-machine are projected into the guide passage or chute B, their front ends being supported by the flange *b''* until they are entirely free, when they drop upon the deflector D, the inclined set-off *d* whereof directs each letter sidewise from beneath the open bottom of the chute and out of the way of a succeeding letter. Thence they fall before the flier-conveyer F, the fingers of which press them successively forward into the receiving-tray, stacking them against the follower G'. At each rotation of the shaft E the cams N, acting upon the plates M, force outward the presser-bars K, by which the stack of letters accumulated before the follower G' is, with the follower, driven outward on the tray, leaving open space at the entrance thereto

for succeeding letters. When the follower nears the lower end of the tray, or whenever desired, the follower may be swung upon the rod I, free of the stack, its bracket H pushed upward on the rod, and the follower again lowered to the tray adjacent to the flier-conveyer to support another stack, while that below the follower may be removed without disturbing the operation of the mechanism. A removable shield covers and protects the flier-conveyer.

The general construction of the guide passage or chute, the deflector, the flier-conveyer, and the tray and follower and the combinations thereof with the stamping or marking machine and with each other are not herein claimed, as those matters are the subject of my former application, hereinbefore mentioned; but

What I do claim is—

1. The combination, with the table of a post-marking-machine and a letter-stacking apparatus, substantially as described, of a guide-chute pivotally mounted above the latter.

2. The combination, with the table of a post-marking-machine and a letter-stacking apparatus, of a guide-chute connecting the two and mounted above the latter, substantially as described, so that it may be slid longitudinally and thrown over, as on a pivot, as set forth.

3. The guide passage or chute having arms carrying a rod C, combined with the bracket C', centrally supporting said rod, and the rests *c c'*, whereby said chute is supported in working position and made movable longitudinally and laterally, as on a hinge, substantially as set forth.

4. In a letter-stacker, the combination of the rotating flier-conveyer and the reciprocating pressure-bars, substantially as described.

5. In a letter-stacker, the combination of the rotating flier-conveyer, the reciprocating presser-bars, the receiving-tray, and the yielding follower, substantially as described.

6. In a letter-stacker, the combination, with the deflector having step *d'* and guide-blocks L, of the presser-bars K and their actuating-cams, substantially as described.

7. In a letter-stacker, the combination of the shaft E, carrying the flier-conveyer fingers and the cams N, the presser-bars K, and their springs and bearing-plates, substantially as described.

8. The combination of the shaft carrying the flier-conveyer fingers and cams, the deflector slotted for said fingers and having guide-blocks, the presser-bars mounted therein, and the springs and bearing-plates on said bars, substantially as described.

9. The combination of a block L and a presser-bar K, bearing an upright flanged plate M, with a cam N, working between the flanges, and a spring keeping the plate in

contact with the cam, substantially as described.

10. The combination of the guide-chute, the slotted deflector having a step and guide-
5 blocks, the rotating flier-conveyer, the reciprocating presser-bars, and the receiving-tray, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

MATTHEW J. DOLPHIN.

Witnesses:

HENRY SULLIVAN,
C. E. HARTUNG.