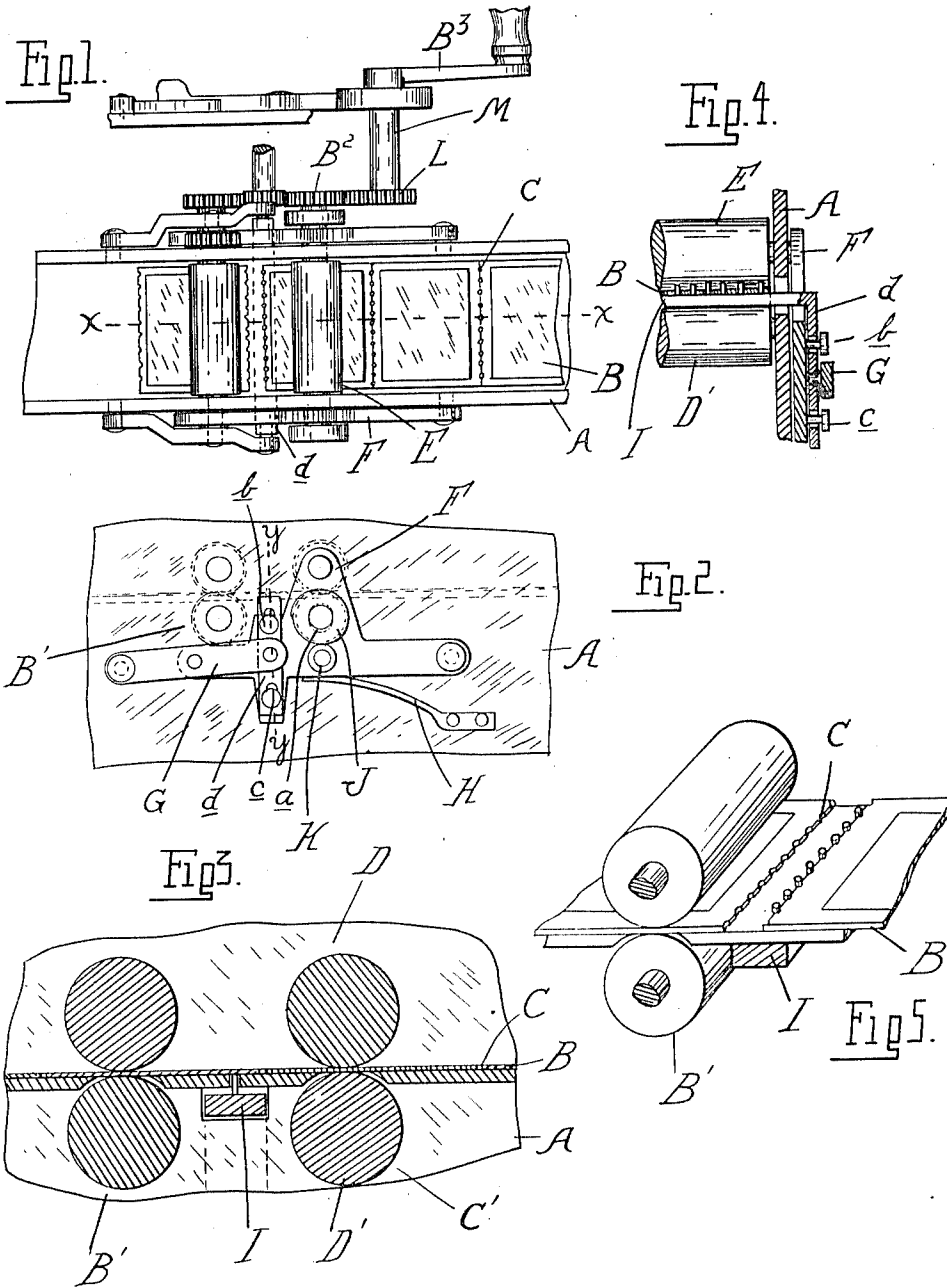


B. D. STRAIGHT.  
 STAMP OR LABEL DELIVERY MECHANISM.  
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Patented Sept. 2, 1913.



Witnesses  
 W. L. Ford.  
 H. B. Kenaf

Inventor  
 B. D. Straight  
 Whittum, Hulbert Whittum  
 Attorneys

# UNITED STATES PATENT OFFICE.

BENNETT D. STRAIGHT, OF DETROIT, MICHIGAN, ASSIGNOR TO MAIL-OM-ETER COMPANY, OF DETROIT, MICHIGAN, A CORPORATION OF MICHIGAN.

## STAMP OR LABEL DELIVERY MECHANISM.

1,072,055.

Specification of Letters Patent.

Patented Sept. 2, 1913.

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*To all whom it may concern:*

Be it known that I, BENNETT D. STRAIGHT, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Stamp or Label Delivery Mechanisms, of which the following is a specification, reference being had therein to the accompanying drawings.

The object of the invention is to produce a mechanism for delivering stamps or labels, so constructed that the delivered stamp may be severed from the usual strip along the proper division line, thereby avoiding the mutilation of the next succeeding stamp or label, and it consists in the novel and simple construction of the delivery mechanism, and further in the peculiar arrangement and combination of its parts, as will be more fully hereinafter set forth.

In the drawings,—Figure 1 is a plan view of a delivery mechanism embodying my invention; Fig. 2 is a side elevation; Fig. 3 is a vertical central section on line  $x-x$  Fig. 1; Fig. 4 is a section on line  $y-y$  of Fig. 2; and Fig. 5 is a perspective of the feed rolls, showing the relation of the finger bar thereto.

For the purpose of illustration, I have shown the invention as embodied in a hand-operated mechanism capable of use in vending machines where the stamp may be severed by the purchaser, or means for detaching the delivered stamp from the strip may be employed if desired. The mechanism is also shown as adapted for use in connection with a strip of stamps or labels having openings or perforations formed therein between adjoining stamp sections, constituting the division lines. In this particular type of mechanism, A represents a suitable supporting frame on which the various parts are mounted.

B represents a series of connected stamps or labels, in the form of a strip, the stamp sections being divided one from another by transverse series of openings or apertures, as C.

D represents mechanism for intermittently advancing the strip, comprising a pair of feed rollers C', a pair of delivery rolls B' spaced from the first-mentioned rolls, and a gear train B<sup>2</sup> for driving the rolls simultaneously, the gear train being operated in this instance by a crank B<sup>3</sup>. The delivery rolls are journaled in stationary bearings in the frame, and one of the feed rolls, as D', is journaled in stationary bearings, while the complementary roll E is journaled in the arms F of an oscillating frame composed of the said arms pivoted to the side of the main frame and complementary arms G loosely pivoted to the main frame and intermediate their ends to the arms F, as plainly shown in Fig. 2. A pair of springs H bear against and act constantly to elevate the oscillating frame, and the arms F of the latter are vertically slotted, as at  $a$ , for the shaft ends of the roll D', permitting upward movement of the frame and the disengagement of the feed rolls.

I represents a finger bar carried by the oscillating frame and adapted to reciprocate vertically between the sides of the main frame intermediate the feed and delivery rolls. At its ends the finger bar is provided with studs  $b$  and  $c$ , which extend within bearings within uprights  $d$  interposed each between the arms F and G of the oscillating frame. These uprights in turn are pivoted to the inner free ends of the arms G. Arranged upon each end of the feed roll D' is a cam J adapted to bear upon a roller K upon the arm F of the oscillating frame. The gear train described between the two sets of rollers preferably drives the latter at the same speed, and one end of the gear train meshes with a pinion L upon the crank shaft M.

In Fig. 2 of the drawings the several parts of the mechanism are shown in a position where a stamp has just been severed from the strip, and the latter is in a position to be advanced for the delivery of another stamp section. Upon initial rotation of the roll D' through the agency of the hand crank, the cams J engage the rollers

K upon the oscillating frame, causing a depression of the latter, the withdrawal of the fingers from engagement with the free end of the strip, and movement of the roller E into engagement with the roll D', the parts being so proportioned and arranged that when the fingers are in an operative position for engaging the perforations the roller upon the oscillating frame is in an inoperative position in relation to its complementary feed roll. Upon the establishing of a feeding relation between the feed rolls, the strip on continued movement of the crank is advanced and the oscillating frame is held depressed until the end of the strip engages between the delivery rolls. The cams then pass out of engagement with the rollers K, allowing the return of the oscillating frame and the engagement of the fingers upon the under surface of the strip, this movement taking place prior to the registration of the fingers with the openings or perforations between the stamp or label sections. The advancement of the web or strip continues until the registration is effected between the fingers and perforations, when the frame is elevated and the fingers automatically projected into the strip openings.

In the preferred form of the mechanism, the advancement of the web ceases immediately upon the engagement of the fingers with the strip openings, while the delivery rolls continue to operate, thereby severing the delivered stamp or label from the strip. It will be obvious, however, that the mechanism may be so modified that the delivered stamp or label may remain in contact with the strip, merely the proper positioning and holding of the strip section being effected. In this latter type of mechanism, the severing would be done by the operator.

It will be understood from the foregoing description of the delivery mechanism that the operation of the strip-engaging means is controlled by the advancing strip itself. Thus, the delivered stamp or label section is always held for severance along its proper division line, regardless of any inaccuracies that may be present in the strip owing to the inaccurate perforating, or expansion and contraction of the strip section.

What I claim as my invention is,—

1. In a stamp or label delivery mechanism, the combination with mechanism for advancing a strip of stamps or labels formed with a series of transverse perforations between adjoining stamp sections, of means controlled by the advancing strip for engaging the series of openings, and means for severing from the held strip the section to be detached.

2. In a stamp or label delivery mechanism, the combination with a feed mechanism comprising pairs of feed and delivery

rolls spaced apart, of a spring-actuated oscillating frame carrying one of the feed rolls, strip-engaging fingers mounted upon the frame intermediate the pairs of rolls, means for depressing the frame at the initial operation of the feed mechanism, and means for subsequently releasing the frame.

3. In a stamp or label delivery mechanism, the combination with mechanism for advancing a strip of stamps or labels, said mechanism being adapted to contact with and hold said strip at spaced points along its length, of spring-pressed means positioned for engagement with the strip between the points of contact of the feed mechanism, mechanism for holding said means and strip in an inoperative relation until the two-point contact is effected, and a releasing mechanism for the said spring-pressed means.

4. In a stamp or label delivery mechanism, the combination with mechanism for advancing a strip of stamps or labels, the adjacent sections of the strip being separated by transverse lines of perforations, of fingers positioned for engagement with the perforations, means for effecting an inoperative relation between the fingers and the strip to permit the advancement of the latter, and means acting automatically upon the registration of the fingers and strip openings for effecting an interengagement between the perforations and fingers whereby further advancement of the stamp is prevented.

5. In a stamp or label delivery mechanism, the combination with means for advancing a perforated strip of stamps or labels, of fingers positioned for engagement with the perforations, means for effecting an inoperative relation between the fingers and strips to permit of the advancement of the latter, means for automatically projecting the fingers within the strip perforations upon registration whereby further advancement of the strip is prevented, and means for subsequently severing the stamp or label from the whole strip.

6. In a stamp or label delivery mechanism, the combination with means for advancing a strip of stamps or labels, the adjacent sections of the strip being separated by transverse lines of perforations, of movable fingers arranged for engagement with the perforations, and means for shifting the fingers out of engagement with the strip to permit of its advancement and subsequently into engagement with the strip perforations.

7. In a stamp or label delivery mechanism, the combination of means for advancing a strip of stamps or labels, the adjacent sections of the strip being separated by transverse lines of perforations, of spring actuated oscillatory fingers controlling the operation of the feed and positioned for en-

gagement with the perforations, means for  
shifting the fingers into an inoperative po-  
sition to permit of the advancement of the  
strip, and means for releasing the fingers to  
5 allow of their engagement with the per-  
forated portion of the strip when the same  
registers with the fingers.

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

BENNETT D. STRAIGHT.

Witnesses:

NELLIE KINSELLA,  
W. J. BELKNAP.