(No Model.)

L. P. BOUVIER.

ENVELOPE MACHINE.

No. 422,286. Patented Feb. 25, 1890.

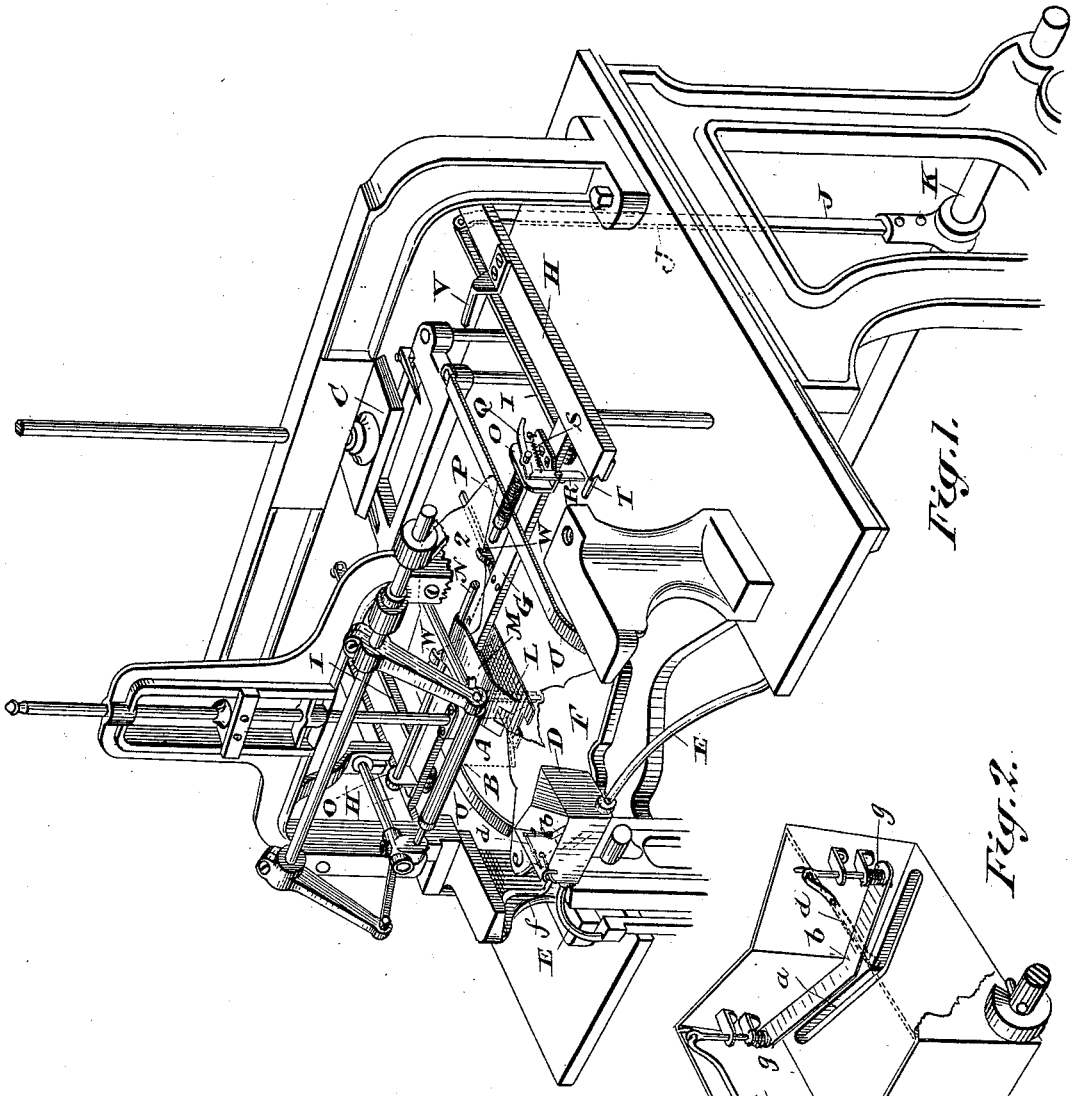

Fig. 1.

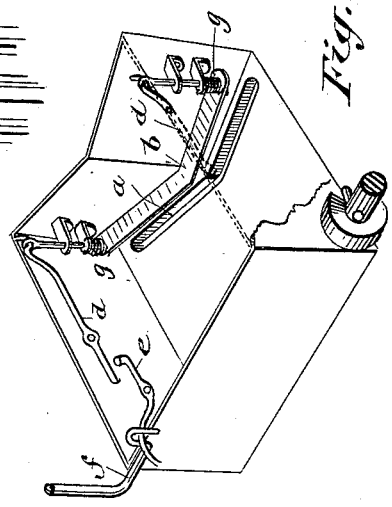

Fig. 2.

Witnesses.
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UNITED STATES PATENT OFFICE.

LOUIS P. BOUVIER, OF TORONTO, ONTARIO, CANADA, ASSIGNOR OF FORTY-FIVE ONE-HUNDREDTHS TO THOMAS JAMES CLARK, OF SAME PLACE.

ENVELOPE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 422,286, dated February 25, 1890.

Application filed November 1, 1888. Serial No. 289,729. (No model.) Patented in Canada January 29, 1889, No. 30,660.

To all whom it may concern:

Be it known that I, LOUIS PETER BOUVIER, machinist, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented a certain new and useful Improvement in Envelope-Machines, (which has been patented to me in Canada, No. 30,660, January 29, 1889,) of which the following is a specification.

The object of the invention is to simplify the mechanism by which the blanks are gummed and carried to the plunger; and it consists in the peculiar construction, arrangement, and combinations of parts hereinafter more particularly described, and then definitely claimed.

In the accompanying drawings, Figure 1 is a perspective view of a portion of the envelope-machine connected with my invention. Fig. 2 is an enlarged perspective view, partially in section, of the gum-dish.

As the general construction of an envelope-machine is now well understood, and as my present invention relates only to an improved gumming-dish and mechanism for conveying the blanks from the gummers to the folder, it is not necessary to show in the drawings the general construction of an envelope-machine. It will be sufficient to say that A is what is called the "picker," which derives a reciprocating vertical movement, and at each upward movement of the picker A a gumming-roller B is carried over its surface, so as to place a fresh supply of gum on it at each stroke. C is the plunger, which also moves vertically.

The picker and the plunger, with the mechanism for driving the same, forming no part in my invention, it is not necessary to explain their operation; but I merely refer to them to indicate their relative positions, in order that the construction and operation of my improved portion of the machine may be understood.

D is my improved gum-dish. This dish is pivoted at one side on the rod E and is supported at its opposite side by the pile of blanks F, which is carried on an elevator, as in other envelope-machines, arranged to move upwardly as each blank is removed from the top.

a is an opening in the bottom of the gum-dish D, through which the gum passes onto the top blank of the pile F. With the view of closing the opening *a* when the pile of blanks F is dropped away from the dish I suspend a plate *b* above the opening *a* and shaped to cover the said opening. The pivoted levers *d* are connected at one end to the pins which support the plate *b* and their other ends extend over pivoted levers *e*. The other ends of these latter levers extend below a bent finger *f*. By this arrangement of levers the tilting of the gum-dish D when the blanks are removed from beneath it causes the levers to force the plate *b* down to cover the opening *a*, which remains closed until it is once more raised, when the springs *g* force the plate *b* upwardly, so as to once more uncover the opening *a*.

G is a bar extending across the machine and supported by the guides H. At each end of this bar G a rod I is connected, which rods extend back and connect with vertical arms J, fixed to the rock-shaft K. This rock-shaft is connected to the moving mechanism of the machine, so that at each stroke it will carry the bar G from one end of the guides H to the other.

L is a finger—preferably a light plate—fixed to the bar G and designed to extend below the top blank when it is raised by the picker A. It is in this position that the finger L is shown in Fig. 1.

M is a correspondingly-shaped finger fixed to a rod N, which is journaled in brackets O, fixed to and carried by the bar G.

P is a spring wound upon the rod N and arranged so that its tension shall hold the finger L against the finger M. A dog Q is fixed upon the end of the bar G, and the pivoted finger R is held by the spring S under the end of the dog Q, so as to support the finger M clear of the finger L, in which position it is shown in Fig. 1, the finger L being below the top blank, while the finger M is above it. Immediately that the fingers L and M have reached this position the lower end of the finger R comes in contact with a stationary finger T, causing its upper end to move away from the dog Q, when by the tension of the spring P the finger M is carried against and

is caused to grip the top blank. At this instant the rock-shaft K commences to move on its return-stroke, carrying with it the bar G and its attachments referred to, the blank being supported by the guides U. By the time that the fingers L and M have carried the blank to the point where the blank marked 2 in the drawings is shown the tail of the dog Q comes in contact with the stationary finger V in such a manner as to tilt the rod N and release the blank. The finger R, by the tension of its spring S, is at this moment carried below the dog Q, supporting it in its initial position, and thus holding the finger M in position ready to pass over the top blank when the bar G is once more carried forward. Fingers W extend from the bar G and form supports for the blank marked 2, which is carried to the plunger C at the next stroke of the bar G. As each top blank is removed from the pile of blanks F the next blank is brought into contact with the bottom of the gum-dish D, receiving a sufficient supply of gum.

What I claim as my invention is—

1. A pivoted gum-dish D, having an opening formed in it and provided with a closing plate *b*, in combination with mechanism, as the lever *d* and its coacting parts, for operating said plate by the motion of the gum-dish, substantially as described.

2. The pivotal gum-dish D, having an opening *a* formed in it, in combination with the plate *b*, and levers, and a stationary finger so arranged that the tilting of the dish shall cause the plate *b* to close the opening *a*, substantially as and for the purpose specified.

Toronto, October 22, 1888.

LOUIS P. BOUVIER.

In presence of—

CHARLES C. BALDWIN,

W. G. MCMILLAN.