No. 799,304. PATENTED SEPT. 12, 1905.

P. F. COX.

ENVELOP MOISTENER AND SEALER.

APPLICATION FILED JUNE 20, 1905.

Fig. 1.

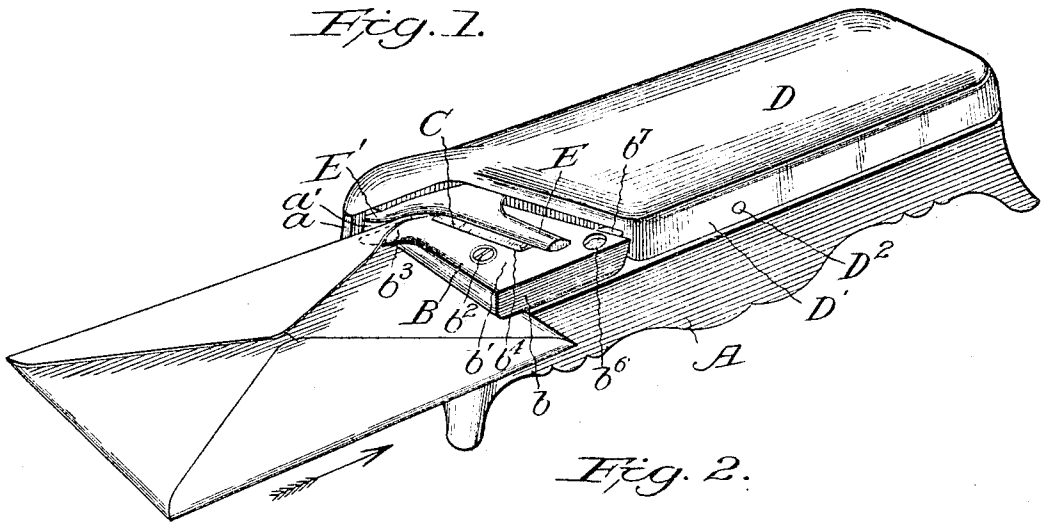


Fig. 2.

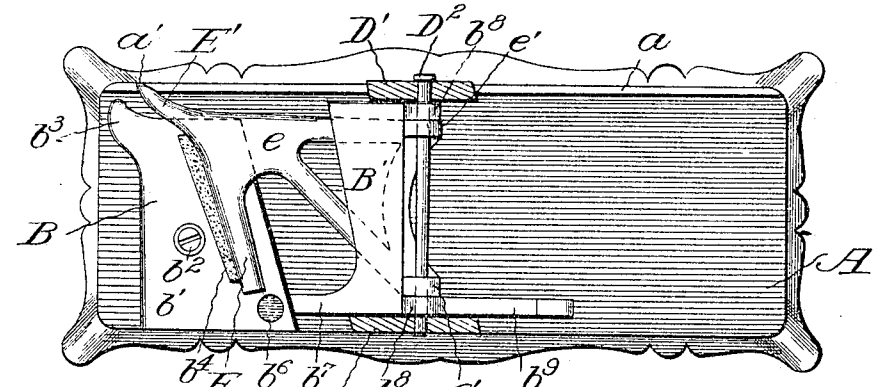


Fig. 3.

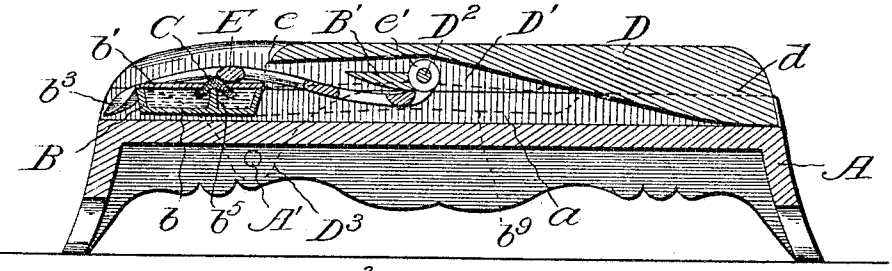
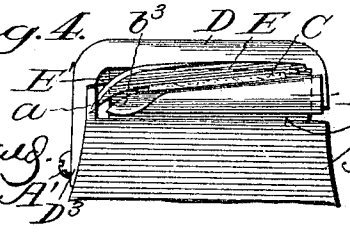


Fig. 4.



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ENVELOP MOISTENER AND SEALER.

No. 799,304. Specification of Letters Patent. Patented Sept. 12, 1905.

Application filed June 20, 1905. Serial No. 266,129.

To all whom it may concern:

Be it known that I, PAUL FLEMMING COX, of Battlecreek, in the county of Calhoun and State of Michigan, have invented certain new and useful Improvements in Envelop Moisteners and Sealers; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form part of this specification.

This invention is a novel device for moistening and sealing envelops. Its object is to provide a simple, efficient, and inexpensive machine by which envelops can be sealed rapidly and which is especially adapted for office use, requires no special skill to operate it, will moisten and seal the envelops as fast as they can be passed therethrough, and will be ornamental as a piece of desk furniture.

The invention consists, primarily, in the combinations of elements having characteristic modes of operation, and, secondarily, in peculiarities of construction of such elements, as set forth in the claims.

The accompanying drawings illustrate on a scale about two-thirds size a complete machine embodying the invention, which I will now describe in detail, with reference to said drawings, in which—

Figure 1 is a perspective view of the complete device. Fig. 2 is a plan view with the sealer-plate broken away. Fig. 3 is a central longitudinal vertical sectional view through the machine, the parts b^7 b^9, which are in advance of the section, being indicated in dotted lines. Fig. 4 is a detail end view of Fig. 1.

The base A of the device may be of any suitable size and ornamentation, preferably about eight inches long and flat-surfaced on top and having a low upstanding flange a on its rear edge to guide the envelops in their passage or movement through the device.

Pivotally mounted above the base A, near one end thereof, is the flap opener and moistener B, comprising a shallow water-pan b, preferably tapered from front to rear, so as to be quite thin at the edge adjacent the flange a, said pan being covered by a removable plate b', secured thereto by a screw b^2, and said plate having at its rear outer corner a thin projection b^3, adapted to enter under the envelop-flap and raise the flap, as indicated in Fig. 1, said projection b^3 forming the entering wedge-point of the flap-opener B. A preferably slightly transversely oblique slot b^4 is made in the plate b', through which projects a moistener C, of felt or other suitable material, either a pad or roller, a pad being shown supported in position by a rib b^5 in the pan b under the slot b^4, so as to cause the moistener C to project through the slot slightly above the top surface of the plate b'. The felt is supplied with moisture from the pan, which can be filled with water through an aperture b^6 in the plate.

The pan is attached at its outer inner corner to an arm b^7 on a plate B', which extends transversely of the base A and is provided with perforated ears b^8, by which it is hinged on a rod D^2, secured to and between depending flanges D' D' of a pivoted sealing-plate or sealer D, which overlies the base A and extends from the inner edge of the moistener and flap-opener B over the remainder of the top of the base. It will be noted by reference to Fig. 3 that the moistener and opener B is hung upon the pivoted end of the sealer and is supported thereby a slight distance above the top of the base. The plate B' is provided with an inwardly-extending arm b^9, which projects inward beyond the pivot or rod D^2 and engages the under side of the sealer to hold the part B in alinement therewith while suspended thereon; but while the part B cannot drop down upon the base it can swing upward, so as to accommodate itself to envelops and packages of different thickness or more or less filled. This sealer-plate is provided at its rear left-hand end with a depending lug D^3, which depends in rear of the flange a of the base and is apertured for the passage of a screw-bolt A', tapped into the rear side of the base and pivoting the sealer thereon. The opposite end of the sealer is weighted, as at d, and rests upon the top of the base at that end. The rear flange D' of the sealer lies above the flange a of the base; but the weighted end of the sealer drops below this flange a and, in connection with the lug D^3, prevents wabbling of the sealer and attached parts on the base, while allowing said sealer to swing sufficiently vertically to allow envelops to be passed between the sealer and base.

In order to insure moistening of the flap, I provide a presser-finger E, which rests lightly by gravity on the moistener C and is attached to the outer end of a plate e, which is provided with lugs e' on its inner end, by which it is strung on rod D^2, as shown. The plate e is curved so that it can pass beneath the plate B' and then up above the plate b, so that the

presser-finger rests upon the moistener, as shown. The presser-finger E is provided at its inner end with a downwardly and rearwardly curved extension E′, the point of which plays freely in a vertical notch *a′* in the flange *a* just in rear of the point of the opener, so that after the opener raises the flap the extension E′ will catch the flap and cause it to pass smoothly under the presser-finger E and insure its moistening.

It will be observed that the moistener and opener B and the presser-finger E are supported on the sealer D and that all the movable or operative parts are pivoted to the base through the lug D^3 and bolt A′, also that the moistener and opener and presser-finger can swing or yield upwardly relatively to the sealer and together with the sealer, and thus automatically accommodate themselves to the varying thicknesses of filled envelops, and that the weight of all the moving parts is used to give the desired pressure on the flap in sealing it.

The operation is as follows: After the envelops have been filled they are passed by hand, endwise and flaps uppermost, under the opener, moistener, and sealer, the top edge of the envelop being kept against the flange *a* as a guide. As the envelop is passed under the opener the point b^3 catches under the flap and lifts it, so that it passes above or over the moistener, while the body of the envelop passes thereunder. The presser-finger E lightly presses the gummed edge of flap into contact with the moistener C as the envelop is moved endwise therepast, and then as the envelop is drawn out the weighted end *d* of the sealer presses the moistened flap down smoothly and securely upon the body of the envelop, sealing it exactly after the manner that it is sealed by hand, the whole operation taking place in the time required to pass the envelop endwise through the machine. As the opener, moistener, and sealer are all self-adjusting, thick and thin envelops may be passed through in alternation and all will be successfully and properly sealed without any manipulation of adjustments.

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

1. In an envelop moistener and sealer, the combination of a device for opening the flaps, means for moistening them, and a gravital sealing-plate.

2. In an envelop moistener and sealer, the combination of a device for opening the flaps, means for moistening them, a presser for holding the flaps in contact with the moistener, and a gravital weighted sealing-plate.

3. In an envelop moistener and sealing device, the combination of a base, a gravital sealer pivoted thereon under which the envelops are passed by hand, and a flap-moistening device in advance of said sealer.

4. In an envelop moistening and sealing machine, the combination of a base, a gravital sealing-plate attached thereto, and a moistener pivotally attached to the sealer, substantially as described.

5. In an envelop moistening and sealing machine the combination of a base, a gravital sealing-plate attached thereto, a flap-opener, and a moistener pivotally attached to the sealer, substantially as described.

6. In an envelop moistening and sealing device, the combination of a base, a sealer thereon under which the envelops are passed by hand, and a flap opening and moistening device in advance of and suspended from the said sealer.

7. In combination a base, a gravital sealing device, a flap-opener pivoted to said sealer, a moistener mounted on said opener, and a presser adapted to cause the flaps to contact the moistener, substantially as described.

8. In combination a base, a gravital sealing-plate pivoted thereto, a flap-opener pivoted to said sealer, a moistener mounted on said opener, and a presser pivoted to the sealer and adapted to cause the flaps to contact the moistener, substantially as described.

9. In combination a base provided with a guide-flange at rear, and a gravital sealer-plate pivoted to the base near one end and having its other end resting upon the top of base, substantially as described.

10. In combination, a base provided with a low flange at rear, and a sealer having one end pivoted to the base near one end thereof, and its other end resting upon the top of base near the other end thereof.

11. In combination, a base provided with a guide-flange at rear, and a gravital sealer-plate pivoted to the base near one end and having its other end resting upon the top of base; with a moistening device pivotally connected to and supported by the sealer-plate, substantially as described.

12. In combination, a base provided with a low flange at rear, and a sealer having one end pivoted to the base near one end thereof, and its other end resting upon the top of base near the other end thereof; with a moistening device pivotally connected to and supported by the sealer-plate, substantially as described.

13. In combination, a base provided with a guide-flange at rear, and a gravital sealer-plate pivoted to the base near one end and having its other end resting upon the top of base; with a moistening device pivotally connected to and supported by the sealer-plate, and a presser-plate overlying the moistening device and pivoted to the sealer-plate.

14. In combination, a pivoted moistening device, with a pivoted presser-plate overlying the moistener, substantially as described.

15. In combination a moistening device, a yielding presser-plate overlying the moistener, a flap-opener connected with the mois-

tening device, and a flap-catcher connected to the presser-plate and lying adjacent to the flap-opener, substantially as described.

16. In combination a base having an upstanding flange at rear, a moistener and flap-opener pivotally mounted above the base, and a presser-plate and flap-catcher pivotally mounted above and coacting with the moistener and opener, substantially as described.

17. In combination a base having a low upstanding flange at rear, a sealer pivotally mounted above the base, a moistener and flap-opener pivotally suspended on said sealer, and a presser-plate and flap-catcher pivotally mounted above and coacting with the moistener and opener, substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

PAUL FLEMMING COX.

In presence of—
JAMES R. MANSFIELD,
LILLIAN E. WITHAM.