W. H. SEDDON.

ENVELOP MOISTENER AND SEALER.

APPLICATION FILED MAY 16, 1912.

1,067,687.

Patented July 15, 1913.

3 SHEETS—SHEET 1.

Fig. 1

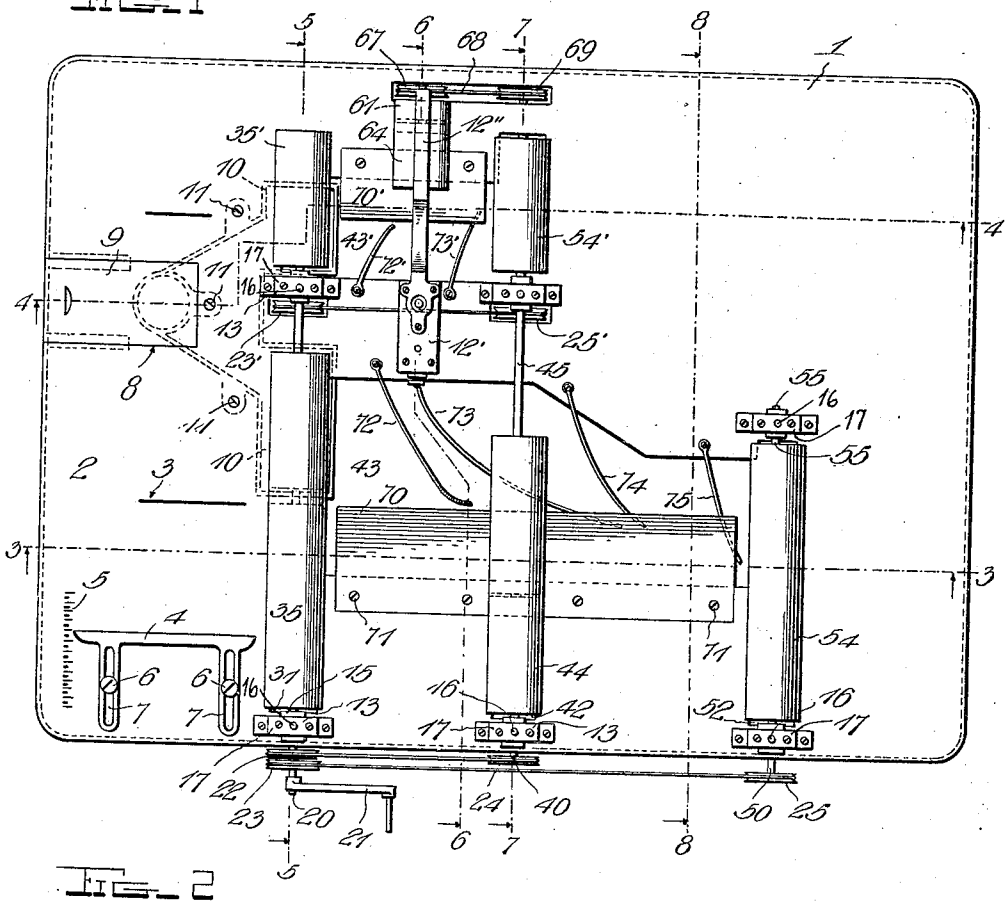
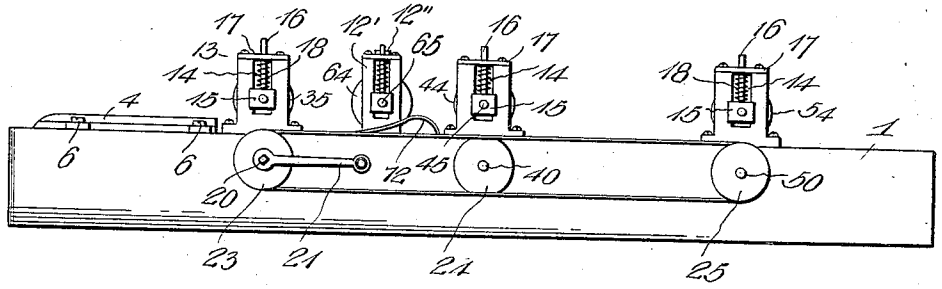


Fig. 2



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3 SHEETS—SHEET 2.

Fig. 3

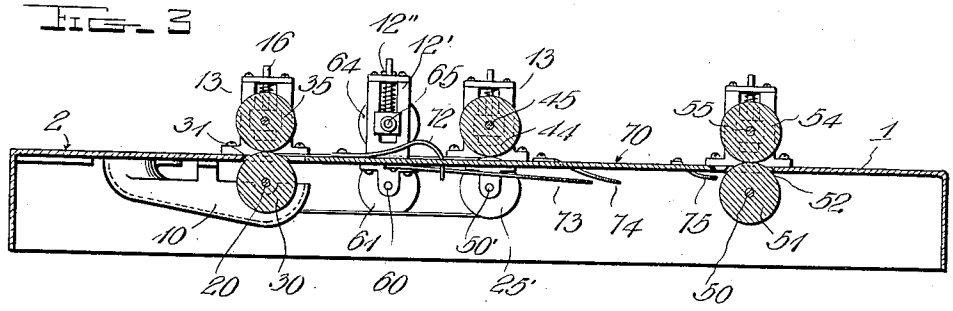


Fig. 4

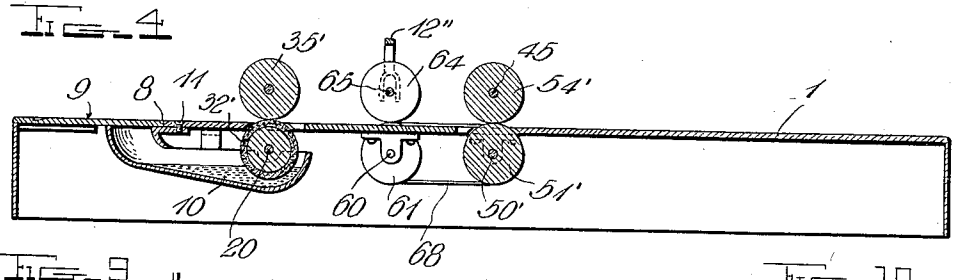


Fig. 9

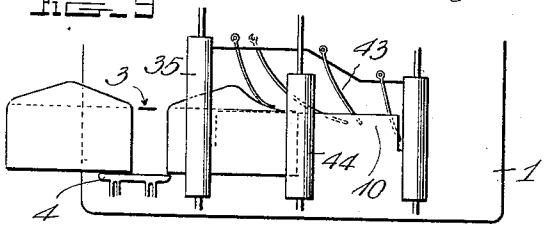


Fig. 10

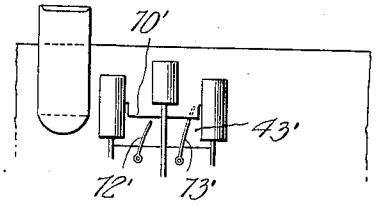


Fig. 9a

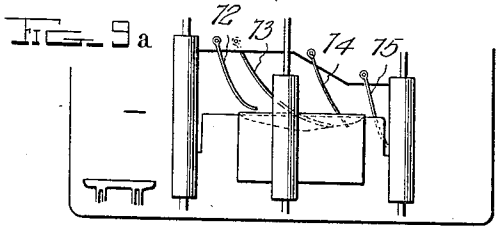


Fig. 10a

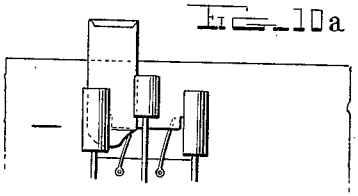


Fig. 9b

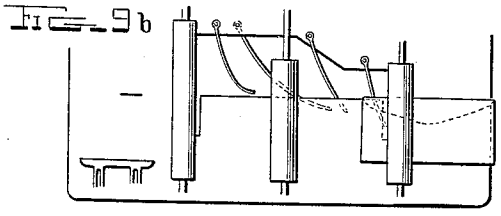
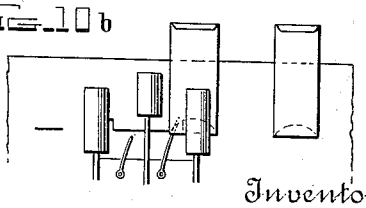


Fig. 10b



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3 SHEETS—SHEET 3.

FIG. 5

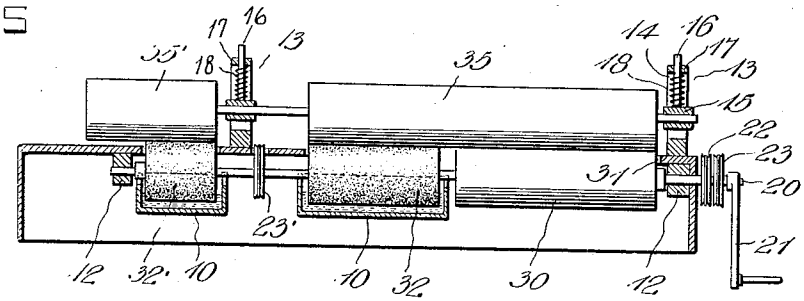


FIG. 6

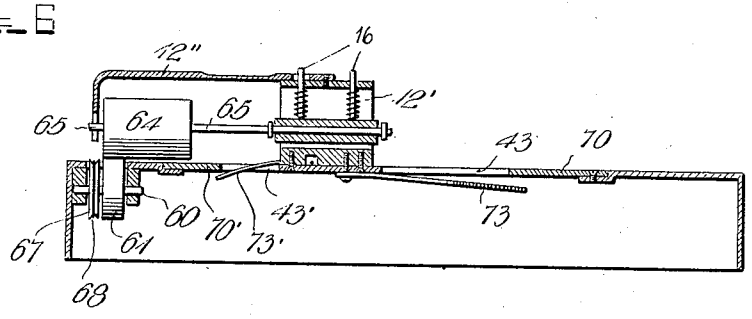


FIG. 7

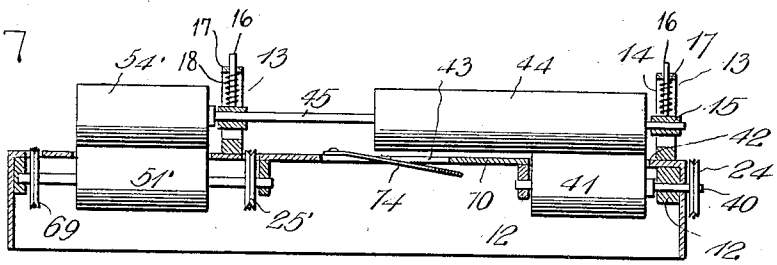
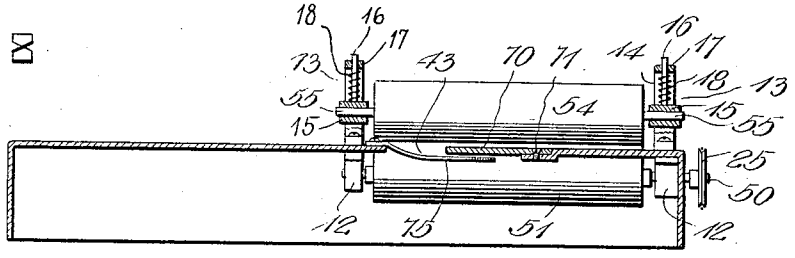


FIG. 8



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ENVELOP MOISTENER AND SEALER.

1,067,687. Specification of Letters Patent. Patented July 15, 1913.

Application filed May 16, 1912. Serial No. 697,697.

To all whom it may concern:

Be it known that I, WILLIAM H. SEDDON, a citizen of the United States, residing at Brownsville, in the county of Fayette and State of Pennsylvania, have invented certain new and useful Improvements in Envelop Moisteners and Sealers; and I do 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.

This invention relates to combination devices used in stationery, and more particularly to those adapted to moisten and seal envelops; and the object of the same is to produce a device of this kind by means of which envelops of different sizes may be handled, as well as those which open at the end like pay envelops. This and other objects are accomplished by the construction hereinafter more fully described and claimed, and as shown in the drawings wherein—

Figure 1 is a plan view of the machine complete, Fig. 2 is a right side elevation thereof; Figs. 3 and 4 are longitudinal sections on the lines 3—3 and 4—4 respectively of Fig. 1; Figs. 5, 6, 7 and 8 are transverse sections on the lines 5—5, 6—6, 7—7 and 8—8 respectively of Fig. 1. Figs. 9, 9^a and 9^b are diagrammatic plan views showing the progress of an ordinary envelop through this machine; Figs. 10, 10^a and 10^b are similar diagrammatic plan views showing the progress of a pay envelop through this machine.

In the drawings the numeral 1 designates a base which may be a flat table-like structure with depending flanges or legs so that it can be mounted on a desk or other support, and one end of said base constitutes the feed table 2 and is provided with a mark 3 over and along which it is essential that the fold line between the body and flap of a side-opening envelop shall pass. For this purpose a guide 4 is provided, movable over a scale 5 marked on the feed table and adjusted by any suitable means such as the set screws and slots indicated at 6 and 7, and obviously the operator can adjust this guide so that the fold line referred to will move accurately over the mark 3 as the envelops are fed over the feed table 2. The latter is also provided with an opening 8 closed by a slide 9, through which opening water is fed into a reservoir or pan 10 which has two chambers as shown. This pan is supported beneath the base 1 in any suitable way, as by screws 11 so that the pan may be removed for cleansing and repair. Depending from the base (or within its thickness if it be of wood) are several bearings 12 of any suitable character for the lower rollers hereinafter described; and rising from said base are several bearings 13 which are all alike with the exceptions noted below, and hence a description of one will suffice. Each of these bearings is provided with an upright slot 14 in which is guided a block 15 pressed normally downward by a pin 16 whose shank passes upward through the cap plate 17 of the bearing and is surrounded between the block and said plate with an expansive coiled spring 18—the construction being such that the normal expansion of the spring bears the block downward and holds the trunnion of the roller normally depressed within the slot.

The numeral 20 designates what may be called the power shaft, here shown as driven by a crank handle 21 although of course it could be rotated by other means, and this shaft carries pulleys 22 and 23 respectively belted to other pulleys 24 and 25 on other shafts yet to be described; and it may be well to provide the power shaft 20 with another pulley 23′ belted to an adjacent pulley 25′ for a purpose yet to be explained. All of the pulleys mentioned are fixed on shafts which are mounted in lower bearings 12, and the belts connecting the various pulleys extend along the base plate 1 as shown.

A feed roller 30 is fixed on the power shaft and projects upward through a transverse slot 31 in the base in rear of the mark 3, to the left of said mark a moistening roller 32 is fixed on said shaft and extends from the feed roller 30 to a point near the supplemental driving pulley 23′, and to the left of said pulley an additional moistening roller 32′ is also fixed on the shaft—the rollers 32 and 32′ dipping into the chambers of the pan 10. I may here say that if a simpler form of this machine is desired than that illustrated, the supplemental pulleys 23′ and 25′ and everything to the left of them may be omitted, but by preference the machine is made as shown so that it will seal end-opening envelops as well as those which open along the side.

Above the main roller feed section 30 and the moistening section 32 is disposed the co-

acting feed roller 35, whose shaft is mounted in a pair of the spring-actuated bearings described above and may be extended to the left. Here its stub end can carry a second section 35′ standing over the supplemental moistening roller 32′ and extending out for some distance beyond it to the left. It will be noticed that the upper feed roller in each case is longer than the moistening roller section below it, which section is therefore used as part of the feeding device because it contacts with and moistens the flap of the envelop in a manner which will be clear.

Next in rear of the feed roller the lower bearings carry a shaft 40 driven by the pulley 24, and on the shaft is fixed a drawing roller 41 projecting upward through a transverse slot 42 in the base and terminating at its inner end adjacent a large opening 43 made in said base for a purpose to appear below. The coacting roller 44 is considerably longer so that it extends in over the opening 43, and its shaft 45 is mounted in a pair of the upper bearings and may be continued beyond the innermost so that its stub end can carry an upper supplemental sealing roller 54′ as explained below.

Next in rear of the drawing rollers the lower bearings carry a shaft 50 driven by the pulley 25, and on this shaft is fixed a sealing roller 51 projecting upward through a slot 52 in the base and extending completely across the rear end of the opening 43 therein. The coacting sealing roller 54 is of the same length and has its shaft 55 mounted in a pair of the upper bearings as shown.

When the machine is constructed to seal end-opening envelops, as illustrated in the drawings, its base 1 is provided near the left edge with a supplemental opening 43′ across whose front end stand the supplemental feed rollers described above, and across whose rear end stands a supplemental sealing roller 51′ whose shaft 50′ is mounted in a pair of the lower bearings and driven by the pulley 25′, while the upper coacting supplemental sealing roller 54′ is carried on the stub end of an extension of the shaft 45 as described above. The lower drawing roller 61 (which is short like the other lower drawing roller 41) has its shaft 60 mounted in lower bearings and provided with a pulley 67 belted as at 68 to a second pulley 69 on the shaft of the lower supplemental sealing roller 51′; while the upper coacting drawing roller 64 is considerably longer so that it extends in over the opening 43′, and has its shaft 65 mounted in a special upper spring bearing 12′ which is considerably elongated and which has a brace 12″ extended over the roller 64 to the bearing at the outer end of this shaft 65 as shown.

When this machine is not constructed to seal end-opening envelops, all supplemental rollers and the special bearings therefor will be omitted; or when the machine is originally built as shown in the drawings and it is desired to remove these supplemental rollers because they have become useless, it can be done.

The right hand portion of the opening 43 is covered by a steel plate 70 set into the face of the base 1 so as to be flush therewith and secured to it as by screws 71, and the inner edge of this plate stands in alinement with the mark 3.

Secured upon the base 1 along the inner side of the opening 43 are several fingers, preferably made of stout wire, and numbered respectively 72, 73, 74 and 75. The tip of the first finger 72 is downturned and extends past the edge of the plate 70, and its function is obviously to start the envelop flap downward so as to commence making the fold between it and the body of the envelop, the tip of the next succeeding fingers are appropriately disposed with reference to the edge of the plate 70, as shown, so that the flap is turned under the plate as the envelop reaches a position beneath the long drawing roller and its body is grasped between this roller and the one below it, and the flap is turned farther and farther under until, as it passes off the rear end of the plate, it stands substantially horizontal and is immediately grasped by the sealing rollers at the rear end of the opening 43 and sealed closed and delivered in that condition at the rear end of the machine. In similar manner the outer side of the supplemental opening 43′ has a supplemental plate 70′, and the inner side carries outwardly projecting fingers 72′ and 73′—two fingers being sufficient to turn down the flap of an end-opening envelop. The passage of the latter through the rollers on the supplemental side of the base, and the turning down and sealing of its flap, are identical with the passage of an ordinary envelop over the main portion of the base and through the main rollers described above, with the exception that the body of a pay envelop may contain coin and be rather bulky and is permitted to project to the left beyond the supplemental drawing rollers, while the mouth of this envelop is sealed. But even if the bulky contents should pass between the supplemental drawing rollers, the use of a special spring-actuated bearing 12′ and the overhead brace 12″ connecting it with the outer end of the shaft carrying the upper roller, will be obvious as it is designed purposely to meet this contingency.

It is quite possible while the machine is running to feed ordinary envelops through one side of it and pay envelops through the other, so that both kinds of envelops may be

sealed simultaneously. Ordinarily, however, the main portion only of the machine will be used, and it might be possible to unship the belt connecting the supplemental rollers and mechanism and leave that idle until pay day when it is desired to seal the pay envelops.

In a measure I have described the operation of this machine as the description of its mechanical construction progressed, and it will not be necessary to duplicate the description here.

The parts are obviously of any desired sizes, shapes, proportions and materials, and changes in details may be made without departing from the essential principles of the invention.

What is claimed as new is:

1. In an envelop moistener and sealer, the combination with a base having an opening therethrough and a transverse slot at one side of the opening, and a water-containing pan beneath the slot; of a power-driven lower feed roller projecting upward through said slot, a moistening-roller section fast on the shaft of this roller and dipping into said pan, a coacting feed roller above and extending over the lower feed roller and its moistening section, means for drawing the envelop from said feed rollers and for sealing it, a thin plate fixed to the base and projecting over one edge of the opening therein with its inner edge alined with the space between the two sections of the lower feed roller, and fingers projecting inward from the opposite edge of said opening and disposed in coactive relation with the inner edge of said plate to turn down the flap of the envelop and deliver the latter in that condition to the sealing means.

2. In an envelop moistener and sealer, the combination with a base having an opening therethrough and transverse slots at one side of the opening, and a water-containing pan carried by the base beneath the front slot; of a power-driven lower feed roller mounted in bearings and projecting upward through said slot, a moistening-roller section fast on the shaft of this roller and dipping into said pan, a coacting feed roller mounted in spring bearings above and extending over the lower feed roller and its moistening section, a lower drawing roller situated in the second slot and connected with the power-driven feed roller, a coacting upper drawing roller mounted in spring bearings above the same, a lower sealing roller disposed in the third slot across the rear end of said opening and connected with said power driven feed roller, a coacting upper sealing roller mounted in spring bearings above the same, a thin plate fixed to the base and projecting over one edge of the opening therein with its inner edge alined with the space between the two sections of the lower feed roller, the face of the base being inscribed with a mark in line with said space, and fingers projecting inward from the opposite edge of said opening and disposed in coactive relation with the inner edge of said plate to turn down the flap of the envelop and deliver the latter in that condition to the sealing rollers.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM H. SEDDON.

Witnesses:
HARRY A. COTTOM,
THEO. V. RICHARDS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."