

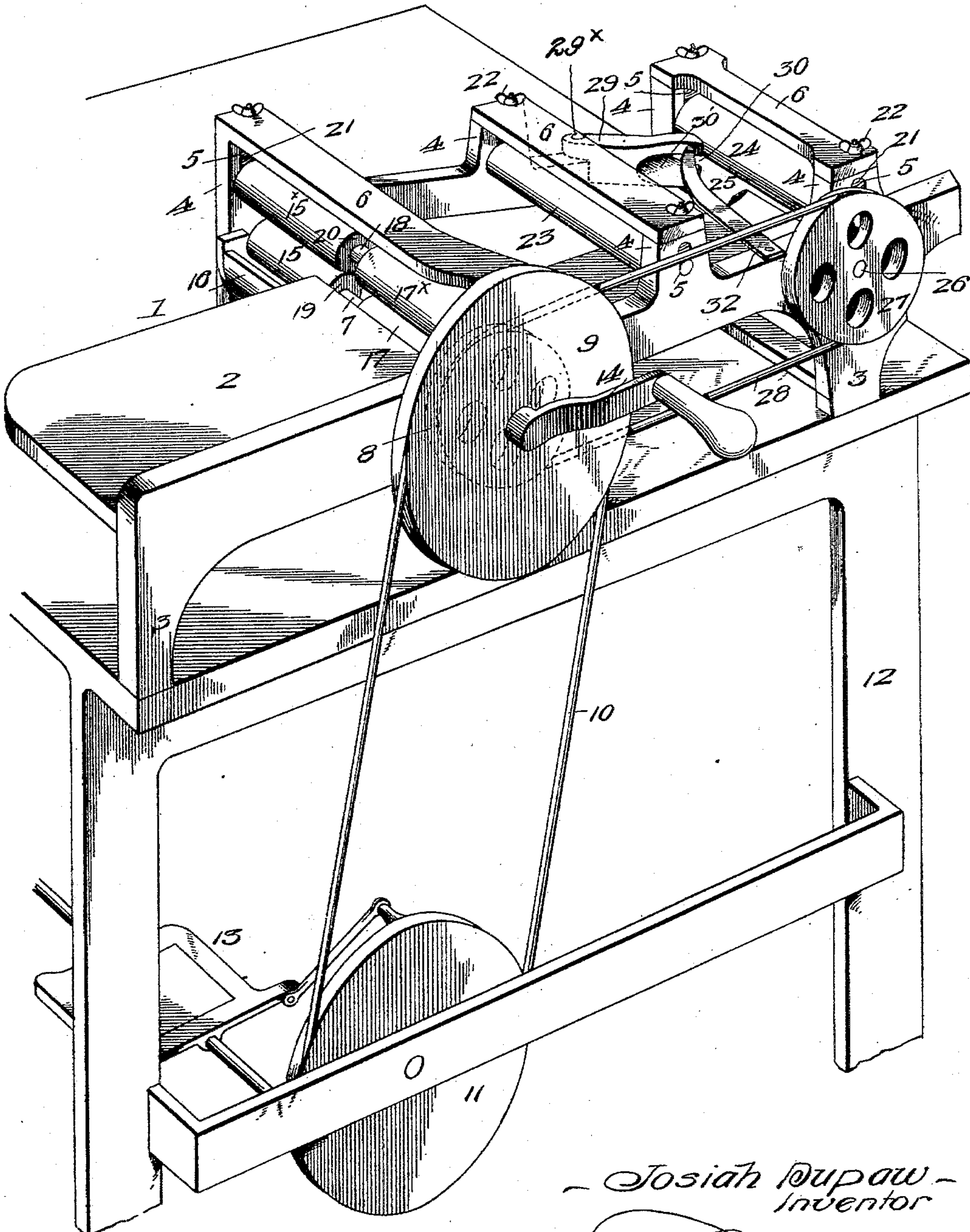
(No Model.)

2 Sheets—Sheet 1.

J. DUPAW.
MACHINE FOR AUTOMATICALLY MOISTENING AND SEALING ENVELOPS.
No. 602,801.

Patented Apr. 19, 1898.

Fig. 1.



Witnesses:

Wm. C. Ashline
D. P. Moore.

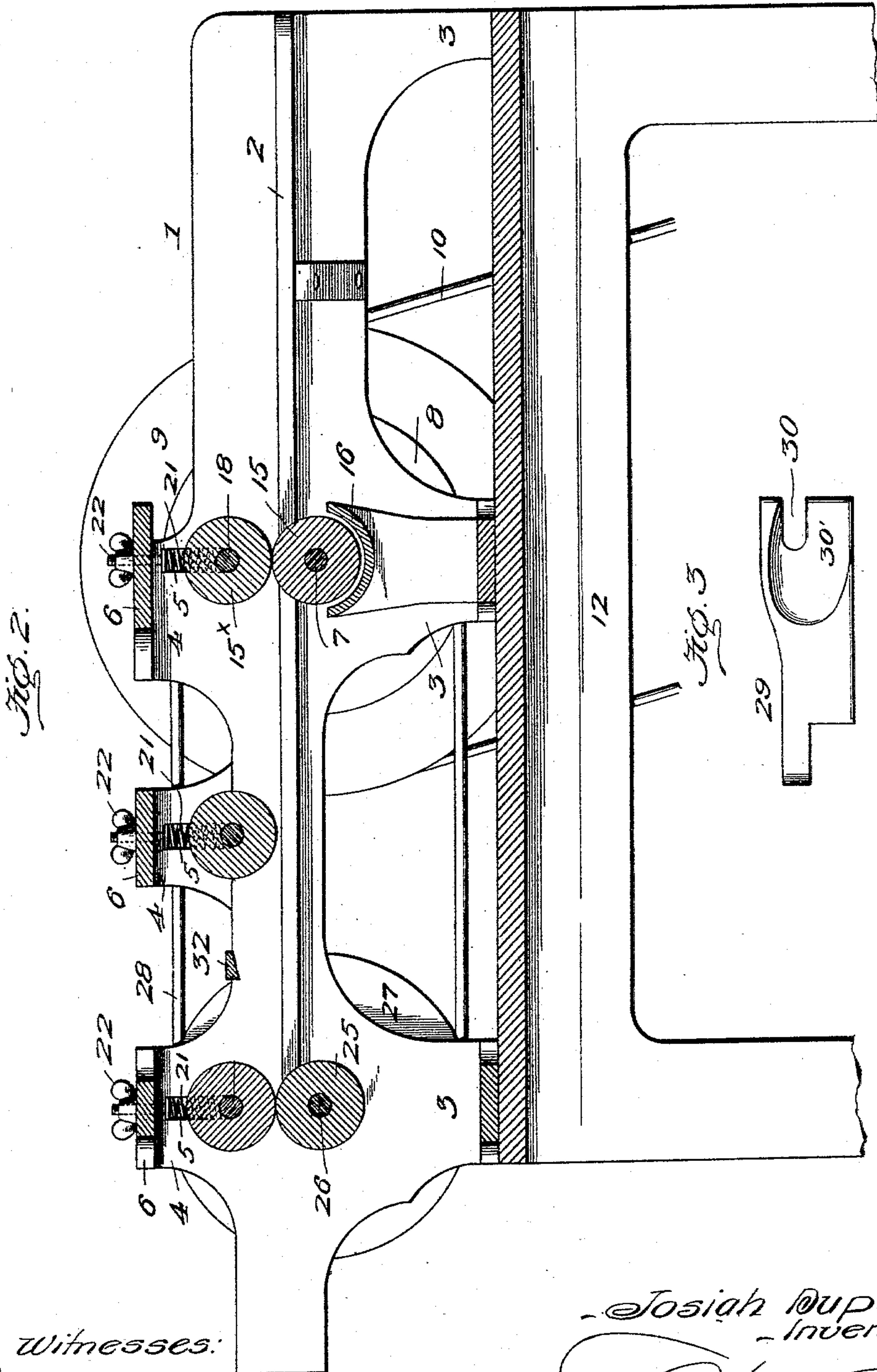
Josiah Dupaw -
Inventor

By *D. P. Moore*
- Atty -

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Att'y.

UNITED STATES PATENT OFFICE.

JOSIAH DUPAW, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR OF
ONE-HALF TO LEANDER W. GIFFORD, OF SAME PLACE.

MACHINE FOR AUTOMATICALLY MOISTENING AND SEALING ENVELOPS.

SPECIFICATION forming part of Letters Patent No. 602,801, dated April 19, 1898.

Application filed May 7, 1897. Serial No. 635,546. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH DUPAW, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Machines for Automatically Moistening and Sealing Envelops; 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 improvements in machines for automatically moistening and sealing envelops; and one object of my invention is the provision of a machine which will moisten and seal the envelop in a rapid and perfect manner and which will readily accommodate any thickness of envelop.

Another object of my invention is the provision of a machine which will automatically moisten and seal envelops of any size and containing any amount or thickness of matter and which will never fail to perfectly seal the envelops.

Another object of my invention is the provision of a machine of the character and for the purpose named which will be extremely simple, durable, and inexpensive of construction, thus producing a practical, desirable, and useful machine for the purposes named.

To attain the desired objects, the invention consists of a machine for automatically moistening and sealing envelops embodying novel features of construction and combination of parts substantially as disclosed herein.

In order that the construction of my machine may be fully understood and its numerous advantages be fully appreciated, I invite attention to the accompanying drawings.

Figure 1 represents a perspective view of my machine mounted upon a table in connection with a foot or treadle power driving mechanism. Fig. 2 represents a sectional longitudinal view thereof, and Fig. 3 represents an enlarged detail view of the folding-arm.

Referring by numerals to the drawings, the numeral 1 designates the frame of my machine, provided with a platform 2, which receives the envelops, the supporting-legs 3, the uprights 4, having open bearings 5 and

connected and braced by the cross-bars 6, the whole structure forming a simple, compact, and durable frame.

Mounted in the frame adjacent to the feed-platform is the lower shaft 7, upon which is mounted a grooved wheel 8 and a larger grooved wheel 9, over which passes a driving belt or band 10, which passes over a driving pulley or wheel 11, mounted in the table 12, which supports the entire machine, and the driving-pulley is operated by a foot-power or treadle 13 of any desired or well-known construction, or upon the shaft may be placed a crank 14 to permit the machine to be operated by hand. From this construction it will be understood that my machine may be driven by hand or foot power, or, if desired, power may be supplied from any other source, as circumstances require. Upon the said shaft 7 is mounted a roller 15, which revolves in a moistening-trough 16, and also a roller 17, and above said rollers is mounted a shaft 18, which carries a roller 15^x and a roller 17^x, the rollers 15 and 15^x being termed "moistening-rollers" and the rollers 17 and 17^x acting as feed-rollers. Between the lower moistening-roller 15 and the roller 17 is a space or gap 19, which is wider than the space or gap 20, between the upper rollers 15^x and 17^x, the purpose of which wide gap is to allow the flap of the envelop to fall, as will presently appear.

The shaft 18 is mounted in the first set of open bearings 5, and upon the trunnions of the shaft rest the coiled springs 21, the purpose of which is to allow the proper yielding action or movement of the rollers to accommodate them to the thickness of envelops, and adjusting-screws 22 are provided to regulate the tension of the springs. In the second set of uprights is mounted the guide-roller 23, which is similarly provided with the spring-adjusting devices, and in the third set of uprights is mounted the upper sealing-roller 24, also provided with yielding bearings and spring-adjusting devices, and this roller revolves against a lower sealing-roller 25, mounted upon a shaft 26, carrying the grooved wheel 27, which is rotated by the band or belt 28, passing from the grooved wheel 8.

Between the middle or guide roller and the sealing-rollers I place the arm 29, provided

with a groove 30, to which lead the rounding or inclined guiding-faces 30', which form what I term a "folding-arm"—that is, an arm for receiving and closing or folding down the flap of the envelop before it passes between the sealing-rollers—and to prevent the possibility of the end of the envelop rising upward above said arm I provide the guiding-strip 32. The arm 29, it will be seen, is pivoted at 29^x to the frame, and this permits the arm to be moved inward to accommodate various widths or sizes of envelops, as is evident.

The operation of my machine will be readily understood from the accompanying drawings, taken in connection with the description, and I will simply state that the document or other matter is placed in the envelop, and the envelop, with flap distended, is placed upon the platform, and the body of the envelop passes between the feeding-rollers, and the flap passes between the moistening-rollers, which are rapidly rotated through the driving mechanism, and from these rollers the envelop in moistened condition passes under the intermediate guide-roller to the folding-arm, which closes the gummed or moistened flap upward and delivers the closed envelop to the sealing-rollers, which presses the flap smoothly and closely against the body of the envelop and delivers the envelop perfectly sealed from end to end, thus insuring a perfect moistening, sealing, and delivering of the envelops in a very rapid manner and entirely overcoming the objectionable features incident to the present manner of moistening and sealing envelops.

The purpose of the wide gap between the roller 15 and 17 is to allow the gummed edge to gradually fall down as the envelop is moistened and passes along, and this is of vital importance to the successful operation of the machine.

It will be understood that the rollers used in my machine are preferably of elastic material and that the shafts of the rollers are yielding to accommodate envelops containing any amount of matter.

The advantages of my machine principally are its compactness, simplicity, and inexpensiveness, and its thorough efficiency producing a machine which is practical in every respect and will fill a long-felt want.

I claim—

1. A machine for automatically moistening and sealing envelops, consisting of a frame, a

set of feeding-rollers, moistening devices, intermediate devices for receiving the moistened envelop and closing the flap thereof, said flap-closing devices being movable in and out to adjust them to various sizes of the envelops, and a set of rollers for receiving the envelop from the closing devices and sealing and delivering the same.

2. A machine for automatically moistening and sealing envelops, consisting of a horizontally-disposed frame, mechanism in one end of the frame for moistening and feeding the envelops in open condition, devices arranged intermediate of the frame for closing the moistened flap of the envelop, said flap-closing devices being movable in and out to adjust them to various sizes of envelops, devices in the other end of the machine for sealing and delivering the envelop, and mechanism for imparting motion to the feed-rollers, moistening devices and sealing devices.

3. A machine for automatically moistening and sealing envelops consisting of a frame having a feed table or platform, feed-rollers mounted in the frame contiguous to said platform, a moistening-roller adjacent to the feed-rollers, means for supplying moisture to said roller, intermediate devices secured to the frame for guiding the envelop and closing the moistened flap thereof, said flap-closing devices being movable in and out to adjust them to various sizes of the envelops, sealing-rollers which receive the envelop from said devices and mechanism for operating the moistening-roller, feed-rollers and sealing-rollers.

4. A machine for automatically moistening and sealing envelops, consisting of a frame having a horizontally-disposed feeding-platform, a pair of feed-rollers contiguous to said platform, a moistening-roller for moistening the flap of the envelop, said feed and moistening rollers being separated by a gap to permit the flap of the envelop to fall out of the path of the rollers, intermediate guiding and closing devices, and sealing-rollers for sealing the envelop after it leaves the guiding and closing devices, and mechanism for driving the moistening, feeding and sealing rollers.

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

JOSIAH DUPAW.

Witnesses:

WM. N. MOORE,
D. P. MOORE.