No. 724,981. PATENTED APR. 7, 1903.

H. J. WILLIAMS.

ENVELOP SEALING MACHINE.

APPLICATION FILED DEC. 9, 1902.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

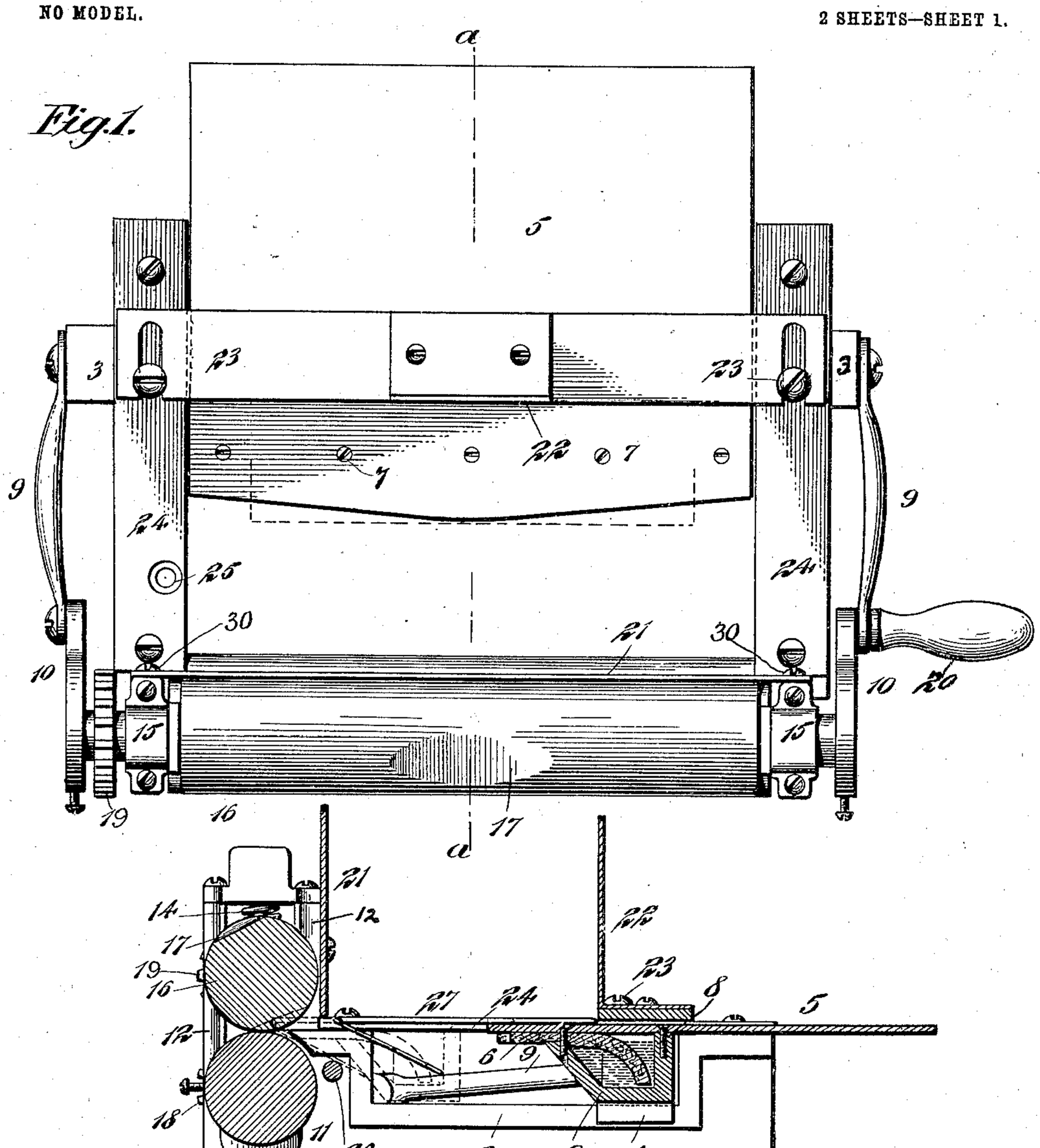

Fig. 2.

WITNESSES:

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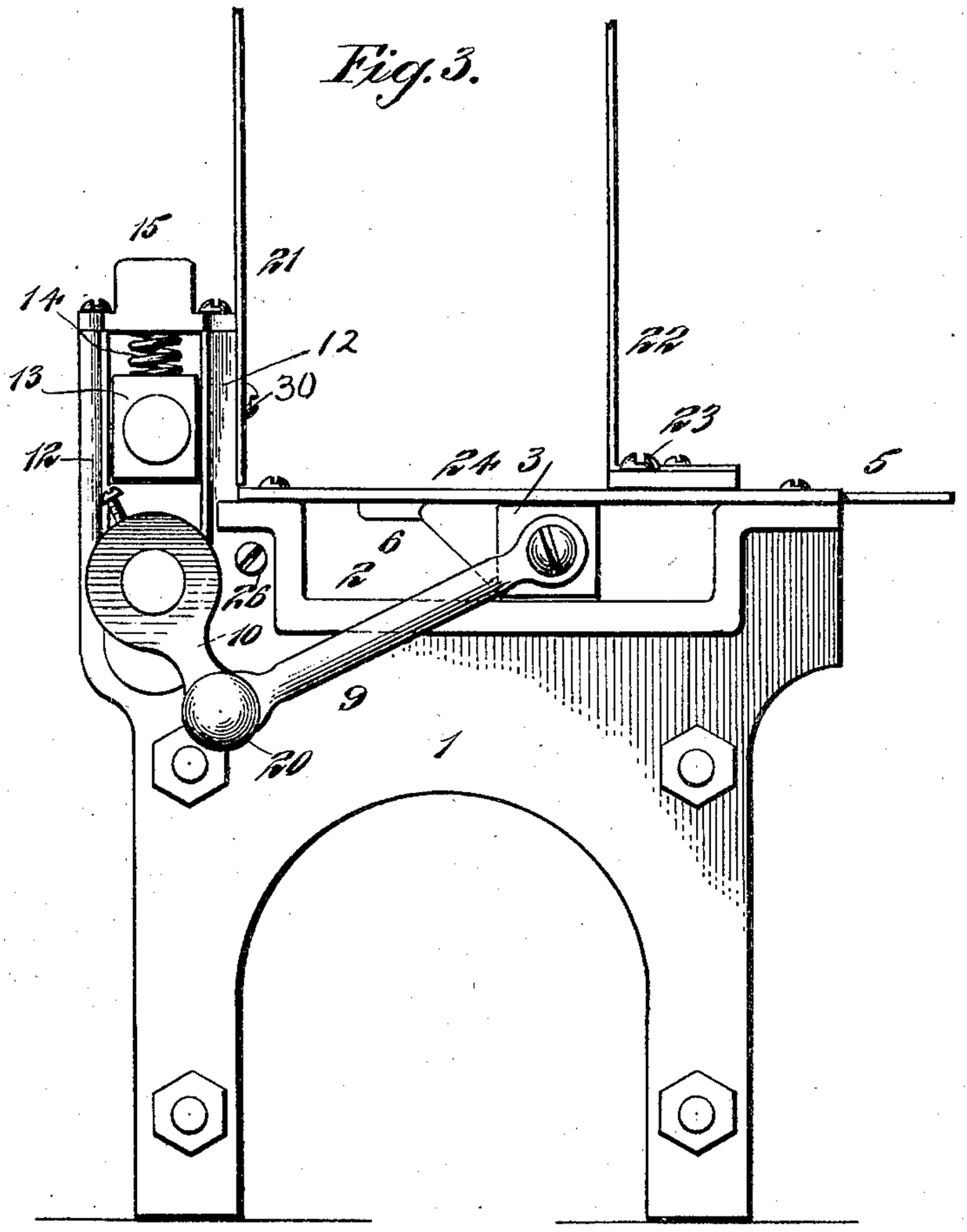
Fig. 3.



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UNITED STATES PATENT OFFICE.

HENRY J. WILLIAMS, OF BROOKLYN, NEW YORK.

ENVELOP-SEALING MACHINE.

SPECIFICATION forming part of Letters Patent No. 724,981, dated April 7, 1903.

Application filed December 9, 1902. Serial No. 134,479. (No model.)

To all whom it may concern:

Be it known that I, HENRY J. WILLIAMS, a citizen of the United States, residing in Brooklyn, Kings county, State of New York, have invented a new and useful Improvement in Envelop-Sealing Machines, of which the following is a specification.

My invention relates especially to the construction and arrangement of devices employed for moistening and sealing envelops, and has for its object the provision of an envelop-sealing machine very cheap and simple in construction, while effective in operation.

To attain the desired end, my invention consists in certain novel and useful combinations or arrangements of parts and peculiarities of construction and operation, all of which will be hereinafter first fully described and then pointed out in the claims.

In the accompanying drawings, forming a part hereof, Figure 1 is a plan view of my machine. Fig. 2 is a vertical sectional view at line *a a* of Fig. 1. Fig. 3 is a side elevation of the machine looking from the right of Fig. 1.

Similar numerals of reference wherever they occur indicate corresponding parts in all the figures.

1 is the main frame of the machine, made of any approved material.

2 represents slideways formed at the top of the main frame.

3 is a water-holder which extends across the machine, the ends resting in the slideways 2, the said water-holder being free to reciprocate in the slideways, being guided by depending pieces, such as 4.

5 is a top plate held to the rear of the water-holder by means of screws 8. The front of the water-holder is cut down for the passage of a moistening-vehicle 6, made of felt or other preferred and equivalent material.

7 represents screws which extend through the top plate 5 and the felt 6 into the front of the water-holder. These screws not only hold the felt in place, but are the means for obtaining the requisite pressure upon the felt to insure a proper flow of water for moistening the flaps of the envelops to be sealed. The front part of the plate 5 is cut away at each side of the center, as particularly shown in Fig. 1 of the drawings.

9 represents rods connected to the ends of the water-holder 3 and to cranks 10, mounted upon the shaft of a roller 11, journaled at each side of the main frame.

12 represents slotted projections at each side of the main frame, wherein are mounted vertically-movable boxes 13, forced downward by springs 14 beneath caps 15. Journaled in the boxes 13 is a roller 16, the center or periphery of which is cut away at 17. The shafts of the rollers 11 and 16 bear gear-wheels 18 and 19, which mesh with each other.

20 is an operating-handle extending from one of the cranks 10.

21 is a plate removably fixed to the projections 12 from the main frame by means of screws 30, and 22 is a plate removably and adjustably held at the top of the main frame by screws 23. These two plates 21 and 22 constitute the sides of a hopper for holding envelops in place when desired; but ordinarily where a moderate number of envelops are to be sealed these plates will not be required.

24 represents plates held above the slideways 2. 25 is a perforation through one of these plates for the passage of water in filling the holder 3.

26 is a guide-rod extending from side to side of the main frame.

Water being supplied to the holder 3, the operation of my machine is as follows: An envelop, such as 27, being in position with the flap downward, the rollers are caused to revolve through the medium of the crank 20. The plate 5 moves toward the rollers, catching beneath the flap at its center, as indicated in dotted lines in Fig. 1 of the drawings. As it moves forward the flap is thrown downward, and the gum thereon comes in contact with the moistened felt 6, the flap being pressed toward the front of the envelop by the rollers before the plate 5 begins to recede. The continued movement of the plate 5 carries said plate and the envelop forward until the projecting part of the plate is between the rollers; but at this moment the cut-away portion of the roller 16 is presented to the plate, such plate receding before the smooth parts of the rollers come together at this point, and in the meantime the free part of the envelop projecting from the plate 5 at each side of the center has been caught between them, the

flap being pressed down upon the front, effectually performing the operation of sealing, the sealed envelop dropping at the front of the machine. When the gummed flap is thrown down, it comes in contact with the guide-rod 26, thus preventing any curling which might occur in very thin envelops.

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

1. In an envelop-sealing machine, a movable plate having its front cut away at each side of the center, as shown; a water-holder connected to said plate; means for feeding water beneath the front edge of the plate; means for reciprocating said plate and water-holder, and a pair of sealing-rollers revolubly mounted in front of said plate, one of the rollers having a portion of its periphery cut away, the whole combined and arranged to operate substantially as shown and described.

2. In a machine of the character herein specified, the combination with a pair of sealing-rollers, a portion of the periphery of one of the rollers being cut away as shown, of an envelop-feeding plate and means for rotating said rollers and reciprocating said plate.

3. In a machine of the character herein specified, the combination with a pair of sealing-rollers, a portion of the periphery of one of the rollers being cut away as shown, of an envelop-feeding plate, a guide-rod in close proximity to the rollers, and means for rotating the rollers and reciprocating the plate, substantially as shown and described.

Signed by me at New York this 5th day of December, 1902.

HENRY J. WILLIAMS.

Witnesses:
GEORGE T. WILLIAMS,
A. M. PIERCE.