(No Model.) 2 Sheets—Sheet 1.

S. B. WHITESIDE.

MAILING MACHINE.

No. 446,495. Patented Feb. 17, 1891.

Fig. 1.

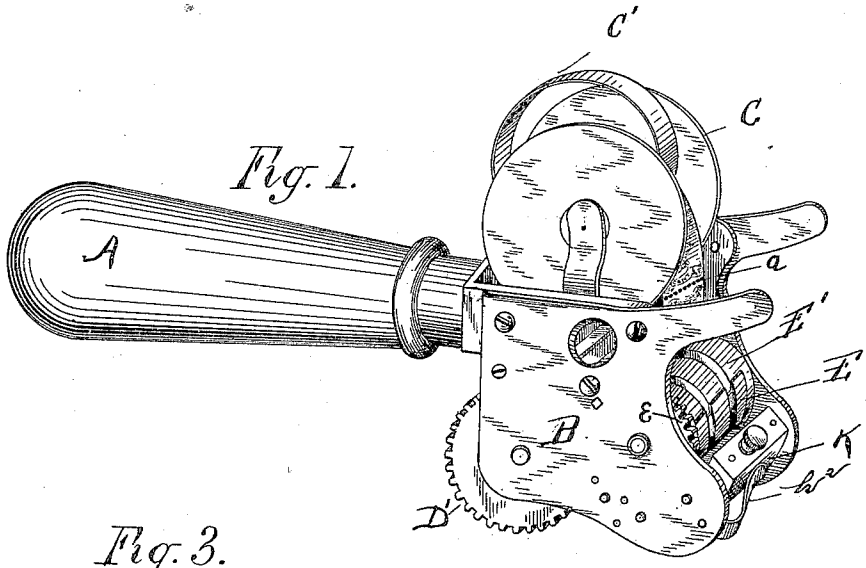


Fig. 3.

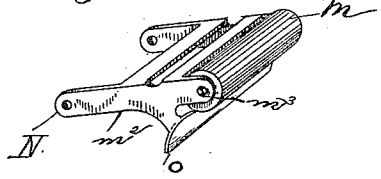


Fig. 2.

Witnesses.

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(No Model.) 2 Sheets—Sheet 2.

S. B. WHITESIDE.

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Fig. 4.

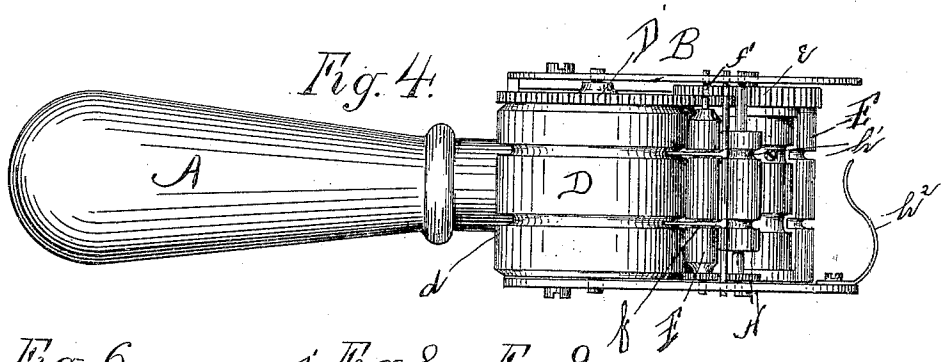


Fig. 6.

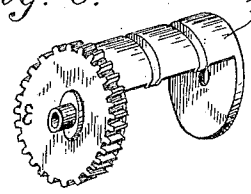


Fig. 8.

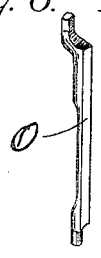


Fig. 9.

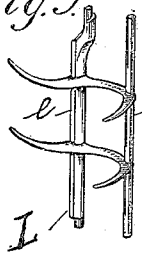


Fig. 10.

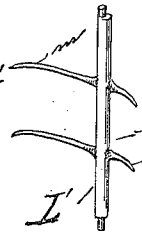


Fig. 7.

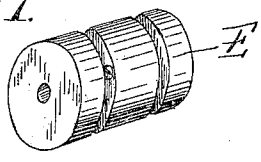
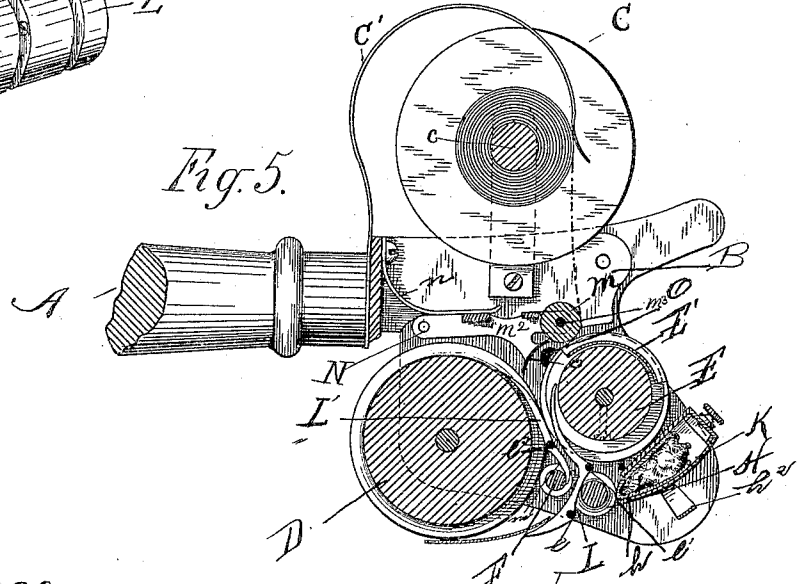


Fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

SIDNEY B. WHITESIDE, OF SAN FRANCISCO, CALIFORNIA.

MAILING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 446,495, dated February 17, 1891.

Application filed December 5, 1889. Serial No. 332,686. (No model.)

To all whom it may concern:

Be it known that I, SIDNEY B. WHITESIDE, a citizen of the United States, residing at the city and in the county of San Francisco and State of California, have invented certain new and useful Improvements in Mailing-Machines; and I do hereby declare the following to be a full, clear, and exact description of said invention, such as will enable others skilled in the art to which it most nearly appertains to make, use, and practice the same.

My invention has relation to certain new and useful improvements in what I term "mailing" or "labeling" machines; and it consists of the parts and details of construction, as will be hereinafter more fully shown in the drawings, described, and pointed out the specification.

My invention consists in certain combinations of parts whereby a stamp or label from a strip or roll can be automatically moistened, placed in position, and cut from said strip or roll.

A description of the apparatus and of the operation by which the foregoing is accomplished will be more fully set forth in a subsequent part of this specification; and my invention further consists in providing means whereby the stamp or label will receive during its travel in the machine sufficient moisture to cause it to adhere, and, further, to the means whereby the same will be cut apart at the proper point, so as to cause the separation of one stamp or label from the other.

Referring to the drawings, forming a part of this specification, in which like letters of reference are used to denote corresponding parts throughout the entire specification and several views of the drawings—

Figure 1 is a perspective view of the complete machine; Fig. 2, a view showing one side thereof removed for the purpose of illustrating more fully the relative position of the operating mechanism; Fig. 3, a detail view of the stamp-roller; Fig. 4, a bottom plan view of the machine; Fig. 5, a sectional view; Fig. 6, a detail view of the open-work revolving, carrying, and breaking sleeve; Fig. 7, a detail view showing the stationary drum, around which the aforesaid carrying-sleeve revolves; Fig. 8, a similar view of the stamp cutter or separator; Fig. 9, a detail view of the lower guide, and Fig. 10 a similar view of the upper guide.

The letter A indicates the ordinary handle of the machine, which has extending forward therefrom the metallic sides or covers B. The operating mechanism of the machine is secured between the two sides.

The letter C represents the stamp holder or reel, which is journaled or works upon the shaft *c*, which has its bearing within the standards or uprights *a*. Secured to the rear of the metallic holder is the upwardly-extending curved spring C′, which is adapted to press or bear downwardly upon the roll of stamps on the reel C.

D is the main or driving roller, which has its bearings in the metallic side covers, one end of which is provided with the gear-wheel D′. This roller is by preference constructed of hard rubber and is provided with guideways *d*.

E is the stationary drum, suitably secured in bearings formed in said sides, and upon this drum is secured the carrying and breaking sleeve E′, which I term an "open-work" sleeve, and which for a portion of its tubular circumference is cut away, thus leaving the inclosed stationary drum E exposed and allowing the carrying or feeding roller M to press upon the stationary drum during the interval in which the said drum is exposed, but forcing said roller upward and revolving the same during the interval in which the solid portion of E′ rotates between the roller M and the drum E. The said open-work sleeve is provided with the gear-wheel *e*, which meshes with the gear D′, so as to be revolved by the rotation of the latter, the length of the open-work sleeve being adapted to fit the length of the stamp or label to be cut or separated. This stationary drum is also provided with the guideways similar to those formed in the main roller D. Located between and below the main roller and the stationary drum is the guide-roller F, which is also provided with the guideways *f* and the outer gear-wheel *f′*. This gear extends over partly upon the face of gear D′, and meshes with gear *e* of the carrying-sleeve, which is considerably thicker than gear D′ for this purpose.

The letter H indicates the felt moistening-roller, which is revolved by the motion of the

stamp in its descent. The said roller H is located to the front of the guide-roller F, and is so situated that its surface comes in contact with the sponge *h* of the water-reservoir K, which is located below the stationary drum. The felt or moistening roller H, like the rollers previously described, has for the purpose of receiving the arms of the guides the guideways formed therein, as shown at *h'*. The water-reservoir K is held in position by means of the spring h^2, said spring forcing the mouth of the said reservoir K in contact with the moistening-roller.

The guides are indicated by means of the letters L L' and the guide L is secured within the bearings formed in the sides by means of the cross-bars *l l'* and fit snugly within the guideways formed in the stationary drum and open-work sleeve, while the curved downwardly-extending forks project beneath the sides, as shown in the drawings. The portion of the guide-forks between the two cross-bars fit within the guideways formed in the felt roller H. The guide L' is secured between the metallic side or covering by means of the cross-bar l^2, secured within suitable bearings, and the upwardly-extending prongs or forks *m* thereof fit within the guide grooves or ways formed in the main roller, while the lower forks *m'* rest within the guideways formed in the guide-roller F. Between these guides, as hereinafter explained, the stamp in its downward passage passes. As clearly shown in Fig. 4 of the drawings, the surfaces of the felt and guide rollers are nearly in contact with each other, only sufficient space being left for the passage of the stamp.

The stamp or carrying roller is indicated by the letter *m*, and is secured between the forwardly-extending arms m^2 of the stamp-roller holder N. This holder is secured within the metallic frame by means of the cross-rod m^3, and to the rear inner face of the frame is secured the curved spring *n*, which presses tightly upon said frame, so as to hold the stamp-roller tightly against the surface of the stationary drum E, as well as against the solid portion of the open-work sleeve E' when said sleeve rotates. The roller-frame is further provided with the downwardly-extending shield or guard *o*. In front of this shield and below the stamp-roller is located the stamp cutter or separator O.

The operation of my machine is as follows: The reel C, containing the roll of stamps or labels, each of which is perforated similar to the ordinary stamp, so as to permit of ready separation, as shown in Fig. 1 of the drawings, is secured between the uprights *a*, and the free end of the roll is inserted by the hand between the surfaces of the stamp-roller and movable carrying open-work sleeve, which rotates upon the stationary drum. The forward movement of the machine causes the revolving of the main roller D, which in turn imparts motion to the open-work sleeve E' through the medium of the described gear secured upon the end thereof, and the motion thereof rotates the guide and felt rollers. With the movement of the revolving open-work sleeve the stamp is carried forward and downward until the rear end of the said sleeve reaches the stamp cutter or separator O, when by reason of the stamp-roller N and separator O being forced through the medium of the spring *n* tightly upon the surface of the stationary drum E the stamp or label is caused to break apart at the point weakened to permit such breaking. The second stamp or label is then in position (shown in dotted lines in Fig. 5) to be carried forward upon the return of the revolving open-work sleeve. The separated stamp or label is carried by the solid portion of the open-work revolving sleeve between the arms of the guides L L' until it reaches the guide-roller, when it is held between the surfaces of the felt and guide rollers, and is carried downward until it is deposited upon the paper, envelope, or package. During the passage of the stamp between the felt and guide rollers the mucilaginous surface is moistened by the felt roller, which, as before stated, is in continuous contact with the bibulous bottom of the water-reservoir. The stamp is tightly pressed upon the envelope or package by means of the main roller D, which moves thereover. The distance traveled by the stamp between the guides, guide, and felt or moistening rollers is equal to one revolution of the solid portion of the revolving open-work sleeve upon the stationary drum, so that by the time the stamp is about to be discharged from off the lower guide-arms the sleeve is in position to grasp and carry downward another or second stamp, as clearly appears in Fig. 5 of the drawings. The entire distance traversed by the stamp is sufficient to allow of the forward movement of the machine for the distance of about three inches. By a little practice and care being exercised the operator can so adapt himself to the movement of the machine as to place the stamp at any desired place without fail.

When the machine is not in use, it is thrown to the position shown in Fig. 4, so as to allow the evaporation of the moisture from the moistening-roller.

I am aware that minor changes may be made in the construction herein shown and described without necessitating a departure from the nature and scope of my invention.

Having thus described my invention, what I claim as new, and desire to secure protection in by Letters Patent of the United States, is—

1. In a mailing, stamping, or labeling machine, the combination, with the outer casing thereof, of the operating mechanism for carrying the stamp, water-reservoir, and the felt roller adapted to contact with the bibulous bottom of the water-reservoir for the purpose of receiving moisture and automatically moistening the stamp or label during the passage thereof through the machine, the sponge *h*, and

the main roller D, whereby the stamp or label is placed in position, substantially as set forth and described.

2. In a mailing, stamping, or labeling machine, the combination, with the operating mechanism thereof, of the stamp-roller located above and adapted to contact with the stationary drum, the frame for holding said roller in position, the spring secured to the casing and adapted to bear upon the roller-frame for the purpose of maintaining the stamp-roller tightly against the surface of the stationary drum and the closed portion of the revolving open-work sleeve, and the open-work revolving sleeve and stationary drum, substantially as and for the purpose set forth.

3. In a mailing, stamping, or labeling machine, the combination, with the operating mechanism thereof, of the stamp-roller and movable frame, revolving open-work sleeve working upon the stationary drum and feeding at fixed intervals, stamp cutter or separator located below the stamp-roller frame, the moistening-roller for automatically moistening the stamp during its travel through the machine, and the stationary drum, substantially as and for the purpose described.

4. In a stamping, mailing, or labeling machine, the combination, with the operating mechanism thereof, of the stamp-roller, stationary drum, and revolving open-work sleeve working thereon and adapted to grasp and carry the stamp between the arms of the guides during the downward movement of the solid portion of said sleeve and with the said guides, substantially as and for the purpose set forth and described.

5. In a mailing, stamping, or labeling machine, the combination, with the main or driving roller, of the stationary drum, rotating open-work sleeve operating thereon, guide-roller, felt roller, the guides having bearing in the metallic sides of the outer frame and resting within the guideways formed in the said rollers, and the gear mechanism for imparting motion, substantially as shown and described.

6. The combination, in a mailing, stamping, or labeling machine, of the outer frame thereof, operating mechanism located therein, water-reservoir pivoted therein, spring for holding the reservoir in contact with the moistening-roller, the moistening-roller for receiving and imparting moisture to the stamp during its passage between the felt and guide roller, and the guides, the guide-roller, and felt roller, substantially as and for the purpose specified.

7. The combination, in a mailing, stamping, or labeling machine, of the rotating and carrying open-work sleeve, stationary drum upon which the said sleeve works, stamp-roller, and the cutter or separator for cutting apart the stamps during travel, substantially as and for the purpose set forth.

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

SIDNEY B. WHITESIDE.

In presence of—
N. A. ACKER,
J. H. BLOOD.