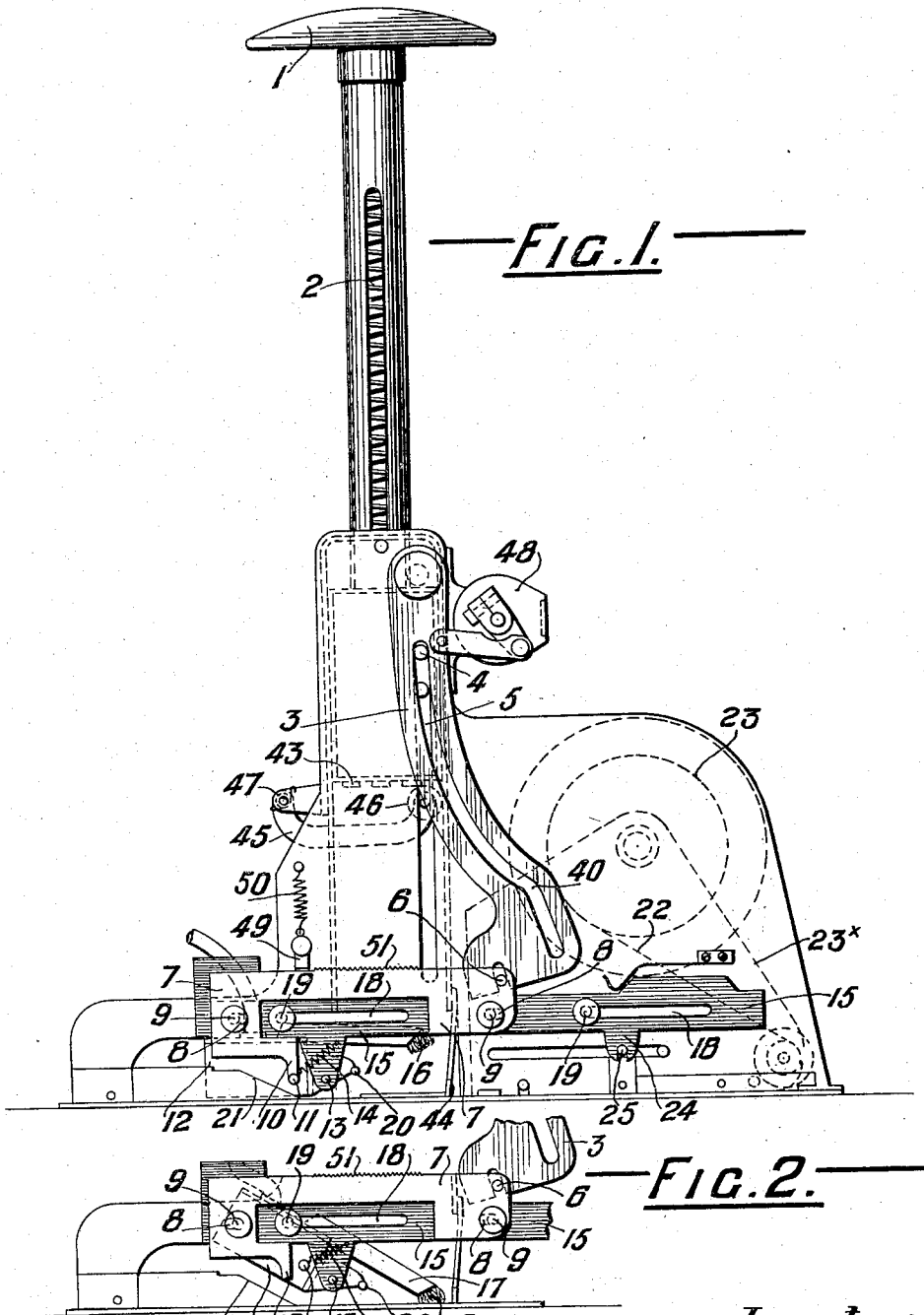


I. L. JOHNSON.
STAMP AFFIXING APPARATUS.
APPLICATION FILED AUG. 12, 1913.

1,201,829.

Patented Oct. 17, 1916.
3 SHEETS—SHEET 1.



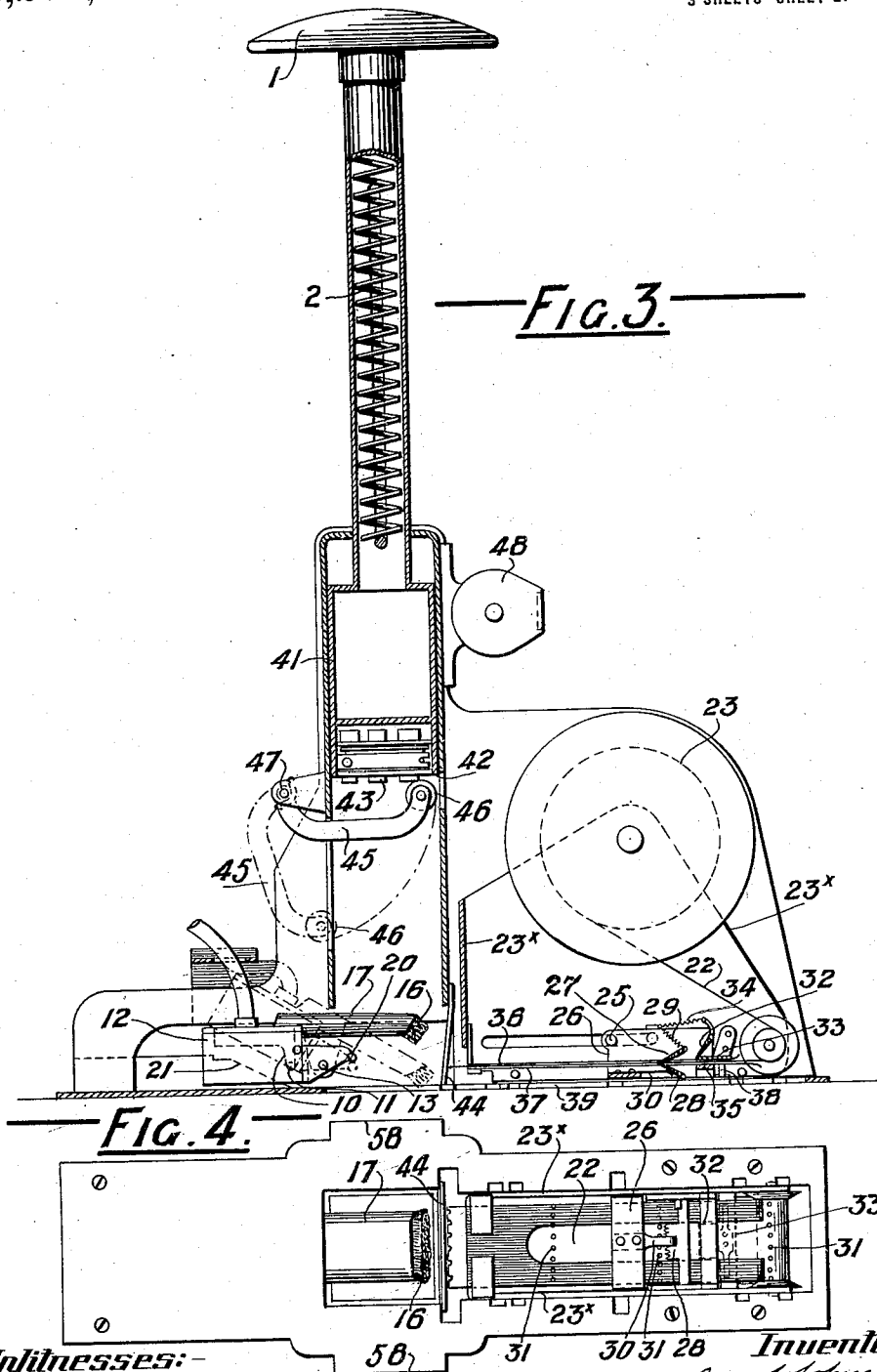
In Witnesses: 21 12 10 11 13 14 20 16
Hypercon Barry
Henry C. Atkins.

Inventor:
I. L. Johnson
by his attorney
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Witnesses:-
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Nancy B. Thome.

Inventor:-
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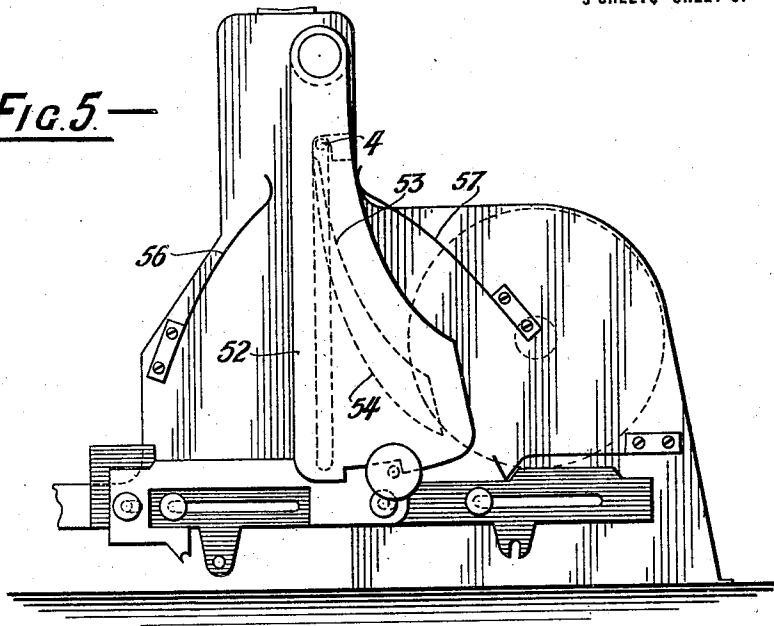
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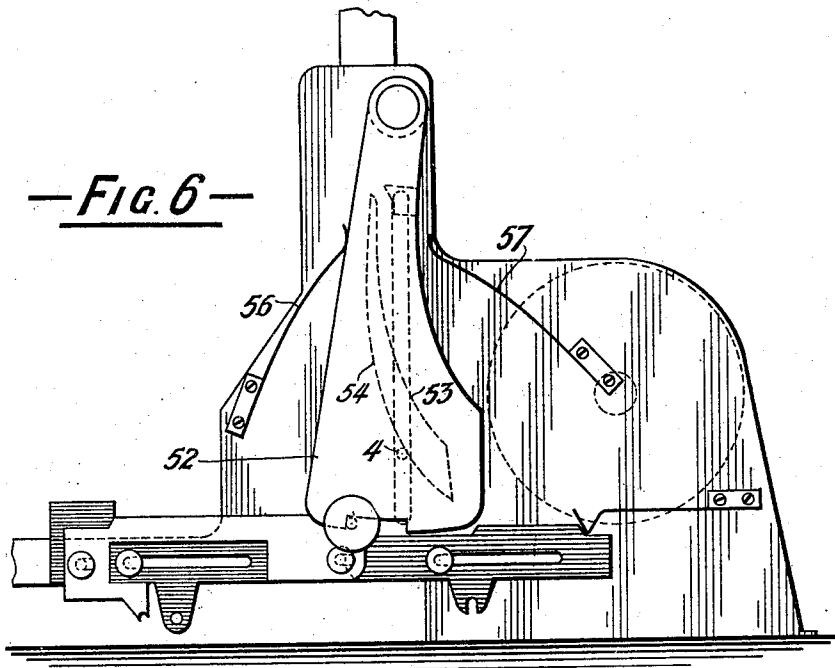
Patented Oct. 17, 1916.

3 SHEETS—SHEET 3.

—Fig. 5.—



—Fig. 6.—



Witnesses:
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Inventor:
Ivor L. Johnson
by his attorney
M. W. Brown

UNITED STATES PATENT OFFICE.

IVOR L. JOHNSON, OF LONDON, ENGLAND.

STAMP-AFFIXING APPARATUS.

1,201,829.

Specification of Letters Patent.

Patented Oct. 17, 1916.

Application filed August 12, 1913. Serial No. 784,339.

To all whom it may concern:

Be it known that I, IVOR LOWTHIAN JOHNSON, a subject of the King of Great Britain, and resident of 3 Hare Court, Temple, London, England, barrister at law, have invented new and useful Improvements in Stamp-Affixing Apparatus, of which the following is a specification.

The present invention relates to stamp affixing apparatus of that type which feeds a stamp from a roll by a feed mechanism engaging a row of perforations, severs it, and affixes it to a previously damped surface, all the operations including that of damping the surface being effected by a single stroke of a plunger.

The object of the invention is to provide improved means for carrying out the various operations and to design a machine simple in construction which will carry out its functions in a reliable and workmanlike manner.

According to my invention the parts are operated to effect their objects in the following manner, it being assumed that the plunger is at the top of a stroke and about to be depressed. At the first movement of the plunger a projection which holds the damping means clear of the paper to be moistened is removed and the damping means is tilted by a spring into contact with the paper. The damping means consists of a tank containing water and fitted with a tube or tubes through which project wicks the ends of which are to be brought into contact with the paper to be moistened. As the plunger is further depressed two operations are simultaneously carried out. The damping means are wiped over the surface of the paper to the desired extent and then tilted clear of the paper again, and the feeding means comprising two spring pressed jaws situated above and below the stamp strip move forward picking up the perforations between two stamps and feeding forward the stamp strip through the length of one stamp. As the depression of the plunger is completed the down coming presser severs the end stamp by the cutting means which it carries, presses the stamp on to the moistened surface and prints its face with a date or other matter.

To increase the usefulness of the machine I also supply it with the following parts:—
(a) A supplementary feeding means to come into operation in case the spring pressed

jaws should miss the perforations and fail to do their task. This supplementary feeding means comprises a rocking piece which initially is held clear of the stamp strip, but which, if the jaws travel a very short distance without picking up the perforations, immediately presses on to the stamp strip and nips the latter between itself and a plate situated on the underside of the stamp strip. (b) A counting mechanism operated by the stroke of the plunger to check the number of stamps used such as is common in this type of apparatus. (c) A pawl and ratchet bar arrangement by which it is insured that every operative stroke of the plunger must start from its highest point so that a complete stamp must be fed forward at each stroke. This also is old in this class of apparatus. As an alternative to the pawl and ratchet arrangement I may provide a means for actuating the feed forward of the stamps which will have the same effect, and also will insure that the stamp is sheared off before the machine can be operated by the upward stroke as will be presently described. On raising the plunger all the parts are restored to their original condition. The feed jaws slip back just over the next row of perforations, the stamp strip being held stationary in spring pressed guides, and the dampening means is returned to its first position the projection being again in place to hold it clear of the surface of the next paper or envelop to be moistened.

The actual operation of the parts will be best understood by referring to the accompanying drawings in which—

Figure 1 is a side elevation of the machine. Fig. 2 is a side elevation of the part of the machine that operates the damping mechanism at a moment when the plunger has just started its descent. Fig. 3 is a sectional elevation. Fig. 4 is an underside plan view of the feeding mechanism with the bottom plate removed. Figs. 5 and 6 show in two positions the alternative actuating means referred to by which it is insured that each operative stroke of the plunger must start from its highest point so that a complete stamp is in every case fed forward.

Referring to Figs. 1-4, the operations of the machine are as follows: The plunger is depressed against the spring and its first action is to move the slotted lever 3 by

means of the pin or bolt 4 sliding in the slot 5 to the left. This slotted lever by virtue of a pivoted connection 6 moves the sliding piece 7 to the left to the extent of the length of the slots 8 in which can slide the studs 9 fixed on the sliding piece 15. The effect of this is to shift the shoulder 10 on the sliding piece 7 to the left of the pin 11 which is formed on the water receptacle 12. The said receptacle 12 is thereupon tilted about its fulcrum 13 by reason of the tension of the spring 14 which is fastened at one end to the pin 11 and at the other end to a hole in the sliding piece 15 in which is mounted the fulcrum 13. The wicks 16 in the tubes 17 of the water receptacle are thus brought down as shown in Fig. 2 on to the surface to be moistened. On a further depression of the plunger, as the studs 9 are now at the ends of the slots 8 the sliding piece 7 in its further movement will carry with it the underneath sliding piece 15 which will slide the full length of its slots 18 on the studs 19 which are fixed to the main frame. During this motion the water receptacle which, as was said before, is mounted in the piece 15, will be moved to the left through a distance equal to the length of the slot 18. The damping wicks will thus be wiped over the surface of the paper to be moistened. When, however, the pin 20 on the water receptacle meets the inclined plane 21 the receptacle will be tilted back to its normal inclination and the pin 11 will be brought to the level of and adjacent to the bottom of the shoulder 10. In the meanwhile, during the part of the downward motion of the plunger which I have described as taking place subsequently to the relative movement of the studs 9 and slots 8, the hinder portion of the sliding piece 15 has been effecting the feed of the stamp strip 22 which is supplied from the roll 23 mounted in the frame 23*. This it does in the following manner:—The sliding piece 15 has a projection 24 into which takes a pin 25 mounted in a carriage 26 (see Figs. 3 and 4). This carriage 26 carries the feeding mechanism and can slide in slots in the frame 23* which carries the roll. The feeding mechanism comprises two toothed jaws 27 and 28 pressed together by springs 29 and 30 respectively, and adapted to take into the perforations 31 between two stamps. A supplementary feeding means consists in a rocking piece 32 held clear of the stamp strip 22 at the extreme right end of the travel by the cross plate 33 but forced into contact with the strip by the spring 34 the moment that it has moved sufficiently to the left to clear the plate 33. The stamp strip is thus nipped between the rocking piece and the underneath bar 35. It will be seen that the forward feed is thus made doubly secure, because even if the jaws 27 and 28

miss a row of perforations the feeding carriage can only proceed a very short way on its journey before the rocking piece 32 comes into operation and effects the feed of the strip. The strip itself is fed between guides 36 and 37 which are spring pressed together between the plate 33 on the one side and the spring 38 fixed to the lower closing plate 39 on the other. The spring pressure is regulated to permit the strip to be readily fed forward but to hold the strip against being drawn backward during the backward movement of the feeding mechanism.

When the plunger has been so far depressed that the bolt 4 has reached the point 40 in the slot 5 the damping mechanism and the feeding mechanism are carried no farther to the left but the presser foot 41 provided with a knife edge 42 and type 43 comes down upon the end stamp of the strip. The knife edge 42 coöperates with the spring blade 44 to sever the stamp and the presser foot affixes the stamp to the previously moistened surface and prints with its type across the face of the stamp. An arm 45 carries an inking roller 46 which is pushed out of the way against a spring 47 by the down coming plunger, the type receiving ink during the operation. The upward movement of the plunger brings the shoulder 10 over the pin 11 and restores all the parts to their original position.

48 is a counting mechanism operated once every stroke of the plunger.

49 is a pawl pivotally mounted on the frame of the machine and given a vertical tendency by the spring 50. Teeth 51 are formed on the edge of the sliding piece 7 to form a ratchet bar intended to coöperate with the pawl 49. The pawl 49 having once made contact with the teeth 51, the sliding piece 7 cannot be moved in a contrary direction until the teeth are completely clear of the pawl. As a result of this the plunger having been once depressed cannot be drawn back till it has completely finished the forward feed of the stamp strip, and once raised must be raised to the top of the upward stroke before it can be depressed. As an alternative to the use of this pawl and ratchet arrangement I may arrange my actuating lever in such a way that the same result, namely that of insuring that every operative stroke shall start from the very top so that a complete stamp is fed forward, is arrived at. This alternative will also insure that the downward stroke must be completed before the machine can be operated by the upward stroke. The modification designed for this purpose is shown in Figs. 5 and 6 of the drawings. According to this modification is the actuating lever which replaces the slotted lever 3. On this lever is formed on its inside a raised portion having two sur-

faces 53 and 54. On the depression of the plunger the stud 4 bears against the surface 53 and moves the lever to the left. When the lower portion of the surface is reached the feed is stopped and the plunger completes its downward stroke. When the bottom of the stroke is reached the stud is clear of the surface 53 and the spring 56 pushes the lever over to insure that on the raising of the plunger the stud will bear up against the surface 54 and return the lever to the right. In the same way when the top of the stroke of the plunger is reached the stud is clear of the surface 54 and the spring 57 pushes the lever over again to insure that on the downward stroke of the plunger the stud will bear against the surface 53.

It will be noticed in Fig. 4 of the drawings that the base of the machine is provided with a gage as at 58. The object of this is to assist the operator in affixing the stamp in the proper position. This is particularly important in the case of cards and the like where special squares are provided to receive each stamp. The machine is put down on the card so that the edges of the gage coincide with fixed lines or marks on the card.

The machine is constructed to come easily apart. When the bottom closing plate 39 is removed the frame 23* which carries the paper roll and feeding mechanism will slide right out when pulled in a downward direction. The tank 12 may be readily filled through a rubber tube permanently attached to it. The plate which carries the type 43 is also readily accessible for removal when the type is to be altered.

What I claim and desire to secure by Letters Patent of the United States is:—

1. In apparatus for affixing to a moistened surface a stamp from a strip having a transverse series of perforations between consecutive stamps, the combination of a plunger, a slide operated by the plunger, a moistening device operated by the slide, spring pressed jaws engaging the perforations, operated by the slide in rear of the moistening device, means for holding the stamp strip dur-

ing retirement of the spring pressed jaws to obtain a fresh grip, and means carried by the plunger for severing and affixing the stamp to the moistened surface.

2. In apparatus for affixing to a moistened surface a stamp from a strip having a transverse series of perforations between consecutive stamps, feeding jaws arranged to grip the strip through a series of perforations, an auxiliary feed device arranged to grip the strip independently of the said jaws, suitable means for moistening the surface to which the stamp is to be affixed and means for moving the said jaws and auxiliary feed device to feed the strip to the moistened surface.

3. In apparatus for affixing to a moistened surface a stamp from a stamp strip, means for moistening the surface to which the stamp is to be affixed, means for feeding the strip to the moistened surface, an operating plunger and a sliding part under the control of the plunger and serving as an actuating element common to both the feeding means and the moistening means, whereby the feeding and moistening means are positively prevented from interfering the one with the other.

4. In apparatus for affixing to a moistened surface a stamp from a stamp strip, a reciprocating operating plunger, a feeding means for advancing a stamp strip into position to be affixed and severed, and means for moistening the surface to which the stamp is to be affixed, the said plunger being so arranged that it will be inoperative during any return movement thereof occurring after it has begun its movement in either direction and before the movement in that direction is full and complete, whereby a complete feeding movement of the strip is insured when once the feed is begun.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

IVOR L. JOHNSON.

Witnesses:

H. D. JAMESON,
ALFRED D. BISHOP.