

No. 716,969.

Patented Dec. 30, 1902.

J. T. WELKE.
STAMP AFFIXING MACHINE.

(Application filed Feb. 17, 1902.)

(No Model.)

Fig. 1.

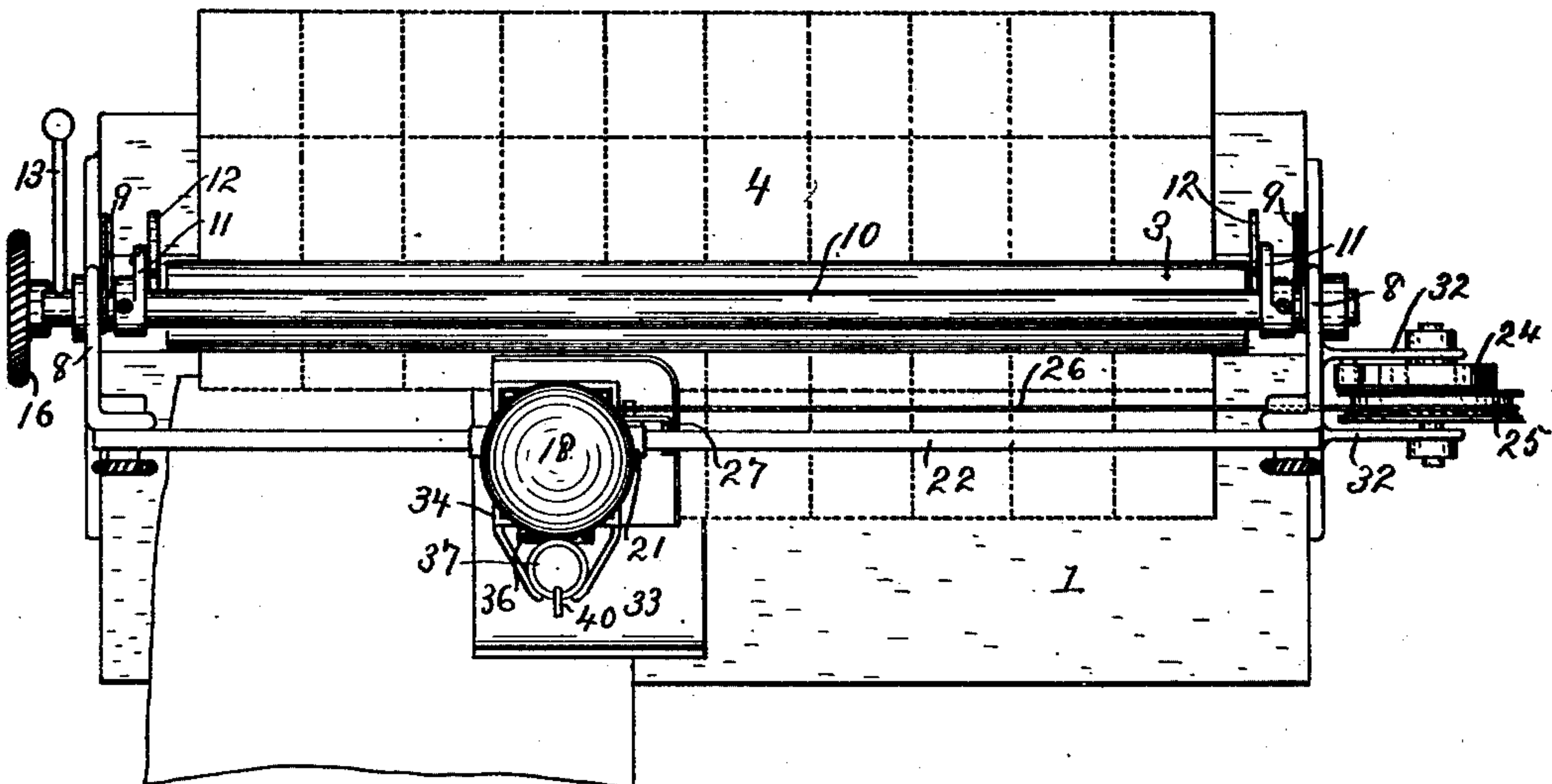


Fig. 2.

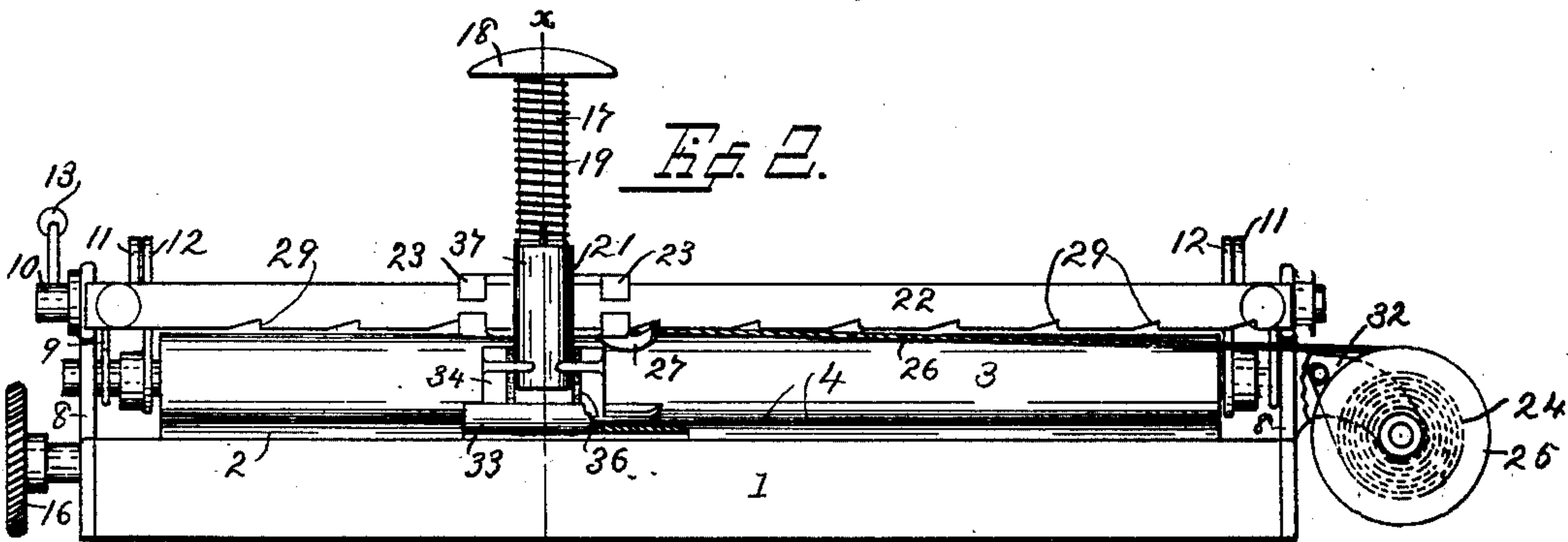


Fig. 3.

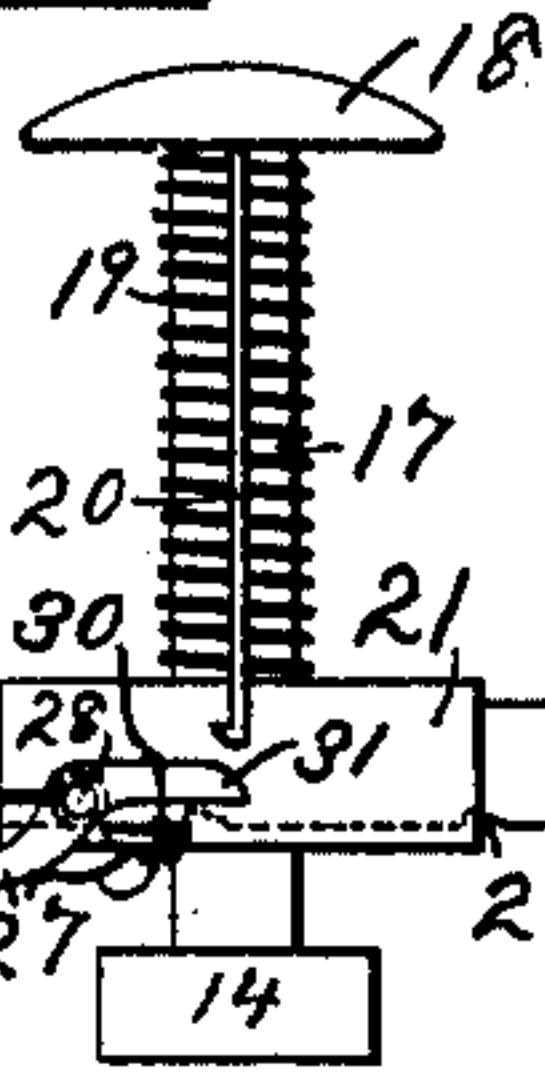
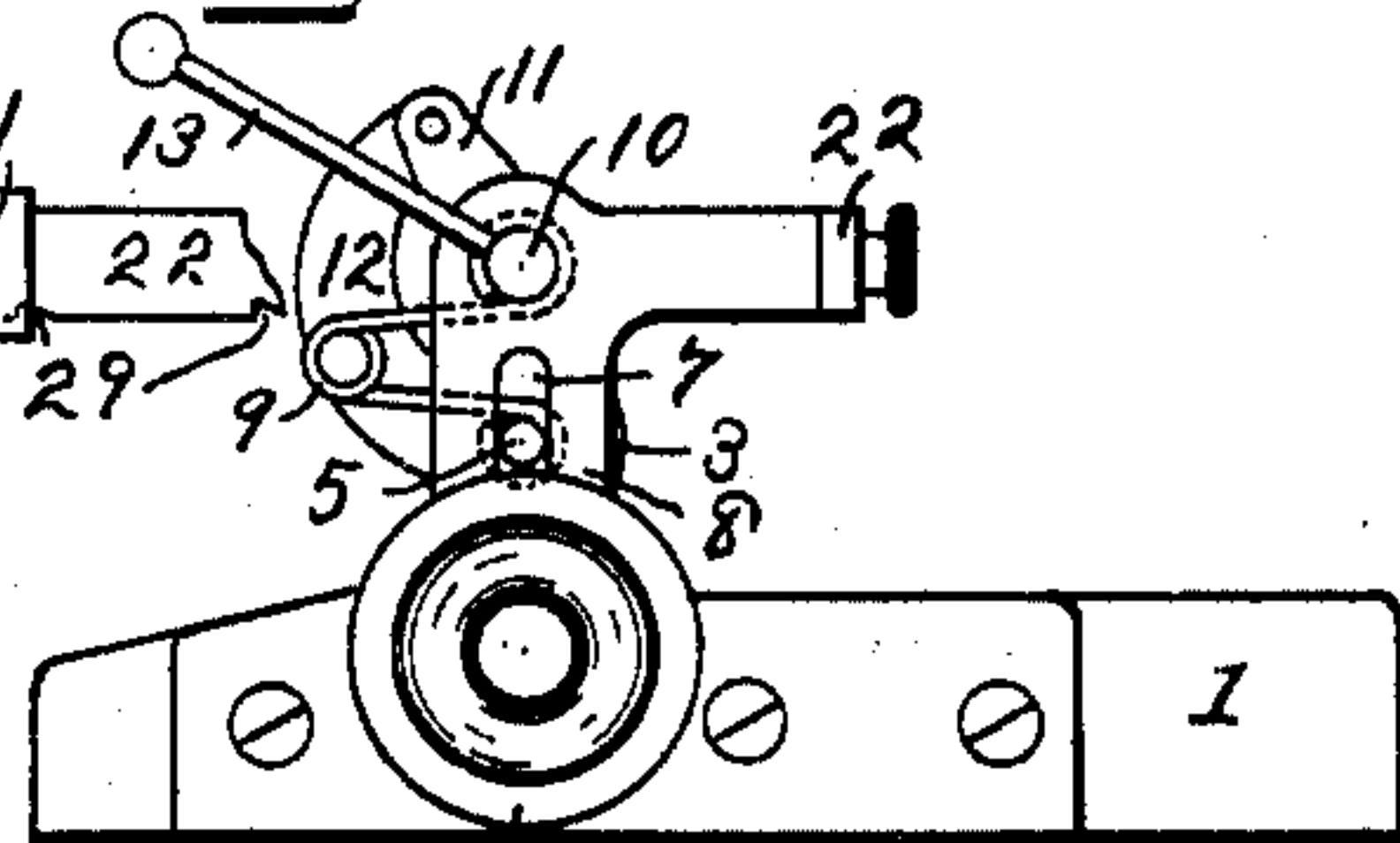


Fig. 5.



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STAMP-AFFIXING MACHINE.

SPECIFICATION forming part of Letters Patent No. 716,969, dated December 30, 1902.

Application filed February 17, 1902. Serial No. 94,366. (No model.)

To all whom it may concern:

Be it known that I, JOHN T. WELKE, a citizen of the United States, residing at Milwaukee, county of Milwaukee, and State of Wisconsin, have invented new and useful Improvements in Stamp-Affixing Machines, of which the following is a specification.

My invention relates to improvements in devices for affixing postage and other adhesive stamps to envelopes, papers, &c.; and it pertains to that class of stamp-affixing devices by which an entire sheet of unseparated postage or other stamps is placed in the machine at the same time and said stamps are simultaneously separated from the sheet and affixed to the envelop by a single stroke of a punch or plunger.

By my improvement the punch and die are automatically fed forward the width of a single stamp at a time as said stamps are successively separated from the sheet and affixed, whereby the construction of my device, as compared with such prior forms of construction, is greatly simplified.

My invention is further explained by reference to the accompanying drawings, in which—

Figure 1 represents a top view. Fig. 2 is a front view, the same being the side from which the envelopes are inserted beneath the stamp-affixing punch. Fig. 3 is a detail showing a rear view of the device for intermittently actuating the stamp-affixing punch and die as the stamps are successively removed. Fig. 4 is a transverse section drawn on line *xx* of Fig. 2. Fig. 5 is an end view.

Like parts are identified by the same reference characters throughout the several views.

1 represents the base of the machine.

2 and 3 are rollers by and between which the sheet of postage-stamps 4 is held in place preparatory to being separated and affixed. The rollers 2 and 3 are provided at their respective ends with journals 5 and 6, which have journal-bearings in the slots 7 of the standards 8, and said rollers are held in close contact by the recoil of the spring 9, which is interposed between the journal-bearings of the upper roller 3 and the shaft 10 or other stationary part of the machine. The rollers 2 and 3 are slightly separated preparatory to inserting the sheet of stamps between them,

when they are permitted to come together again upon the sheet. The respective journals of the upper roller 3 are connected with the shaft 10 by radial arms 11 and connecting-links 12, whereby as said shaft 10 is turned slightly in its supporting-bearings motion is communicated therefrom to the respective ends of said roller through the arms 11 and links 12, whereby said upper roller is raised, as stated, for the admission of the sheet of stamps, when said upper roller is permitted to drop back to its original position. The spring 9 is interposed between the shaft of the upper roller 3 and the shaft 10, by the recoil of which spring said upper roller is held firmly in contact with the lower roller 2. Motion is communicated to the shaft 10 for the purpose of raising said upper roller 3 through the lever 13. When the edge of the sheet of postage-stamps has been secured in place between the rollers, it is moved forward until one of the stamps of the first series is brought directly between the face of the punch or plunger 14 and the die 15. When this is done, the sheet of stamps and the retaining-rollers 2 and 3 remain at rest until all the stamps in the first series have been detached from the sheet and affixed to envelopes. When one series of stamps has been thus affixed, the sheet is again moved forward as before by turning said rollers until the next series is brought in line with the punch and die. Motion is communicated to the rollers 2 and 3 by the hand-wheel 16, which wheel is affixed to the protruding end of the shaft of one of said rollers. The punch 14, together with the operating-bar 17, knob or handle 18, actuating-spring 19, pawl-actuating hook 20, and the traveling punch guide or carriage 21, are all supported from the horizontal bar 22, which bar 22 is supported at its respective ends from the standards 8. The carriage 21 is provided with retaining-clasps 23, which engage around said bar 22, upon which they are adapted to slide freely as the punch and carriage are moved from one stamp in the series to another. The punch guide and carriage are intermittently moved from left to right (reference being made to Fig. 2) along said bar 22 with each stroke of the punch. Motion is communicated to said carriage from the coil-spring 24

through the roller 25 and flexible connection 26. The carriage 21 is held in place against the recoil of the actuating-spring 24 while the plunger is at rest, and during its downward stroke by the pawl 27. The pawl 27 is pivoted at its center to the side of the carriage 21 in such a manner that its front end is held in contact with the under side of said supporting bar or track 22 and is adapted to engage in the series of notches 29, formed in said bar. Said pawl is retained in contact with the under side of said bar 22 by the spring 30, which spring is affixed at one end to the carriage 21, and its opposite end bears against the under side of said pawl. When the punch 14 is forced down in the act of affixing a stamp, the pawl-actuating hook 20 engages beneath the end of the arm 31 of said pawl, whereby with the upward movement of said punch said pawl 27 is turned slightly upon its supporting-pivot 28, whereby its front end is disengaged from one of the notches 29 of the series, when the carriage is thrown forward with a quick movement to the next succeeding notch in the series by the recoil of the actuating-spring 24, acting through the connection 26, as stated, when the upper end of said pawl engages in said next succeeding notch. Thus in like manner the carriage 21, with the punch and other connecting parts, are moved forward from one notch to another with each upward movement of the punch until all the stamps in the series are punched out and affixed. This being done, the carriage, with said connecting parts, is drawn back to the starting-point at the opposite end of the bar 22, when the sheet of stamps is again moved forward, so as to bring the next succeeding series of stamps in line with the punch, when the described steps are repeated until all the stamps in the sheet have been affixed.

The roller 25 is supported from the base 1 by the bracket 32. The pawl-actuating hook 20 is preferably elastic, so as to yield slightly as it passes over the end of the arm 31 of the pawl. For convenience of construction the hook 20 is suspended from the actuating-knob 18; but it may be connected with any other part of the device which is moved with the punch. The spiral spring 19 is interposed between the top of the carriage 21 and the knob 18 and serves to raise the punch when released from the hand of the operator.

33 is a die-plate or plate in which the die 14 operates as it severs one stamp from the other in the sheet. The die-plate 33 is held beneath the punch and carried forward and backward with the punch-carriage by contact of the punch 14 with the rectangular frame 34, which frame 34 is connected to said die-plate at its front side only by the bracket 35. Thus the die-plate 33 rests of its own gravity upon the bed-plate 1 and is free to move upward and downward beneath the punch, to which it is loosely fitted, as envelopes or other papers are inserted beneath the die-plate pre-

paratory to affixing the stamps thereto, while owing to the fact that said rectangular frame 34 is connected at its front side only with the die-plate the front edge of the sheet of stamps is readily inserted through the space, as indicated in Fig. 6, beneath said frame and between said punch and die, so as to be detached by the strokes of said punch. It will now be understood that when an envelop is inserted beneath said die-plate and a sheet of stamps is inserted above said die-plate and between it and said punch and a downward stroke is given to said punch a stamp will be severed from said sheet and forced through the aperture in the die-plate and in direct contact with said envelop. The envelop is moistened preparatory to affixing a stamp by contact with a wet pad 36, which may be formed of sponge, felt, or other similar material which is adapted to hold water by capillary attraction. The pad 36 is located in the path of the envelop as it is inserted beneath the die, whereby the envelop is moistened sufficient to cause the stamp to adhere thereto. The pad 36 is supplied with water from the reservoir 37, which reservoir is provided with an outlet-duct 38, communicating with said pad. The escape of water from the reservoir to said pad is regulated by a screw-threaded plug 39 and an actuating-rod 40. The reservoir 37 and connecting parts are supported and held in place by said die-plate 33, with which they are adapted to move backward and forward as the several stamps of a series are detached and affixed.

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

1. In a stamp-affixing machine of the class described, the combination of a supporting-base; two contiguous stamp-holding bearings supported from said base; a carriage-supporting bar or track; means for supporting said bar or track from said base; a carriage slidably supported from said bar or track; a punch supported from said carriage; a movable die-plate supported by said base beneath said punch; a rectangular guide-frame attached at one side to said die-plate, and having loosely-fitting bearings around said punch, by which the lateral movement of said punch is communicated to said die-plate; means for automatically moving said carriage, punch, die-plate and connecting parts in one direction upon said supporting bar or track across said base; a retaining-pawl for holding said carriage and connecting parts at intervals upon said supporting-bar, while said punch is moving downward and at rest; means for holding said pawl in engagement with said carriage-supporting bar; and means for disengaging said pawl from said bar with each upward movement of said punch.

2. In a stamp-affixing machine of the class described, the combination of a supporting-base; two contiguous stamp-holding rollers supported in suitable journal-bearings from

said base; means for separating said rollers for the purpose of inserting a sheet of stamps; means for holding said rollers together when said sheet is inserted; a carriage-supporting bar or track; means for supporting said bar or track from said base; a carriage slidably supported from said bar or track; a punch supported from said carriage; a movable die-plate supported by said base, beneath said punch; a rectangular guide-frame attached at one side to said die-plate, and having loosely-fitting bearings around said punch, by which the lateral movement of said punch is communicated to said die-plate; means for automatically moving said carriage-punch, die-plate and connecting parts in one direction upon said supporting bar or track across said base; a retaining-pawl for holding said carriage and connecting parts at intervals upon said supporting-bar, while said punch is moving downward and at rest; means for holding said pawl in engagement with said carriage-supporting bar; and means for disengaging said pawl from said bar with each upward movement of said punch.

3. In a stamp-affixing machine of the class described, the combination of a supporting-base; two contiguous stamp-holding rollers supported from said base; a carriage-supporting bar or track; means for supporting said bar or track from said base; a carriage slidably supported from said bar or track; a punch supported from said carriage; a movable die-plate supported by said base, beneath said punch; a rectangular guide-frame attached at one side to said die-plate, and having loosely-fitting bearings around said punch, by which the lateral movement of said punch is communicated to said die-plate; a stamp-moistening pad and a water-reservoir supported from said die-plate in close proximity to said die; a duct or passage communicating from said reservoir to said moistening-pad; means for automatically moving said carriage-punch, die-plate and connecting parts in one direction upon said supporting bar or track

across said base; a retaining-pawl for holding said carriage and connecting parts at intervals upon said supporting-bar, while said punch is moving downward and at rest; means for holding said pawl in engagement with said carriage-supporting bar; and means for disengaging said pawl from said bar with each upward movement of said punch.

4. In a stamp-affixing machine of the class described, the combination of a supporting-base 1; stamp-retaining rollers 2 and 3, supported at their respective ends in the standards 8; roller-actuating knob 16; a carriage-supporting bar or track 22, supported from said standards, and provided on its under edge with a series of notches 29; carriage supported from said track; punch 14; punch-actuating bar 17; hand-bearing or knob 18, affixed to the upper end of said bar 17; spiral spring 19 interposed between said carriage and said hand-bearing or knob, and adapted to raise the punch when released from the hand of the operator; carriage-retaining pawl 27 supported from the side of said carriage, upon the pivot 28, and adapted to bear at its front end in the notches of said bar; pawl-actuating hook 20 affixed at its upper end to said hand-bearing 18, and adapted, with its upper movement, to engage and release said pawl from the notches in said bar; guide-plate 33; rectangular frame 34 supported at one side from said plate 33 by the bracket 35; spring-actuated roller 25; flexible connection 26, communicating between said carriage and said spring-actuated roller; moistening-pad 36; reservoir 37, said reservoir being provided with a duct 38 communicating with said pad, all substantially as and for the purpose specified.

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

JOHN T. WELKE.

Witnesses:

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