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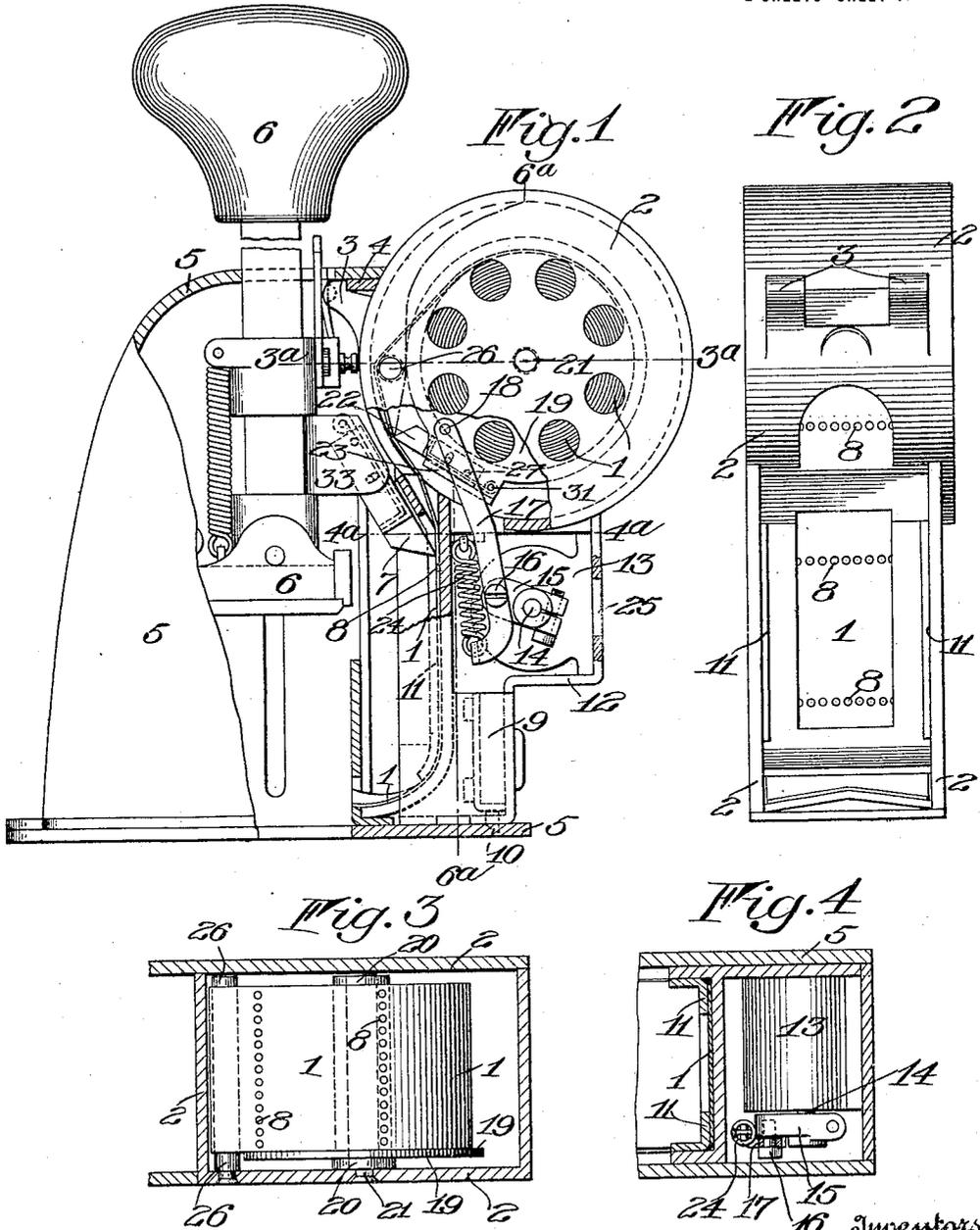
STAMP OR LABEL AFFIXER.

APPLICATION FILED NOV. 21, 1917.

1,326,978.

Patented Jan. 6, 1920.

2 SHEETS—SHEET 1.



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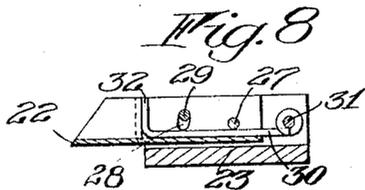
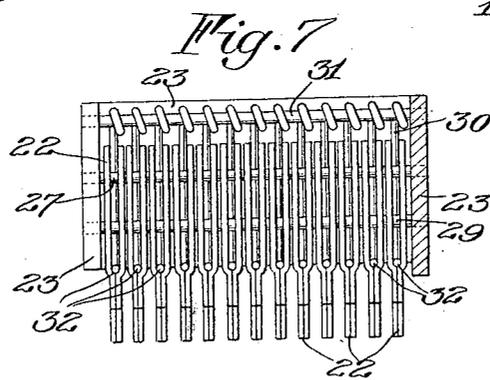
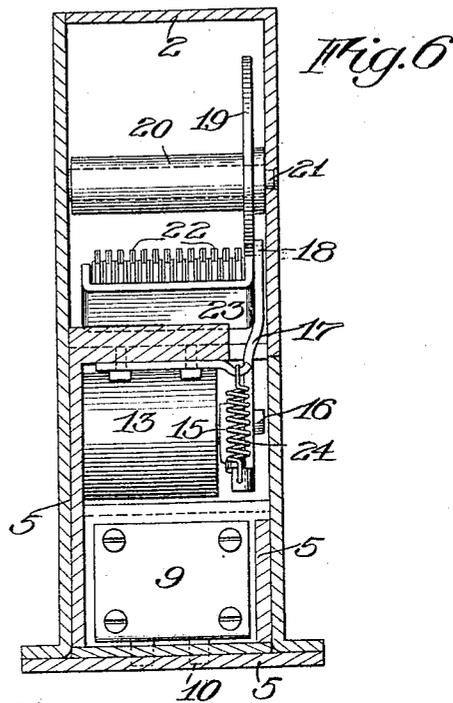
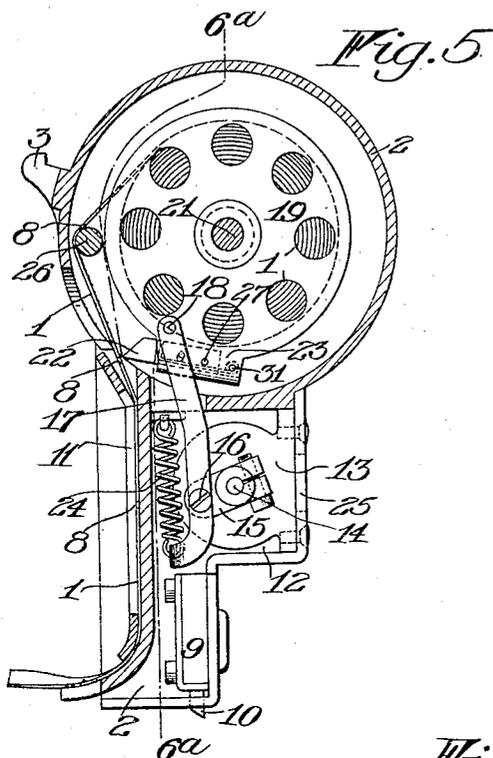
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# UNITED STATES PATENT OFFICE.

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STAMP OR LABEL AFFIXER.

1,326,978.

Specification of Letters Patent.

Patented Jan. 6, 1920.

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*To all whom it may concern:*

Be it known that we, WILLIAM F. SCHWEIGER and WESLEY J. BALKWILL, of Rochester, county of Monroe, and State of New York, have invented certain new and useful Improvements in Stamp or Label Affixers; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

This invention relates to machines adapted for automatically affixing stamps, or labels, to letters, or packages, and more particularly relates to a machine of this class including a stamp or label counting mechanism operated by direct automatic engagement of a series of fingers with successive series of transverse perforations in a strip of stamps, or labels, which is advanced step-by-step by feeding mechanism acting independently of the counter operating mechanism. The stamp feeding and severing and affixing devices are contained and operate in a main casing, and the used stamp counter and its actuating means are contained in an auxiliary casing which is readily detachable from the main casing to allow substitution of one auxiliary casing for another containing stamps of different value or denomination.

The invention has for its main objects to make the automatic operation of the stamp or label counting mechanism more easy, positive and reliable than heretofore, while preserving the feature of ready and convenient interchangeability of one auxiliary casing for another containing stamps or labels of different value or character. With these and other objects in view the invention consists in certain improvements and combinations of parts, all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings:

Figure 1 is a sectional side elevation of a stamp affixing machine embodying this invention;

Fig. 2 is an inner face view of the detached auxiliary casing which contains the stamp strip, the counter or registering device, and the means for operating it;

Fig. 3 is a plan view of the detached

stamp container with its walls in horizontal section on the line 3<sup>a</sup>—3<sup>a</sup> in Fig. 1;

Fig. 4 is a detail horizontal section taken on the line 4<sup>a</sup>—4<sup>a</sup> in Fig. 1;

Fig. 5 is a sectional side view of the detached auxiliary casing and the stamp counter operating devices as adjusted to the limit of the finger stroke which actuates the counter;

Fig. 6 is a vertical sectional view of the auxiliary casing with the stamp strip removed and taken on the line, 6<sup>a</sup>—6<sup>a</sup> in Figs. 1 and 5;

Fig. 7 is an enlarged plan view of the counter actuating fingers and their support;

Fig. 8 is an enlarged sectional side view of parts of the counter actuating devices in the relative positions shown in Fig. 5.

The strip of stamps or labels which is preferably wound into a roll 1 is placed within a container comprising a readily detachable auxiliary casing 2, having hooks 3 adapted to engage behind shoulders 4 fixed within a main casing 5 containing a plunger or affixing member 6, carrying a cutter for severing successive stamps at the strip perforations. The plunger, by coaction with a moistening device (not shown) also affixes the severed stamps to envelopes or packages in a well known manner. The plunger pivotally carries a series of stamp feeding fingers 7, which normally spring into successive rows or lines of perforations 8, in the stamp strip and feed it forward step-by-step for a distance equaling the length of a stamp, as the plunger is operated, prior to the stamp severing and affixing operations which need not be herein further described in detail. Besides the hooks 3, or equivalent upper detents, the auxiliary casing 2, has a lower lock 9, including a bolt 10 entering a recess in the floor of the main casing 5, which can be retracted only by use of a key in the hands of a duly authorized person, who alone may unlock and detach the auxiliary casing 2, and the contained stamps, counting mechanism and counter operating means, from the main casing 5, as hereinafter more fully explained. At its lower inner face the auxiliary casing 2, has suitable guides 11 along which the stamp strip 1 passes downward and then laterally to project the strip into the path of the stamp severing and affixing plunger 6.

In an intermediate portion 12 of the aux-

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auxiliary casing 2 is secured any approved counting, or registering mechanism 13, which needs no detailed description, and, as will be understood, comprises a primary counting wheel rotated by an oscillatory shaft 14 to which is fastened an arm 15. This arm is pivoted at 16 to a lever 17, the upper end of which projects into the stamp roll holding portion of the auxiliary casing 2, wherein it is pivoted at 18 to the face of a disk 19, which has a hub 20 affording a long bearing for the disk upon a pin 21 fixed to a side wall of the casing 2. The hub bearing 20 preferably extends across the chamber portion of the casing and thus assures a delicate non-tremulous support for a wide series of counter actuating fingers 22 which engage within the successive transverse series of perforations 8 ranging entirely across the stamp strip, thereby utilizing the entire fibrous strength of the strip at all of its perforations to promote definite and accurate operation of the counter mechanism by the fingers 22 engaging the perforations. These fingers are carried by a support or bracket 23, rigidly connected to the disk 19 and projecting from one edge thereof parallel to the bearing 21. A light tensioned spring 24, connected at one end to the lever 17 and at the other end to the wall of the auxiliary casing, retracts the parts 15, 17, 19, 22 from the advanced or actuated positions shown in Fig. 5 to their normal positions shown in Fig. 1. An opening 25 is provided in the casing portion 12, through which may be observed the numerical total of the stamps used and registered by the counting mechanism 13. The stamp strip on its way from the roll 1 passes from the top of the roll to the side of the chamber, thence downwardly over a guide rod 26 which is fixed at one end to the side wall of the casing 2. This guide properly positions the stamp strip relatively to the counter actuating fingers 22 which oscillate in the space provided between the guide 26 and the mouth of the stamp guide way formed by the parts 11.

The form of the counter actuating fingers 22, and their action relatively to each other in engaging stamp strip perforations is best shown in Figs. 7 and 8, and practice has amply demonstrated that this form of yielding finger is specially adapted for use in the channel member 23, on the oscillatory disk 19, for directly actuating a counting mechanism through the medium of the stamp strip perforations 8. The U-shaped rear portions of the fingers 22 are supported on a shaft or rod 27 fixed in the opposite end walls of the channel member 23, and have slots 28, permitting their limited upward play upon a cross rod 29 fixed in the member 23, against the tension of wire springs 30, which are also held at their rear end eyes

by a rod 31, fixed to and extending across the member 23. These springs extend forwardly within the U-shaped portions of the fingers and preferably have upturned free ends 32, which stand against the forward end walls of the finger grooves at the junction of the U-shaped portions of the fingers with their narrower front operating ends which are finished by pressing close together the forward portions of a doubled over sheet metal blank, from which the fingers are formed. To promote greater clearness of illustration the fingers 22 in Fig. 7, are separated laterally on their supporting rods 27 and 29, but in practice the side walls of their U-shaped portions lie closely together and to the end walls of the channel member 23, to prevent lateral play of any of the fingers while allowing their limited vertical play independently upon the pivot rod 27.

The arrangement of the stamp feeding fingers 7 carried by the plunger 6, and mounted within their support 33, is substantially similar to the arrangement of the fingers 22 in the channel member 23, the last mentioned fingers being reversed endwise, as shown in Fig. 1.

The fingers 22 are of uniform size and as their angular ends 22 which engage the stamp strip perforations 8, are held in transverse alinement, they will uniformly engage said perforations and be carried forward with the strip and utilize its whole fibrous strength without injury to it during the operation of the counter mechanism 13. This desirable result is further assured by the non-tremulous oscillation of the finger carrying disk 19 on its long bearing as it moves the lever pivot 18 through the short arc indicated by its two extreme positions shown respectively in Figs. 1 and 5, thus permitting the operation of the counter during a portion of the feeding movement of the stamp strip. The distance moved by the fingers 22, in operating the counter, is less than the length of a stamp and the arrangement of the parts is such that the fingers 22 do not engage the perforations 8 until after the stamp strip begins to move, and after the counter is operated the fingers are in such position that the stamp strip perforations are easily disengaged and pulled ahead of them thus releasing the fingers and permitting them to be retracted to their normal position. By not allowing the perforations to engage the fingers 22 until after the stamp strip begins to move, the counting mechanism does not exert any tendency to retard the stamp strip when the feeding fingers first engage therewith and the possibility of causing the stamp strip to stick in its guide way and thus pull apart at an occasionally weak spot is minimized.

The operation is very simple and efficient. The light tensioned spring 24 normally

holds the disk 19 and its fingers 22 in the relative positions shown in Fig. 1 with the alined fingers in contact with the strip of stamps and slightly deflecting it. As the stamp strip is advanced by the fingers 7 upon the downward movement of the plunger 6, the fingers 22 are automatically engaged by the strip perforations 8, and as the strip is fed forward the disk 19 is turned to the position shown in Fig. 5, meanwhile turning the arm 15 by the lever 17 sufficiently far to operate the counter 13. At about completion of the forward movement of the stamp strip the fingers 22 automatically back off, as it were, to a position where the stamp strip merely rests lightly against the ends of the fingers, instead of dragging against them, so that the perforations slide over the beveled ends of the fingers thus releasing them, as shown in Fig. 5. The spring 24 now restores the oscillatory parts 15, 17, 19, 22 to their normal relative positions shown in Fig. 1, in readiness for the next operation.

We claim as our invention:

1. In a stamp affixer, the combination with a casing having a chamber for containing a perforated stamp strip, of a support movable in the stamp strip chamber, fingers on the support cooperating with the perforations in the stamp strip, a counter in the casing, connections between the finger support and the counter for actuating the latter as the fingers are carried forward by the perforations in the stamp strip.

2. In a stamp affixer, the combination with an auxiliary casing having a transverse bearing in the casing adapted to support a stamp roll, of an oscillatory support journaled on said bearing and provided with a transverse channel, means for guiding the strip from its roll, devices supported in said channel arranged to cooperate with the stamp strip, a counter in the casing, connections between the oscillatory support and the counter for actuating the latter, and means retracting said support after each movement of the stamp strip.

3. In a stamp affixer, the combination with an auxiliary casing having a transverse bearing for holding a roll of perforated stamps, of an oscillatory support journaled on said bearing and provided with a bracket

extending beneath the stamp roll, means guiding the stamp strip from its roll portion, a series of yielding spring pressed fingers supported in said bracket, a counter in the auxiliary casing having an operating shaft, an arm on the shaft, a lever pivotally connecting said oscillatory support with said arm, and a spring for retracting the lever and the finger support.

4. An auxiliary casing for stamp affixers comprising a chamber adapted to contain a perforated stamp strip and having an oscillatory support in said chamber, fingers carried by the support, means yieldingly holding the fingers in engagement with the stamp strip, a counter, connections between the oscillatory finger support and the counter for actuating the latter when the fingers are carried forward by the perforations in the stamp strip when advanced, and means retracting the oscillatory finger support and fingers after each movement thereof by the stamp strip.

5. An auxiliary casing for stamp affixers embodying a chamber adapted to contain a perforated roll of stamps and having two spaced guides for the stamp strip, an oscillatory support in said chamber, fingers held by said support and adapted to cooperate with the stamp strip between the two guides, a counter, connections between the oscillatory finger support and the counter for actuating the latter, and means retracting the oscillatory support after each advance movement thereof.

6. An auxiliary casing for stamp affixers, comprising a chamber adapted to contain a roll of stamps and having a central bearing for supporting the roll, a guide at one side of the chamber over which the stamp strip passes, and a guide way for the free end of the strip spaced from the first mentioned guide, an oscillatory member journaled on said bearing, and means on said member adapted to engage the stamp strip between said guides and to be moved thereby to actuate the oscillatory member in one direction, counter mechanism, operating connections between it and the oscillatory member, and means for moving the latter in the other direction.

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