

C. L. PETERS.
STAMP AFFIXING DEVICE.
APPLICATION FILED MAR. 10, 1910.

981,305.

Patented Jan. 10, 1911.

2 SHEETS-SHEET 1.

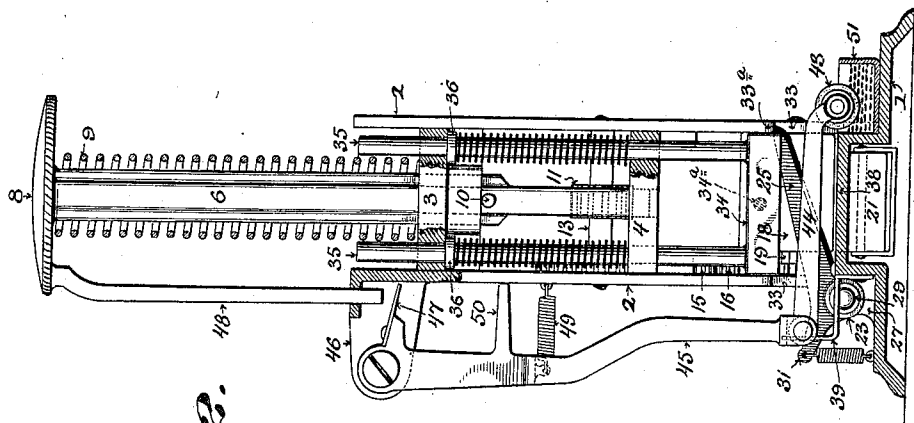


Fig. 2.

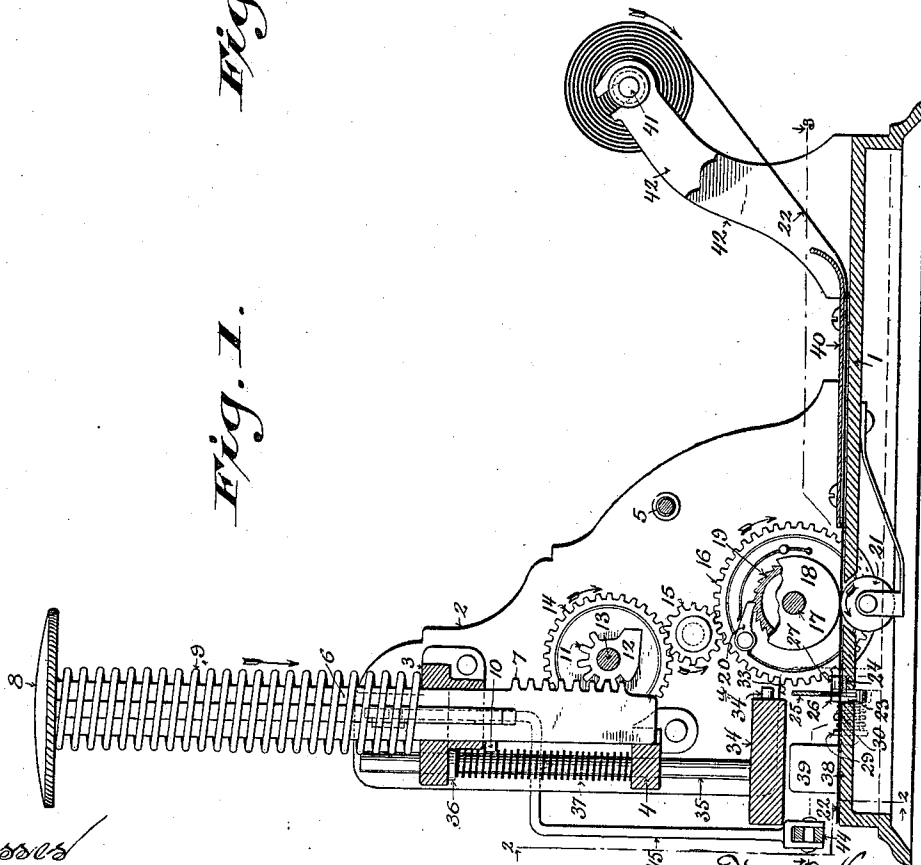


Fig. 1.

*Washers
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2 SHEETS—SHEET 2.

Fig. 4.

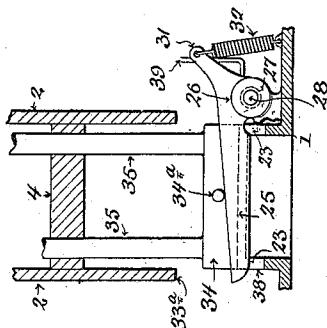
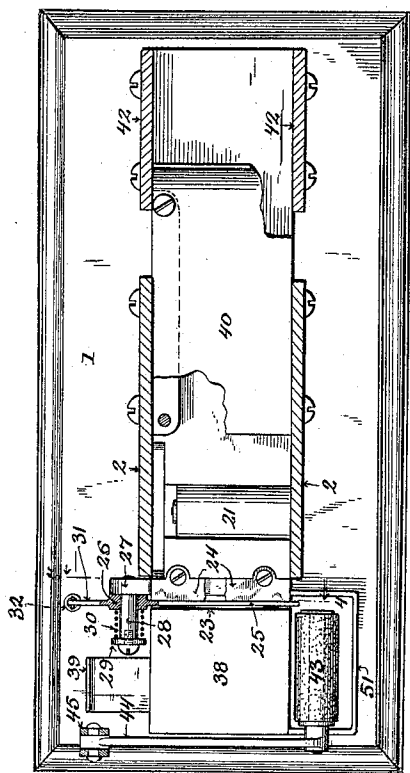


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

CHARLES L. PETERS, OF MARINETTE, WISCONSIN, ASSIGNOR OF ONE-HALF TO ROBERT BODENBACH, OF MILWAUKEE, WISCONSIN.

STAMP-AFFIXING DEVICE.

981,305.

Specification of Letters Patent.

Patented Jan. 10, 1911.

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To all whom it may concern:

Be it known that I, CHARLES L. PETERS, a citizen of the United States, and resident of Marinette, in the county of Marinette and State of Wisconsin, have invented certain new and useful Improvements in Stamp-Affixing Devices; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention refers to stamp affixing devices and is especially applicable to machines of that type for which a patent was issued to me July the 13th, 1909, Number 927,749.

In my prior patented machine and my present device for affixing stamps to envelopes or like articles, the stamps, with their gummed side up, are fed from a continuous strip to an anvil and thereafter the end stamp is moistened. An envelop or card is then placed in position over the moistened stamp and said stamp is thereafter severed from the strip and simultaneously pressed upon the inserted envelop or card by a die-block. This entire operation is accomplished by a down-stroke of a manually operated plunger, the down-stroke being interrupted by the application of supplemental spring resistance. The up-stroke of the plunger serves to impart motion to a train of gears in connection with feed mechanism, whereby another stamp is fed to the anvil.

The primary object of my present invention is to provide a simple and effective oscillatory stamp shearing mechanism, the construction and arrangement of which mechanism is such that a pivotally mounted shear-blade will, in connection with a stationary shear-plate, effectually sever the stamp, there being a spring tension device in connection with the oscillatory shear-blade, whereby the same is automatically adjusted to the shearing face of the stationary plate.

Another object of my invention is to provide a lever for operating the stamp moistening apparatus, the arrangement and construction of which lever is such that a quick motion is imparted thereto for operating the moistening apparatus, this motion being due to a tappet-spring carried by a short arm of said lever, whereby a slight yield of said spring, in opposition to power applied thereto, will insure an even or steady movement to the lever and thereby eliminate vibration and overthrow incidental to the necessary

quick movement, the lever being also provided with a fixed stop-foot in opposition to spring-control of said lever, by which spring-control the same is returned to its normal position.

Another object of my present invention is to provide the device with reel supporting arms for the reception of a detachable spindle, about which spindle a roll or coiled strip of stamps is wound.

With the above and other minor objects in view, the invention consists in certain peculiarities of construction and combination of parts as fully set forth hereinafter with reference to the accompanying illustrations and subsequently claimed.

In the drawings Figure 1 represents a longitudinal sectional elevation of a stamp-affixing device embodying the features of my invention, with certain structural details in full and others broken away to more clearly show the construction; Fig. 2, a front elevation of the same partly in section as indicated by line 2—2 of Fig. 1; Fig. 3, a plan sectional view of the same, the section being indicated by line 3—3 of Fig. 1, and Fig. 4, a detail cross-sectional view of the shearing mechanism as indicated by line 4—4 of Fig. 3.

Referring by characters to the drawings, 1 indicates a base having parallel standards 2 secured thereto, which standards are connected at their top portions by a bridge-piece 3 and an intermediate bridge-piece 4, together with a rearwardly disposed stay-rod 5. The upper bridge-piece 3 is provided with a central bearing for a ribbed plunger-bar 6, having a flat shank portion provided with a series of rack-teeth 7 at its lower end, the shank being also guided in a slot of the bridge-piece 4. A head 8 is secured to the upper end of the plunger-bar, between which head and the bridge-piece 3 is interposed a coiled-spring 9 that encircles said plunger. The coiled-spring serves to retract and hold the plunger in normal position, the upward stroke thus attained being limited by a pin 10 that extends from the plunger-shank and engages the bridge-piece 3. The rack-teeth of the plunger are meshed with a mutilated pinion 11, having a shoe 12, which shoe is adapted to abut the face of the plunger-shank above the rack-teeth thereof when said plunger is depressed. The shoe, when resting upon the

face of the plunger-shank serves to hold the pinion in position to be engaged by the rack upon the return stroke of said plunger.

The pinion is secured to a spindle 13 that is revolvably mounted in the standards. The spindle also carries a gear-wheel 14, which gear-wheel meshes with an idle pinion 15 mounted upon a stud that is carried by the adjacent standard. The pinion 15 is also meshed with a gear-wheel 16, that is fast on a shaft 17, which shaft is journaled in the standards and has loosely mounted thereon a frictional feed-drum 18. One end of the drum is provided with a ratchet-face 19, for engagement with a spring-controlled pawl 20 that is pivotally mounted upon the gear-wheel 16, the shaft 17 being also provided with suitable pawl-and-ratchet mechanism (not shown) for preventing overthrow of the drum. Located directly under the drum is a spring-controlled spool 21, the base 1 being recessed to permit the face of the spool to project therethrough for engagement with the adjacent face of said drum, between the contact faces of which the strip of stamps 22 is fed.

Immediately forward of the feed mechanism just described the base is provided with a transverse slot 23 and a stationary shear-plate 24, which slightly overhangs one edge of said slot. This shear-plate is aligned with an oscillatory knife-blade 25, the cutting edge of which knife-blade is arranged to impinge against the adjacent edge of the shear-plate 24.

As clearly shown in Fig. 4, the shank 26 of the knife-blade is pivotally secured to a lug 27 that extends from the base 1 of the device, the shank being mounted upon a stud 28. This stud is provided with a cap or head 29, between which and the opposite face of the knife-blade shank a coiled-spring 30 is inserted, the spring being adapted to encircle said stud. By this detail of construction it will be seen that the spring will exert pressure to hold the cutting edge of the knife in shearing engagement with the shear-plate 24, and thus at all times will compensate for wear upon the various engaging surfaces of the cutting mechanism. An arm 31 extends rearwardly from the shank of the knife-blade, to which arm is connected one end of a coiled-spring 32, its opposite end being secured to the base 1.

As shown in Fig. 2 of the drawings, the front edges of the standards are cut away rearwardly to form a recess or pocket 33, for the purpose of inserting the envelop, card or other article in position over the severed stamp, and the upper edge 33^a of one of the standard pockets thus forms a stop for the knife-blade in opposition to the spring pressure exerted thereon, whereby said knife-blade is held open under normal conditions.

Disposed directly in advance of the knife-blade and over the same is a die-block 34, provided with a pin 34^a, which pin is adapted to engage the knife-blade when said die-block is depressed from its normal position. The said die-block has a pair of upwardly extending guide-rods 35 that are reciprocally mounted in apertures of the bridge-pieces 3 and 4. Encircling each of these guide-rods between the lower bridge-piece and collars 36 of said guide-rods, are coiled-springs 37, which springs serve to return and hold the die-block in its normal position as shown in Fig. 1, in which position the collars 36 abut the lower face of the bridge-piece 3. The die-block projects in the path of travel of the end of the plunger-shank, which end is adapted to engage said die-block and force the same downward as the plunger is depressed, the engagement taking place approximately midway of the down-stroke of said plunger. That portion of the base 1 directly under the die-block constitutes an anvil 38, upon which the envelop, card, or other article desired to be stamped, is placed, and, as previously stated, the standards are cut away at this point to permit the reception of such article. A gage-plate 39, that extends from the anvil, also forms a stop for the article at right angles to the stop formed by the recessed standards.

The base, between the side standards and to the rear of the feed mechanism, comprises a table upon which a strip of stamps is adapted to slide, the said base portion being provided with a longitudinal spacing strip at one side thereof, upon which a cover-plate 40 is secured, the rear end of the cover-plate being slightly upturned to facilitate the insertion and travel of the strip of stamps thereunder. Said strip of stamps is fed from a coil that is mounted upon a detachable spool 41, which spool is hung in slotted apertures of a pair of brackets 42, that extend upwardly from the base. By utilizing a spool or reel of this character the maximum amount of stamps can be adjusted to the machine in a minimum space and snarling of the strip is avoided, while the feed mechanism can readily and accurately supply a stamp to the anvil with each operation of the device.

The stamp moistening apparatus comprises a wiper in the form of an absorbing roller 43, loosely mounted upon a stud that is carried by a link 44, the rear end of which link is in pivotal connection with the long arm of a lever 45. This lever is fulcrumed to an ear of a bracket 46, that projects from the top portion of the adjacent standard, the short arm of the lever being provided with a tappet in the form of a leaf-spring 47, which leaf-spring is secured in any suitable manner to said arm. The spring is disposed in the path of a tappet-rod 48, that depends

from the head of the plunger and is guided at its end in an apertured ear of the bracket 46. A coiled-spring 49 is connected to the lever 45 and adjacent standard 2, which spring serves to hold the lever in its normal position, as shown in Fig. 2, in opposition to a stop-foot 50, that extends from said lever and is arranged to abut the face of the standard.

As shown in Fig. 2, the parts are in their normal position, in which position the moistening roller 43 is partly immersed in a water reservoir 51, which reservoir is secured to the base to one side of the anvil, the position of the roller with relation to the anvil face being such that it can readily be withdrawn from the pan when the device is actuated for the purpose of distributing moisture upon a stamp as said roller travels over the face of the anvil.

In the operation of my device the end stamp of the series, as shown in Fig. 1, is in position upon the anvil to be severed, the gummed side of the stamp being upward. To affix the stamp upon the anvil to a card, envelop, or other article, the operator depresses the plunger until said plunger is momentarily arrested by its end coming in contact with the die-block. The momentary arrest in the down-stroke of the plunger is well defined and due to the fact that the added resistance of the two die-block springs is interposed. The initial portion of the down-stroke of the plunger causes the tappet-rod 48 to act immediately upon the tappet-spring 47 carried by the short-arm of lever 45, and thereby impart motion to said lever, the same being swung outwardly, which action draws the moistening roller over the gummed face of the stamp. At this time the plunger has completed its initial movement and the roller will now remain upon the opposite side of the anvil until such time as the plunger has practically returned to its normal position, owing to the fact that the tappet-rod, which engages the spring 47, will now have sliding engagement therewith, the said spring being adapted to yield slightly. The last half of the stroke of the plunger causes its rack-teeth to impart an idle motion to the train of gearing in connection therewith, which motion is permitted independent of the feed-roller by means of the pawl-and-ratchet engagement of the gear with said feed-roller, and thus the latter will remain stationary. As the plunger continues in its descent it carries therewith the die-block and the pin 34^a of said die-block will thereby engage the knife-blade 25, causing the same to rotate upon its axis and sever the moistened stamp. Prior to the last half of the stroke of the

plunger, however, it is understood that the operator inserts the article to be stamped in position on the anvil and hence as the die-block comes to rest upon the anvil the article to be stamped is firmly pressed against the moist face of the stamp simultaneously with the cutting operation thereof. The operator then permits the spring 9 to retract the plunger and as soon as the anvil 34 releases its grip from the article which has previously been stamped, the same is removed. The up-stroke of the plunger is then completed and in its movement rotation of the gears causes a fresh stamp to be fed to the anvil, and as soon as the tappet-rod 48 is clear of the leaf-tappet-spring 47, the lever returns to its normal position, causing the moistening roller to be again deposited within the reservoir.

I claim:

1. In a stamp-affixing device comprising an anvil, a spring-controlled reciprocative die-block disposed above the anvil, a spring-controlled reciprocative plunger for engagement with the die-block, a stamp feed mechanism in gear connection with the plunger, and a shear-plate in juxtaposition to the anvil; the combination of an ear, a fixed headed stud carried by the ear, a shear-blade loosely mounted upon the stud for engagement with the shear-plate, a coiled-spring interposed between the blade and stud head for holding said blade in shearing engagement with the aforesaid shear-plate, and actuating means for said knife-blade under control of the plunger.

2. In a stamp-affixing device comprising an anvil, a spring-controlled reciprocative plunger disposed above the anvil, a stamp feeding mechanism in gear connection with the plunger, and a stamp cutting mechanism in juxtaposition to the anvil under control of said plunger, a reservoir disposed to one side of the anvil, and a moistener adapted to normally rest in the reservoir; the combination of a spring-controlled lever in link connection with the moistener, a stop-foot for the lever in opposition to its spring-control, an arm extending from said lever, a leaf-spring extension carried by the arm, and a tappet-rod in connection with the aforesaid plunger for engagement with the leaf-spring extension.

In testimony that I claim the foregoing I have hereunto set my hand at Marinette in the county of Marinette and State of Wisconsin in the presence of two witnesses.

CHAS. L. PETERS.

Witnesses:

L. C. WEMPLE,
J. M. KRONSNÖBLE.