No. 667,754. Patented Feb. 12, 1901.

J. E. WRIGHT.

FEED MECHANISM FOR POSTMARKING AND STAMP CANCELING MACHINES.

(Application filed May 31, 1900.)

(No Model.) 2 Sheets—Sheet 1.

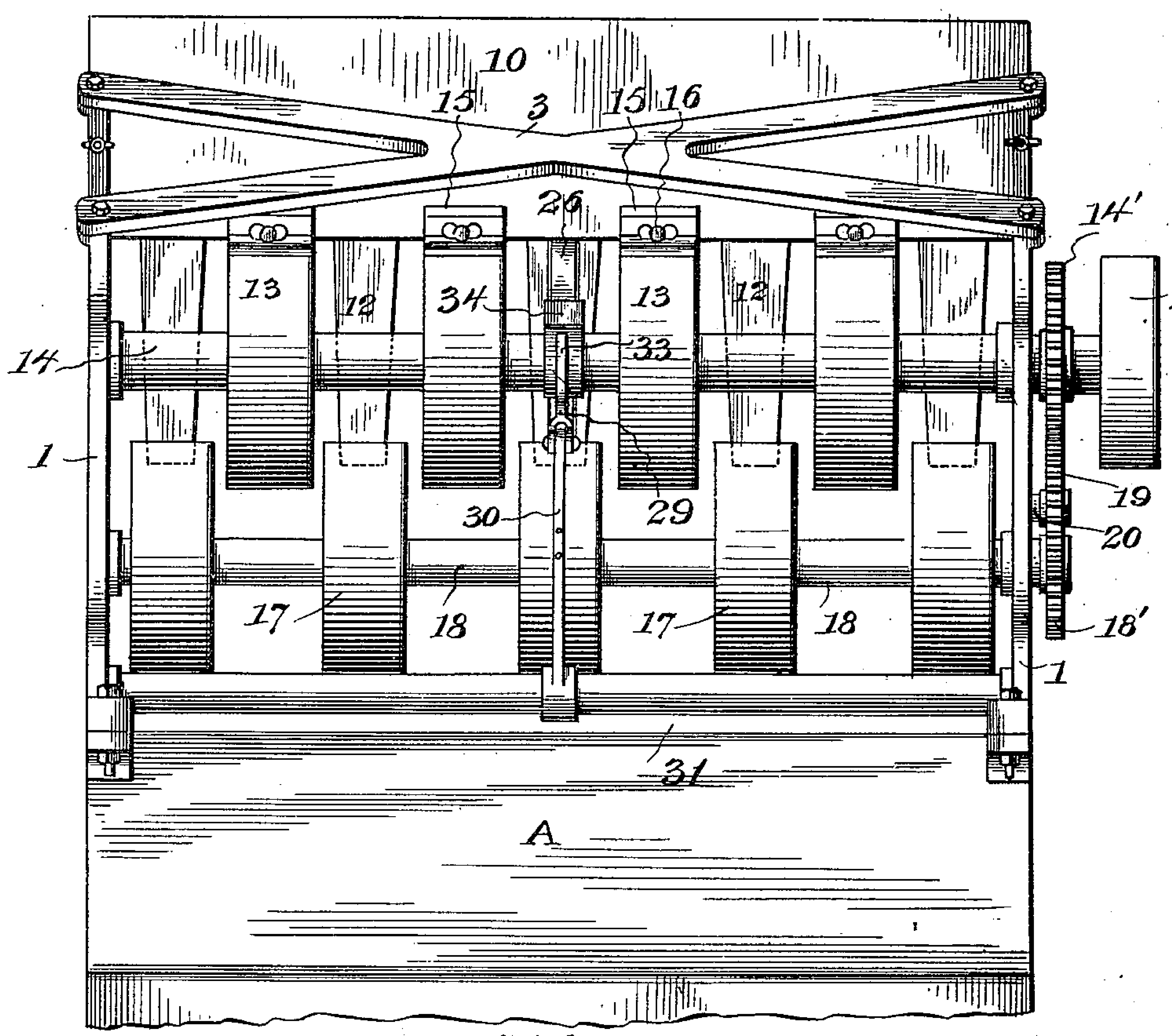

Fig. 1.

Fig. 5.

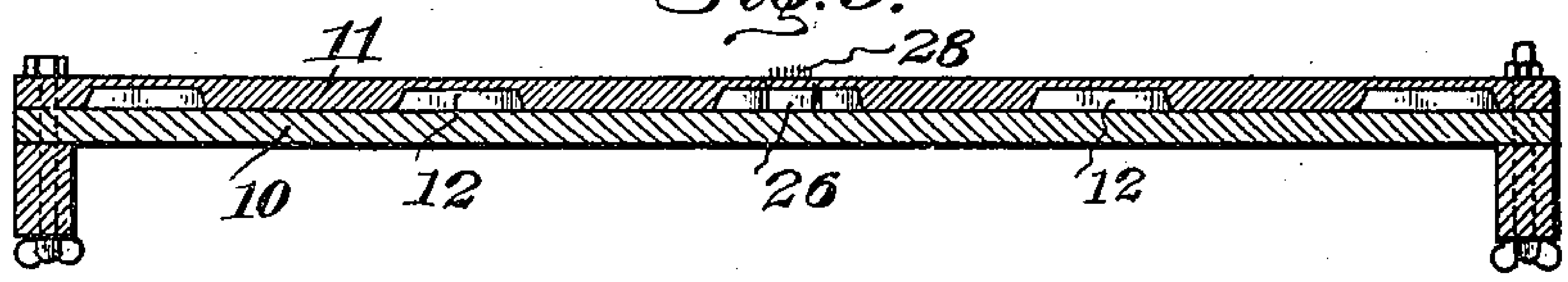

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Fig. 2.

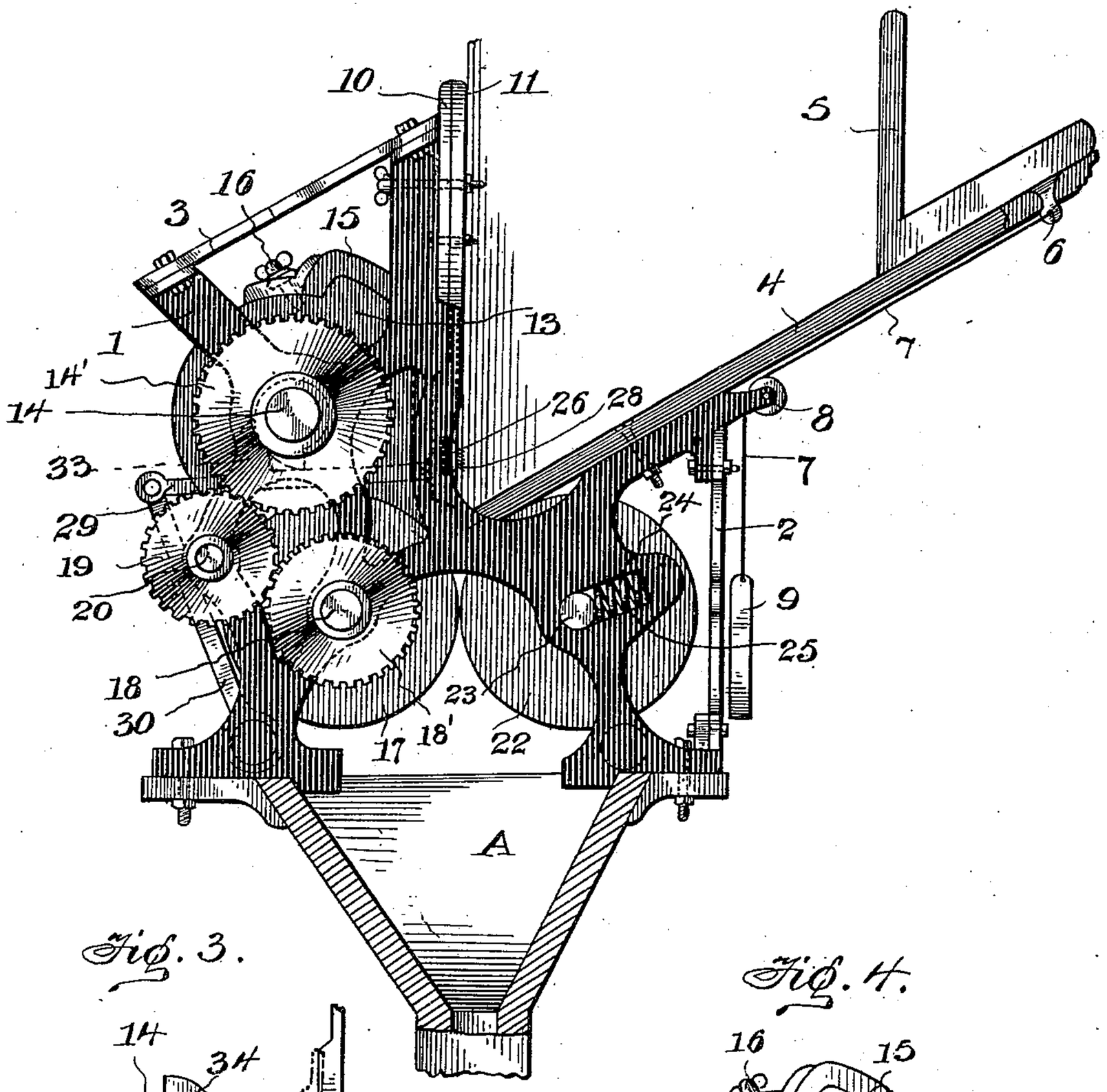


Fig. 3.

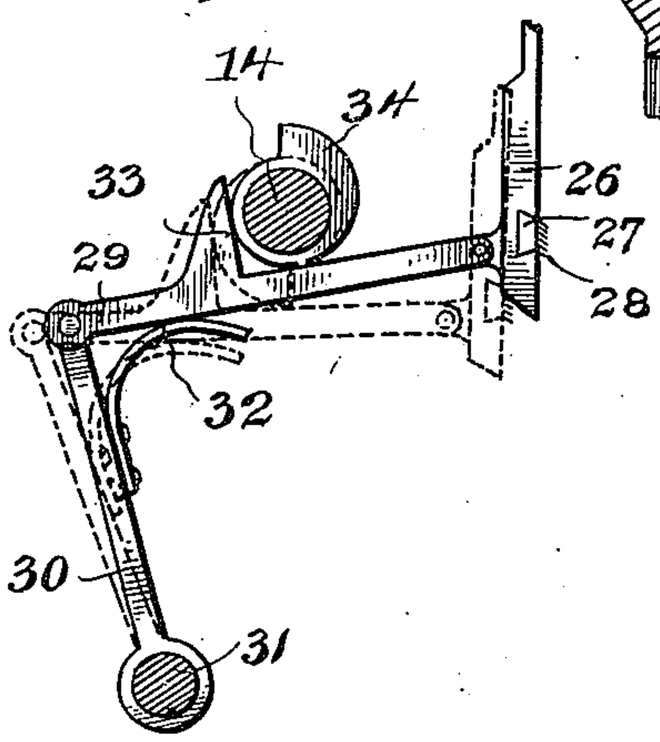
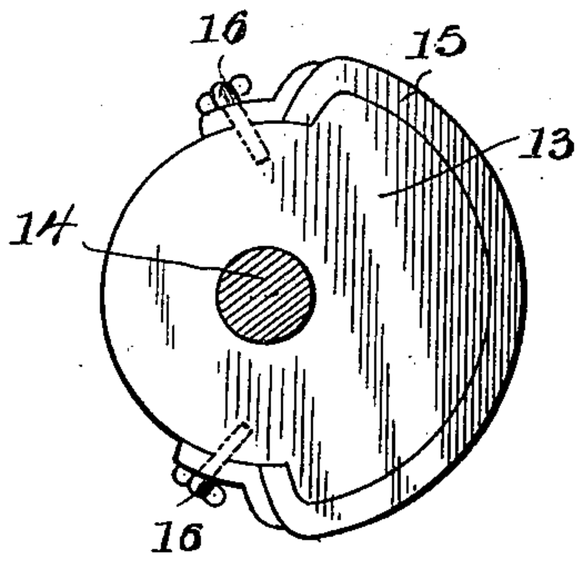


Fig. 4.



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UNITED STATES PATENT OFFICE.

JAMES E. WRIGHT, OF OMAHA, NEBRASKA.

FEED MECHANISM FOR POSTMARKING AND STAMP-CANCELING MACHINES.

SPECIFICATION forming part of Letters Patent No. 667,754, dated February 12, 1901.

Application filed May 31, 1900. Serial No. 18,575. (No model.)

To all whom it may concern.

Be it known that I, JAMES E. WRIGHT, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Feed Mechanisms for Postmarking and Stamp-Canceling Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to feed mechanism for postmarking and stamp-canceling machines and the like.

The object of the invention is to provide such a machine which will be comparatively simple in construction, positive in its action, and which will be applicable to any machine wherein such a device might be used.

With this and other objects in view my invention consists in the construction and arrangement of the parts, which will be hereinafter more fully described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a side view of my improved feeder, showing the same clamped to the upper end of the chute of a postmarking and stamp-canceling machine. Fig. 2 is an end elevation of the same. Fig. 3 is a vertical transverse section through the needle-bar and its actuating mechanism. Fig. 4 is a detail plan view of one of the feed-rollers. Fig. 5 is a detail sectional view of a portion of the spring-finger-clamping bars.

In the drawings, A denotes the upper end of the chute of a postmarking and stamp-canceling machine.

1 denotes the supporting-frame of my improved feeder, and 2 and 3 denote braces for supporting the parts of said frame.

4 denotes the inclined feed-table, bolted to a portion of the frame 1. 5 denotes a follower-block which is adapted to slide upon said table 4 and is provided on its lower side with a depending lug 6, which is attached to one end of a cord 7. Said cord passes over the guide-pulley 8, journaled in a portion of the frame 1, and is provided on its lower end with a weight 9.

10 and 11 denote clamping-bars bolted to the upper portion of the frame 1 and adapted to clamp between them a series of vertically-disposed spring guide-fingers 12.

13 denotes a series of eccentrically-mounted feed-rollers fixed on a horizontally-arranged shaft 14, journaled in the sides of the frame 1. The rollers 13 have feed-segments upon their peripheries, which are provided with rubber contact-plates 15, which are suitably clamped thereto by means of the clamps 16, bolted to the rollers 13.

17 denotes a second series of feed-rollers fixed to a shaft 18, extending parallel with the shaft 14 and having its ends journaled in the side pieces of the frame 1.

Upon one end of the shafts 14 and 18 are fixed spur gear-wheels 14′ and 18′. 19 denotes idle spur gear-pinion mounted upon a stud-shaft 20, fixed in the side of the frame 1 and adapted to mesh with the said spur gear-wheels 14′ and 18′.

21 denotes a band-pulley fixed upon the extreme outer end of the shaft 14, and from which may extend a cord or belt to a driven portion of the stamp-canceling machine.

22 denotes a series of feed-rollers fixed upon a shaft 23, loosely mounted in bearings 24 in the sides of the frame 1. The said bearings 24 consist of an elongated slot, in which is fixed a coil-spring 25, the tension of which is exerted to press said shaft 23 and rollers 22 against the parallel set of rollers 17, hereinbefore described.

26 denotes a vertically-disposed needle-bar having a sliding engagement between the clamping-plates 10 and 11 and provided near its lower end with a detachable block 27, in which are fixed downwardly-inclined needle-points 28, which are adapted to engage the letters or other articles to be fed.

29 denotes a bar having one end pivoted to the needle-bar 26, being pivoted at its other end to an inclined bar 30, mounted upon a transverse bar 31, fixed in the sides of the frame 1.

32 denotes a spring interposed in the angle formed by the meeting ends of the bars 29 and 30 and which is adapted to force the bar 29 and the needle-bar 26 upwardly.

33 denotes a lug formed upon the upper side of the bar 29.

34 denotes a cam-wheel fixed upon the shaft 14 and being arranged so that upon the revo-

lution of the said shaft 14 the cam 34 will come in contact with the bar 29, thereby forcing the same, together with the bar 26, downwardly. A further movement of the cam 34 will engage the lug 33, pushing the same and the bar 29 backwardly, rocking the bar 30 upon the rod 31 and at the same time drawing the bar 26 rearwardly, thereby disengaging the needles from their engagement with the letter. The bar 26 is formed of spring-steel metal and is sufficiently resilient to be drawn out of engagement with the letter by the mechanism hereinbefore described.

The operation of my device is as follows: The stack or bunch of letters to be fed into the chute of the canceling-machine are placed in the proper position upon the table 4 and the follower-block 5 is adjusted against the same. The machine now being set in operation, the feed-rollers 13 will be caused to rotate, and as their cam-faces come in contact with the letter the same is forced downwardly. The letter is then gripped by the needles 28, and through the mechanism, hereinbefore described, is forced farther downward and between the lower set of feed-rollers 17 and 22, by which the same is fed into the chute of the canceling-machine.

Any suitable means may be employed for clamping the frame 1 upon the upper end of the chute; but the construction herein shown is the preferred one.

While I have shown and described my feeding device in the best manner known to me at the present time, it is obvious that various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

In a feed mechanism of the class described, the combination of a supporting-frame adapted to be clamped to the feed-chute of a post-marking and stamp-canceling machine, a series of cam-shaped upper feed-rollers fixed upon a horizontally-disposed rotating shaft mounted in said frame, a series of vertically-disposed guide-fingers arranged between and alternating with said series of upper feed-rollers, an inclined feed-table, a follower-block having a sliding engagement with said table and adapted to be drawn forwardly along said table by means of a weight and cord passing over a pulley, two parallel series of lower feed-rollers, one series of which has a yielding engagement with the other, a vertically-disposed, reciprocating feed-bar, a detachable block containing needle-points carried by said feed-bar to cause said feed-bar to positively engage the matter to feed the same to the said parallel series of lower feed-rollers, a cam-roller mounted upon a driven shaft and adapted, upon revolution of said shaft, to strike an arm pivoted to said feed-bar, thereby moving said bar downwardly, a lug fixed upon said arm in the path of said cam-roller, and adapted to be engaged and moved laterally by said cam, thereby springing said flexible feed-bar out of engagement with said matter, an arm mounted on a transverse rod fixed in said frame, and adapted to pivotally support the outer end of the aforesaid arm, a spring confined between said arms and adapted to raise the first-mentioned arm and the feed-bar when released by said cam-roller, substantially as and for the purposes set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JAMES E. WRIGHT.

Witnesses:
ALFRED ARNEMANN,
ARTHUR E. BALDWIN.