

No. 812,780.

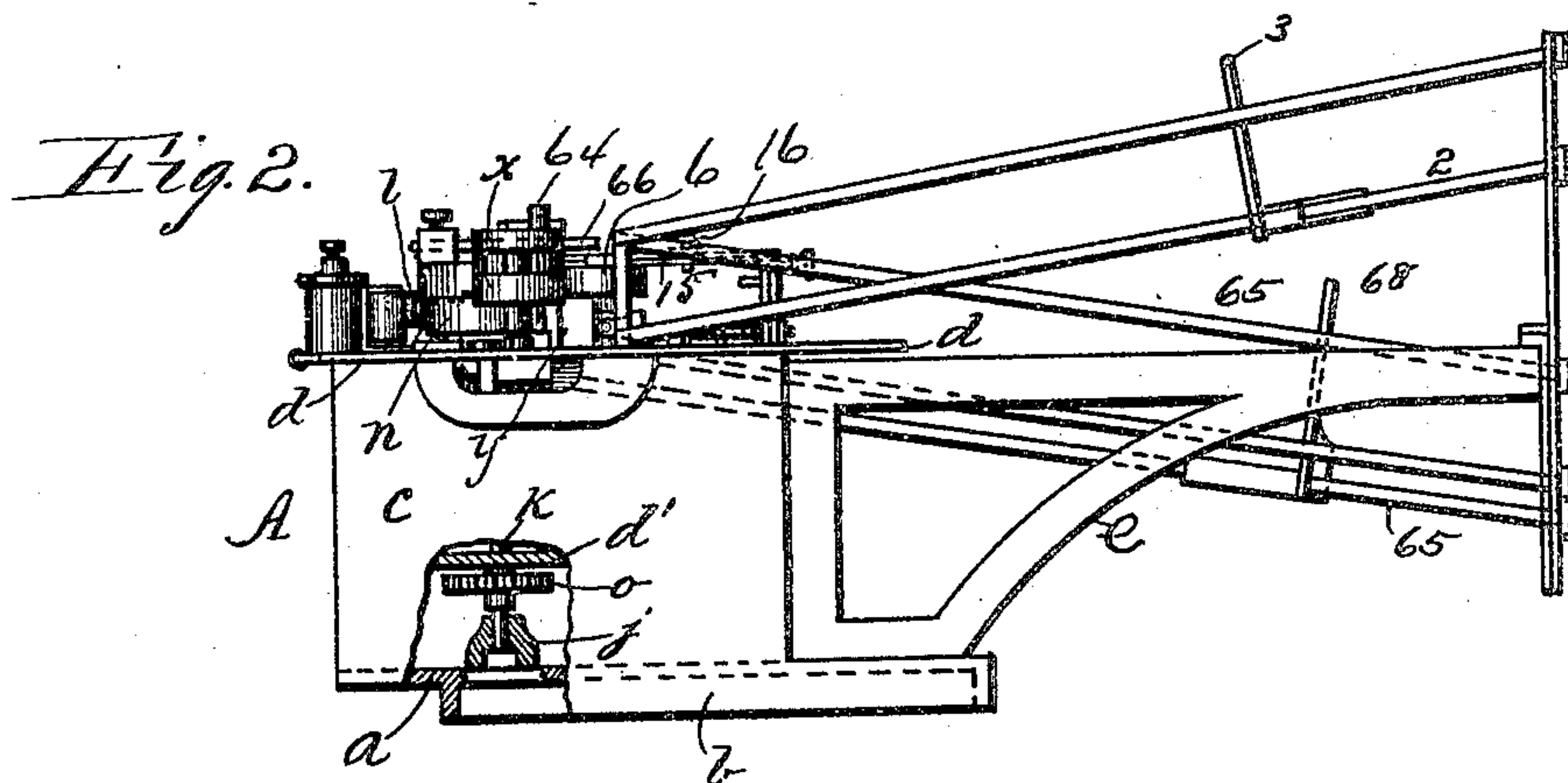
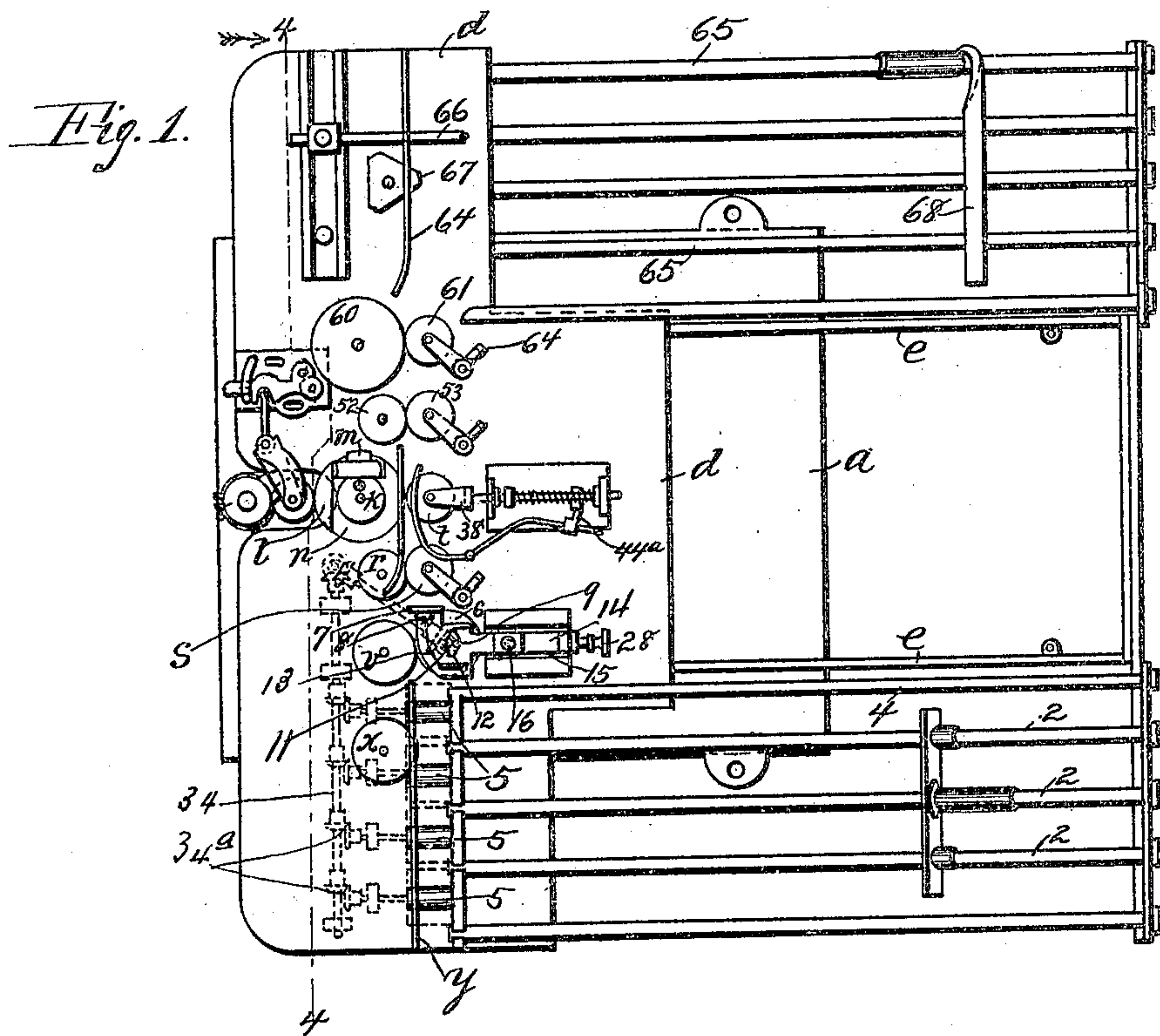
PATENTED FEB. 13, 1906.

F. BJURSTRÖM.

# FEED MECHANISM FOR STAMP CANCELING AND POSTMARKING MACHINES

APPLICATION FILED JAN. 19, 1905.

3 SHEETS—SHEET 1.



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3 SHEETS—SHEET 2.

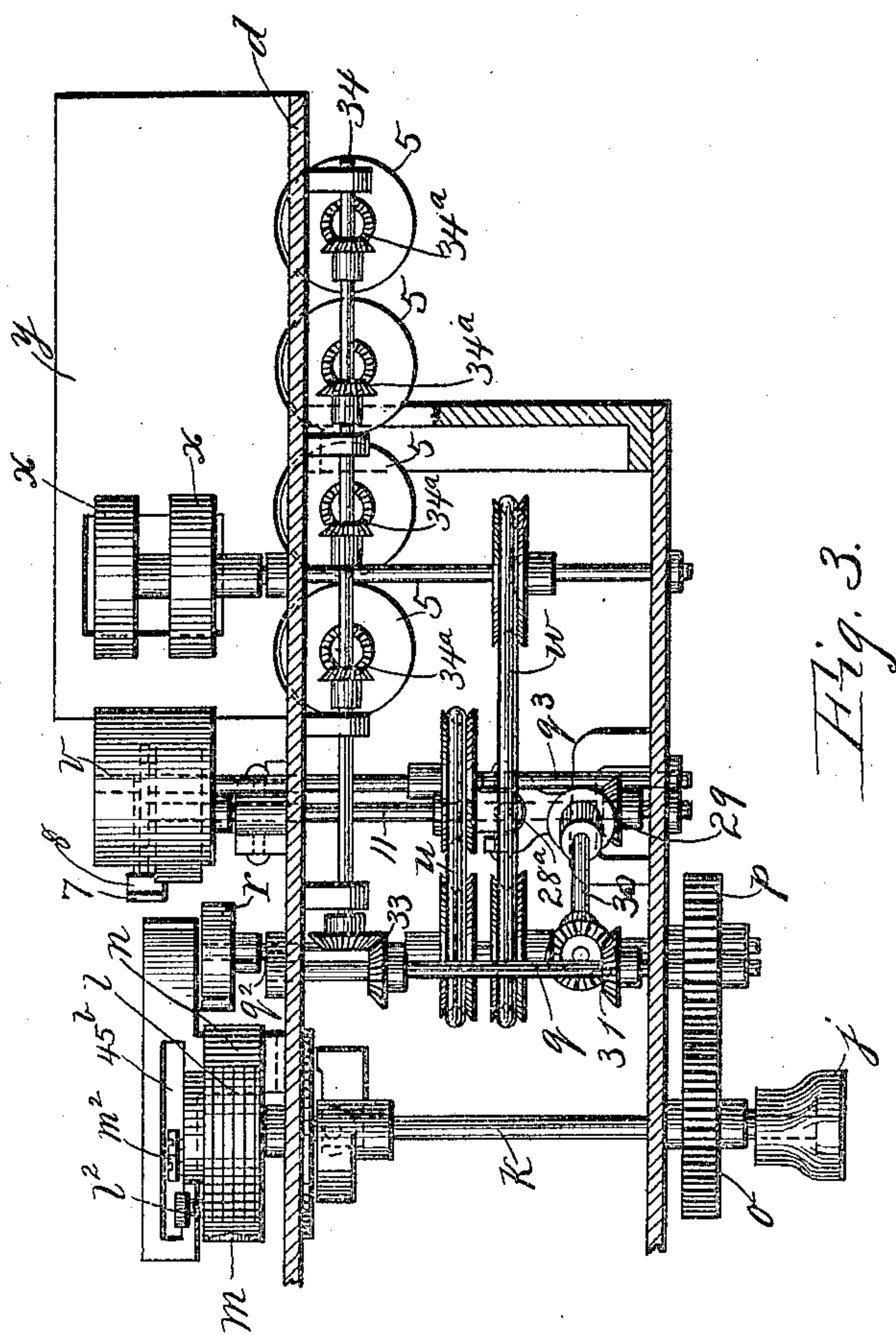


Fig. 3.

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# FEED MECHANISM FOR STAMP CANCELING AND POSTMARKING MACHINES.

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3 SHEETS—SHEET 3.

Fig. 4.

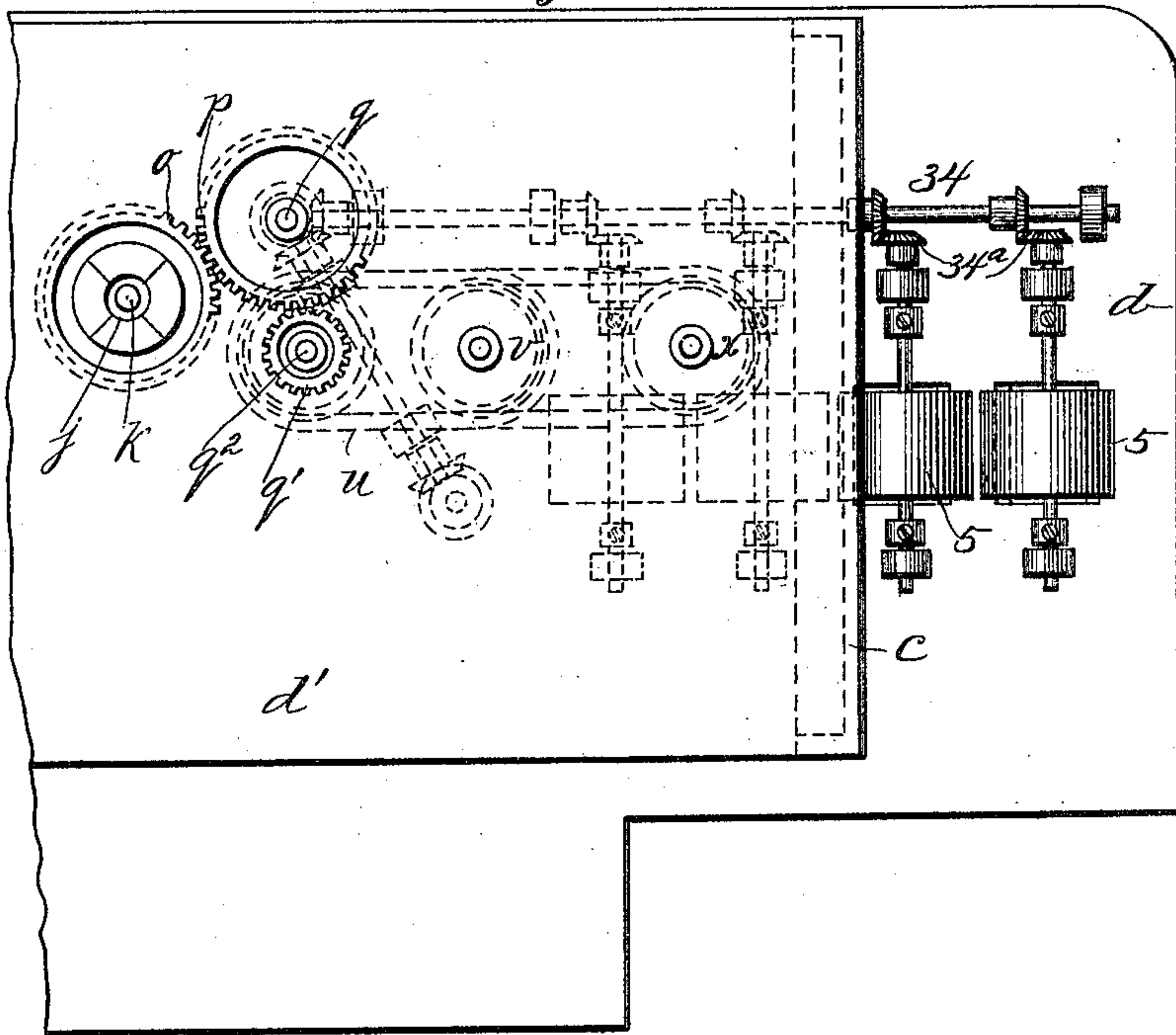


Fig. 5.

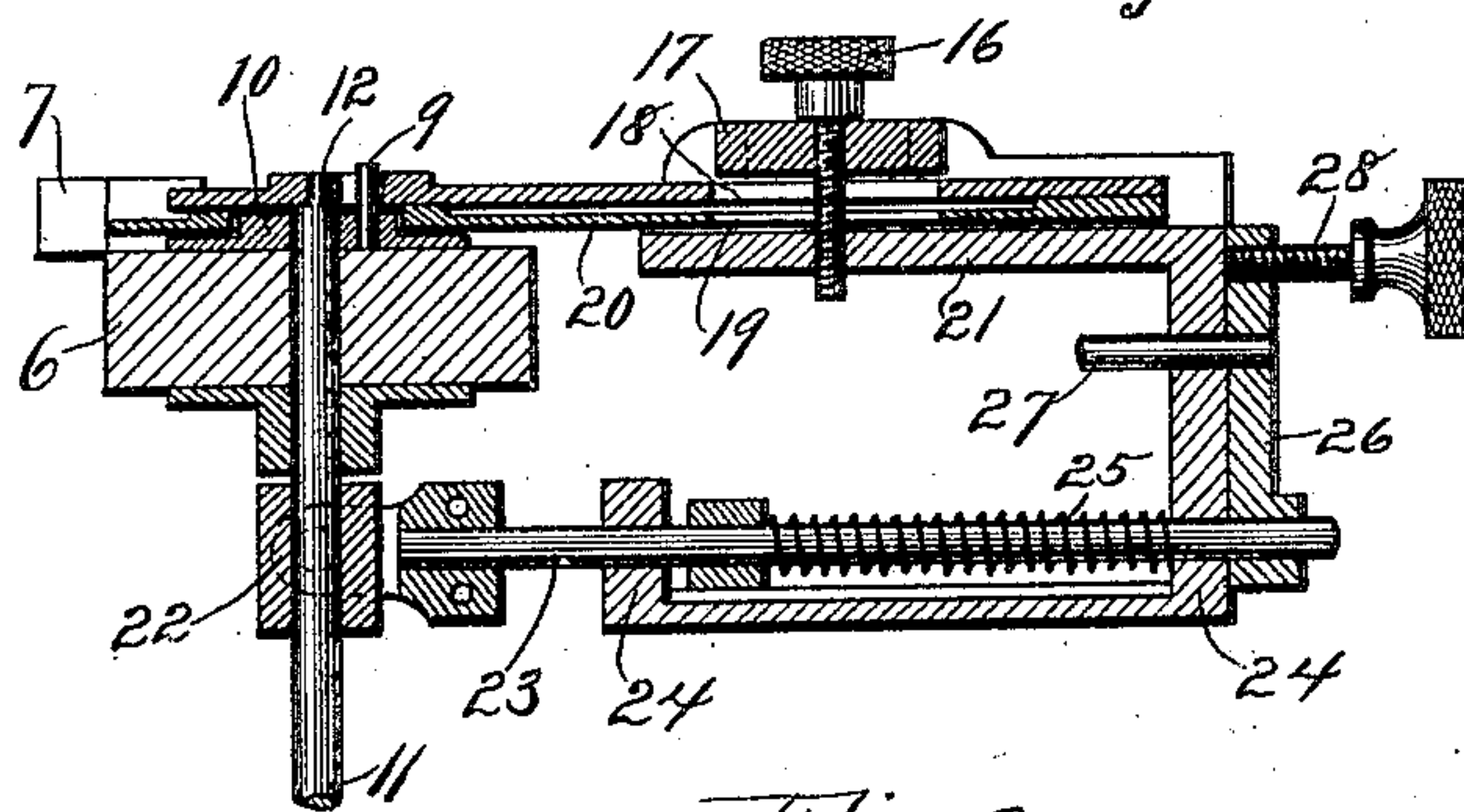
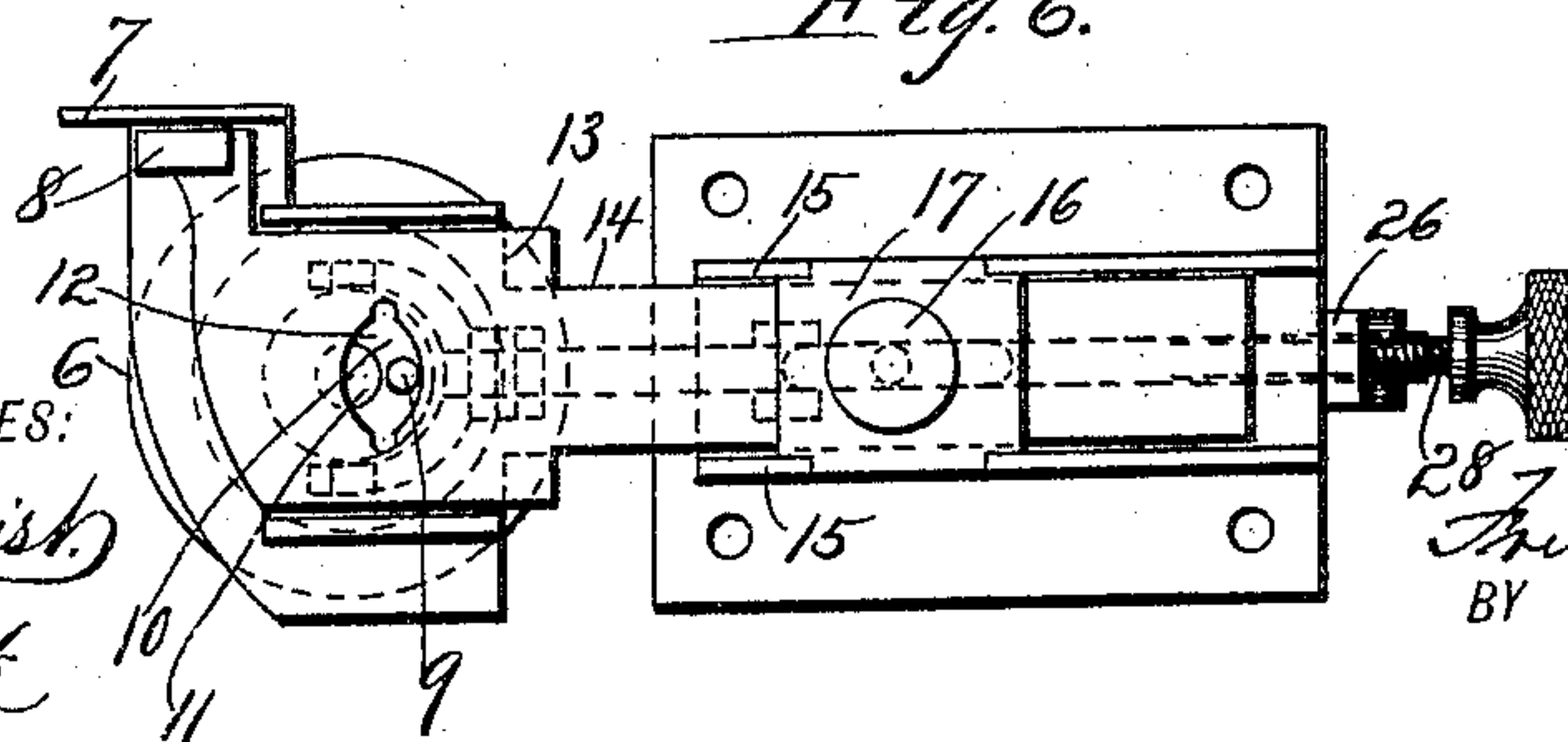


Fig. 6.



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# UNITED STATES PATENT OFFICE.

FREDRIK BJURSTRÖM, OF NEW YORK, N. Y.

FEED MECHANISM FOR STAMP-CANCELING AND POSTMARKING MACHINES.

No. 812,780.

Specification of Letters Patent.

Patented Feb. 13, 1906.

Original application filed July 8, 1904, Serial No. 215,834. Divided and this application filed January 19, 1905. Serial No. 241,726.

*To all whom it may concern:*

Be it known that I, FREDRIK BJURSTRÖM, a citizen of the United States of America, and a resident of New York city, county and State of New York, have invented certain new and useful Improvements in Feed Mechanism for Stamp-Canceling and Postmarking Machines, of which the following is a specification.

This invention relates to stamp-canceling and postmarking apparatus of the character described in my pending application, Serial No. 215,834, filed July 8, 1904, classified "mail-marking machines," and is a divisional part of the same classified in "paper-feeding apparatus," as hereinafter described, reference being made to the accompanying drawings, in which—

Figure 1 is a plan view of my improved machine. Fig. 2 is an end elevation in part as seen looking from the left-hand side of Fig. 1 with a part broken out. Fig. 3 is a longitudinal vertical section in part on line 4 4, Fig. 1, as viewed in the direction indicated by the arrow at the upper right-hand corner of Fig. 1. Fig. 4 is a plan of the part of the machine shown in Fig. 3 inverted. Fig. 5 is a detail in sectional elevation of the apparatus for effecting the individual separation of the letters feeding into the stamping-dies. Fig. 6 is a plan view of the apparatus shown in section in Fig. 5.

A represents any suitable case to be supported on any suitable stand, said case having a bottom plate *a*, with a pendent flange *b* for embracing the top of the stand to confine the case in position, on which plate *a* are upright plates *c*, one at each end, supporting a table *d*, said table and a plate *d'*, pendent from the table, being the supports of the bearings of the various upright shafts and gearing employed in the apparatus. The plate *a* and the sides *c* also support lateral brackets *e*, carrying the infeeding and outfeeding letters to be stamped and discharged.

The part *j* of a shaft-coupling indicates the point of connection of a suitable driving-shaft, to which the power is to be applied in any approved way and connects with the vertical shaft *k*, which carries at its upper end, above table *d*, the canceling-die *l* and postmarking-die *m*, which are attached by the disk-head *n* of said shaft *k*. The shaft *k* carries below plate *a* a spur-wheel *o*, that gears with a spur-wheel *p* on the shaft *q*, which gears with spur-wheel *q'* on a shaft *q''*, carrying feed-roll *r* on its upper end, which co-

acts with feed-roll *s* to deliver the envelopes to the die-head *n*, with which presser-roll *s* coacts. Shaft *q''* drives by a belt *u* and suitable pulleys the feed-roll *v*, and also drives by a bolt *w* and suitable pulleys the feed-roll *x*. Said shaft *q* drives by the bevel-wheels 33 the line-shaft 34, with which the feed-rolls 5 respectively gear by bevel-wheels 34<sup>a</sup> for their operation, and it also drives by bevel-wheels 31 shaft 30 and bevel-wheels 29 shaft 11 carrying roll 6.

The letters to be stamped and canceled are placed edgewise in batches on the descending feedway-rods 2 in front of pusher 3 and with one edge against gage-rod 4 and gently shoved along by the pusher 3 on to rolls 5 and up against a guard-plate *y* and roll *x*. Said roll pushes the one in advance along to another roll *v* against a stop 7, which temporarily arrests the forward movement of the letter, while a reversely-revolving retarding-roll 6, coacting with roll *v*, holds back the rest in case any others stick to the first to be carried along with it until a lateral pusher 8 is thrust forward by the crank-pin 9, carried by the disk 10 on the upper end of the shaft 11, to which roll 6 is attached for being operated, said crank-pin working in a slot 12 of the slide-plate 13, carrying pusher 8, the shank of which, 14, works in a slideway 15, in which it is confined by a clamp-screw 16, set in a bridge 17 and reaching through a slot 18 of the said shank and slot 19 of the slideway-plate 20 into the base 21. (See Figs. 5 and 6.)

It is desirable that the feed-roll 6 be capable of yielding under excessive pressure, as when any hard substance contained in a letter happens to enter between rolls *v* and 6, and it is also desirable that roll 6 may be adjusted slightly relatively to roll *v* for assorted letters of different thickness. The clamp-screw 16 is therefore not too tightly set in, so that the shank of slide-plate 13 and the slide-plate 20 may shift back, and shaft 11 is mounted in a bearing 22 just below roll 6, that is carried on one end of a sliding rod 23, having bearings 24 in the supporting-base and provided with a coiled spring 25 to maintain normal pressure of roll 6 against roll *v*. On the outer end of rod 23 an arm 26 is rigidly attached, extending upward along the side of the supporting-base, and has a stud-pin 27 sliding in and out of a hole in the supporting-base to steady the arm, and the said arm also carries a temper-screw 28 to adjust roll 6 relatively to roll *v* for letters of varying



thickness. The shaft 11 has a universal joint at 28<sup>a</sup> to allow roll 6 to be thus adjusted.

The rolls *v* and 6 deliver the letters individually to other feed-rolls *r* and *s*, by which they are passed on to the die-roll *n* and presser-roll *t* to be stamped and marked and passed on through rolls 52 and 53 and delivery-rolls 60 and 61 on to table *d* along the vertical guide-plate 64 to a stop-gage 66, from which they are discharged laterally by a rotating triangular discharger 67 on to the descending ways 65 against a sliding retarder 68, from which they are removed from time to time in batches by the operator; but the discharging apparatus being the subject of claims in my before-mentioned pending application is not claimed herein.

What I claim as my invention is—

1. The combination with upright canceling and stamping rolls, of upright side feedway-rolls, horizontal edge feeding-rolls, reversely-operating retarding side roll, controlling-stop, pusher adapted for releasing the letters singly from said stop, and means for operating said rolls and pusher.

2. The combination with canceling and stamping rolls, feed-rolls thereto and discharge-rolls therefrom, of the reversely-operating retarding-roll of the feed-train, means for automatic adjustment of said retarding-roll relatively to its companion roll, and means for operating the several rolls, a controlling-stop, and a pusher.

3. In a system of letter-feeding rolls, the combination with the feedway for the letters in mass, and with the canceling and marking dies, of a pair of rolls comprising a direct-acting, and a reversely-acting roll, and means for driving said rolls, of a controlling-stop, pusher for releasing the letters from said stop and means for operating said pusher through the instrumentality of the roll-driving means.

4. In a system of letter-feeding rolls, the combination with the feedway for the letters in mass and with the canceling and marking dies, of a pair of rolls comprising a direct-acting and a reversely-acting roll, of a controlling-stop, pusher for releasing the letters from said stop, and means for operating said pusher consisting of the pusher - carrying slide, roll-carrying shaft and the crank-pin of said shaft operating the pusher.

5. In a system of letter-feeding rolls, the combination with the feedway and the canceling and marking dies, of a pair of rolls, an adjustable bearing for one of said rolls, an adjustable support for said bearing, spring for closing said rolls, and a temper-screw for regulating such closure.

Signed at New York this 31st day of December, 1904.

FREDRIK BJURSTRÖM.

Witnesses:

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