No. 689,423. Patented Dec. 24, 1901.

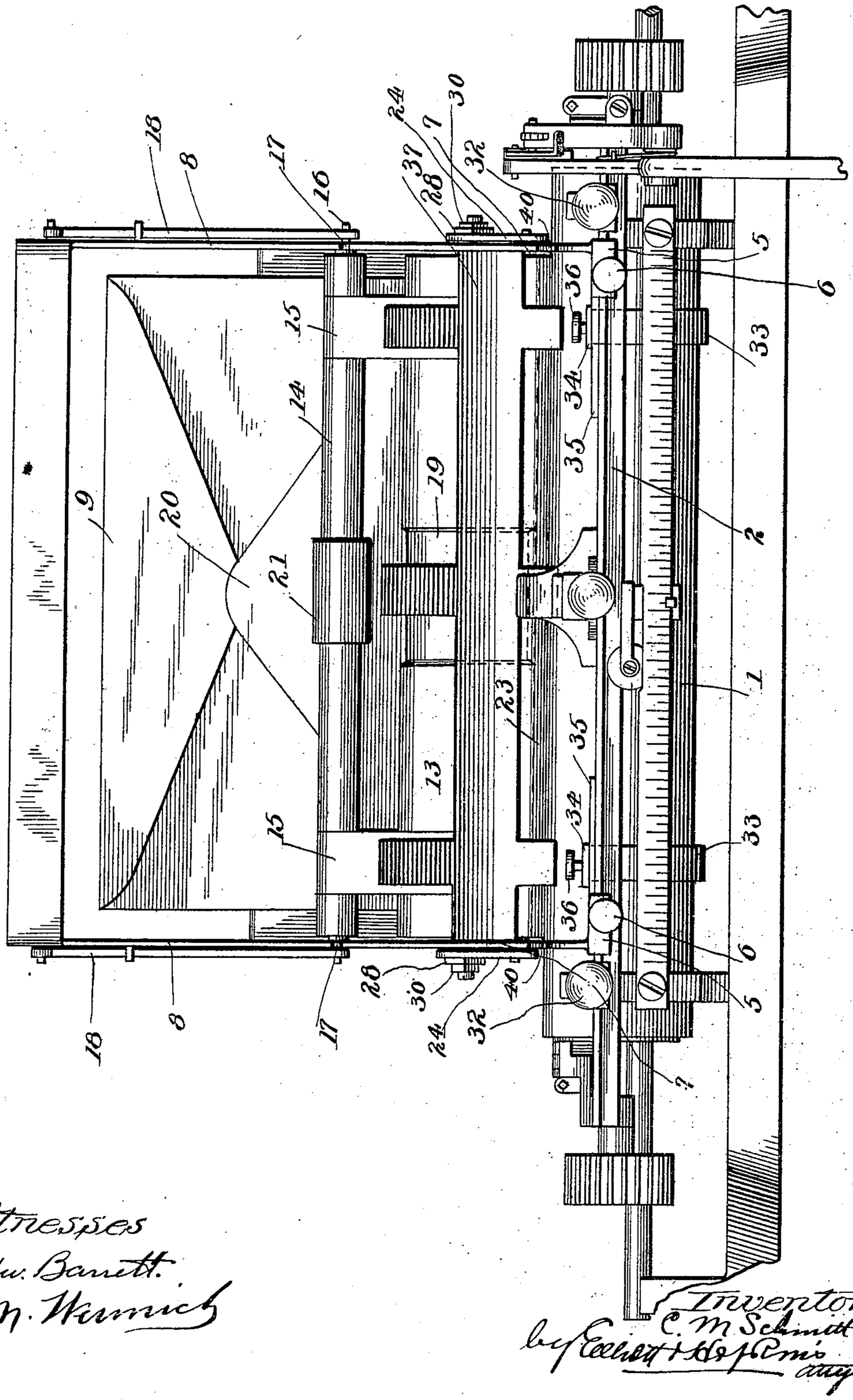
# C. M. SCHMITT.

## MACHINE FOR FEEDING ENVELOPS OR OTHER SHEETS TO TYPE WRITERS.

(Application filed June 27, 1900.)

(No Model.) 3 Sheets—Sheet 1.

Fig. 1

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## MACHINE FOR FEEDING ENVELOPS OR OTHER SHEETS TO TYPE WRITERS.

(Application filed June 27, 1900.)

(No Model.) 3 Sheets—Sheet 2.

Fig 4

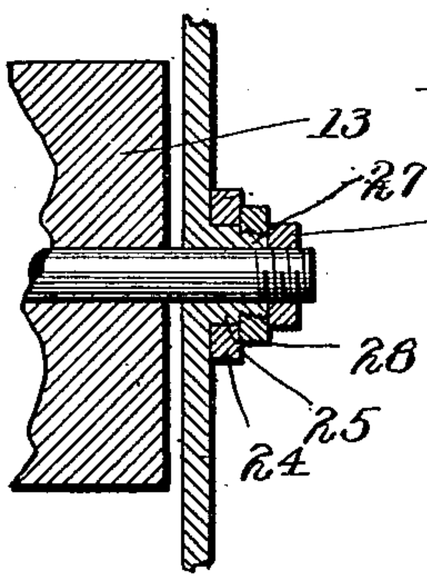


Fig. 2




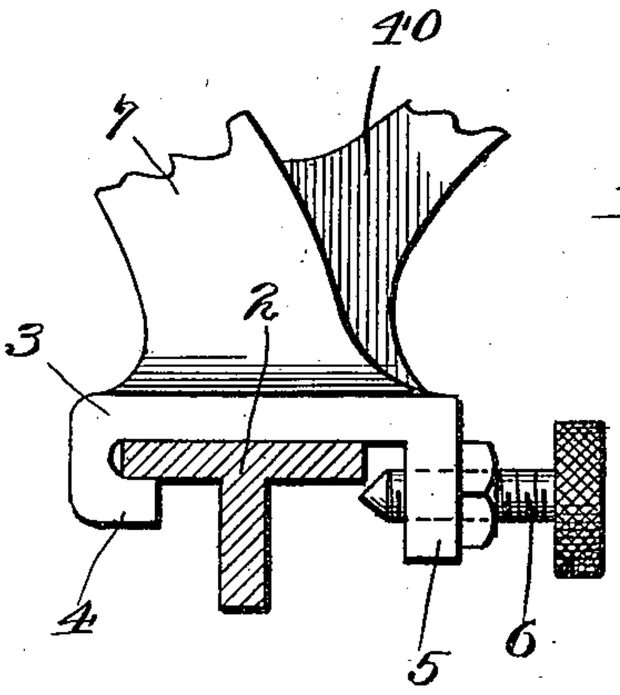


Fig. 3

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## MACHINE FOR FEEDING ENVELOPS OR OTHER SHEETS TO TYPE WRITERS.

(Application filed June 27, 1900.)

(No Model.) 3 Sheets—Sheet 3.

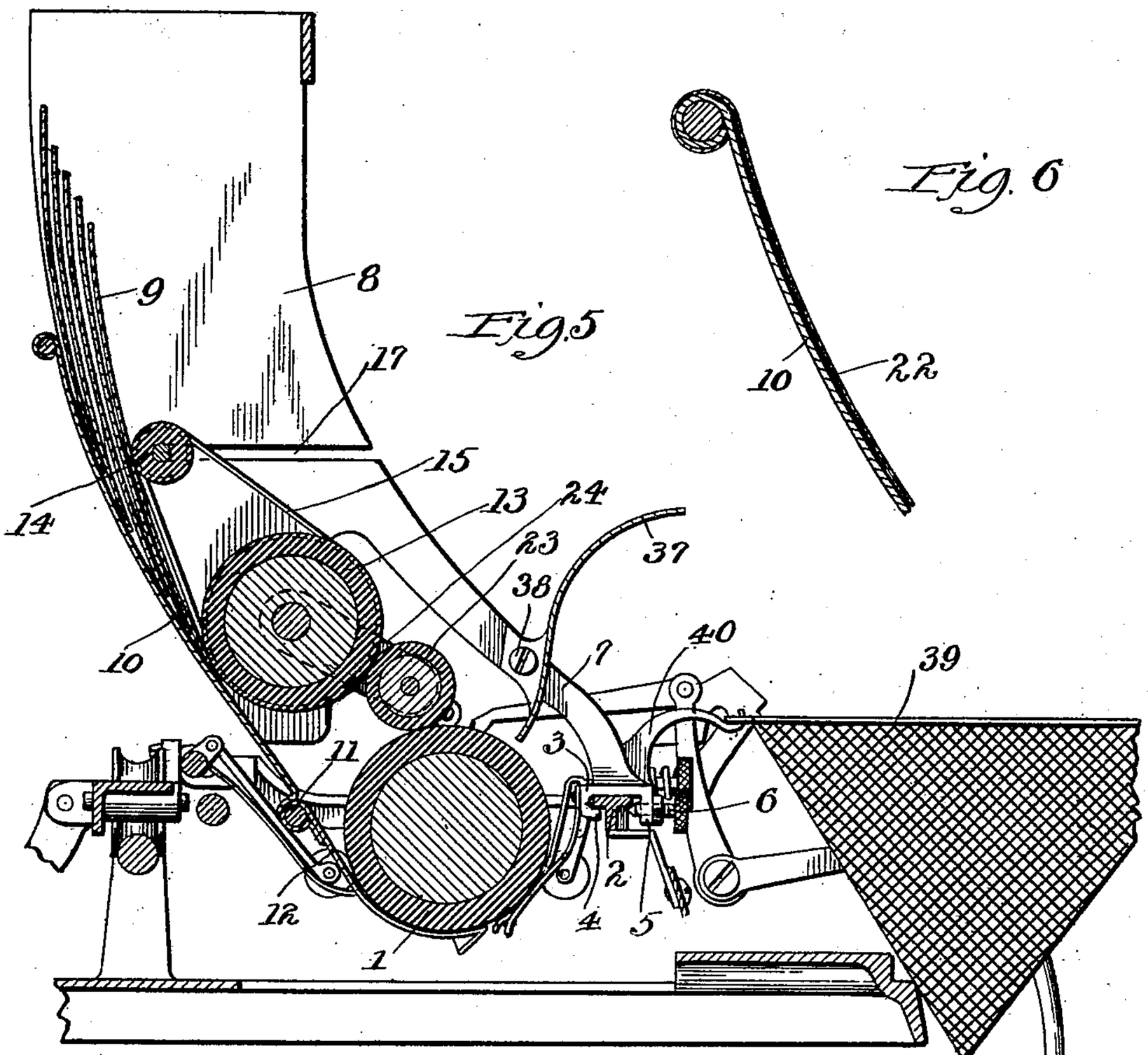


Fig. 5




Fig. 6

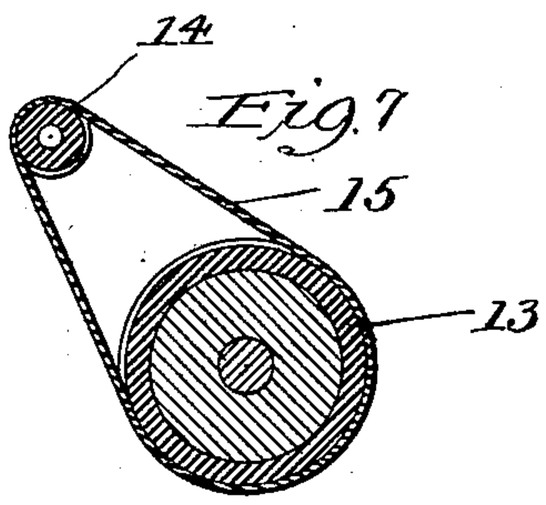


Fig. 7

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# UNITED STATES PATENT OFFICE.

CAROLYN M. SCHMITT, OF CHICAGO, ILLINOIS.

## MACHINE FOR FEEDING ENVELOPS OR OTHER SHEETS TO TYPE-WRITERS.

SPECIFICATION forming part of Letters Patent No. 689,423, dated December 24, 1901.

Application filed June 27, 1900. Serial No. 21,723. (No model.)

*To all whom it may concern:*

Be it known that I, CAROLYN M. SCHMITT, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Machines for Feeding Envelops or other Sheets to Type-Writers, of which the following is a full, clear, and exact specification.

My invention relates to machines for feeding envelops and other writing-surfaces to a type-writer; and it has for its primary object to provide efficient and simple means for automatically feeding envelops and other writing-surfaces to type-writing and other analogous machines in such a manner that a single sheet or envelop at a time may be automatically projected across the alinement into position to be written upon without causing any material displacement of the remainder of the supply.

A further object of my invention is to provide a feeder of the described character that may be readily attached to and detached from any standard type-writing machine; and a still further object of my invention is to provide means for directing the envelops or sheets as they leave the type-writer into a basket or receptacle without necessitating handling by the operator.

With these ends in view my invention consists in certain features of novelty in the construction, combination, and arrangement of parts by which the said objects and certain other objects hereinafter appearing are attained, all as fully described with reference to the accompanying drawings, and more particularly pointed out in the claims.

In the said drawings, Figure 1 is a front elevation of my improved device, showing it applied to a type-writer. Fig. 2 is a side elevation thereof. Fig. 3 is an enlarged detail side view of the clamp by which the device is attached to the type-writer. Fig. 4 is an enlarged detail longitudinal sectional view of one of the feeding-rollers, showing the manner of mounting the same, hereinafter described. Fig. 5 is a vertical transverse sectional view of the apparatus applied to a type-writer carriage. Fig. 6 is an enlarged transverse sectional view of the back of the hopper, and Fig. 7 is a detail transverse sectional view of the feed-rollers.

1 represents the platen-roller, mounted upon the usual carriage of an ordinary Remington machine, and 2 is the front horizontal T-bar of said carriage and to which my improved feeding device is attached. This attachment may best be accomplished by means of the clamp shown in Fig. 3, which consists of a plate 3, having on one side a hook or lug 4, which engages under the cross-bar of the T, and on the other side a flange 5, through which passes a set-screw 6, having a beveled end 7, adapted to impinge the corner of the cross-bar of the T when screwed inwardly, and thus pull the hook 4 tightly against the opposite side and at the same time clamp the plate 3 firmly down against the top of the bar 2. One of these clamps is arranged at each side of the feeder, as better shown in Fig. 1, and is provided with an arm 7, formed on or secured to one of the side plates or frames 8, which constitute the ends of the hopper in which the envelops or other writing-sheets 9 are placed. By this means the feeding device is supported entirely by the arms 7 upon the cross-bar 2 and is therefore adapted to move back and forth with the carriage of the machine or to be tilted backward when the carriage is turned up for inspecting the writing or for other purposes.

The back of the hopper is composed of a plate 10, which is preferably curved, as are also the rear edges of the plates or frames 8, and extends downwardly into close proximity to the bar 11, which carries the upper ends of the usual guides 12, so as to insure the passage of the sheets or envelops between the guides 12 and platen-roller 1 as they slide down the back of the hopper.

The feeding of the envelops or sheets into the reach of the roller 1 is accomplished by means of a large feed-roller 13, journaled across the hopper and arranged sufficiently close to the back 10 thereof to impart downward movement to a single envelop at a time, and the lower edges of the envelops or sheets are kept in close contact with the roller 13 and also held in position in a compact form by means of a yielding roller 14, mounted above and parallel with the roller 13, and pref-

erably driven in the same direction as the roller 13 by means of one or more bands or belts 15, passing around the two rollers and being preferably composed of india-rubber or some other material capable of producing the desired friction. The journals 16 of the roller 14 are carried through open-end slots 17, formed in the side frames 8, which constitute the bearings for said journals and are engaged by springs 18, secured to the outer sides of the side members or frames 8, as better shown in Fig. 2, and exerting a normal tendency to force the roller 14 against the envelops 9.

When the feeding apparatus is employed for envelops, it is desirable to recess or groove the feed-roller 13 at its mid-length, as shown at 19, to compensate for the extra thicknesses of paper where the flaps 20 overlap, thus enabling the feed-roller to contact with the outermost one of the envelops throughout the greater part of its length and produce a uniform feeding movement from end to end. The roller 13 is also preferably composed of india-rubber or some other suitable material having the necessary frictional character, while the roller 14 may be composed of wood or any other suitable material and provided at its mid-length with a band or sleeve 21, composed of india-rubber or some other suitable frictional material, the enlargement 21 being located in line with the overlapping flaps 20 of the envelops, so as to produce the greatest pressure at that point and hold the envelops in a compact form.

The feeding of the envelops is produced by the rotation of the roller 13 and the bands 15, the initial downward movement being induced by the roller 14 and its enlargement 21, and in order that the friction between the intermediate envelops may not cause the entire supply to slide down the back 10 of the hopper the face of the said back adjacent to the said envelops is covered with fabric 22 or some other frictional material capable of producing sufficient friction against the edges of the envelops to overcome the friction induced by the envelop in engagement with the feed-rollers. The back of the hopper 10 being curved and arranged on an incline or at an angle to the feeding devices, so as to form a gradually-decreasing space or passage between the back and the inner folds of the belts 15, the supply of envelops may be so placed behind the roller 14 that the lower edges of all of them, excepting the outermost one, will come into engagement with the frictional surface 22 before coming into engagement with the feeding devices, and as a consequence the frictional surface 22 will hold them against their tendency to move downwardly with the one which is in direct contact with the feeding belts or rollers.

Motion is imparted to the feed-roller 13 by means of an idle roller 23, arranged in frictional contact with both of the rollers 1 13. This roller 23 is preferably journaled in the lower ends of two arms 24, whose upper ends are journaled on the axis of the roller 13, so that the roller 23 will remain in contact therewith with uniform pressure, notwithstanding the oscillation of the arms 24. The side frames 8 are provided with bosses 25, through which the shaft 26 of the roller 13 passes and upon which the arms 24 are journaled. The bosses 25 are provided with screw-threaded ends 27, upon which are threaded nuts 28 for holding the arms 24 in place, while the shaft 26 is held in place by a nut 30, threaded on each end thereof. This construction also provides for the ready removal of the roller 13 when desired. The arms 24 are normally forced downward so as to press the roller 23 against the platen-roller 1 by a spring 31, attached to each of the arms 24 and the side frame 8 adjacent thereto. Hence in putting the apparatus upon the type-writer carriage it will simply be necessary to place the clamps 3 on the T-bar 2 and tighten up the set-screws 6, which will result in the roller 23 being forced upon the platen-roller 1 with a pressure equal to the resistance of the springs 31.

The envelops or sheets 9 may be guided around the under side of the platen-roller 1 by any suitable means, such as the usual guide-straps 32; but in practice I prefer to push these guides 32 to one side, as shown in Fig. 1, and provide special guide-straps 33 on some part of the frame of my attachment. I have shown these guide-straps 33 secured to slides 34, adjustably mounted on horizontal arms 35, extending laterally from the opposed sides of the clamps 3, as better shown in Fig. 1, the slides 34 having set-screws 36, whereby they may be secured at the desired adjustment.

As the envelop or sheet 9 comes up on the front side of the roller within the guide-straps 33, its upper edge impinges a deflector 37, secured by screws 38 or other suitable devices to the arms 7 and is thereby thrown outwardly toward the operator. If desired, a small basket or receptacle 39 may be suspended in front of the operator by hooked arms 40, formed on or secured to the arms 7, the lower part of the basket being supported in any suitable way and preferably tapered toward the bottom, so as not to obstruct a clear view of the keyboard.

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

1. In a machine for feeding sheets to a type-writer the combination of a hopper for holding the sheets having a roughened surface for retarding the movement of the sheets which contact therewith and means for imparting a feeding movement to the outermost one of said sheets, substantially as set forth.

2. In a machine for feeding sheets to a type-writer the combination of a hopper for holding the sheets having an inclined wall provided with a roughened surface for retarding

the movement of the sheets which contact therewith and means for imparting a feeding movement to the outermost one of said sheets, substantially as set forth.

3. In a machine for feeding sheets to a type-writer the combination of a hopper for holding the sheets having a roughened surface for retarding the movement of the sheets which contact therewith and means for imparting a feeding movement to the outermost one of said sheets, said feeding means and roughened surface being arranged at an angle to each other and adapted to receive the edges of the sheets between them whereby all of the sheets excepting the outermost one may be compelled to contact with said roughened surface before being engaged by the feeding means, substantially as set forth.

4. In a machine for feeding sheets to a type-writer the combination of a hopper for holding the sheets having its back coated with fabric forming a roughened surface for retarding the movement of the sheets which contact therewith and means for imparting a feeding movement to the outermost one of said sheets, substantially as set forth.

5. In a machine for feeding sheets to a type-writer the combination of a type-writer having a platen-roller, a frame adapted to be secured to the type-writer, a feed-roller journaled in said frame, a yieldingly-mounted motion-transmitting roller operatively connected with said feed-roller and adapted to bear on said platen-roller when the frame is attached to the type-writer and means for holding the sheets in contact with said feed-roller, substantially as set forth.

6. In a machine for feeding sheets to a type-writer the combination of the type-writer having a platen-roller, a hopper for containing the sheets, a feed-roller arranged to engage the sheets in said hopper, spring-actuated arms journaled on the axis of said feed-roller and a power-transmitting member operatively connected with said feed-roller and platen-roller, substantially as set forth.

7. In a machine for feeding envelops to a type-writer the combination of a hopper for containing the envelops, a yielding roller arranged in said hopper and having an enlargement at its mid-length for pressing against the thicker portion of the envelops, a feed-roller arranged below said first roller and operatively connected therewith and means for operating said feed-roller, substantially as set forth.

8. In a machine for feeding sheets to a type-writer the combination of means for containing a supply of the sheets and advancing them one at a time to the writing mechanism of the type-writer, a receptacle supported in front of the type-writer and the deflector 37 arranged to deflect the sheet into said receptacle as it leaves the writing mechanism, substantially as set forth.

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