

H. M. BURCH.  
FEEDING ATTACHMENT FOR TYPE WRITING MACHINES.  
APPLICATION FILED OCT. 11, 1909. RENEWED OCT. 15, 1910.

994,905.

Patented June 13, 1911.

2 SHEETS-SHEET 1.

Fig. 1.

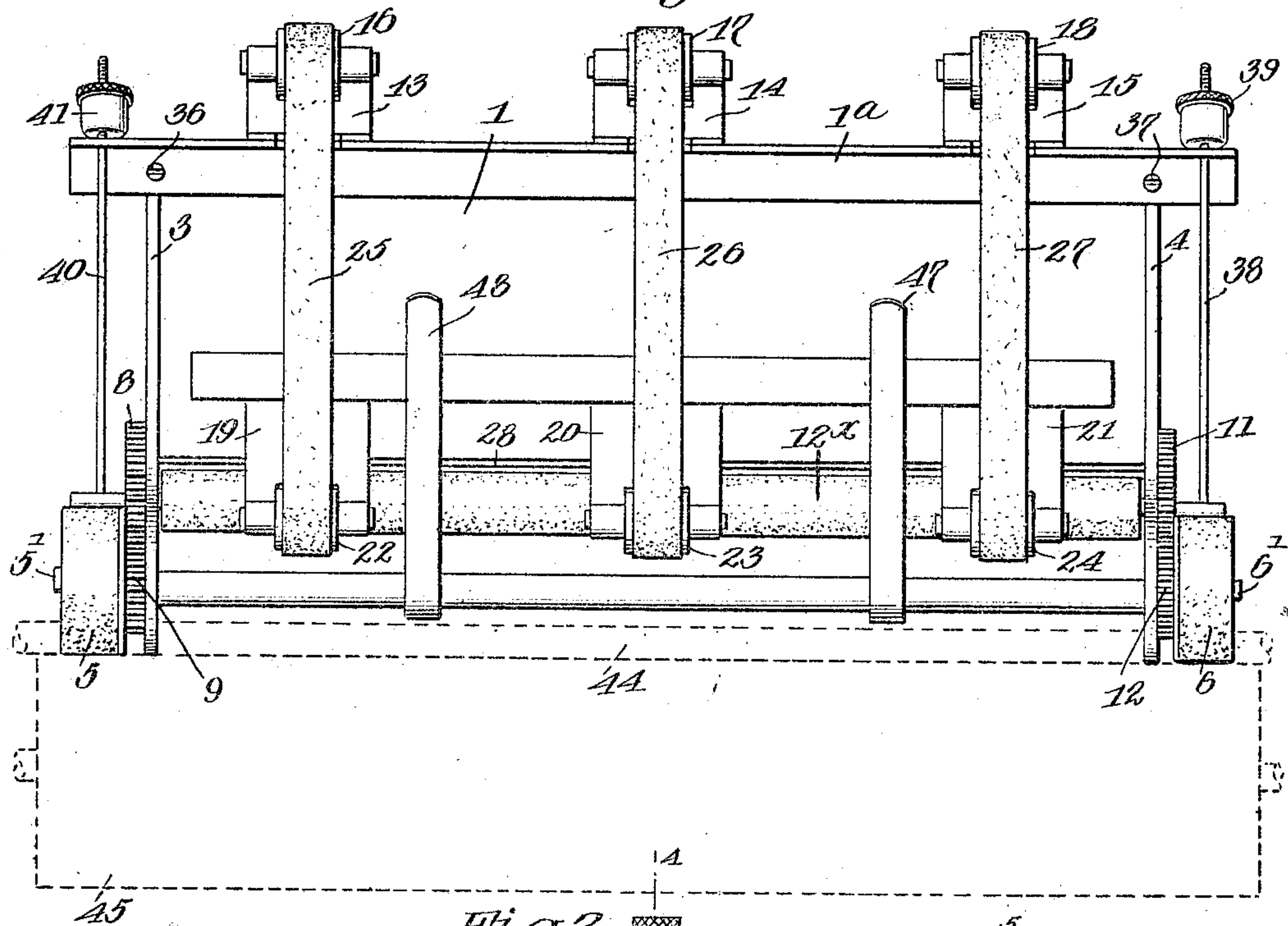
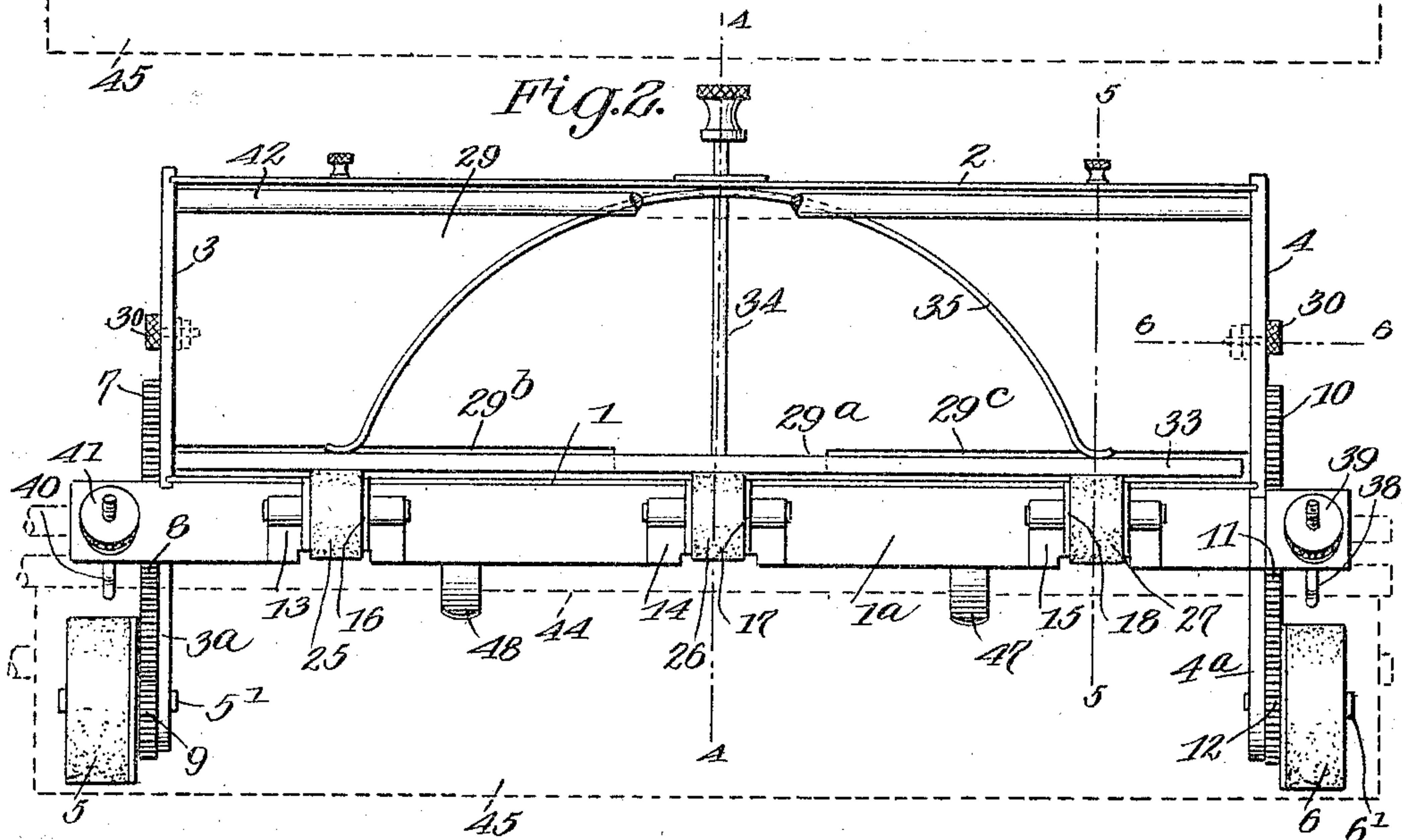


Fig. 2.



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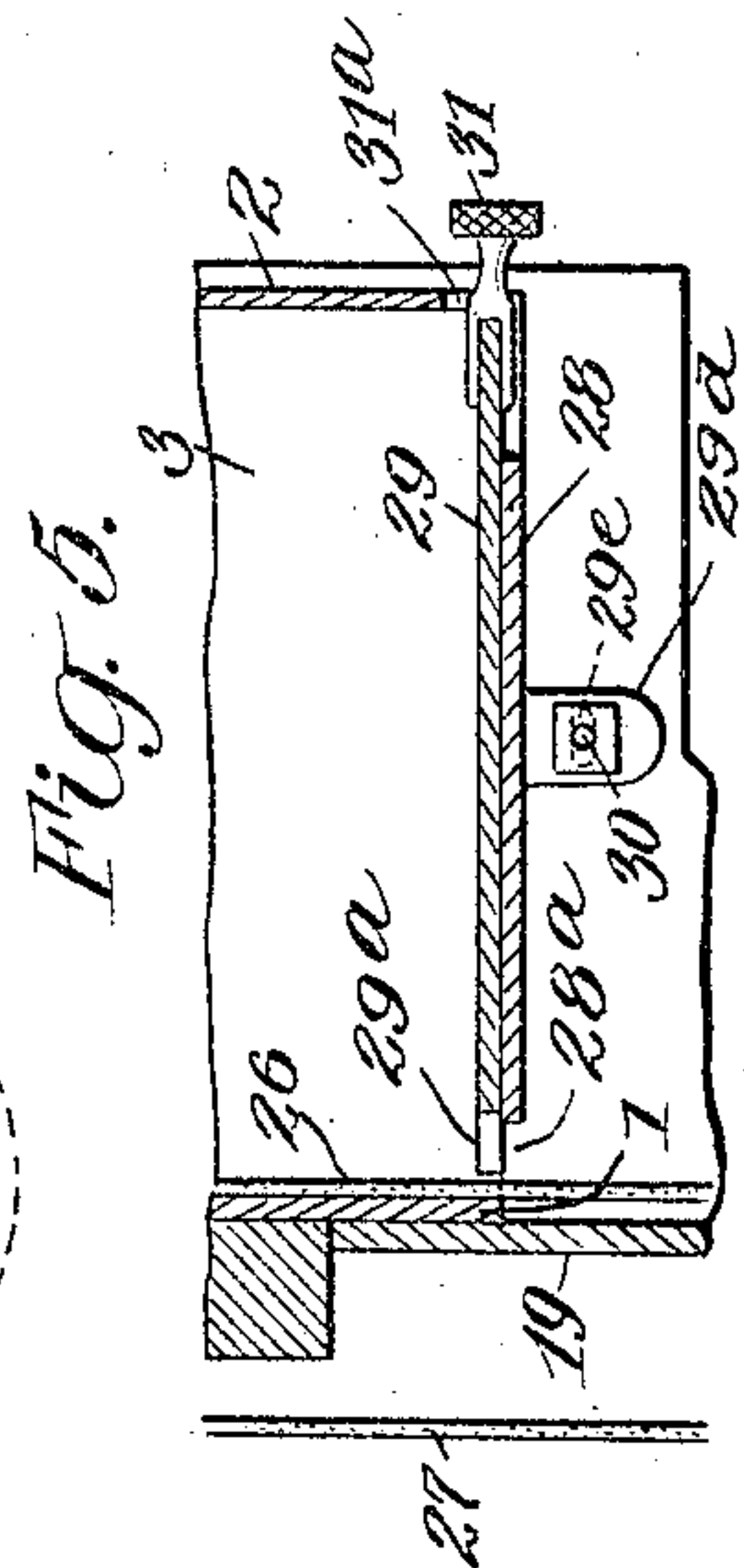
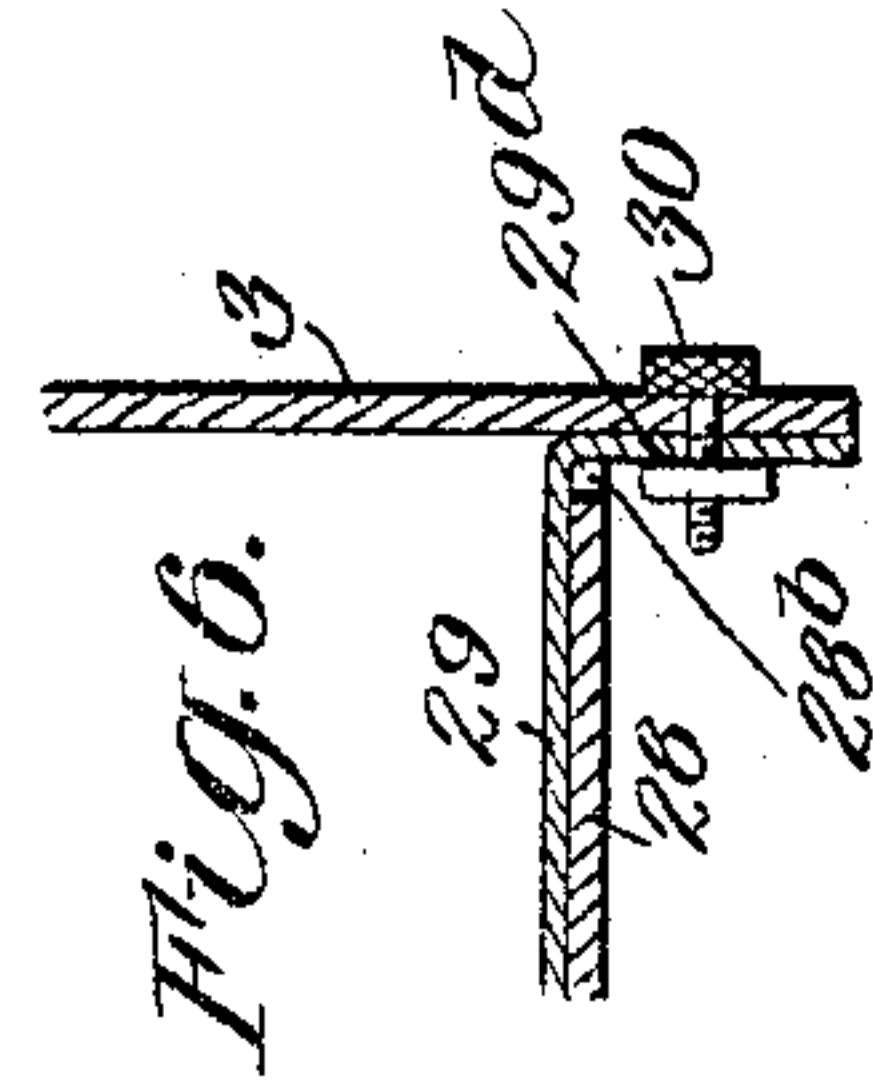
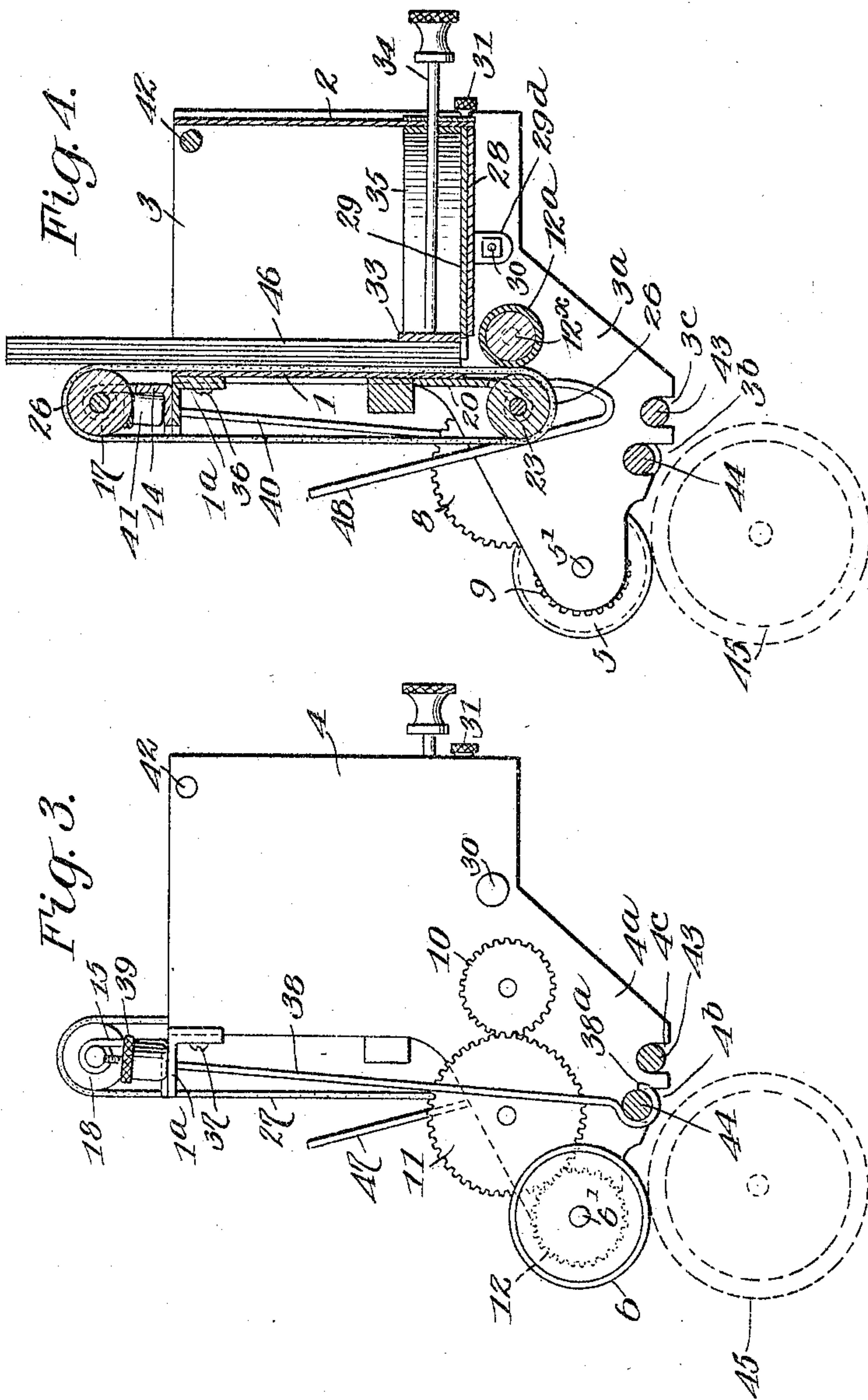
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# UNITED STATES PATENT OFFICE.

HENRY M. BURCH, OF ATLANTA, GEORGIA.

FEEDING ATTACHMENT FOR TYPE-WRITING MACHINES.

994,905.

Specification of Letters Patent. Patented June 13, 1911.

Application filed October 11, 1909, Serial No. 521,977. Renewed October 15, 1910. Serial No. 587,314.

*To all whom it may concern:*

Be it known that I, HENRY M. BURCH, a citizen of the United States, and resident of Atlanta, in the county of Fulton and State of Georgia, have invented certain new and useful Improvements in Feeding Attachments for Type-Writing Machines, of which the following is a specification.

My invention relates to improvements in feeding attachments for typewriting machines, especially those designed for feeding envelopes, telegraph blanks, etc., and it consists in the constructions, combinations, and arrangement of parts herein described and claimed.

An object of my invention is to provide an improved device over that shown in my co-pending application, Serial No. 461,872, filed Nov. 10, 1908. One advantage over the form of the device shown herein is in providing an adjustable feed so as to accommodate envelopes or blanks of varying thicknesses, so that they may be fed one at a time to a typewriting machine, automatically.

A further object of my invention is to provide a device in which an envelop or blank which is crimped whose surface, therefore, is not in a single plane, may be fed through the device and with as much certainty as envelopes or blanks which are not crimped, and which, therefore, present a plane flat surface to the feeding member.

A further object of my invention is to provide a device in which the feeding mechanism is of the simplest nature, thereby reducing the cost of manufacture, as well as the weight of attachment while at the same time producing a device that is positive in its workings.

Further objects and advantages will appear in the following specification, and the novel features of the device will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawings, forming a part of this application in which similar reference characters indicate like parts in the several views, and in which—

Figure 1 is a front view of the device, Fig. 2 is a plan view, Fig. 3 is an end view, Fig. 4 is a section along the line 4—4 of Fig. 2, Fig. 5 is an enlarged fragmentary section along the line 5—5 of Fig. 2, and Fig. 6 is a detail section along the line 6—6 of Fig. 2.

In carrying out my invention, I provide a magazine or feed box comprising a front

portion 1, a rear portion 2 and the end portions 3 and 4, respectively. As will be seen from Figs. 2, 3, and 4, the end portions 3 and 4 have downwardly and forwardly projecting extensions 3<sup>a</sup>, and 4<sup>a</sup>, respectively. These extensions are provided with notches 3<sup>b</sup>—3<sup>c</sup>, and 4<sup>b</sup>—4<sup>c</sup> for the purpose hereinafter explained. These extensions bear the respective friction rollers 5 and 6, which are journaled on the short shafts 5' and 6', respectively. On the extension 3<sup>a</sup> are also rotatably mounted the gears 7, 8 and 9, the gear 8 being a larger gear and meshing with the gears 7 and 9 on either side. Rotatably mounted on the opposite end 4 are the gears 10, 11, and 12, corresponding to the gears 7, 8, and 9. The gears 7 and 10 are attached to a common shaft which bears the friction roller 12<sup>x</sup>, (see Fig. 1) which is provided with a friction surface 12<sup>a</sup>. Secured to the front portion 1 is an upper L-shaped flange which carries bearings 13, 14, and 15 for the respective idler rollers 16, 17 and 18. Toward the lower edge of the front portion are the downwardly extending hangers 19, 20, and 21, for the rolls 22, 23, and 24. The rolls 16, and 22 are connected by an endless friction band 25, which is preferably an ordinary rubber band. The rolls 17 and 23 are connected by a similar band 26 and the rolls 18 and 24 by the band 27. As will be seen from Fig. 4, the lower rolls are so arranged that the band is engaged by the roll on the friction shaft 12.

The magazine or feed box is provided with a bottom 28, (see Fig. 5) which terminates short of the front portion, thereby leaving a space 28<sup>a</sup> through which the envelopes or blanks may be fed. Above the bottom 28 is a false bottom 29 which is slidable on the bottom 28, so as to regulate the opening at 28<sup>a</sup>. The construction of this false bottom and the means by which it is adjusted, I consider one of the main features of my invention. It will be seen from Figs. 2 and 5 that the bottom 29 is provided with a central forwardly extending portion 29<sup>a</sup> leaving on each side thereof the respective recesses 29<sup>b</sup> and 29<sup>c</sup>. The purpose of these slots will be explained in the operation of the device. The bottom 28 is provided with a slot 28<sup>b</sup> (see Fig. 6) through which a downwardly depending flange 29<sup>a</sup> of the false bottom depends. This flange is provided with a small slot 29<sup>e</sup> (see Fig. 5) through which a thumb screw 30 extends.



Thus the false bottom 29 may be adjusted toward or away from the front 1. In order to facilitate this adjustment, I provide the handles 31 which, in the drawing, are shown as having milled heads and being attached to the plate and passing through openings 31<sup>a</sup> in the rear 2 of the magazine.

Within the magazine is a movable plate 33 which may be manipulated by the pull rod 34, which passes through the back 2. The plate 33 is held in a forward position by a semi-circular spring 35, through which the rod 34 passes.

From an inspection of Fig. 2 it will be seen that the front member 1 is set in slots in the end pieces 3 and 4. It is held in this position by the screws 36 and 37, (see Fig. 1) which pass through the flange 1<sup>a</sup> into the respective side members. By moving these screws the flange and front plate together with the friction rolls and bands may be removed from the device.

At one end of the flange 1<sup>a</sup> is a rod 38 which passes through the top part of the flange and is provided with a hook 38<sup>a</sup> at its lower end. At the upper end is a milled nut 39. The opposite end of the device is provided with a similar rod 40 and adjusting nut 41. The upper rear end of the device is strengthened by a rod 42, just inside of the magazine and running longitudinally of the device.

From the foregoing description of the various parts of the device, the operation thereof may be readily understood.

The machine is designed to be attached to the carriage of a visible typewriter, such as the Monarch or the Underwood. When it is used with a Monarch typewriter, the device, as assembled, is placed on the bar 43, the slots 3<sup>c</sup> and 4<sup>c</sup> fitting over this bar, as clearly shown in Figs. 3 and 4. If it is to be used with an Underwood, the bar 44 is used, and this bar fits into the slots 3<sup>b</sup> and 4<sup>b</sup>. The hooks of the rods 38 and 40 are passed underneath the rod 44 and the nuts 39 and 41 are tightened, thereby clamping the device to the rod. The friction rolls 5 and 6 are allowed to rest on the platen 45. The attachment, as thus secured is carried along with the movement of the platen, and as the platen is rotated, the friction rolls 5 and 6 through the medium of the gears 7, 8, 9 and 10, 11, 12, cause the rotation of the long roll 12<sup>x</sup>, and hence of the friction bands 25, 26, and 27, as heretofore explained.

The envelopes 46 or blanks may be placed in the magazine by pulling outwardly on the rod 24, and then releasing the latter, when the envelopes will be pushed forwardly against the member 1. The false bottom 29 is adjusted by unloosening the screws 30 and setting the bottom at the right distance by means of the rods 31, so that one envelop 65 at a time is fed through. The adjustment

depends, of course, upon the thickness of the envelop, but the bottom may be adjusted so nicely that thin blanks such as telegraph blanks may be fed through one at a time with certainty. If the envelop should happen to be crimped so that the ends are bent outwardly, it would prevent the envelop from being fed because of the engagement of the ends with the bottom. I therefore cut away the bottom at 29<sup>b</sup> and 29<sup>c</sup>, (see Fig. 2) which leaves the extended portion 29<sup>a</sup> that forms the regulating portion of the bottom. After gaging the device for envelopes of a given size, the envelopes may be placed in, as stated before, and the frictional contact of the moving friction band will cause the envelopes to be fed one at a time to the platen 45. From ten to fifty envelopes may be placed in this device. The ordinary movement of the typewriting machine in the act of addressing one envelop will cause the feeding of another one to take the place of the one drawn from the typewriting machine.

The guards 47 and 48 are attached to the front portion of the device in order to prevent an addressed envelop from striking the friction bands 25, 26, and 27.

The device is of light weight, about one and one-half pounds, and may be readily attached and detached in the manner explained.

As stated, the device is automatic in its nature, having few parts, and being of comparatively simple construction.

I claim:

1. In a feeding attachment for typewriters, a magazine having a bottom provided with a feed opening, a false bottom slidably supported on said first named bottom, means for adjusting said false bottom to regulate the size of the feed opening, means for locking said false bottom in its adjusted position, and feeding means arranged to move through said feed opening and to draw therethrough the articles to be fed, by frictional engagement with said articles.

2. In a feeding attachment for typewriters, a magazine having a bottom provided with a feed opening, a false bottom slidably supported on said first named bottom, said false bottom being provided with a central extension adapted to regulate the size of the feed opening, and having recessed portions on each side thereof, means for adjusting said false bottom toward and away from the front of the magazine, a slidable spring-actuated plate disposed above said false bottom for holding articles to be fed in position over said feed opening, and frictional feeding means adapted to move through said feed opening.

3. In a feeding attachment for typewriters, a magazine provided with a removable front plate, upper and lower feed rolls car-



ried by said front plate, frictional feed bands carried by said rolls, a stationary bottom for said magazine, a slidable false bottom disposed above said stationary bottom and having a central extension, said false bottom being arranged for adjustment toward and away from said front portion, a spring-actuated plate arranged above said false bottom for holding the articles to be fed against said front portion, said friction bands being arranged to pass through the space between said false bottom and said front portion, and means for actuating said friction rollers.

4. In a feeding attachment for typewriters, a feed magazine comprising a removable front portion, having friction rolls, friction bands carried by said rolls, said portions having downwardly and forwardly inclined extensions, provided with slots, gears carried by said extensions, a friction roll disposed between the opposite extensions and arranged to frictionally engage said friction bands for moving the latter, friction rolls carried by said downwardly extending portions and arranged to bear on

the platen of a typewriting machine, the slots in said extensions being arranged to fit over the bar of the typewriting machine, and means for clamping the attachment to said typewriter bar.

5. The combination with a typewriter platen and bar of a feeding attachment for said typewriter comprising a magazine having slotted end portions arranged to fit over said bar, said end portions being provided with friction rolls, arranged to engage said platen, a removable front portion having friction rolls, friction bands carried by said friction rolls, means actuated by said first-named friction rolls for moving said bands, rods secured to said front portion having hooked ends arranged to engage under said bar, adjusting nuts on the upper ends of said rods for clamping said front portion to the bar, and an adjustable bottom in said magazine for regulating the feed.

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Witnesses:

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