

No. 706,720.

Patented Aug. 12, 1902.

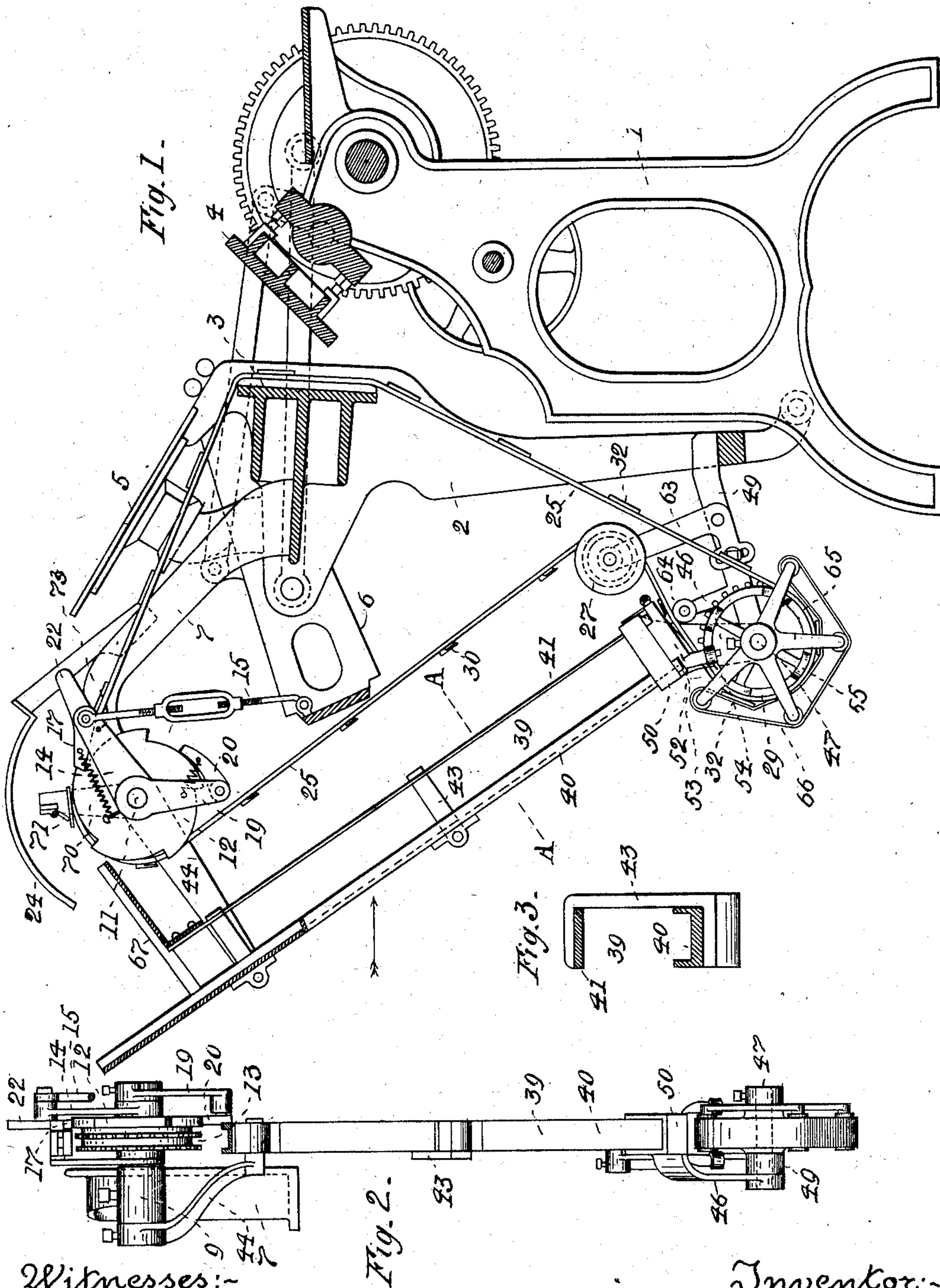
J. P. BRYAN.

ADDRESSING ATTACHMENT FOR PRINTING PRESSES.

(Application filed Nov. 11, 1901.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses:  
Estep J. Gott  
Howard Kroh

Inventor:  
J. P. Bryan,  
by H. H. T. Howard  
Attorneys.

J. P. BRYAN.

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(Application filed Nov. 11, 1901.)

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2 Sheets—Sheet 2.

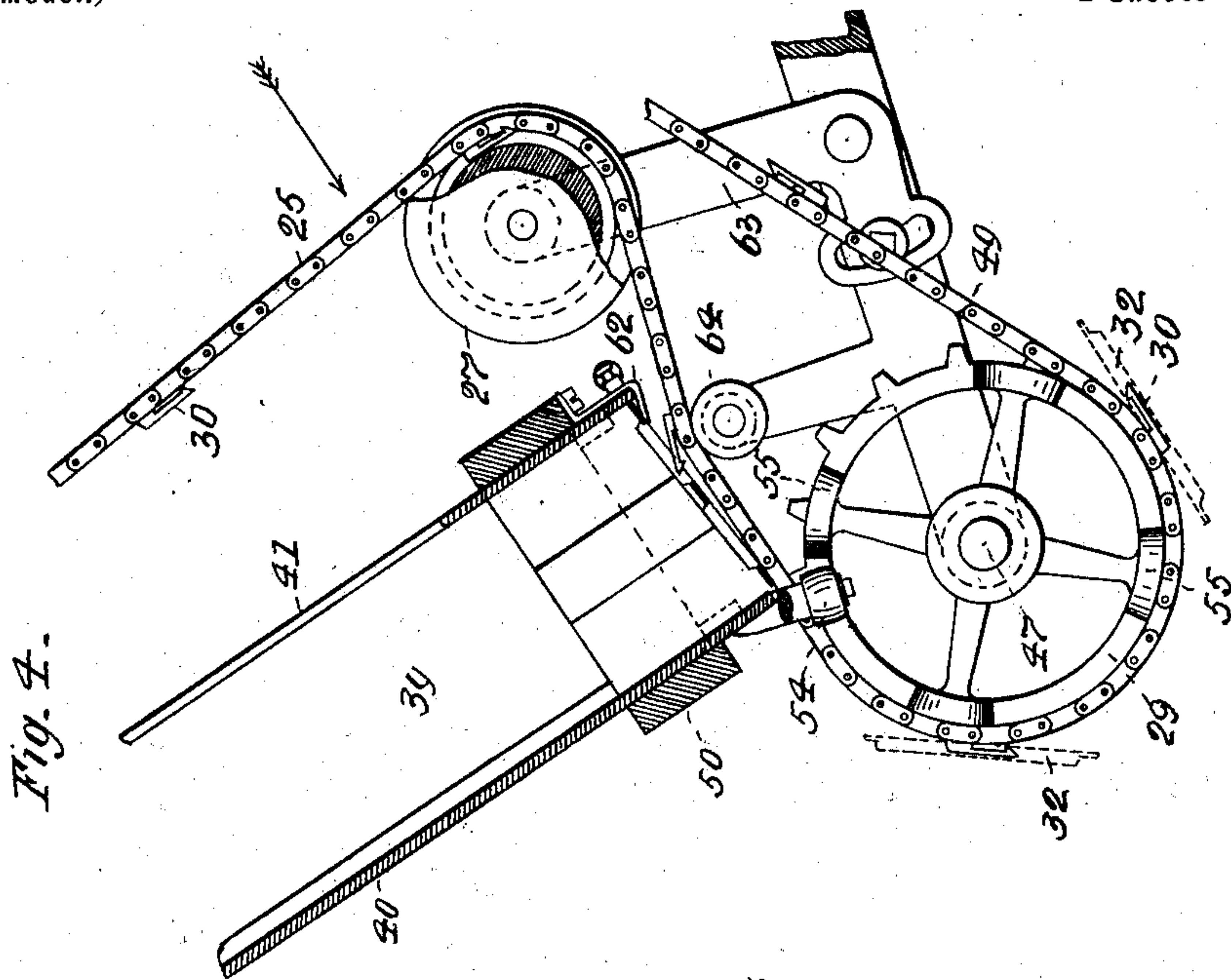


Fig. 4.

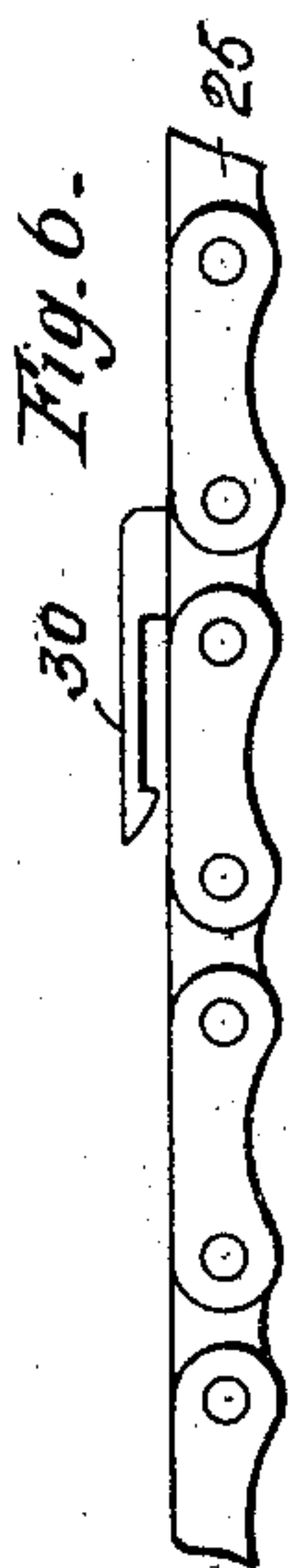


Fig. 6.

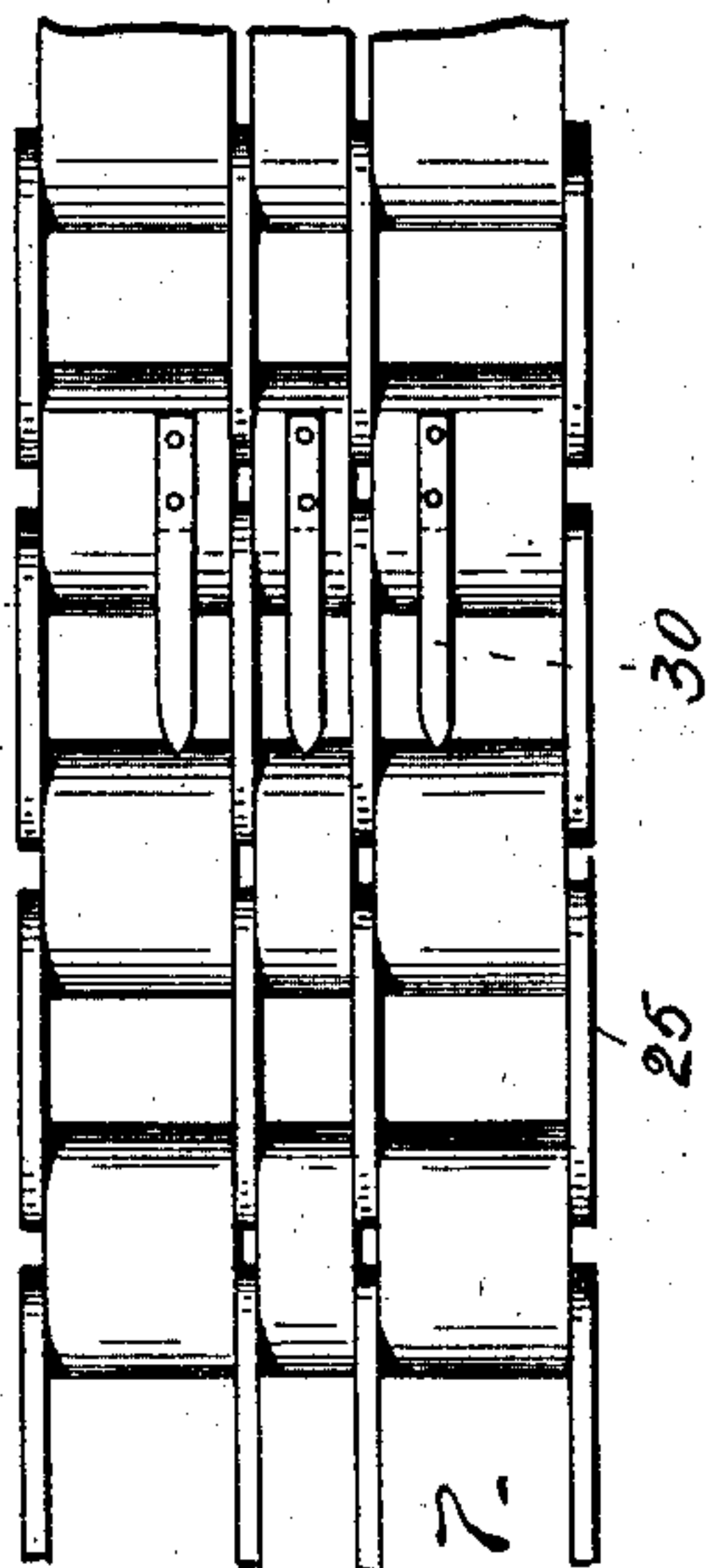


Fig. 7.

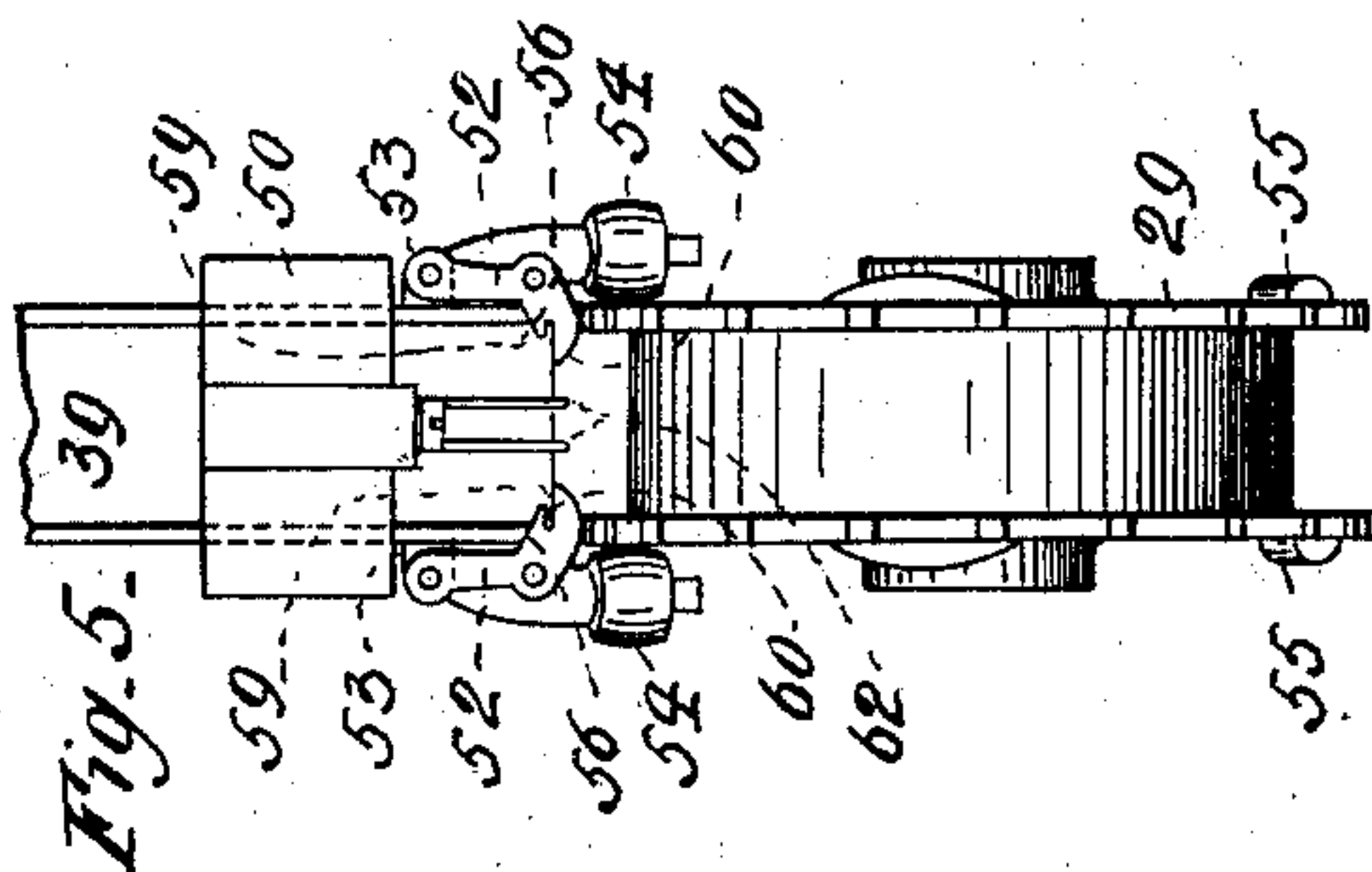


Fig. 5.

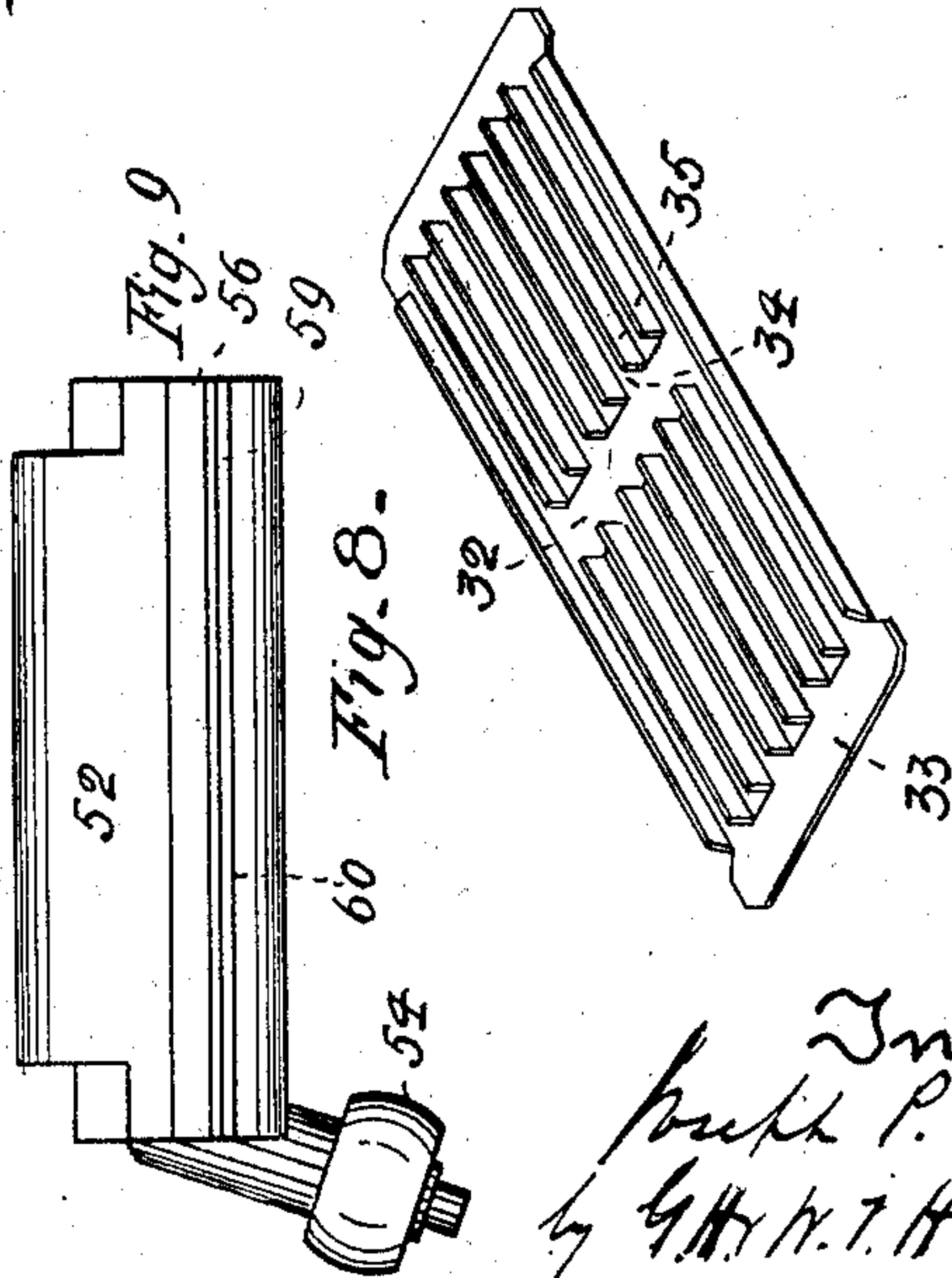


Fig. 8.

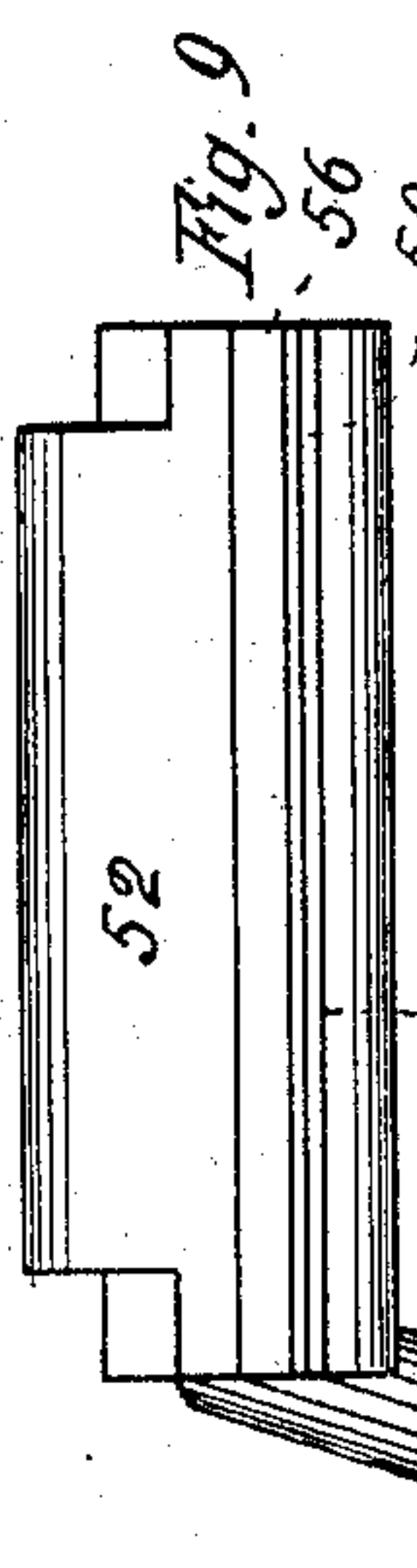


Fig. 9.

Witnesses:-  
*Estes J. Cox*  
*Howard J. Kreh*

Inventor  
 J. P. Bryan,  
 by *W. H. T. Howard*,  
 Attorneys.



# UNITED STATES PATENT OFFICE.

JOSEPH PETER BRYAN, OF ST. MICHAELS, MARYLAND, ASSIGNOR TO  
JOSEPH H. RADCLIFFE, OF ST. MICHAELS, MARYLAND.

## ADDRESSING ATTACHMENT FOR PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 706,720, dated August 12, 1902.

Application filed November 11, 1901. Serial No. 81,791. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH PETER BRYAN, of St. Michaels, in the county of Talbot and State of Maryland, have invented certain Improvements in Addressing Attachments for Printing-Presses, of which the following is a specification.

This invention relates to certain improvements in that class of addressing attachments for printing-presses which comprise an intermittently-moving endless belt carrying address-printing blocks which are consecutively inserted in the form of a printing-press, whereby each impression taken from the said form will contain a different address; and it relates more particularly to improvements in the invention patented to Bryan and Sinclair on the 25th day of June, 1901, under No. 677,060, to which reference should be made.

The present invention consists principally in a carrying-belt, a magazine into which address-printing blocks are placed, and devices attached to the said belt whereby the said blocks are withdrawn from the magazine one at a time. The said blocks after completion of the printing operation are preferably returned by the belt to the magazine and stacked therein to be taken out as a mass and stored away for future use.

The invention consists, further, in certain details of construction of the carrying-belt, its blocks, and various other parts of the apparatus, as will hereinafter fully appear.

In the further description of the said invention which follows reference is made to the accompanying drawings, forming a part hereof, and in which—

Figure 1 is a partly-sectional side view of certain parts of a printing-press and the addressing appliances forming the subject of the present invention. Fig. 2 is an exterior view of the addressing appliances shown in Fig. 1 looking in the direction indicated by the arrow in that figure. Figs. 3 to 9, inclusive, are enlarged details of the addressing appliances, as hereinafter specifically described.

Referring now to the drawings, 1 is the fixed frame of an ordinary printing-press, and 2 the vibratory frame, having as a part thereof the bed 3, to which the chase (not shown) is secured. The platen is represented by 4, the

inking-disk by 5, and the vibratory inking-rollers frame by 6. All these parts of the printing-press are of well-known construction and require no further description herein.

7 is a bracket extending from a part of the vibratory frame 2, having a boss 9 at its end, in which is secured the stud 11, which supports the loose ratchet-wheel 12, carrying the sprocket-wheel 13. These two wheels receive a joint intermittent rotary movement from the vibratory inking-rollers frame 6 through the medium of the arm 14 and the link 15, which arm, like the said wheels, is loose on the stud 11 and the spring-held pawl 17, the point of which engages with the teeth of the said ratchet-wheel. A backward motion of the said wheels is prevented by the fixed arm 19 at one end of the stud 11 and the spring-held pawl 20. As the distance traveled by the arm 14 is greater than that required to move the ratchet-wheel one tooth, the pawl 17 is provided with a tailpiece 22, which at the proper time strikes the curved plate 24 and is tripped and becomes inoperative to continue the rotation of the said wheels.

25 is the endless link or chain belt which carries the address-printing blocks hereinafter described. The formation of this belt in itself is not of any great importance; but the preferred construction is well shown in Figs. 6 and 7, the former being a side and the latter a top view of the same. The said chain, beginning at, say, the top of the sprocket-wheel 13, passes down and over an idle pulley 27, then turns downward and passes around a sprocket-wheel 29, thence upward on an incline to the bed 3 of the machine, and after passing across the form on the bed leads upward to the place of beginning.

Secured to the outer surface of the chain belt at the proper distances apart are rows of pointed and barbed fingers 30, (see Figs. 6 and 7,) with preferably three fingers in a row. These fingers in the operation of the machine pick up the address-printing blocks, hereinafter described, from the magazine in which they are stored and after carrying them successively to the printing-form deposit them in the magazine. The said address-printing blocks, which are denoted by 32, may have any appropriate form and shape, pro-



vided they are adapted to hold either separate type or line-type, and are of such character as to admit of their being taken up by the fingers 30 of the endless belt. The block 5 shown on an enlarged scale and in perspective in Fig. 8 consists in a sheet-metal plate 33, flanged at its lateral edges and provided with channels 34, formed by slitting the plate and turning up the edges 35 adjacent to the 10 said slits. It is preferred not to use separate types, but lines of type produced by a linotype-machine, and these are slid into the channels 34 from either end thereof.

The magazine in which the address-printing blocks are placed and from which the 15 fingers 30 withdraw them is denoted as an entirety by 39. It is shown as consisting of the channel-bar 40 and the flat bar 41, which is separated from the channel-bar 40 a distance slightly exceeding the length of a block. The said bars are shown in cross-section in Fig. 3, taken on the dotted line A A, Fig. 1.

43 represents standards which connect the bars 40 and 41.

25 The upper end of the magazine is supported by the arm 44 from the stud 9, and its lower end is sustained by a bracket 46, connected to a fixed stud 47, extending laterally from an arm 49 on the vibratory frame 2.

30 By reference to the drawings it will be understood that the magazine 39 is placed in an inclined position in order that the addressing-blocks when placed therein will slide down to the lower end of the channel-bar 40.

35 The channel and flat bars (respectively denoted by 40 and 41) terminate at their lower ends in a box 50, in which the address-printing blocks fit loosely, and directly under this box are pivoted the block-holders 52, which 40 are hinged to lugs 53 on the outside of the box. An inner face view of one of these holders is shown in Fig. 9. The holders 52 are provided with rollers 54, which are in the path of the bosses 55 on the sides of the sprocket-wheel 29, and as these bosses pass between 45 the said rollers the holders are momentarily separated and discharge an address-printing block from the magazine, as hereinafter fully described. The portion of the holders 52 situated below the box 50 and from which extend the rollers 54 has an inclined surface 56, which projects within the said box a distance sufficient to sustain an addressing-block. The part of the holders immediately below the 50 said inclined surface is provided with a rabbet 59, having a width somewhat greater than the thickness of the lateral edges of the addressing-blocks, as shown in Fig. 5, and below the said rabbet is a lip 60.

60 Supposing a column of addressing-blocks to be in the magazine, with the lowest one resting on the inclined surfaces 56 of the holders 52 and the sprocket-wheel 29 to be rapidly rotated, the first pair of lugs 55 in 65 passing between the rollers 54 momentarily separate them, and thereby distend the holders 52. The lowest addressing-block thus

falls by gravity to the lip 60, with its lateral edges within the rabbets 59. At the same time the addressing-block next above takes 70 its place on the said inclined surfaces. When the second pair of bosses 55 momentarily separate the address-printing-block holders, as before described, the first block falls, so that its forward end or edge rests on the chain 75 belt 25, which is in close proximity to the bottom of the magazine. Its rear end, however, is caught by the wire springs 62, and the block is therefore held in the inclined position shown in Fig. 4. The block is now 80 in such a position that its central bridge-piece will be caught by the first set of barbed fingers 30 on the belt 25 which comes along, the said fingers passing through the slots existing between the channels containing the 85 type. A continued movement of the chain belt causes the said fingers to draw the block from the wire springs 62, and the block is then free from the magazine and is carried along with the belt. 90

In order that the chain belt 25 may be retained at a proper tension, the idle-pulley 27 is pivoted to an adjustable arm 63, as shown in Fig. 4, and the said belt is deflected so as to pass near to the bottom of the magazine 95 and nearly parallel therewith through the medium of a roller 64.

To prevent displacement of the address-printing blocks on the chain belt as the same is passing around the sprocket-wheel 29, the 100 end of the stud 47 is provided with a hub having radial arms 65 with rollers at their ends, (see Fig. 1,) and around these rollers is stretched the endless band 66, the inner rim of which is in contact with the said blocks. 105

To detach the address-printing blocks from the chain belt as they reach the top of the sprocket-wheel 13 and discharge them to the chute 67, leading to the magazine 39, a spring-held arm 70 is placed loosely on the stud 9, 110 with its end provided with the hinged pawl 71. The arm 14 has a pin 73, (see Fig. 1,) which extends laterally therefrom. This pin as the said arm is moved forward comes in contact with the arm 70 after the pawl 17 115 has been detached from the ratchet-wheel through the medium of the curved plate 24, as before described. The pawl 71 thus engages with the rear end of the address-printing block and pushes it forward, thereby releasing it from the barbed fingers 30 and delivering it to the inclined chute, and thence to the magazine. 120

After the series of addressing-blocks which are used in addressing one lot of circulars 125 have been placed in the magazine a plate (not shown) which is too large to pass the holders 52 in the box 50 is placed over them, and consequently when this plate reaches the bottom of the box all further delivery of 130 blocks is prevented. By this means the address-printing blocks will not be delivered to the printing-form a second time.

Supposing it is desired to send a stereotype



circular letter to a large number of persons, a form is set up with a place left blank for the name and address of the person to whom the circular letter is to be sent. The name and residence or place of business of the addressees are then set up in type or preferably in lines produced by a linotype-machine and inserted in the channels of the address-printing blocks. The said blocks are then placed one above another in the magazine, face up, and the press started. Immediately before an impression is taken from the form an address-printing block is carried by the endless belt to its proper position in the form, and the circular letter when printed will bear a name and address. The address-printing blocks are preferably returned to the magazine, for the reason that a uniform weight of the column of blocks is then maintained and for the additional reason that after the entire number of circulars have been printed the blocks may be removed as a columnar body and stored away for future use.

I claim as my invention—

1. In combination with a printing-press having a bed for a printing-form, a belt with means to move it over or across the said bed, a magazine adapted to contain address-printing blocks, and pick-up devices on the said belt, which in the operation of the printing-press, remove the said address-printing blocks separately from the said magazine and deliver them to a proper position in the print-

ing-form, substantially as, and for the purpose specified.

2. In combination with a printing-press having a bed for a printing-form, an endless belt with means to move it intermittently over or across the said bed, a magazine adapted to contain a stack of address-printing blocks, and pick-up devices attached to the said belt, which in the operation of the printing-press remove the said address-printing blocks from the said magazine separately, and carry them to a certain position in the printing-form situated on the bed, substantially as, and for the purpose specified.

3. In combination with a printing-press having a bed for a printing-form, an endless belt with means to move it intermittently over or across the said bed, a magazine adapted to hold stacked address-printing blocks, pick-up devices attached to the said belt, which in the operation of the said printing-press, remove the said address-printing blocks separately from the said magazine and deliver them to a certain position in the printing-form on the said bed, and mechanism to detach the said blocks after they have performed their office, from the pick-up devices and deliver them to the said magazine, substantially as, and for the purpose specified.

JOSEPH PETER BRYAN.

Witnesses:

CHAS. W. RADCLIFFE,  
CHAS. HAMBLETON.