

No. 843,859.

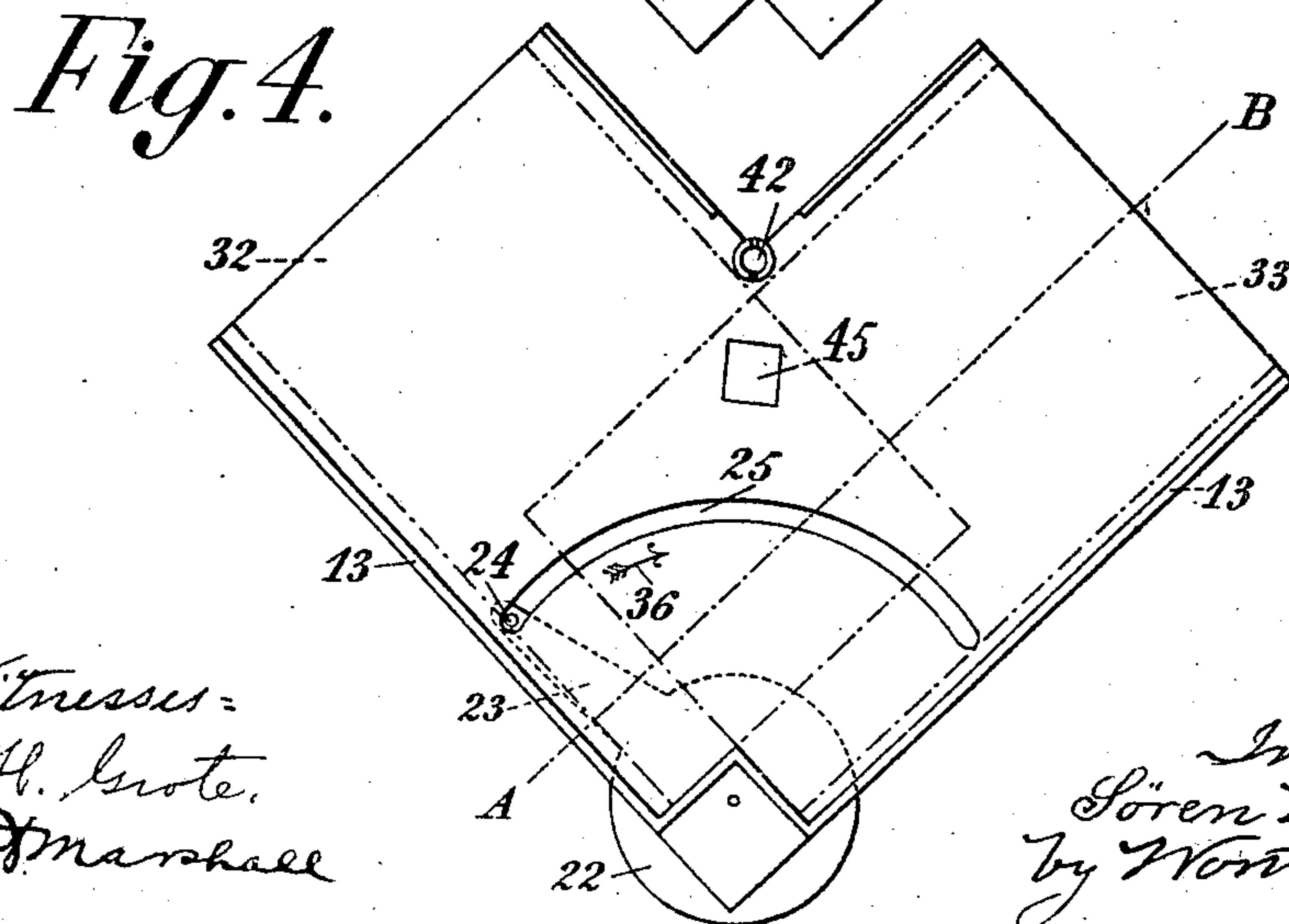
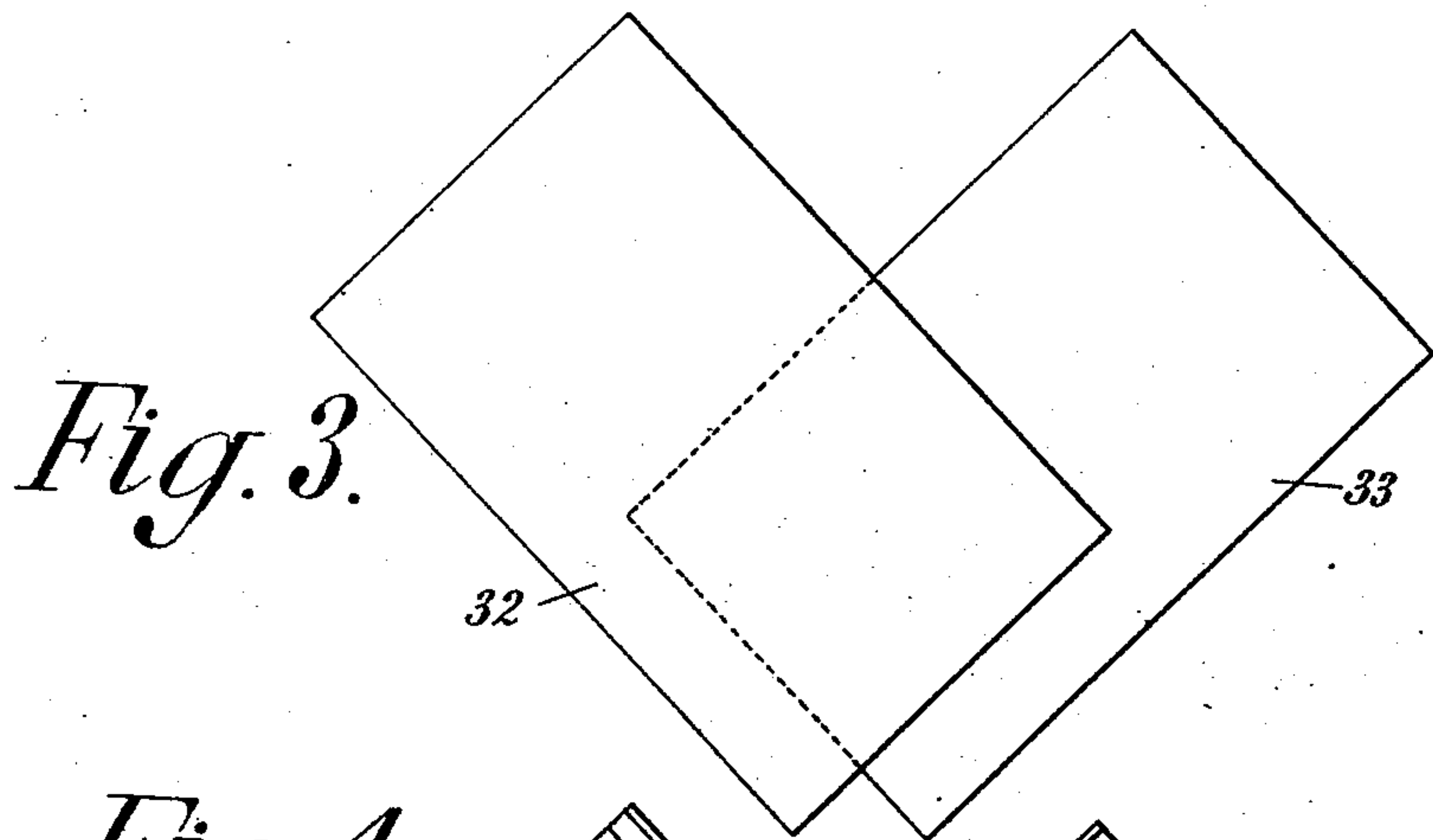
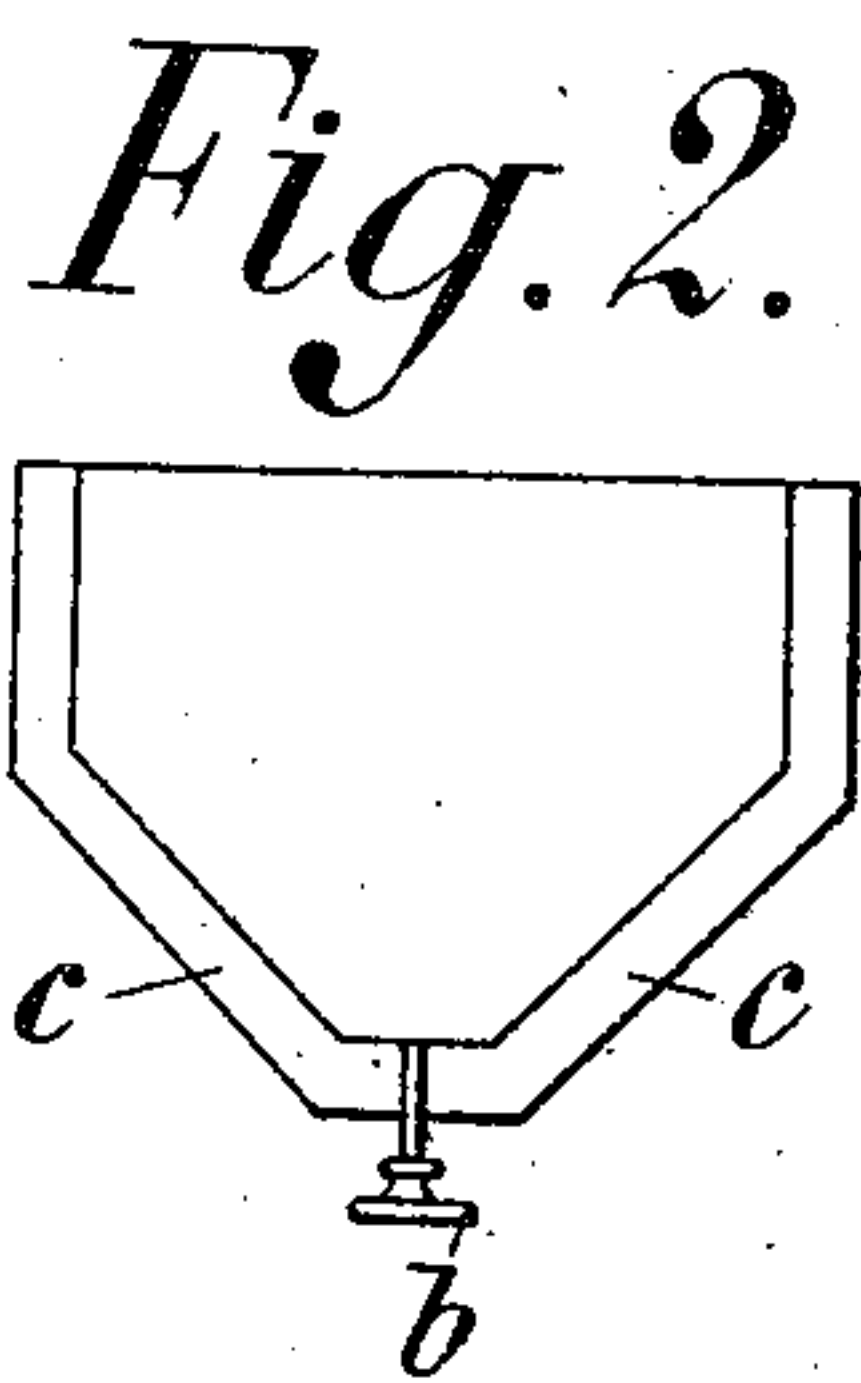
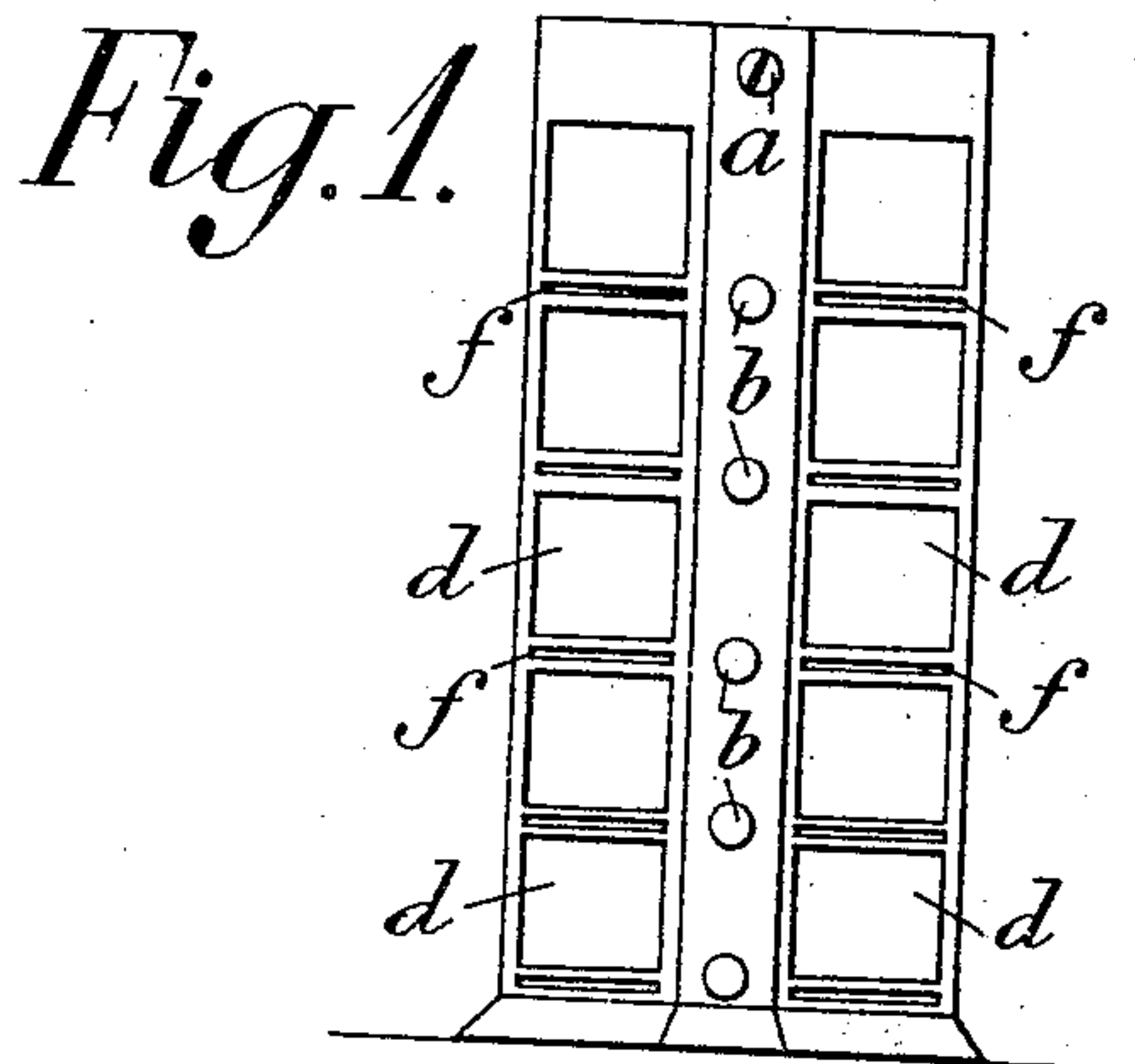
PATENTED FEB. 12, 1907.

S. WISTOFT.

COIN FREED APPARATUS FOR PICTURE POST CARDS AND THE LIKE.

APPLICATION FILED MAR. 6, 1906.

5 SHEETS—SHEET 1.



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5 SHEETS—SHEET 2.

Fig. 5.

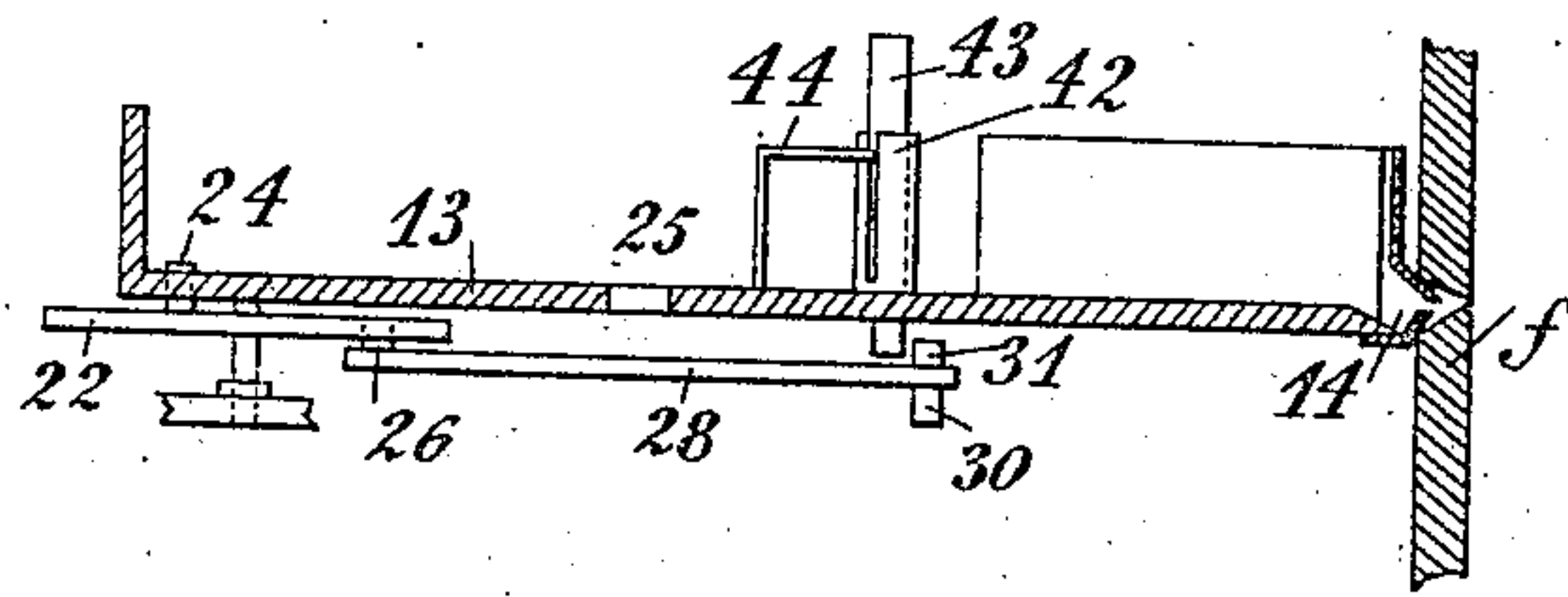
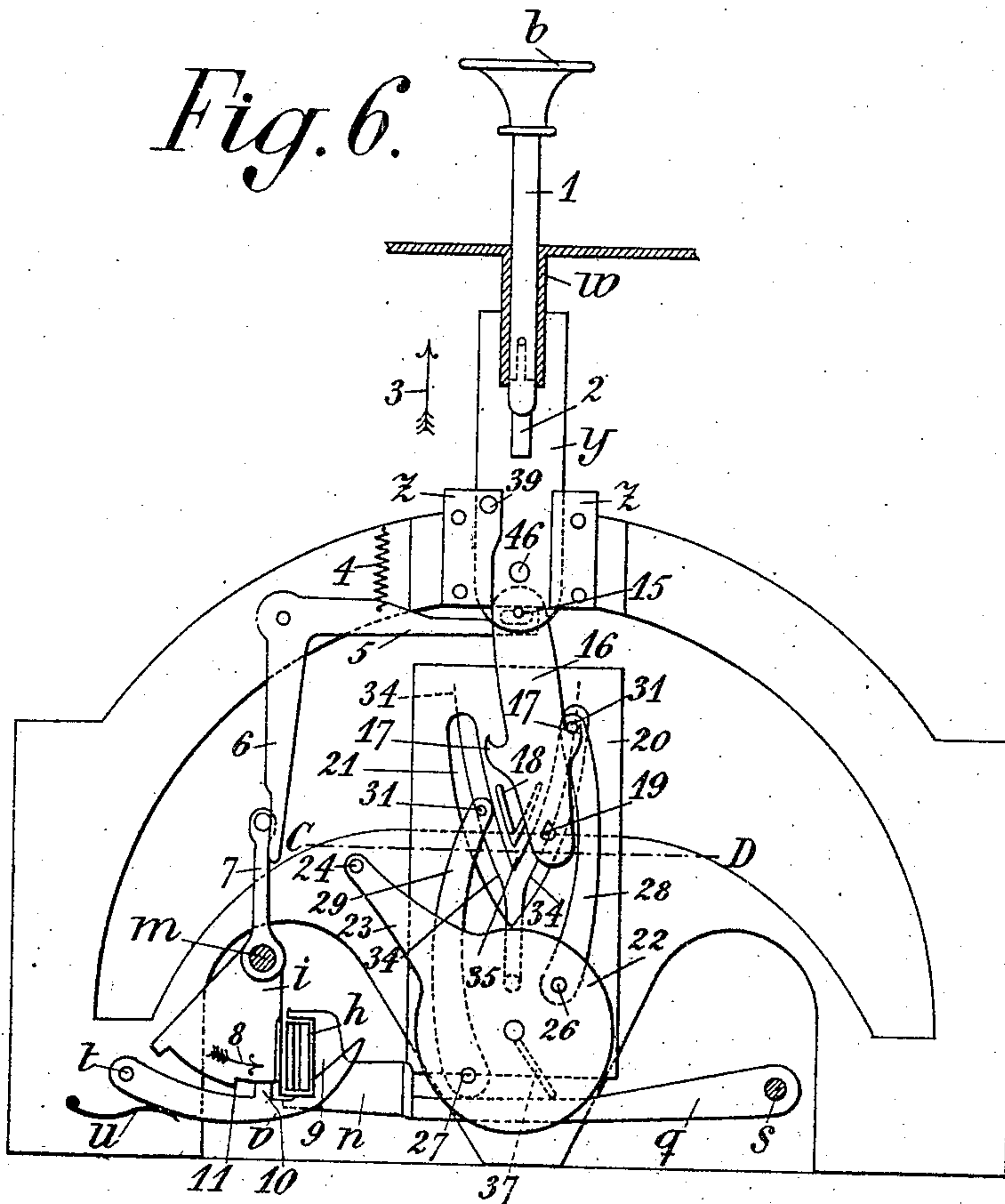


Fig. 6.



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5 SHEETS—SHEET 3.

Fig. 7.

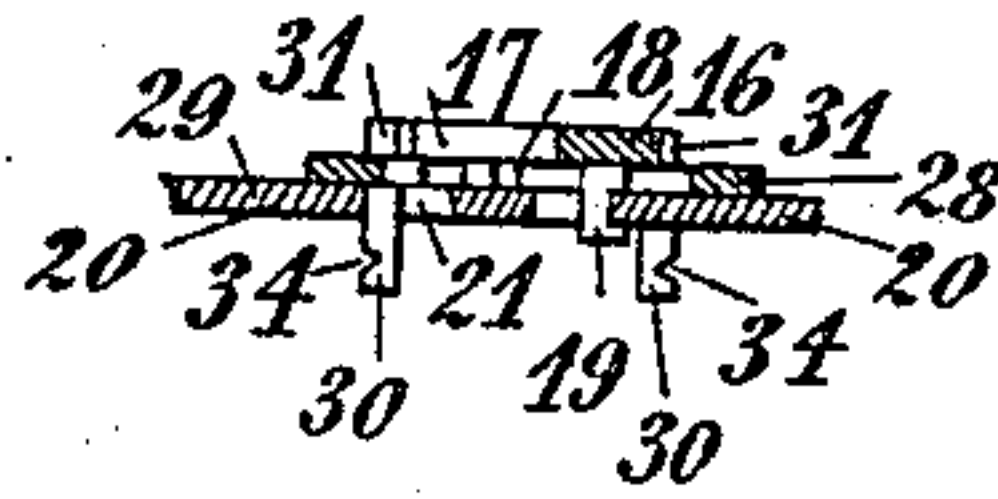
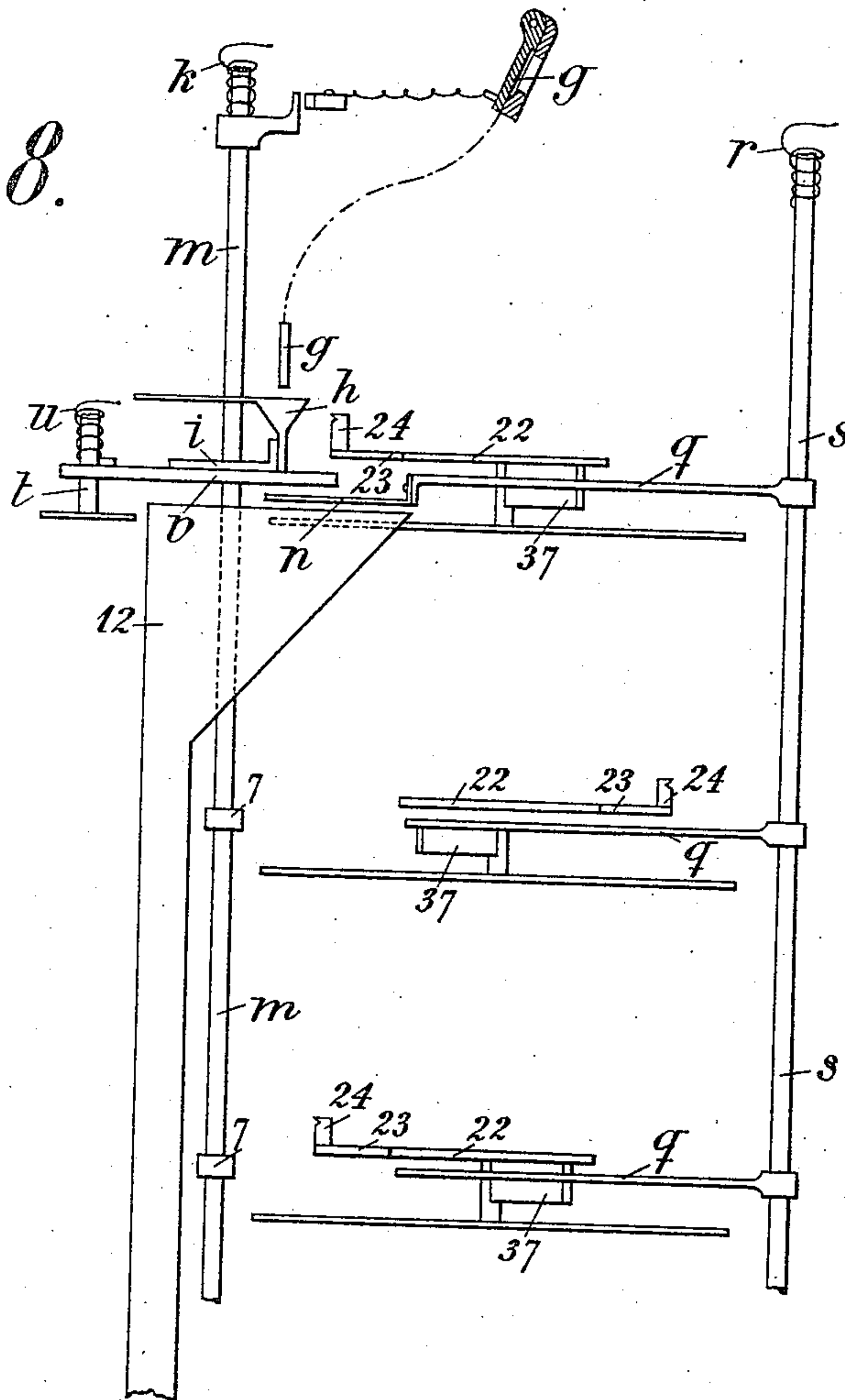


Fig. 8.



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6 SHEETS—SHEET 4.

Fig. 9.

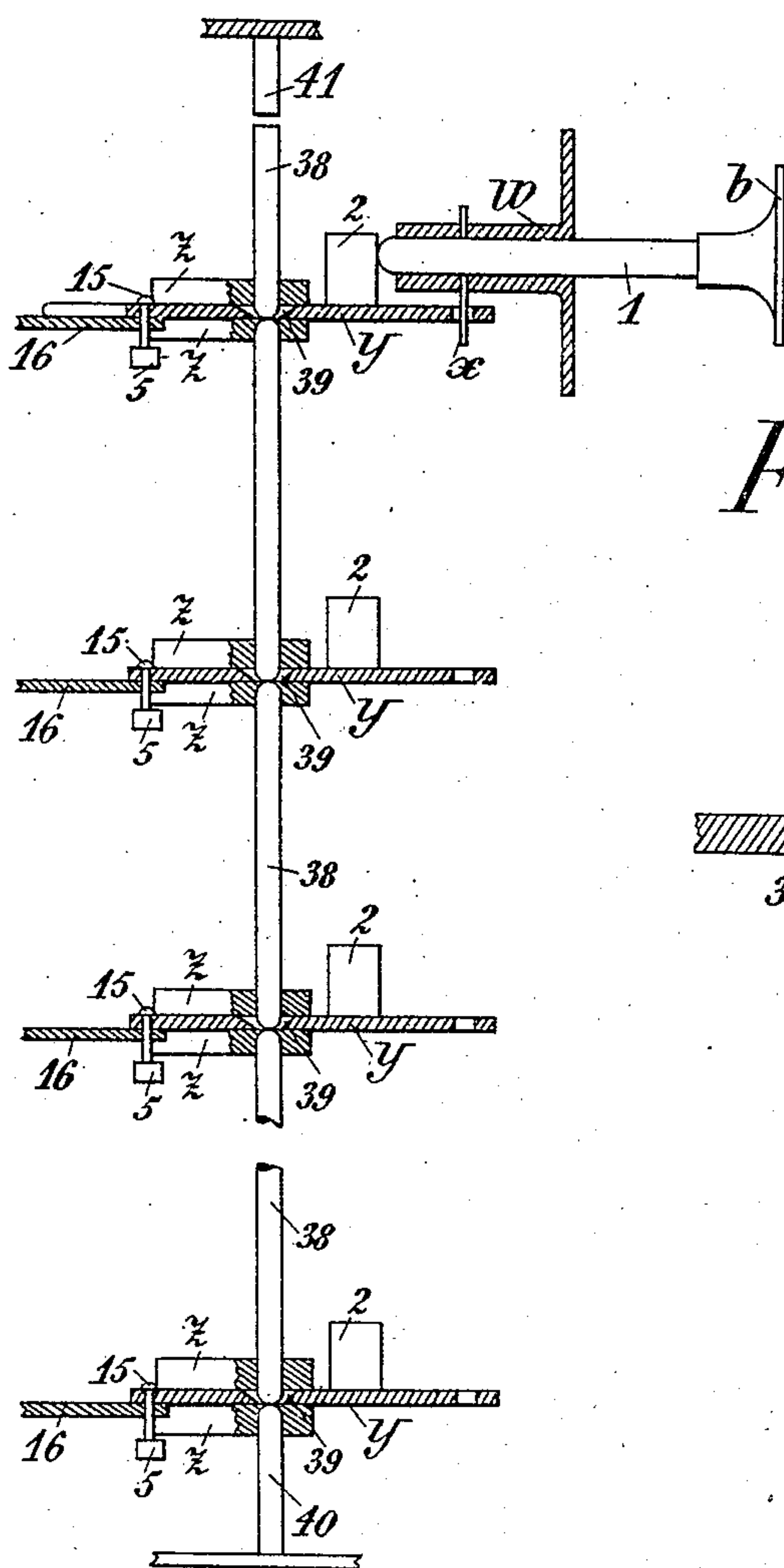
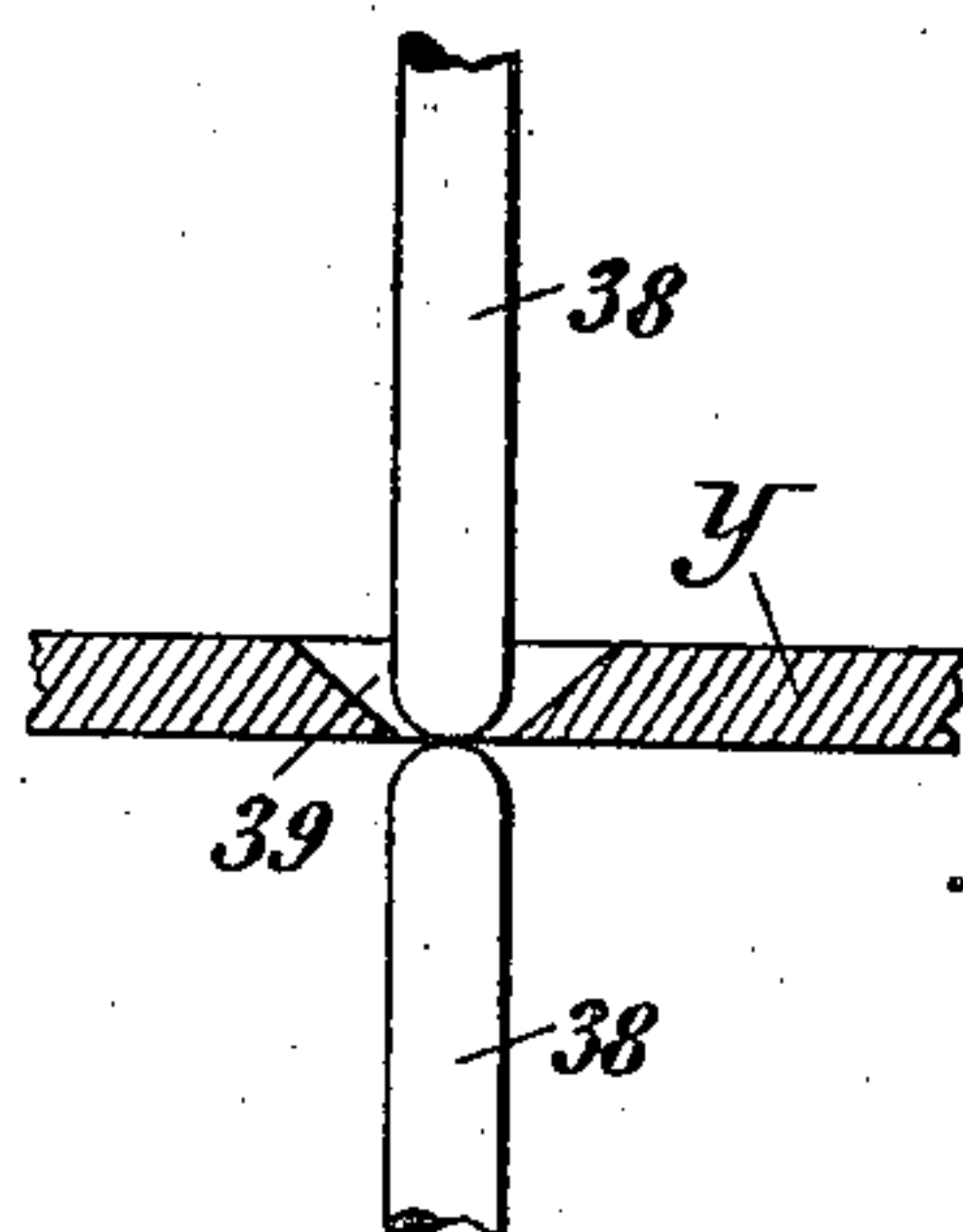


Fig. 10.



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5 SHEETS—SHEET 5.

Fig. 11.

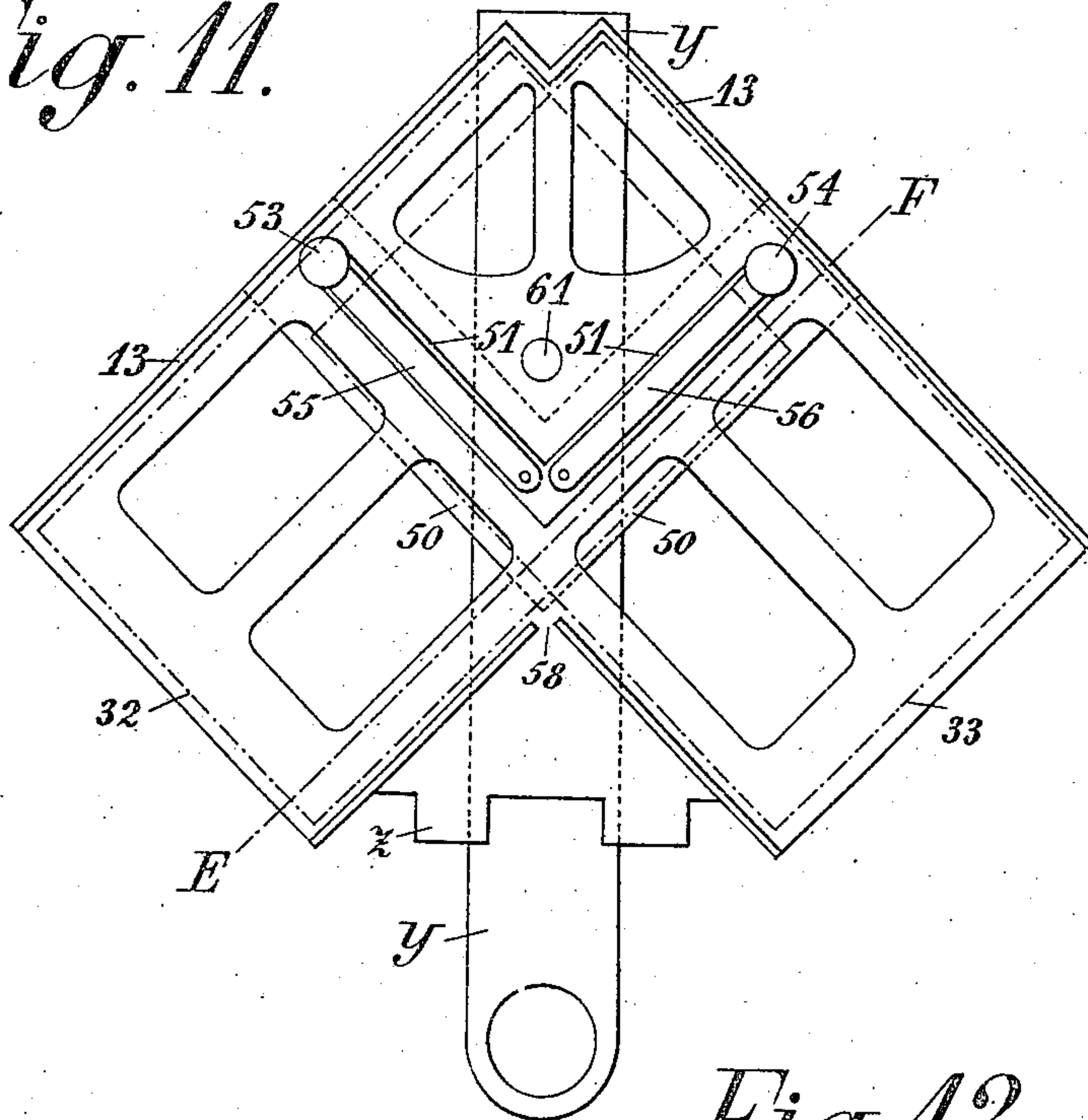


Fig. 12.

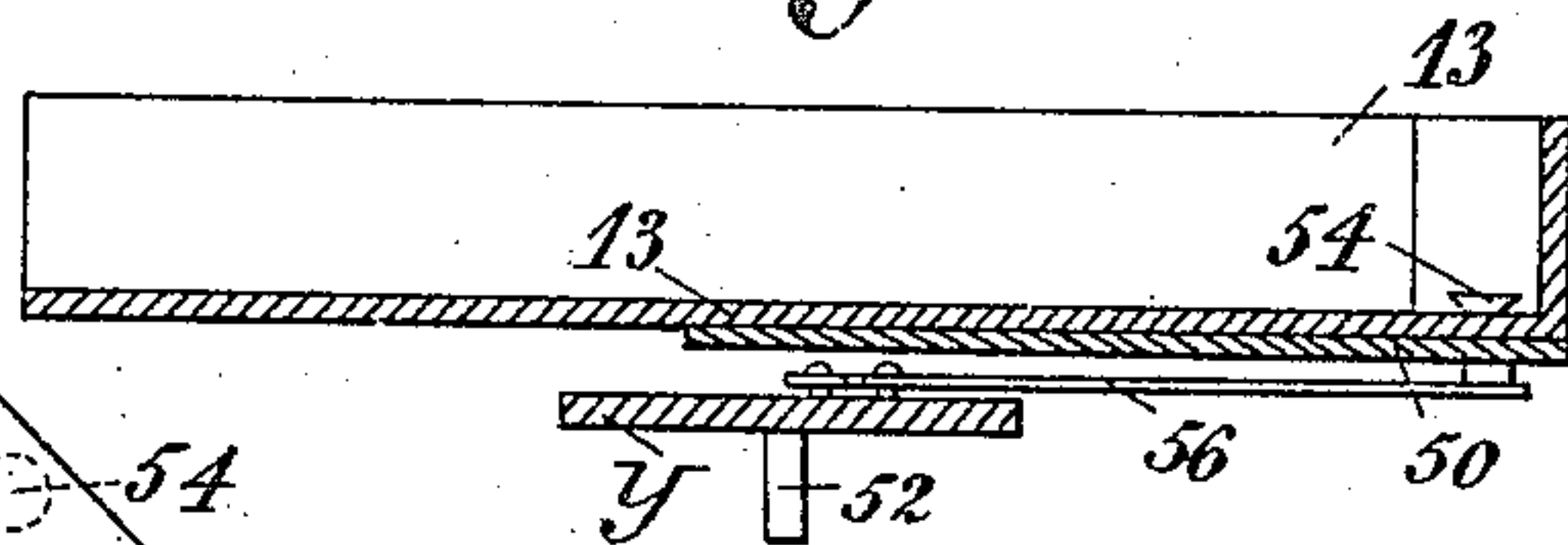


Fig. 13.

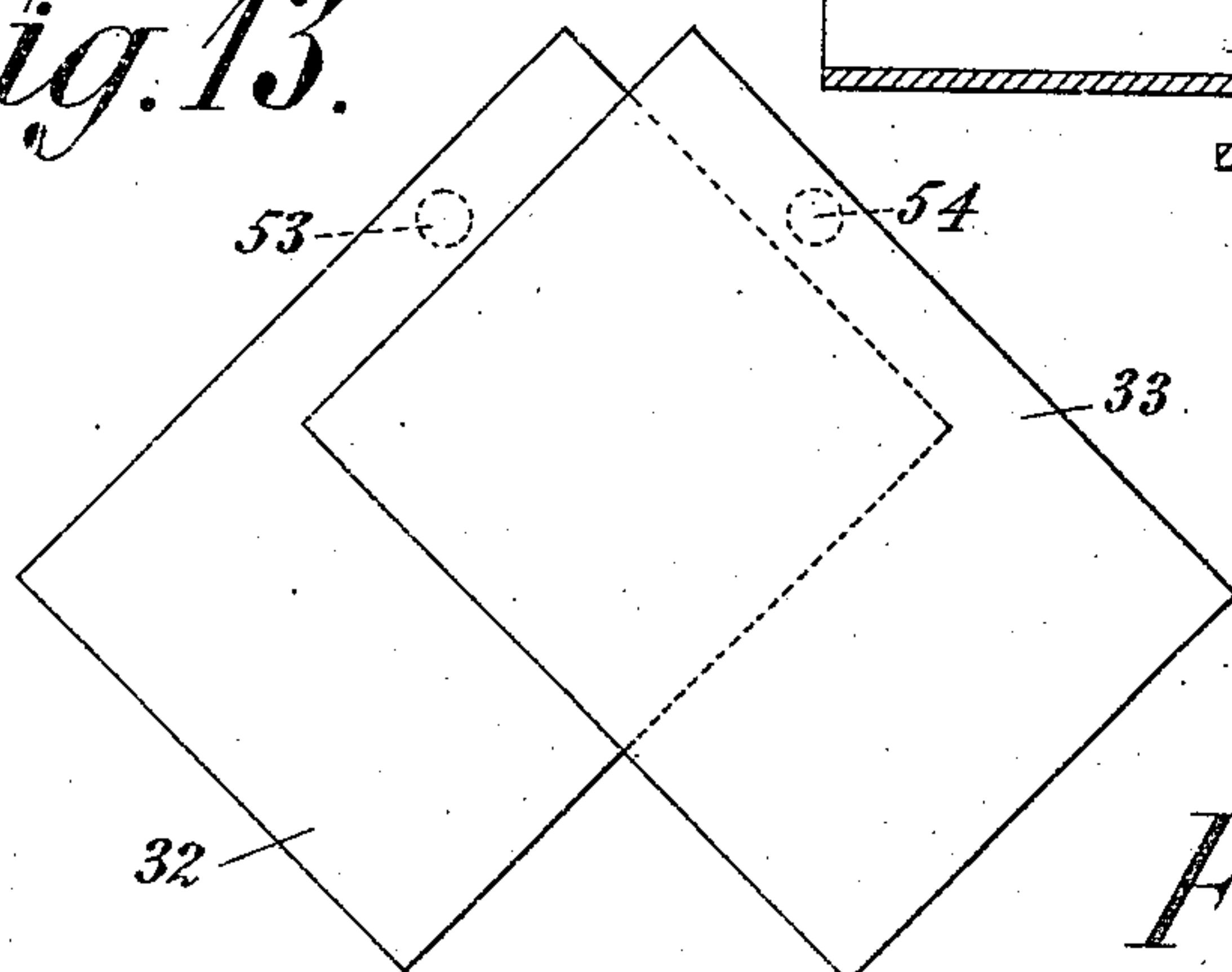


Fig. 14.

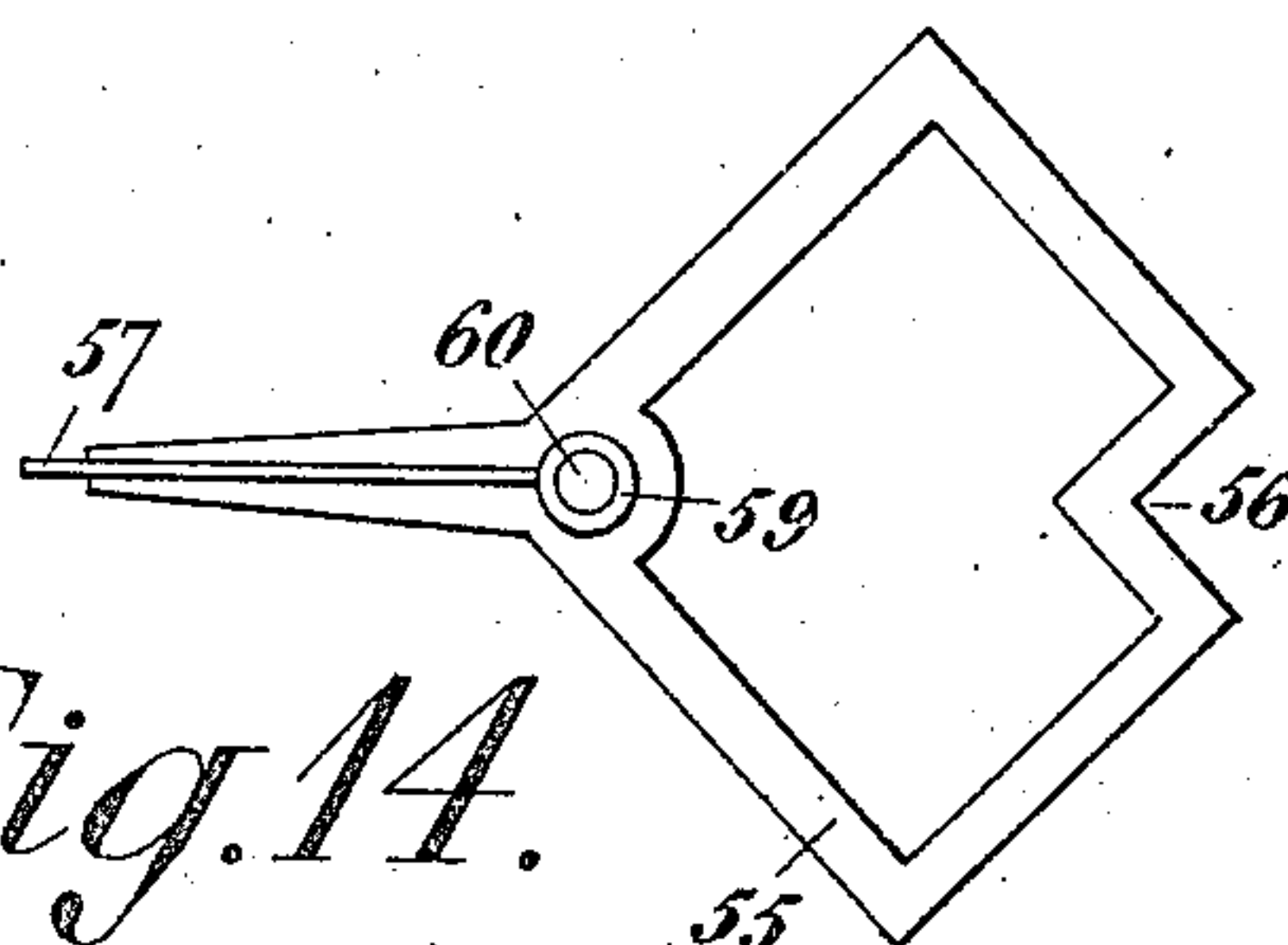
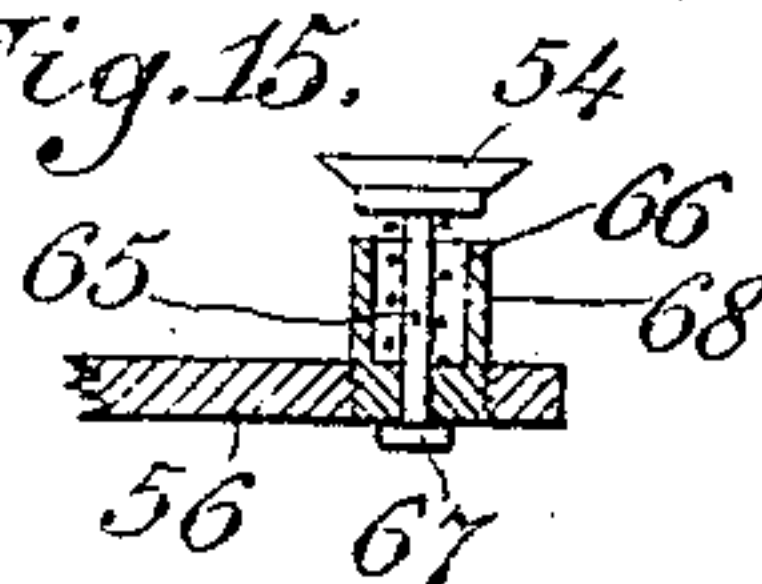


Fig. 15.



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UNITED STATES PATENT OFFICE.

SÖREN WISTOFT, OF COPENHAGEN, DENMARK.

COIN-FREED APPARATUS FOR PICTURE POST-CARDS AND THE LIKE.

No. 843,859.

Specification of Letters Patent.

Patented Feb. 12, 1907.

Application filed March 6 1906. Serial No. 304,480.

To all whom it may concern:

Be it known that I, SÖREN WISTOFT, manufacturer, a subject of the King of Denmark, residing at Copenhagen, Denmark, No. 6 Vesterfaelledrej, have invented new and useful Improvements in Coin-Freed Apparatus for Picture Post-Cards and the Like, of which the following is a specification.

The invention relates to a coin-freed apparatus for picture post-cards and the like whereby two cards lying one above the other are arranged crosswise or in V position in order that they may be separately forwarded in an easy manner.

The invention consists in arranging the cards in a fixed V-shaped frame and alternately forwarding them through two slots.

A further object of the invention is to arrange the frames containing the cards in several stories in such a manner as to permit the buyer to choose the card he wishes to buy.

In order that my invention may be fully understood, I will describe it in detail, with reference to the accompanying drawings, in which—

Figures 1 and 2 represent, respectively, a front and plan elevation of the coin-freed apparatus. Fig. 3 shows the relative position of the cards. Fig. 4 illustrates in plan the frame in which the cards are placed. Fig. 5 is a sectional view along the line A B in Fig. 4. Fig. 6 illustrates the mechanism by means of which the cards are forwarded. Fig. 7 is a sectional view along the line C D in Fig. 6. Fig. 8 shows in back elevation a part of the mechanism of the coin-freed apparatus. Fig. 9 illustrates another part of the mechanism in end elevation, partly being shown in section. Fig. 10 represents a detail, and Figs. 11-14 illustrate a modification of the cards-forwarding mechanism shown in Figs. 5-7. Fig. 15 is a sectional elevation showing the manner of mounting the ejecting-pins.

Referring to Figs. 1 and 2, the coin-freed apparatus has the shape of a hexagonal prism, the front surface of the same being provided at its upper end with an opening *a* for receiving the coin and below this opening with several—for instance, five—push-buttons *b*, by means of which the mechanism is operated. The two side surfaces *c* are provided with glass windows *d*, behind which a copy of the different cards which can be bought are arranged, while below these win-

dows slots *f* are provided, through which the cards are discharged to the buyer. Each of the two slots *f*, provided in the same story, is supplying cards of the same copy, and the discharge takes place alternately through the two slots.

Referring to Figs. 6 and 8, the coin received through the opening *a* rolls through a slit *g*, Fig. 8, into a small funnel *h*, which is secured on a plate *i*, mounted on a turning spindle *m*, the latter being under the influence of a spring *k*. The coin is held in the funnel *h* in a vertical position by means of a plate *n*, placed below the funnel and secured to the arm of a lever *q*, which is mounted on a spindle *s*, the latter being rotatively actuated by a spring *r*. When the coin has been received by the plate *n*, it lies with its edge against the edge of an arm *v*, which outside the plate *i* rotates around a pivot *t* under the action of a spring *u*. The coin remains in this position until the buyer pushes upon one of the push-buttons *b*. Each of these push-buttons (see Figs. 6-9) is movably arranged within a guide *w*, and its rod *l* is connected with a slide *y* by means of a pin *x*, said slide reciprocating in horizontal guides *z*. One end of the rod *l* of the push-button abuts against a projection 2 on the slide *y*. The latter is also under the action of the arm 5 of a bell-crank lever, which is influenced by a spring 4 in the direction of the arrow 3, (indicated in Fig. 6,) while the other arm 6 of said bell-crank lever acts upon an arm 7 of the plate *i*, above referred to. Arm 5 is provided with a slit which surrounds a pivot 15 of the slide *y*. Now when the push-button *b* is pushed inward the slide *y* is also moved inwardly and the crank-lever 5 6 rotated, whereby a rotation of the plate *i* with the funnel *h* is effected in the direction indicated by the arrow 8, Fig. 6. The coin moves with the funnel *h*, but always remains upon the plate *n*. As said coin moves laterally it glides on a sloping surface 9 of the arm *v*, thereby pressing the latter outwardly, so that a projection 10 of the arm *v* leaves the plate *i* to freely move and does not prevent its rotation. Granted now there is no coin in the funnel and the push-button has been pushed, then in this case the plate *i* can be rotated only so far until the edge 11 touches the projection 10, and it is obvious that under these circumstances the push-button can only be pushed slightly in. When the buyer

releases the push-button, the same is forced outwardly owing to the tension of the spring 4. The plate *i* thus swings back to its former position owing to the action of the spring *k*, Fig. 8, and as the arm *q*, with the plate *n*, is swung outwardly by means of a mechanism which will be described later on the coin is allowed to fall through a coin-channel, Fig. 8, into a money-box. As the arm *v* is forced back to its first position under the action of said spring *u* the projection 10, Fig. 6, prevents a further rotation of the plate *i* unless a new coin has been employed.

I will now proceed to describe the arrangements and mechanisms relating to the cards themselves.

The picture-cards are placed one above the other in the position indicated in Fig. 3, so that their longitudinal axis are obliquely directed toward the front and alternately toward the one or the other side. The cards of the same copy are arranged in their respective V-shaped frame 13, Figs. 4 and 5, which is located in such a manner that the mouthpieces 14 of the two openings project into the two slots *f*, Figs. 1-5, provided for each story. The openings of the mouthpieces are made small in order to prevent unauthorized withdrawal of the cards.

It is obvious that when the cards are arranged in the manner shown in Figs. 3 and 4 a space is left free between two cards whose longitudinal axis lie in the same direction and that said space corresponds to the thickness of one card.

The cards are moved forward by means of the mechanism illustrated in Figs. 5-7 or 11-13. The mechanism illustrated in Figs. 5-7 may be first described. The slide *y* is pivotally connected with a plate 16, Fig. 6, by means of a pivot 15, said plate being provided laterally with two hook-shaped projections 17 and toward its rear end with a downwardly-projecting triangular-shaped pin 19. The plate 16 lies upon a V-shaped rib 18 on a plate 20, in which a V-shaped opening 21 is provided. Behind this recess there is provided a circular disk 22, rotatively mounted upon a vertical pivot and carrying an arm 23 with a pin 24, which latter reaches into a circular slot 25, provided in the bottom of the card-frame 13, which lies immediately above the disk 22, Figs. 4-5. Two pins 26 and 27 are provided at the lower surface of the disk 22, and two links 28 and 29 are pivotally mounted upon them. These links rest upon the plate 20, and each of them is provided at its front end with a pin 30, projecting downwardly into a V-shaped opening 21 of the plate 20, and with a pin 31, projecting upwardly and engaging with the lateral hook-shaped projection 17 of the plate 16.

The operation of the mechanism is as follows: In the position shown in Figs. 4 and 6

the pivot 24 lies below the lowest card 32 and behind the rear edge of the lowest card 33. As the buyer after he has put the coin into the opening *a* pushes the push-button *b* the slide *y* is completely slid inward. The plate 16 follows this movement, being thereby controlled by the triangular-shaped pin 19, which slides within the one branch of the recess 21. As the plate 16 moves toward the back the left-hand projection 17 pushes against the pin 31 of the link 29, which is pressed against the inner edge of the opening 21 by one of the branches of a branched spring 34. Thereby the pin 31 is displaced toward the left. As soon, however, as the projection 17 has passed the pin the latter is again moved toward the right by the spring 34 and comes to lie directly over the hook-shaped projection 17. The movement of the plate 16 toward the back is then finished, and the triangular-shaped pin 19 has thereby been displaced behind the point 35 of the opening 21. During this movement the link 28 remained in the position shown in Fig. 6, and the disk 22 was also at rest. Now when the buyer releases the push-button *b* the same moves again outwardly under the tension of the spring 4 and the left-hand projection 17 engages with the pivot 31 of the link 29, thus moving it toward the front, and at the same time the plate 16 has been a little removed toward the left-hand branch of the V-shaped opening 21. Simultaneously with the forward movement of the link 29 the disk 22 is rotated, whereby the pin 24, which lies in the slot 25, is moved within the same in the direction indicated by the arrow 36, Fig. 4, thereby pushing outwardly the lowest of the cards 33 until the pivot 24 arrives at the other end of the slit 25. The card has thereby been so far pushed out of the slot *f* that the buyer can reach and draw it completely out. At this moment the pin 24 lies below the lowest card 33 and behind the rear edge of the lowest card 32, and it remains in this position until another coin has been thrown into the opening *a* and the push-button *b* has been again pressed inwardly, whereafter said pin 24 will move in a similar manner as described, but in the opposite direction to that shown by the arrow 36. In that latter case the lowest of the cards 32 will be pushed outward, and during the movement of the pin the right-hand projection 17 and link 28 will be in operation.

In order to permit the coin to drop into the money-box the following arrangement is provided: The lower end of the disk 22 has a projection 37, Figs. 6 to 8, against which the above-mentioned arm *q* rests. When the disk 22 is rotated, the arm *q* is moved backward and the plate *n*, which is rigidly connected with the arm *q* and supports the coin in a vertical position within

the above-mentioned funnel *h* will also move, and thereby permit the coin to drop through the coin-channel 12 into the money-box.

As already stated, the apparatus comprises several stories each provided with a frame 13. Mechanisms as above described are separately provided for each frame 13. On the contrary, the whole apparatus comprises only one plate *i* with funnel *h* and only one arm *v*, Fig. 8. The arrangement which I provide so as to allow the movement of the plate *i* irrespective of which one of the push-buttons *b* has been pushed by the buyer is as follows: Each story of the coin-feed apparatus is provided with a bell-crank lever 5 6, and the spindle *m*, upon which the plate *i* is secured, traverses all the stories and is provided for each story with an arm 7 in connection with the lever - arm 6. The spindle *s* is also common to all the stories and carries for each story an arm *q*, which lies against the projection 37, provided upon the lower surface of the disk 22, and of said arms *q* only that one which corresponds to the plate *i* supports the plate *n*. Consequently the operation of any of the push-buttons *b* will effect the rotation of the spindle *m* and plate *i*, whereby the coin-receiving apparatus is actuated, and, as it has already been clearly pointed out, only after the actuation of said receiving apparatus can the plate *y*, corresponding to the pushed button, be moved, and thereby put the respective card-forwarding mechanism into operation.

In order to prevent the buyer releasing more than one push-button *b* for only one payment, I provide the following arrangement: A series of rods 38, Figs. 9, 10, are provided one above the other, with their ends contiguous and bearing in the guide-plates *z*. The contiguous ends are rounded off and they touch each other in openings 39 of the slide *y*. The openings 39 are beveled, Fig. 10, so that an annular wedge is formed. The lowest of the rods 38 rests upon a rod 40, fixed in the bottom of the apparatus, while the uppermost of the rods 38 lies below another rod 41, which is provided in the cover-plate of the apparatus. The distance between the end surfaces of the pivot 41 and the uppermost of the rods 38 corresponds exactly to the thickness of one of the slides *y*. When a slide is pressed in, then the rods 38, lying above it, will be lifted until the uppermost of them will come against the pivot 41, and, as it is obvious, no other of the sliding plates *y* can be moved, for all of them are retained in their position by that all the rods 38 going through the opening 39 of the slides *y* act together as one rigid rod. The slides *y* will be retained until the slide which has been moved in is withdrawn.

In order to indicate to the buyer when the stock of one kind of post-cards is consumed, the following device is provided: The frame 13

supports a sleeve 42, Figs. 4 and 5, in which a movable rod 43 is provided, said rod carrying a bent-over arm 44, which rests upon the uppermost post-card placed in the frame. As the number of post-cards contained in the frame decreases said arm 44 correspondingly descends, and with it also the pin 43. When the last post-card has been bought up, the arm 44 enters into an opening 45, provided in the bottom of the frame 13, and owing to its own weight or under the tension of a spring, penetrates into a hole 46, Fig. 6, of the slide *y*, and thus prevents the latter being pushed inward by the push-button. Consequently the buyer will know that the respective copy has been sold out, and he may choose another one, or the pin 43 may be connected with a suitable mechanism by means of which it is indicated to the buyer that there is no copy left in the respective frame.

According to another manner of carrying out my invention I arrange that the delivery of the cards is effected by pulling the button connected to the bar *v*, Figs. 11 to 14. Below the frame 13, the bottom of which is provided with holes in order to reduce its weight, I arrange a plate 50, in which an angular opening 51 is provided and below said plate a bar *y*, which reciprocates in guides *z*, said bar carrying a button or any other means which can be operated by the buyer. The bar *y* also carries a pin 52, which is connected in such a manner with the releasing mechanism of the coin-feed apparatus that said mechanism is released, so as to allow the buyer to pull out the bar *y* when a coin of the correct dimension has been thrown into the same. Two pins 53 and 54 are arranged in the two branches of the angular openings 51, and projecting over the bottom of the frame 13 they are provided at their upper ends with conical heads. (See Fig. 12, which is a section along the line E F in Fig. 11.) At the same time they are connected to two links 55 and 56, which in their turn are rotatably secured to the bar *y*. When the bar *y* is completely in, the two pins 53 and 54 are behind the rear edge of the cards which lie crosswise one above the other, Fig. 13. Thereby the pin 53 lies below the lowest card 32, while the pin 54 lies only below the second lowest card 33. Consequently when, owing to the pull on the bar *y*, both pins 53 and 54 are pulled through the angular opening 51 toward the front the pin 53 only slides below the lower surface of the lowest card 32, having thus no effect upon its displacing, while the pin 54 slides under the lower surface of the second lowest card 33, and as it pushes against the rear edge of the card 32 it moves the latter with it outside the frame 13. When afterward the bar *y* is pushed in, the pins 53 and 54 will assume the same position as before; but now the card 33 will be the lowest one, and consequently when another pull of the bar *y* takes place said card 33 will

be pushed out by the pin 53. Thus I get again, just as in the first-described arrangement, an alternate forwarding of the cards through the two openings of the frame 13.

5 Practice has shown that it is advisable to make the conical heads of the pins 53 and 54 slightly elastic in the direction of their lengths. The conical head 54 can, as shown in Fig. 15, be fixed upon a pin 65, projecting

10 through the arm 56 and capable of moving up and down in same. Between the head 54 and the arm 56 is inserted a spring 66, which tends to press the head upward. The upward movement of the pin is limited by

15 a nut 67. The pin and the spring may be inclosed within a box 68.

In order to prevent the operation of a bar γ corresponding to a frame the cards of which have been sold out, I may use the following modification: A cross-piece having

20 the shape indicated in Fig. 14 is placed above the uppermost of the cards contained in the frame and is guided in the latter, on the one hand, by means of an inward projection 56,

25 and, on the other, by means of a projection 57, which slides in a vertical slot 58, provided in the frame. Said cross-piece 55 is provided with a short vertical sleeve 59, in which a pin 60 can move up and down. As long as there

30 is any card left in the frame 13 the pin 60 rests with its lower surface upon this card. When, however, the last card has been sold, the pin descends through a hole provided in the bottom of the frame 13 into a hole pro-

35 vided in the bar γ , thereby retaining the latter to be operated again.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be per-

40 formed, I declare that what I claim is—

1. In an apparatus for delivering post-cards and the like, an angular card-frame rigidly secured within an outer box and arranged to contain the card groups, the frame

45 being provided with two slots for passage of the cards and with a bottom having a slot, a pin projecting through the slot, and means for moving said pin, the parts being arranged and combined substantially as set

50 forth.

2. The combination of a pin 24 for eject-

ing the cards, an oscillating disk 22 carrying said pin, two links 28, 29 each pivotally connected with disk 22 at one end and at the other end arranged to slide in guide-groove

55 21, a plate 16 carrying a guide-pin 19 sliding in the guide-groove 21 and provided with two hooks 17, and means for moving the plate 16 forward and backward.

3. In an apparatus for delivering post-cards and the like, the combination with the frame for containing the cards, of two pins for ejecting the cards, one of said pins arranged to lie below the lowest of the cards and the other below the lowest but one, and

65 means for moving both said pins, substantially as explained.

4. In an apparatus for delivering post-cards and the like, the combination with the frame for containing the cards, of two pins

70 for ejecting the cards, one of said pins arranged to lie below the lowest of the cards and the other below the lowest but one, both said pins being arranged behind the rear edge of the lowest card, and means for moving the

75 pins, substantially as explained.

5. In an apparatus for delivering post-cards and the like, the combination with the frame for containing the cards, of two pins for ejecting the cards, one of said pins arranged

80 to lie below the lowest of the cards and the other below the lowest but one, both said pins being arranged behind the rear edge of the lowermost card, links carrying said pins, and a reciprocating bar, substantially as set

85 forth.

6. In an apparatus for delivering post-cards and the like, the combination with the frame for containing the cards, of pins for ejecting said cards and means for operating

90 the pins, the heads of the pins being made conical and elastic in the direction of their length, substantially as and for the purposes set forth.

In testimony whereof I have signed my

95 name to this specification in the presence of two subscribing witnesses.

SÖREN WISTOFT.

Witnesses:

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ERNEST BOUTARD.