

Sept. 4, 1928.

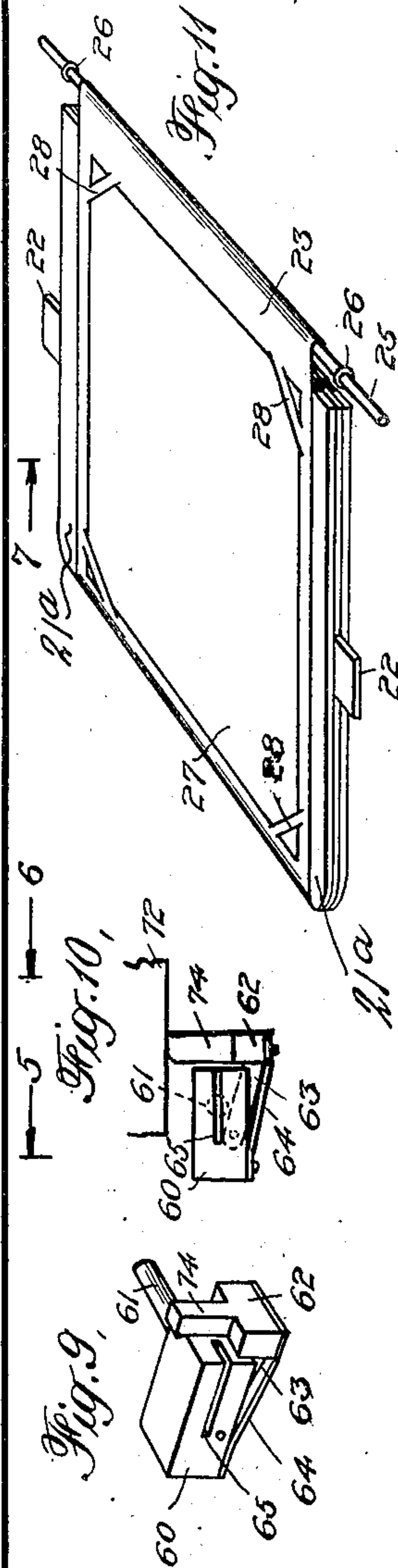
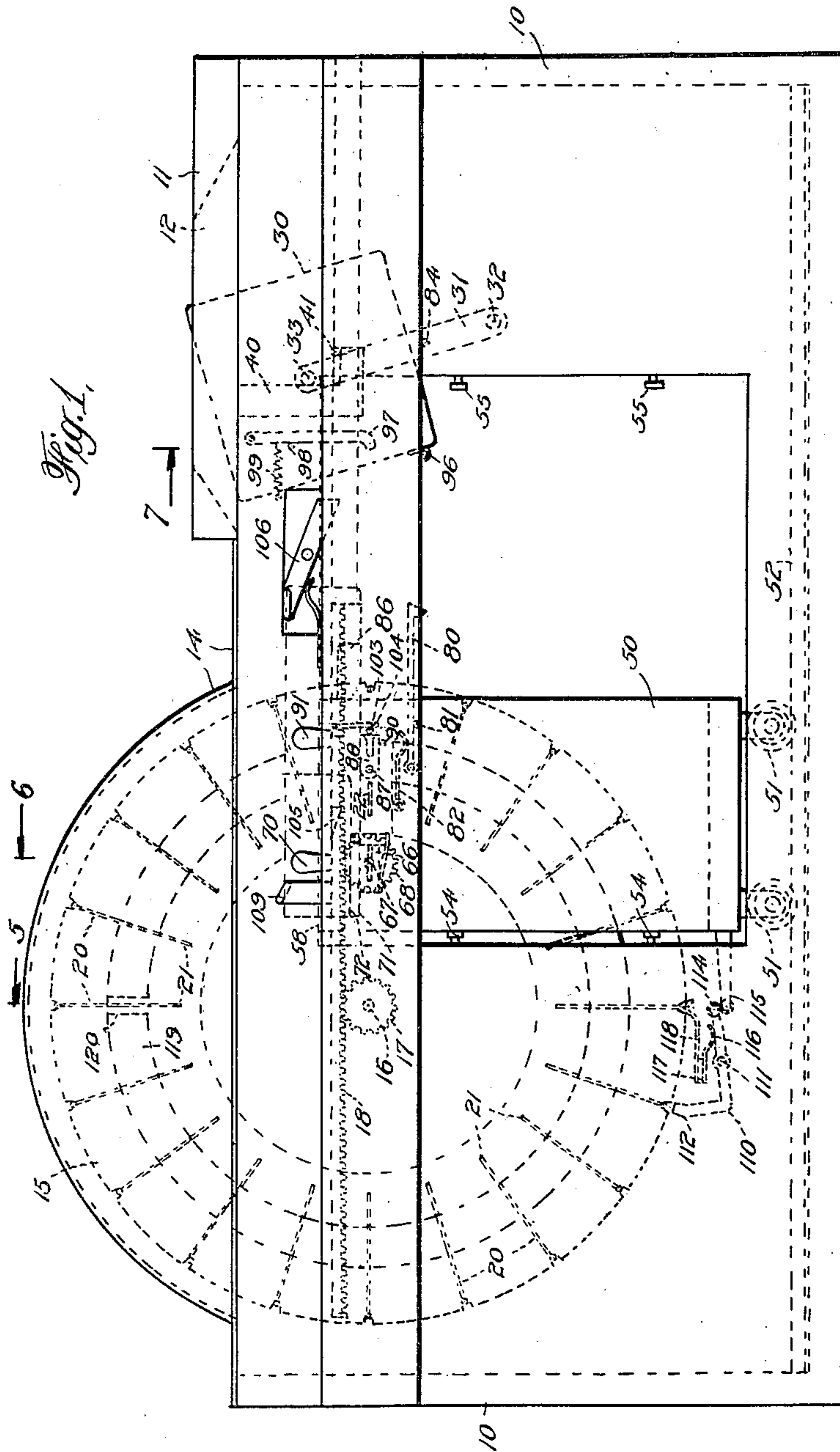
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SELECTOR

Filed June 19, 1923

4 Sheets-Sheet 1



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4 Sheets-Sheet 2

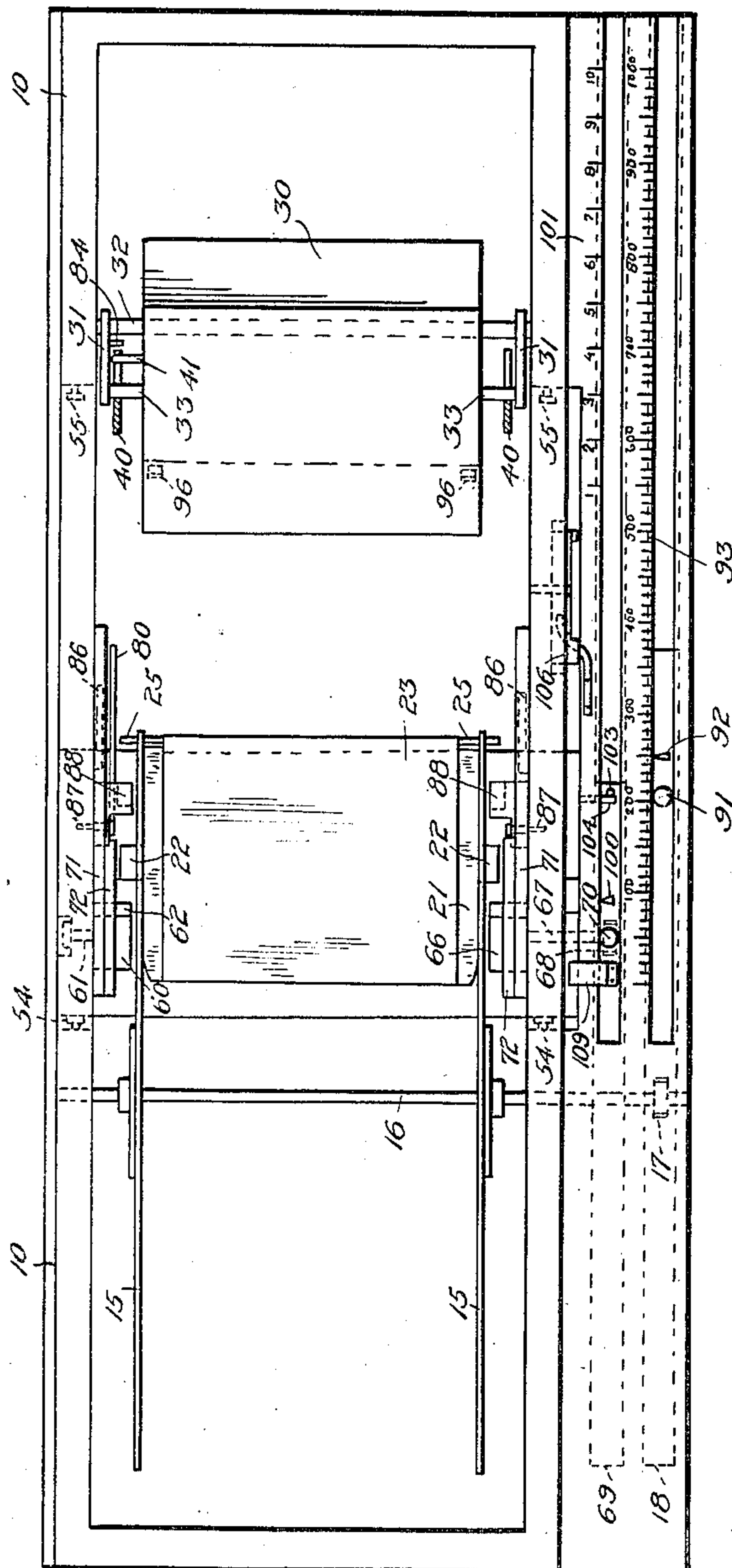


Fig. 2.

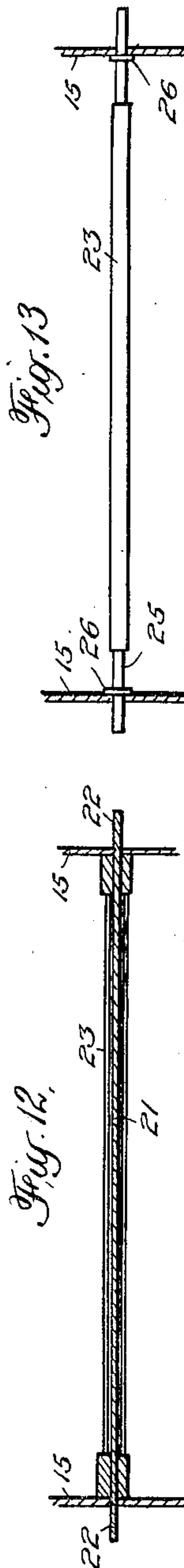


Fig. 12.

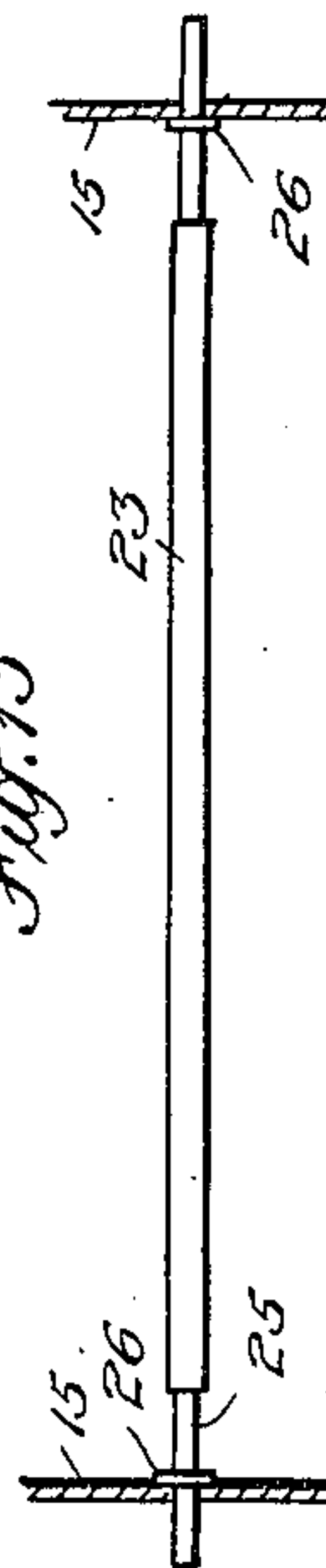


Fig. 13.

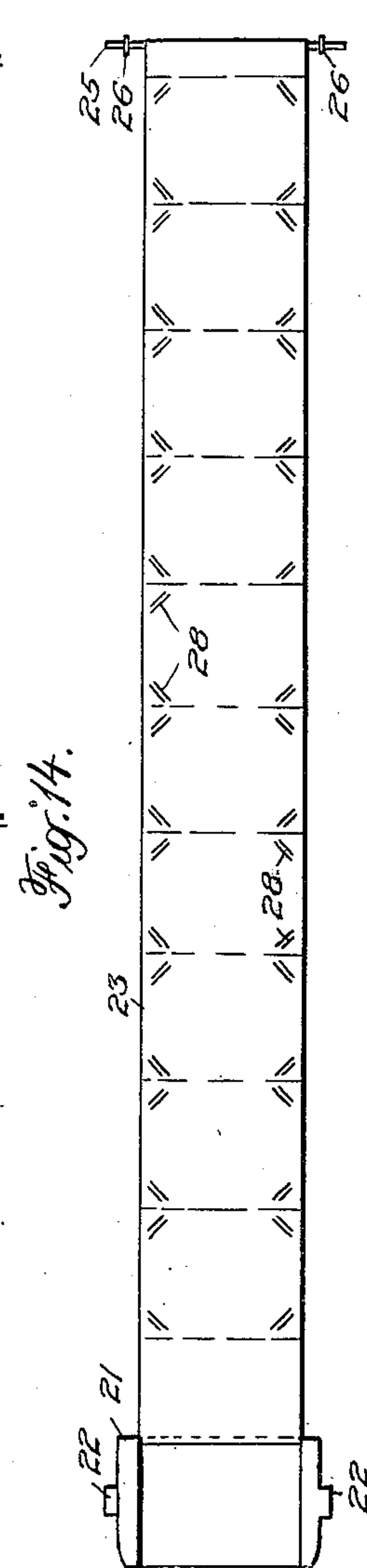


Fig. 14.

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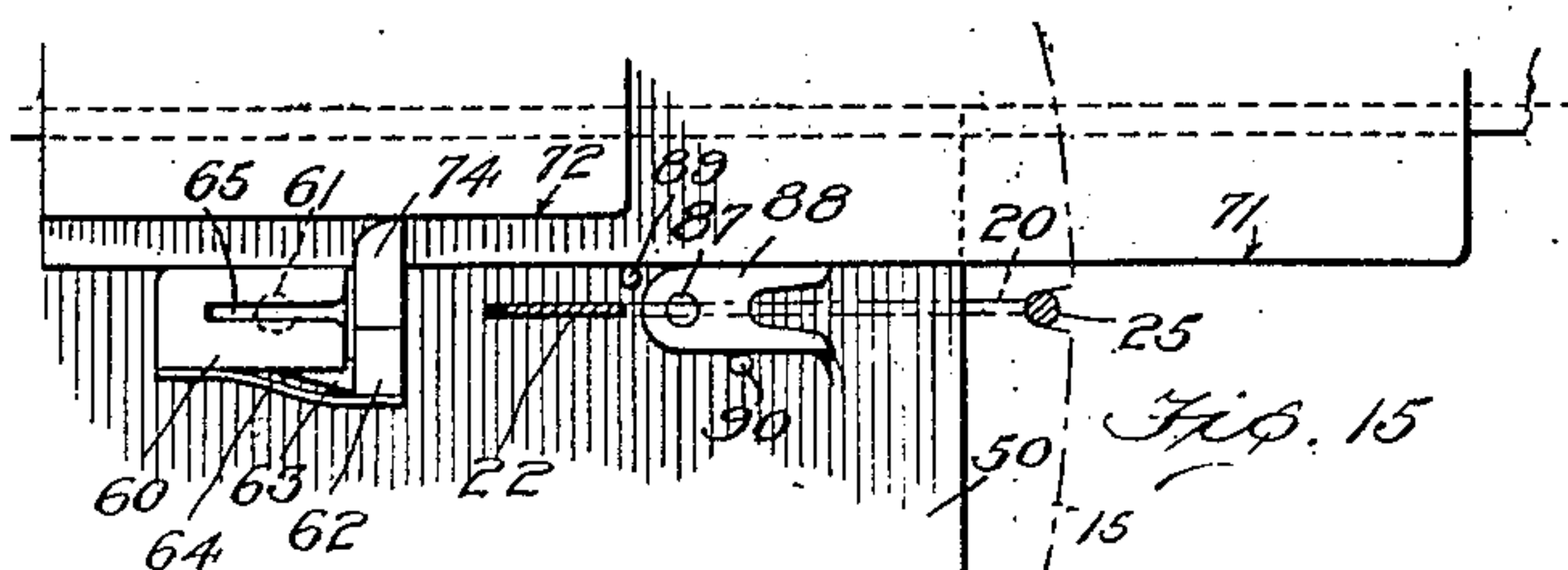
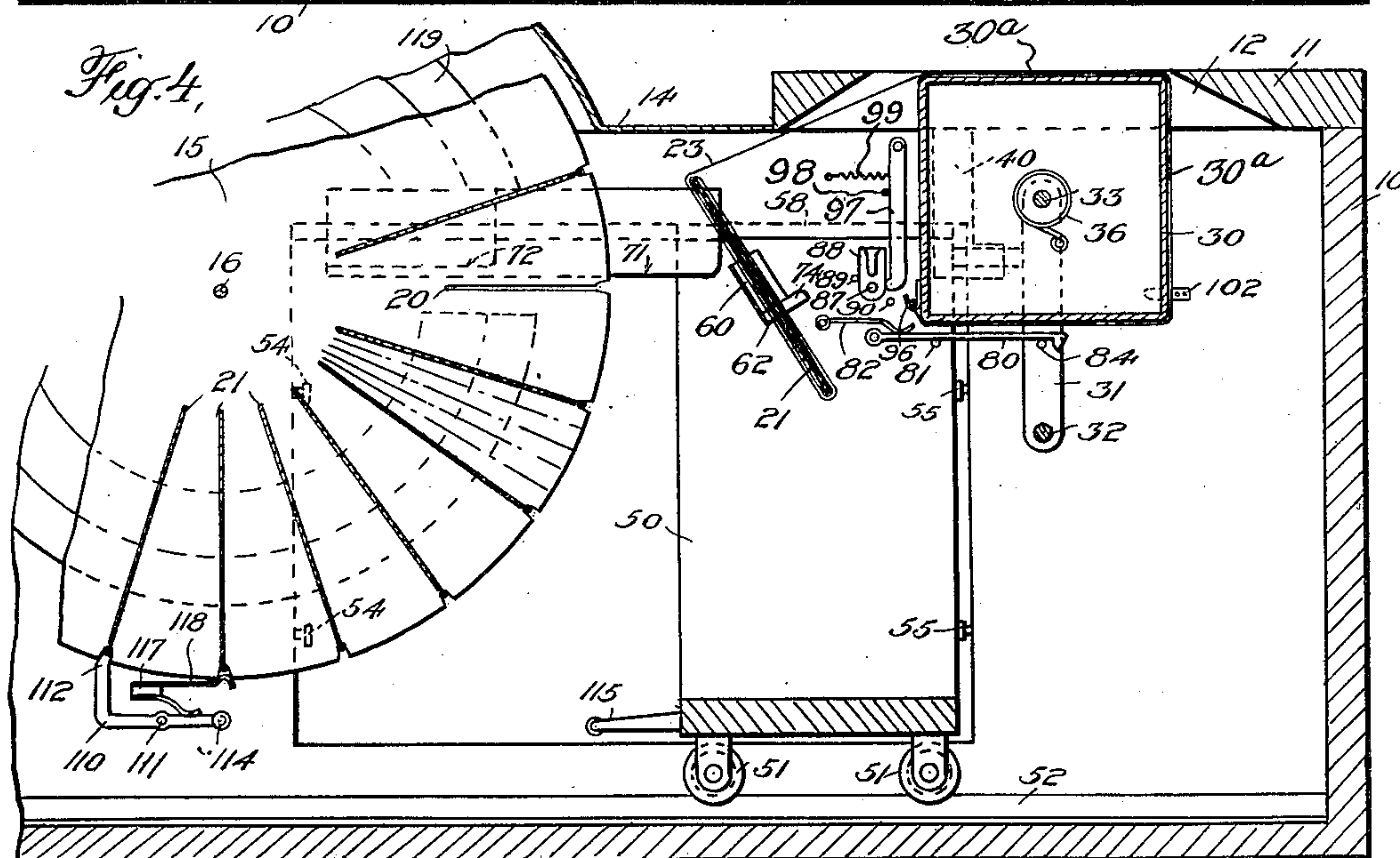
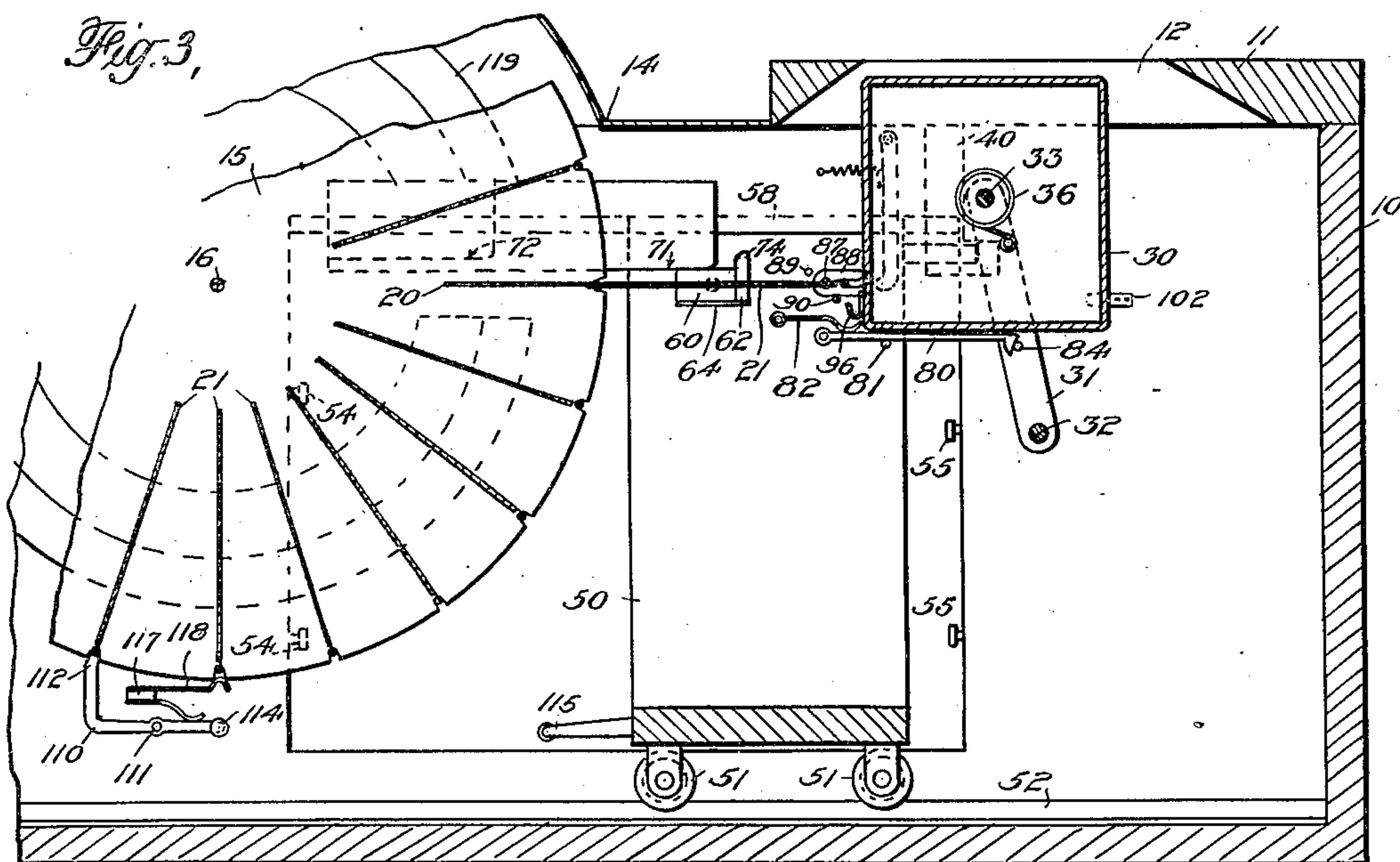
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Filed June 19, 1923

4 Sheets-Sheet 3



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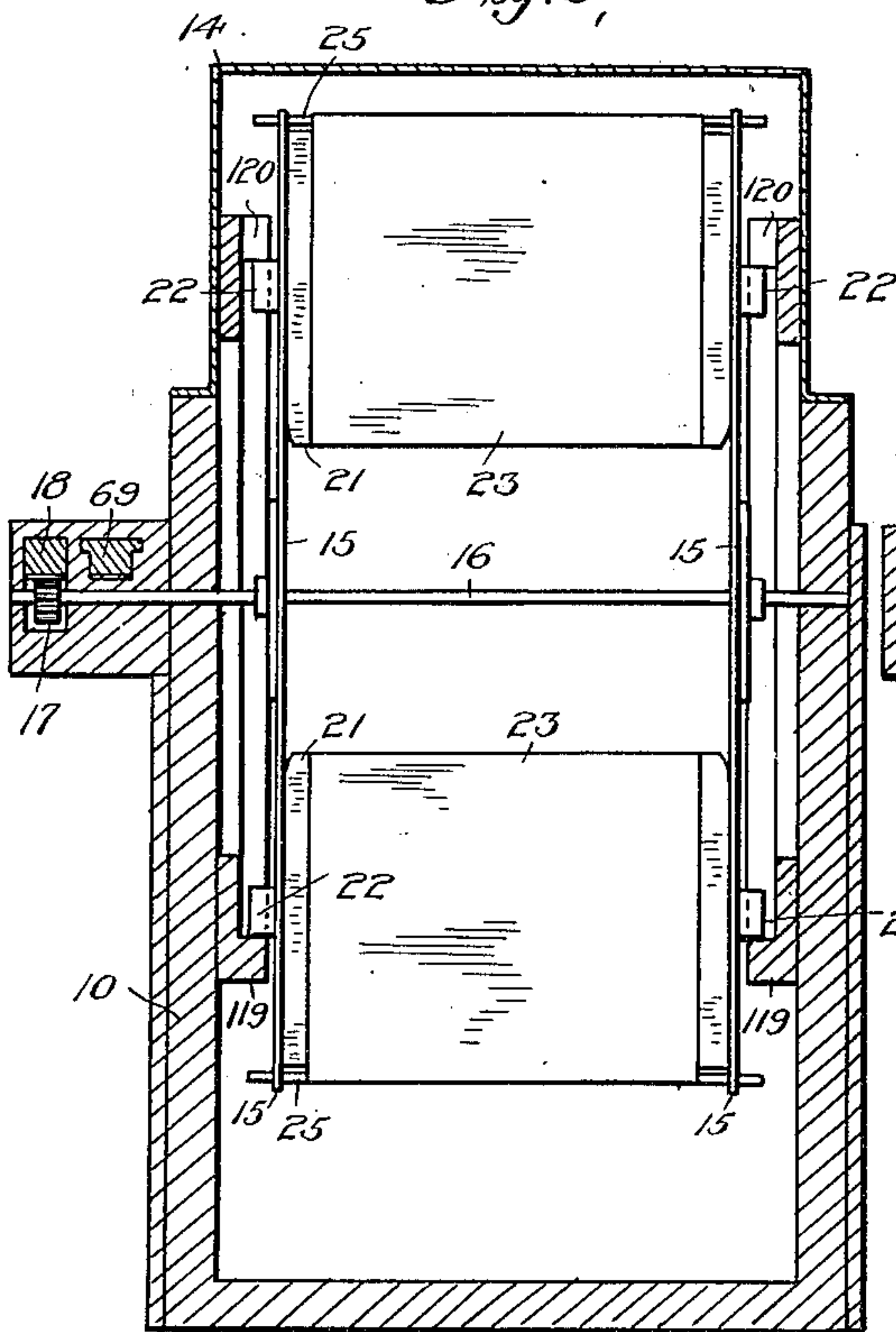
F. F. C. RIPPON

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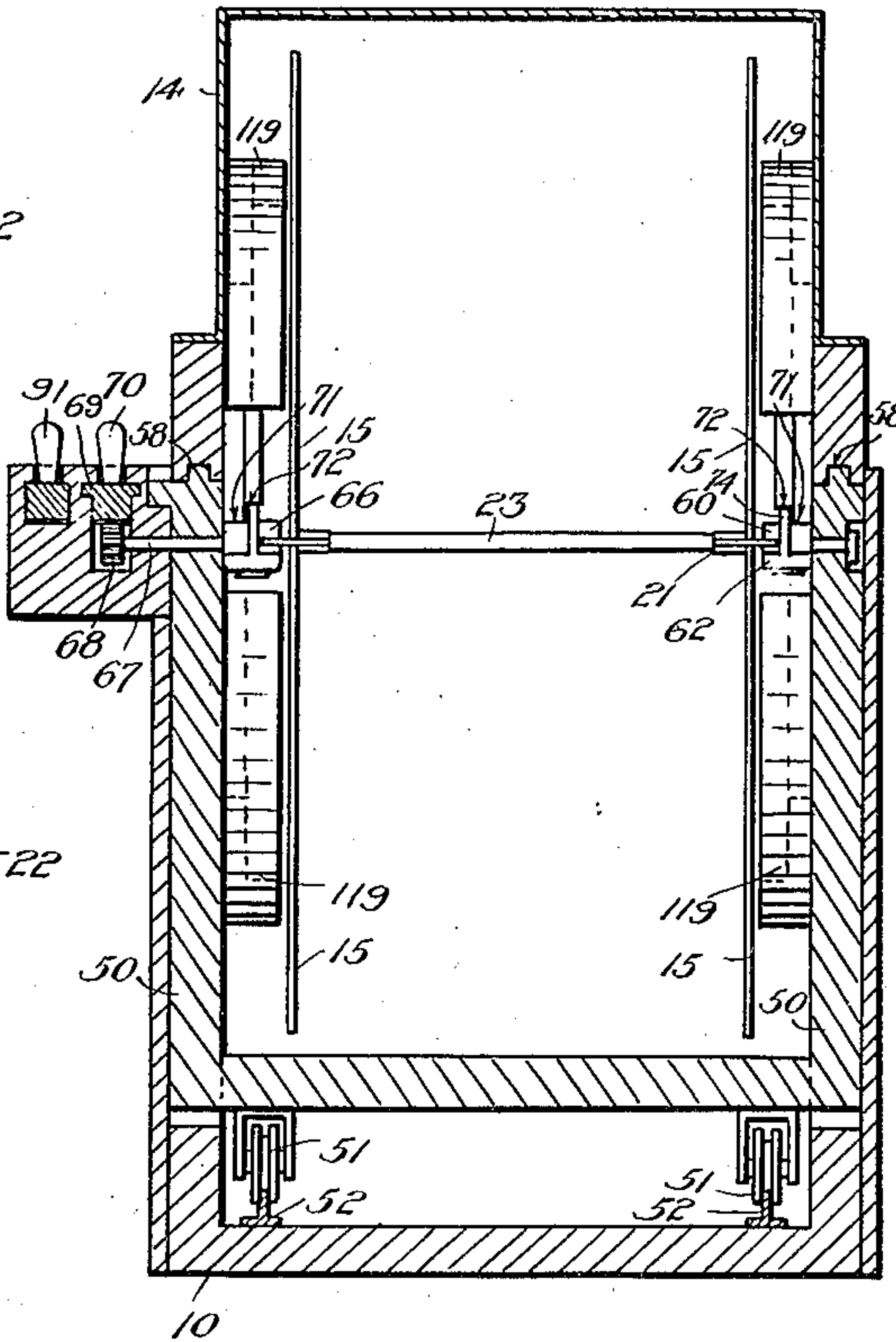
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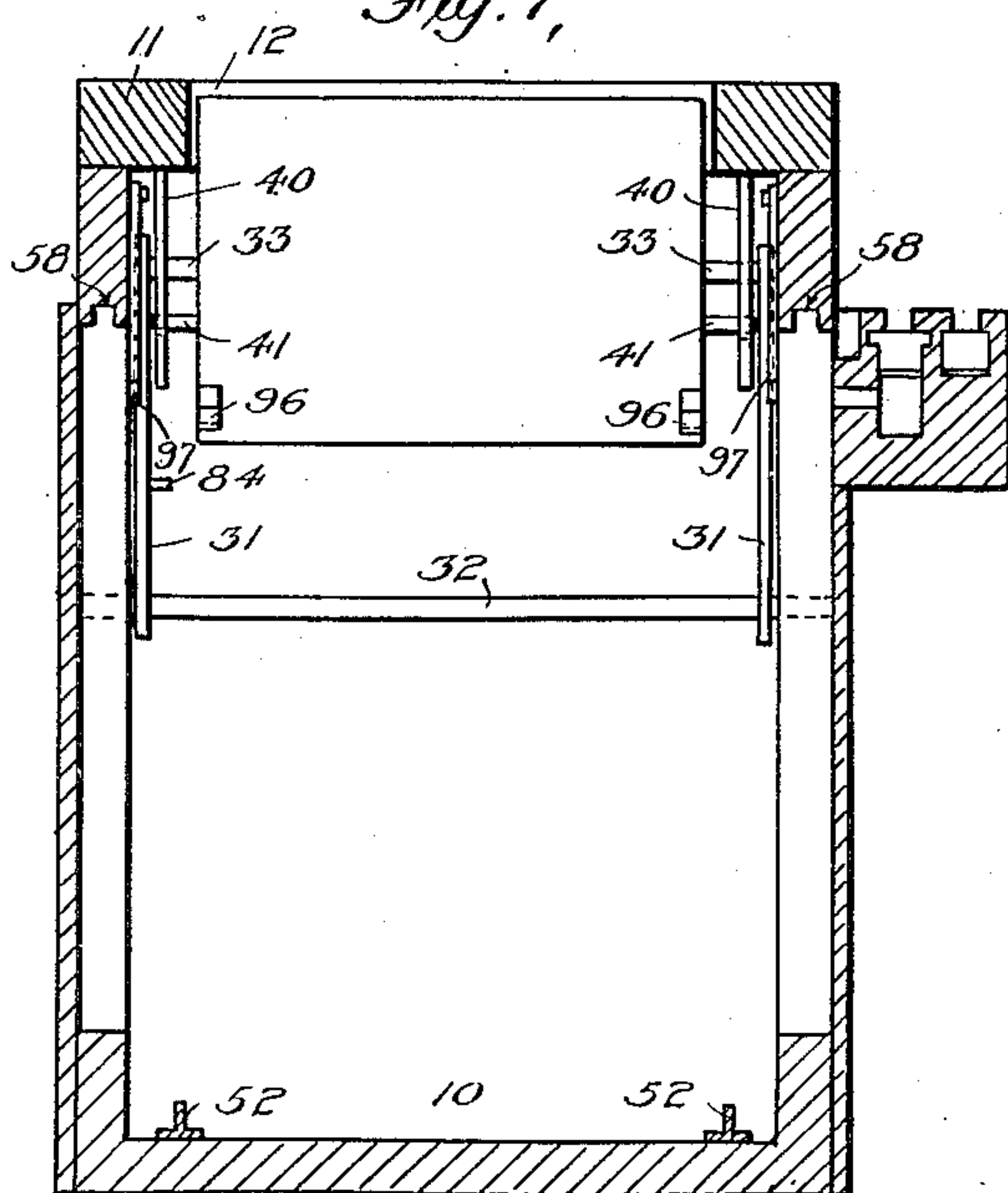
*Fig. 5,*



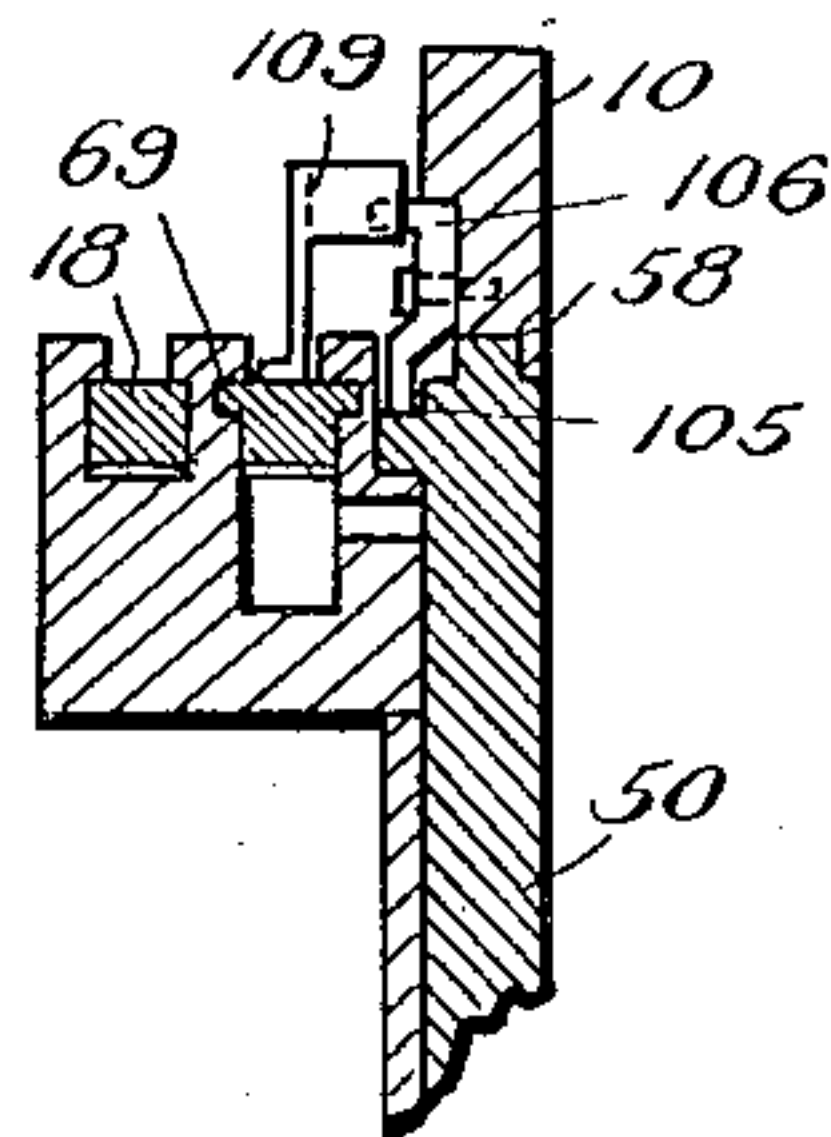
*Fig. 6,*



*Fig. 7,*



*Fig. 8,*



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## UNITED STATES PATENT OFFICE.

FRANCIS F. C. RIPPON, OF NEW YORK, N. Y.

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Application filed June 19, 1923. Serial No. 646,400.

This invention relates to a mechanism for storing a considerable number of information carrying means and for bringing to view any one of such means in a rapid and efficient manner.

The object of the present invention is to provide a device of the character described wherein the information carrying means may be restored to storage position by the same means which brought it to view.

A further object of the present invention is the provision of a device suitable for the keeping of commercial accounts in which each account may be kept upon a separate card which may be removed temporarily or permanently at will and which when in the machine can be brought to view so that it may be written upon and may be restored to storage position with a minimum of time and effort.

A still further object of the present invention lies in the provision of means for supporting a plurality of independent records upon a flat rotatable spool and means for withdrawing the spool from storage.

Other and further objects of the present invention concern the specific details of construction of the apparatus illustrated, these objects being specifically recited in the claims.

In an almost infinite variety of fields a considerable number of records of various kinds are required to be kept in such manner that any one of these may be almost instantly available. Such records may be accounts, descriptions, photographs or drawings or even small samples and the present invention is concerned with each of these different objects. For convenience of description and of illustration the invention is shown as applied to a device having records all of the same size but I wish it distinctly understood that the records may be of different size and may be of any size and shape that may be conveniently mounted upon the flexible band which I secure to the spools carried by the large storage receptacle, magazine or spool carrier. A very convenient illustration of the use and operation of the device will be in connection with the keeping of commercial accounts and the description will therefore be directed to a selector having that definite object in view.

In the drawings,—

Figure 1 is a side elevation of the device with a portion of the casing removed.

Fig. 2 is a top plan view.

Fig. 3 is a central longitudinal section showing the parts as they appear just before the reciprocating carriage reaches one end of its travel.

Fig. 4 is a similar view taken at a later instant.

Figs. 5, 6 and 7 are transverse sectional views taken on the lines 5—5, 6—6, and 7—7, respectively, of Fig. 1.

Fig. 8 is a fragmentary section showing the trip carried by the rack for the purpose of releasing the carriage holding catch.

Fig. 9 is a perspective of one of the carriers as it would appear at the end of its forward travel.

Fig. 10 is a side elevation of the carrier shown in Fig. 9.

Fig. 11 is a perspective view of the spool with its flexible band and records.

Fig. 12 is a section through the spool while on the reel.

Fig. 13 is a front elevation of the rod which is secured to one end of the record carrying band mounted on the spool.

Fig. 14 is a view of the rod, band and spool showing the parts in extended position but detached from the selector mechanism.

Fig. 15 is a view of the parts ready to withdraw a spool from the magazine.

The main frame 10 is preferably of box-like or casing construction comprising a base, sides, and ends, but with a top extending only over a portion of the box as illustrated at 11, such top portion having a window therein as at 12 above which an instrument such as a book typewriter (not shown) may be supported. The remainder of the top of the casing is preferably formed by a thin metal hood or shield 14 domed to cover the large disks 15 which forms the storage receptacle or magazine for holding the records and their supporting spools. The sides of the frame or casing are indicated at 10<sup>a</sup>, the end of said casing at 10<sup>b</sup>, and the base of said casing at 10<sup>c</sup>. In addition to the window 12 and that portion of the casing through which projects the magazine 15, said casing has its sides 10<sup>a</sup> cut away as at 10<sup>d</sup> for accommodation of the stops or buffers 54, 55 for the carriage 50.

The disks 15 are mounted on a shaft 16 which extends through the two sides of the frame or casing, the disks 15 being non-rotatably mounted on the rotating shaft 16 which



carries at one end a small pinion 17 meshing with a sliding rack 18 by means of which the disks are rotated to any desired angular position. The magazine has two large circular disks each slotted as at 20 to receive the records or card preferably carried by these spools 21 shown in Fig. 11. For convenience in illustration I have shown but twenty slots 20 but intend to have one hundred equally spaced slots in each disk and these slots, of course, would be aligned so that flat spools 21 may lie radially of the axis of the reel.

The spool 21 is preferably a flat sheet of metal having oppositely disposed guiding lugs 22 adapted to fit somewhat snugly in the slots 20 and having rounded forward ends 21<sup>a</sup>. The band 23 is of flexible material such for example as linen and is permanently secured to the flat metal spool 21 and carries at its free end a rod 25 preferably provided with small collars 26.

The flexible band 23 is provided with means for holding a plurality of records of any kind which will usually be paper or card board rectangles such as indicated at 27 and if desired these cards may be held on the band by means of parallel slits 28 engaging each of the four corners of the record card or other information carrying means. Since the decimal system is the most convenient I provide ten records to each spool so that with one hundred spools to each spool support each selector will carry a thousand records.

At the far end of the casing a platen, preferably in the form of a hollow drum 30 is pivoted on a pair of links 31 which in turn are pivoted to the casing as at 32 so that the drum may revolve about its pivotal connection 33 with the links 31 and at the same time may oscillate about the pivots 32 within the limits permitted. A coiled spring 36 is secured at one end to the drum 30 and at the other end to the shaft 33 on which the drum 30 is pivoted, this shaft, however, being non-rotatable in the links 31.

An L-shaped member 40 secured to the casing limits the oscillating movement of the drum and also its revolution about the axis 33 when the drum 30 is in forward position as shown in Fig. 1. It will be noted from this figure that the shaft 33 is in contact with the rear edge of the upright member of the L-shaped stop 40 and that the small pin 41 is in contact with the upper surface of the lower leg of the L 40, the tendency of the spring 36 being to rotate the drum in a clockwise direction as seen in Figs. 1, 3 and 4.

The means for transferring the spools from the storage receptacle to the revolving drum 30 includes a carriage 50 mounted on rollers 51 traveling on tracks 52, a convenient form of the track being T-shaped and the rollers 51 therefore being of the double flange type best seen in Fig. 6. The carriage has a relatively short travel, engaging buffers

54 at the forward end and similar buffers 55 at the rear end these buffers being mounted on the edge of the cut-away portion 10<sup>a</sup> of the side of the casing 10, this construction being best seen in Fig. 1. The sides of the carriage preferably lie flush with the front and rear portions of the sides of the casing 10 and are tongued as seen in Fig. 6 to engage a groove 58 in the top section of the sides. This tongue and groove construction cooperates with the four rollers 51 in guiding the carriage smoothly in its travel.

Referring now particularly to Fig. 9, the carrier consists of three principal parts, namely, the carrier block 60, the shaft 61 fast on the block 60, which serves as an axle, and the retaining member 62, the latter being hinged to the block as by the links 63 and urged upwardly by a spring 64 to close the slot 65 in the carrier block 60. The parts are shown in both Figs. 9 and 10 with the retainer depressed but in working position the retainer is elevated closing the slot and preventing the withdrawal therefrom of the lug 22 of the spool 21.

A similar but reversed carrier to the one shown in Figs. 9 and 10 is provided on the mechanism side of the casing, this second carrier being numbered 66 on the drawings and differing from the idle carriers 60 in that the shaft 67 of the carrier 66 carries a pinion 68 which is driven by a rack 69 having a handle 70. These carriers illustrated in detail in Figs. 9 and 10 serve to support the spools while the band 23 of a spool carrying the record is being unwound onto the drum 30 for the purpose of exhibiting one of said records through the window 12 of the casing 10.

At the rear end of the frame, that is, to the right as seen in Fig. 1, the carriers 60 and 66 are freely rotatable but when the carriage 50 is at the left as seen in Fig. 1, i. e. in forward or receiving position, a ledge 71 secured to the casing rests rather snugly against the top of the block 60 and the corresponding part of the carrier 66 and prevents either carrier from turning about its shaft. A second ledge 72 also secured to the side of the casing overlies the raised standard 74 of the retainer 62 of each carrier and holds it depressed permitting free entry to the slots 65.

A long latch 80 normally held against a pin or stop 81 by a spring 82 is carried at one or both sides of the carriage 50 and engages a pin 84 on the link 31 which supports the drum 30. When the carriage 50 is moving to the right as seen in the various figures the drum is in normal position, that is, pressed forward so that the pin 84 is but slightly above the lowest point of the latch 80 but as the bumper 86 of the carriage engages the link 31 driving it back to vertical position the latch 80 rides over the pin 84 and remains in contact with it.

A socket or fork 88 is pivoted to the car-



riage as at 87 but is limited in its oscillating movement by a pair of stops 89 and 90 holding the socket in vertical or horizontal position, respectively, the latter being the normal position.

The operation of the device is as follows: A given record card, let us say No. 252 is desired. The first operation is to revolve the magazine 15 by means of the rack 18 and its handle 91 until the numeral 250 on the scale 93 is opposite the indicator mark 92. Upon turning the magazine in this manner the slot bearing the spool 21 on which are the ten cards numbered from 250 to 259 is in horizontal position and the tabs of the spool are at the right, as seen in Figs. 1 and 15, of the carriers 60 and 66 and the rod 25 on the band on this spool is slightly to the right of the mouth of the sockets 88 the latter being in horizontal position and so held by the ledge 71.

The handle 70 of the rack 69 is now pulled to the rear, that is, to the right as seen in Figs. 1 and 2. If the carriers were free of the ledge 71 this action would revolve the carriers but since each of the carriers is locked by its engagement with the ledges 71 the only effect of pulling the handle 70 is to move the carriage rearwardly on its track 52. Upon such movement of the carriage rearwardly the sockets 88 engage the rod 25 and simultaneously the carrier blocks 60 and 66 engage the tabs or lugs 22 of the spools 21 and the parts move forward a slight distance in this position at which time the standard 74 of the retainer 62 is freed from engagement with the ledge 72 and the retainer 62 promptly moves upward closing the slot 65 with the tab therein.

The carriage now moves rearward until the bumpers 86 engage the links 31, moving the drum 30 rearwardly to its highest point with the links 31 vertical. This action releases the pin 41 from engagement with the L 40 and allows the drum to rotate by virtue of the tension of its spring 36.

The drum has a plurality of hooks 96 which catch and engage the ends of the rod 25 as the drum revolves. The pivoted sockets 88 being released from the ledge 71 offer no resistance to the passage of the rod 25 now carried by the hooks on the drum and are turned to a substantially vertical position and are so held by the relatively long pivoted links 97 which are held against stop lugs 98 on the frame by means of springs 99. The links 97 are pivoted to the casing or box and by holding the sockets 88 in a vertical position not only keep the sockets out of the way of the revolving mechanism but also hold them in proper position to receive the rods when the spools are ready to be returned to the magazine.

A slight further rearward movement of the carriage allows the rack 69 to revolve the

carriers about their shafts 61 and 67 unwinding the band 23 from the spool 21 and allowing it to wind on the spring rotated drum 30. The rack 69 is driven rearwardly until the pointer 100 is opposite the numeral 3 on the scale 101 at which time three folds of the band will have been wound on the drum 30 so that in Fig. 4 the record card 27 bearing the number 250 will be at the bottom of the drum, the next card No. 251 will be at the rear side, and the desired card No. 252 will be at the top where it is visible through the window 12 and may be written upon if desired. A small spring pressed lug such as 102 may be provided to frictionally engage the drum to hold it steady in writing position if desired but I usually omit this spring as I find it unnecessary in practice.

After the card 252 has been written upon, the rack 69 by its handle 70 is pushed forward until the lug 103 carried thereby engages the stop pin 104 on the carriage 50, this construction preventing the overrunning of the carriers and spool should the carriage for some reason fail to move forward promptly. There is a small notch 105 in the upper portion of one of the sides of the carriage and this is engaged by a spring pressed catch 106 pivoted to the side of the casing so as to prevent the carriage from moving forward until the rack has moved forward with the lug 103 in contact with the stop pin 104. At this time or very slightly before this the trip 109 carried at the front end of the rack 69 engages and depresses the front part of the pivoted catch 106 allowing the carriage to move forward.

As previously stated the first operation resulting from the moving forward of the rack is the revolving of the carriers which serves to rewind the band 23 on the spools 21 and to revolve the drum 30 against the tension of its spring 36. As the band unwinds from the drum the rod is above the now vertical sockets 88 and the hooks 96 free themselves from the rod by moving past these sockets upon the further movement of the drum when the carriage moves forward.

As the carriage starts to move forward the latches 80 engage the pins 84 and pull the drum forward about the pivots 32 into engagement with the L 40 further rotating the drum against the tension of its spring, causing the hooks to travel below the path of the rod, thereby freeing the spool from connection with the drum and also locking the drum against oscillation about either set of pivots. The latches 80 ride over the pins 84 when the latter are lowered by movement about the pivots 32.

Forward movement of the carriage brings the carrier blocks into engagement with the ledges 71 which retain them in the horizontal position to which they were brought at the time the lug 103 engaged the stop pin



104 and this ledge also turns the sockets 88 into horizontal position against their stops 90. With the various parts in this position the standards 74 of the retainers 62 are depressed at the end of the stroke by engagement with the somewhat rounded edge of the ledges 72 this engagement occurring only after the lugs 22 have reentered the appropriate slots 20 in the magazine and have reached the limit of the slot. The carriage, however, moves a still further distance back so that the carriers and the sockets entirely free the spool and rod permitting the magazine to turn freely to bring the next desired spool to withdrawing position.

Under certain circumstances I find it preferable to lock the magazine positively when the carriage has moved rearwardly. A very simple form of lock and latch is shown in Figs. 1, 2, 3, consisting of an L-shaped lever 110 centrally pivoted as at 111 with one end 112 adapted to enter the somewhat enlarged mouth of the slot 20 in one of the disks and carrying at its lower end a small roller 114 adapted to be engaged by a projection 115 carried by the front end of the carriage 50. The spring 116 which operates the lever 110 is supported from a small lug 117 which also supports a spring pressed guiding drag 118 which remains in constant engagement with the disk but which does not prevent the disk from revolving when the rack 18 is moved this spring 118, serving merely to insure greater accuracy in the registry of the desired slot 20 with the slots in the carriers. The arcuate shield or guard 119 constituting the mechanism for preventing the removal of the cards, records or spools best seen in Fig. 5 serves to prevent the spools or records from leaving the magazine except at the proper or withdrawing position, and at the top of the magazine where a slot 120 is provided to permit easy replacement of a spool without recourse to the carrier mechanism.

What I claim is:

1. In a device of the character described, a record magazine, a plurality of card carrying members carried by said magazine in a substantially radial position, means for revolving the magazine varying predetermined distances with said card carrying members, a platen on which the card carrying members are adapted to be supported in position for the cards to be used, and a reciprocating carrier adapted to slide a given card carrying member from said magazine and transport it to said platen.

2. In a device of the character described, a record magazine having a plurality of radial slots therein, a plurality of card carrying members removably mounted in said slots, means for rotating said magazine varying predetermined distances, and means for sliding the card carrying member from said magazine, said card sliding means being

normally located beyond the periphery of said magazine and movable towards and from said magazine.

3. In a device of the character described, a record storage member, a plurality of separate record carrying members supported in said storage member, a pivoted support spaced from said storage member, and means for separately withdrawing the desired record carrying member from said storage member and placing the same on said pivoted support.

4. In a device of the character described, a rotatable storage member, a plurality of record carrying members supported in said storage member, said record carrying members being detached from the storage member to permit their withdrawal therefrom, means for rotating said storage member to bring the desired record carrying member to transfer position, a pivoted support spaced from said storage member, and a reciprocating carrier for withdrawing the record carrying member from said storage member and for placing the same on said pivoted support.

5. In a device of the character described, a record storage member, a pivoted support adapted to display a record, a traveling carrier separate from said support and adapted to carry a record from said storage member to said support, and means on said pivoted support for removing the record from said carrier.

6. In a card selector, a magazine having a plurality of radial slots, a card carrying member in each slot, a pinion secured to said magazine and a rack meshing with said pinion and operable to rotate the magazine to bring a given carrying member to a predetermined angular position, and means normally located beyond the perimeter of the magazine for withdrawing said carrying member at the predetermined position.

7. In a card selector, a record storage member consisting of two parallel disks having aligned slots, a plurality of card carrying members carried in said slots, a guard for preventing removal of said card carrying members from said slots, means for rotating said disks to bring a desired card carrying member to one side of said guard whereby said card carrying member may be removed from its slot and means normally located beyond the periphery of the disks for withdrawing the card carrying member at the predetermined position.

8. In a card selector, a record storage member, a plurality of card carrying members carried by said storage member, an arcuate shield for preventing removal of card carrying members from the record storage member, means for bringing a desired card carrying member to horizontal position above the edge of said arcuate shield, and means normally located beyond the periphery of the record storage member for withdrawing a



card carrying member when in such position.

9. In a card selector, a magazine, a plurality of card carrying members carried thereby, a reciprocating carriage, a card carrier pivotally mounted on said carriage means for moving said magazine varying predetermined distances to present any given card carrying member to the pivoted card carrier, a locking mechanism for preventing removal of a card from the pivoted carrier, and means for rendering said locking mechanism inoperative when the pivoted carrier is in card receiving position.

10. In a card selector, a rotatable magazine, a plurality of card carrying members carried thereby, each card carrying member containing spaces for a plurality of cards, a carriage, a carrier rotatably mounted thereon and adapted to engage a card carrying member to remove the same from said magazine, and means for locking said carriage when said rotatable carrier is revolving.

11. In a card selector, a record storage member, a plurality of card carrying members supported in said storage member, a reciprocating member adapted to withdraw a desired card carrying member from said storage member and support said card carrying member, means for locking said storage member against rotation, and means carried by said reciprocating member for unlocking said means, and additional means for rotating said storage member.

12. In a card selector mechanism, a drum, a plurality of pivoted links, and means for pivotally mounting said drum on said links, means for revolving said drum about its pivot, a slotted member, and means for moving said links about their pivots to bring the drum into contact with said slotted member, locking said drum against movement about either pivot, a rotatable magazine, a plurality of card carrying members supported in said magazine, and means for transferring the card carrying members from said magazine to said drum.

13. In a card selector mechanism, a casing having a writing opening therein, a magazine, a plurality of card carrying members supported in said magazine, and means for transferring such card carrying members from said magazine to said writing opening, said means comprising a carrier block having a slot therein, a shaft secured to said block, a latch adapted to close said slot, and means for moving said latch at right angles to said slot.

14. In a card selector mechanism, a casing having a writing opening therein, a record magazine, a plurality of card carrying members supported in said magazine and means for transferring card carrying members from the magazine to said writing opening, said means comprising a block having a slot therein, a retainer pivoted to said block, a

spring urging said retainer into slot closing position, and means for holding said retainer in inoperative position against the tension of said spring.

15. A card carrying assembly consisting of a flat plate having a plurality of oppositely disposed tabs, a plurality of guides on said plate each having a rounded forward end, and a band secured to said plate and adapted to carry a plurality of record cards.

16. A card carrying assembly consisting of a flat plate having a plurality of oppositely disposed tabs, a plurality of guides on said plate having rounded forward ends, a band secured to said plate and adapted to carry a plurality of record cards, and a rod carried at the free end of said band.

17. In a card selector, a casing, a magazine journaled in said casing and having a plurality of aligned slots, a plurality of spools each having a pair of transversely extending tabs adapted to be received in said slots, means for preventing removal of said spools from said magazine when the spools are in the lower portion of the magazine, a reciprocating carriage within said casing, a plurality of pivoted carriers mounted on said carriage and having slots therein to receive the tabs of said spools, a retainer on each of said carriers for closing the open end of said slot, means for holding said retainers in inoperative position at one end of the travel of said carriage, a flexible band on each spool, a rod at the free end of said band, a pivoted socket carried by said carriage and adapted to move in a path to engage the rod of a spool when in transferring position on the magazine, a rectangular drum, a plurality of links each pivotally connected to said drum at one end and to the casing at its other end, a plurality of hooks on said drum, a stop member preventing rotation of said drum about its pivotal axis when in forward position, means for moving the carriage with a selected spool toward the drum, means on the carriage for moving the drum rearwardly to free it for rotation, means for unwinding the band on the spool to permit said band to wind upon said drum to bring a given record into viewing position, and means for holding said carriage while said band is being wound on the drum.

18. In a card selector, a casing having a writing opening therein, means for storing a plurality of cards in the casing, and means for transferring a card from its storage position to the writing opening, said transferring means comprising a transferring carriage, a slotted carrier pivoted on said carriage, a pinion secured to said carrier, means for rotating said pinion, means slidably engaging said carrier to prevent its rotation during a portion of the travel of the carriage, a retaining means carried by said carrier adapted to close the slot therein to prevent removal of an



object carried in said slot, and means slidably engaging said retainer to hold it depressed at one end of the travel of the carriage.

19. In a card selector, a frame, means for storing a plurality of record cards a plurality of links carried by the frame, a drum pivotally mounted at the free end of said links, a spring tending to revolve said drum about its pivotal connection with said links, cooperating stop members one on said frame and one on said links for preventing rotation of said drum, means for moving said links about their pivotal connection with the frame to bring said stop members into contact, and additional means for moving said links about their pivots in opposite direction and means for transferring said cards from their storage position to said drum.

20. In a card selector, a magazine, a plurality of spools carried by said magazine, a band on each spool, means for withdrawing a desired spool from said magazine, a drum, and means on said drum for engaging the band of a spool withdrawn from the magazine and for winding same on the drum, and means for rewinding said band on said spool and for returning same to the magazine.

21. In a selector, means for storing a plurality of record cards, a displaying support, a frame, a plurality of links pivoted at one end to the frame and at the other end to said support, a carriage, record carrying means on said carriage whereby the cards may be transferred from their place of storage to the display support, means on said carriage engageable with said links to move said support about the pivotal connection between the links and the frame to bring said support to viewing position, and additional means carried by said carriage for moving said support in a contrary direction.

22. In a selector, means for storing a plurality of cards, a display support, a reciprocating carriage for transferring a card from its place of storage to the display support, a card carrying carrier pivotally mounted on said carriage, a ledge engaging said carrier during a portion of the travel of the carriage and a single means for propelling the carriage during the contact of said carrier with said ledge and for revolving said carrier about its pivot when the carrier is freed from said ledge.

23. In a selector, a magazine, a plurality of spools in said magazine, a flexible member on each spool, means for withdrawing a spool in said magazine and for conveying it a distance therefrom, a pivoted support, and means on said support for engaging said flexible member when removed from said magazine and for winding said flexible member from said spool on to said support.

24. In a card selector mechanism, a spool carrier, a spool, a flexible member on said spool, a pivoted member movable with said

spool carrier and adapted to hold the free end of said flexible member, a support, means on said support for engaging the free end of said flexible member and for rotating said pivotal member, and additional means for holding said pivoted member in inoperative position but in position to receive again the free end of said flexible member.

25. In a card selector system, means for storing a plurality of cards a frame having a viewing window therein, a hollow prismatic support pivotally mounted in members pivotally mounted to the frame, means for rotating said support about either pivot, and a single means for simultaneously limiting movement of said support about each of its pivots and means for transferring a card from its place of storage to said prismatic support.

26. In a card selector, a magazine, a plurality of spools in said magazine, a flexible member on each spool, a rod at the free end of each flexible member, each flexible member having spaces for a plurality of cards, a frame having a viewing window therein, means movable into registry with said window to provide a firm writing surface, a pair of hooks engageable with the rod at the free end of said flexible member to unwind said flexible member from said spool and to bring a desired card on said flexible member into registry with said viewing member and over said firm writing surface, and means for rewinding said flexible member with its cards on said spool and for returning said spool to its position in said magazine.

27. In a card selector system, a magazine having a plurality of slots therein, a spool in each slot, each spool having spaces for a plurality of cards, a frame having a plane surface adapted to support a book typewriter and having an opening through which the book typewriter may operate, a support movable into registry with said opening to furnish a platen for said typewriter, means for turning said magazine to bring a desired spool into discharging position, and means for withdrawing the selected spool from the magazine and for conveying any one of the cards thereon at will into position on said platen.

28. In a card selector system, means for supporting a book typewriter and having an opening therein through which said book typewriter may operate, a flat platen, means for moving said platen relatively to said opening, a plurality of card carrying members having spaces for a plurality of cards, means for bringing a desired card into registry with said platen while in inoperative position and for moving said platen and said card into typewriting position.

29. In a card selector system, means for supporting a book typewriter and having an opening therein through which said book



typewriter may operate, a flat platen, means for moving said platen relatively to said opening, a plurality of card carrying members each having spaces for a plurality of cards, means for bringing a desired card into registry with said platen while in inoperative position and for moving said platen and said card into typewriting position, and means for returning said platen into inoperative position and returning said card.

30. In a card selector system, a frame having an opening therein, a platen movable from a tilted position beneath said window to a position in substantially the same plane as the top of the window, a magazine, a plurality of card carrying members therein, each carrying member having a plurality of spaces for cards, means for selecting a desired card from the magazine and for placing it on said platen in alinement with the surface of said window and for returning it to the magazine and returning said platen to normal tilted position.

31. In a card selector system, a support furnishing a plurality of connected writing surfaces, a magazine, a plurality of card holders in said magazine, each carrying a flexible band having spaces for a plurality of cards thereon, means for withdrawing a spool from the magazine and for winding it on said support and means for revolving said support to bring the writing surface on which the desired card is placed into horizontal position whereby an entry may be made upon the card, means for rewinding the flexible band on the spool and for returning the spool to the magazine.

32. In a card selector system, a frame having a viewing window therein, a support square in cross section and providing four writing surfaces each at right angles to the adjacent writing surfaces, a spring for revolving said support about its axis, a magazine, a plurality of flat supporting plates in said magazine, a flexible band on each supporting plate, each band having spaces for detachably securing a plurality of cards thereon, means for selecting a desired plate from said magazine and for transporting it into proximity to said support, and means on said support for seizing the free end of said band, winding it about the four surfaces of the support and unwinding it from said spool so as to bring the desired card on the supporting plate to a horizontal writing position, and means for revolving said plate to rewind the flexible band on the plate and to unwind said flexible band against the tension of said spring from said support and for re-

turning the plate, band, and cards to its former position in the magazine.

33. In a card selector, a magazine, a plurality of record carrying means carried by said reel, a pinion rigidly secured to said magazine, a rack engaging said pinion to rotate said magazine, a reciprocating member, a carrier pivotally mounted on said reciprocating member, a gear carried by the pivot of said carrier, and a second rack parallel to said first mentioned rack for engaging said gear to revolve said carrier, and means for preventing rotation of said carrier whereby movement of the second rack causes the reciprocating member to move with respect to said magazine and to cause said carrier to remove one of said record carrying means from said magazine.

34. In a card selector, a rotating magazine, rack and pinion mechanism for causing said magazine to rotate, a plurality of card holders carried by said magazine, a carriage, means on said carriage for withdrawing a card holder from said magazine and for moving same to a distance therefrom, a platen, means for transferring a portion of said card holder with a card thereon to said platen, a rack and pinion mechanism cooperating with said card holder to return said portion of said holder and card, a trip for holding said carriage in position for transfer of said portion of the card holder to said platen, and means carried by said rack for releasing said trip to permit said carriage to return to the magazine.

35. In a card selector, a frame having a viewing window therein, a pivoted support adapted to move into registry with said window, a magazine spaced from said support, a plurality of spools detachably carried by said magazine, a flexible band carried by each spool, and means for transferring a spool from said magazine into proximity to said pivoted support and for winding said band from said spool onto said pivoted support to bring a desired portion of said band beneath said window.

36. Apparatus of the character described comprising a plurality of foldable carrier strips each provided with spaces for a plurality of cards, means for folding each strip upon itself with a card space to each fold, means for storing the plurality of foldable strips in folded condition, and means for removing a desired strip and unfolding it to a predetermined extent to expose a predetermined card.

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