

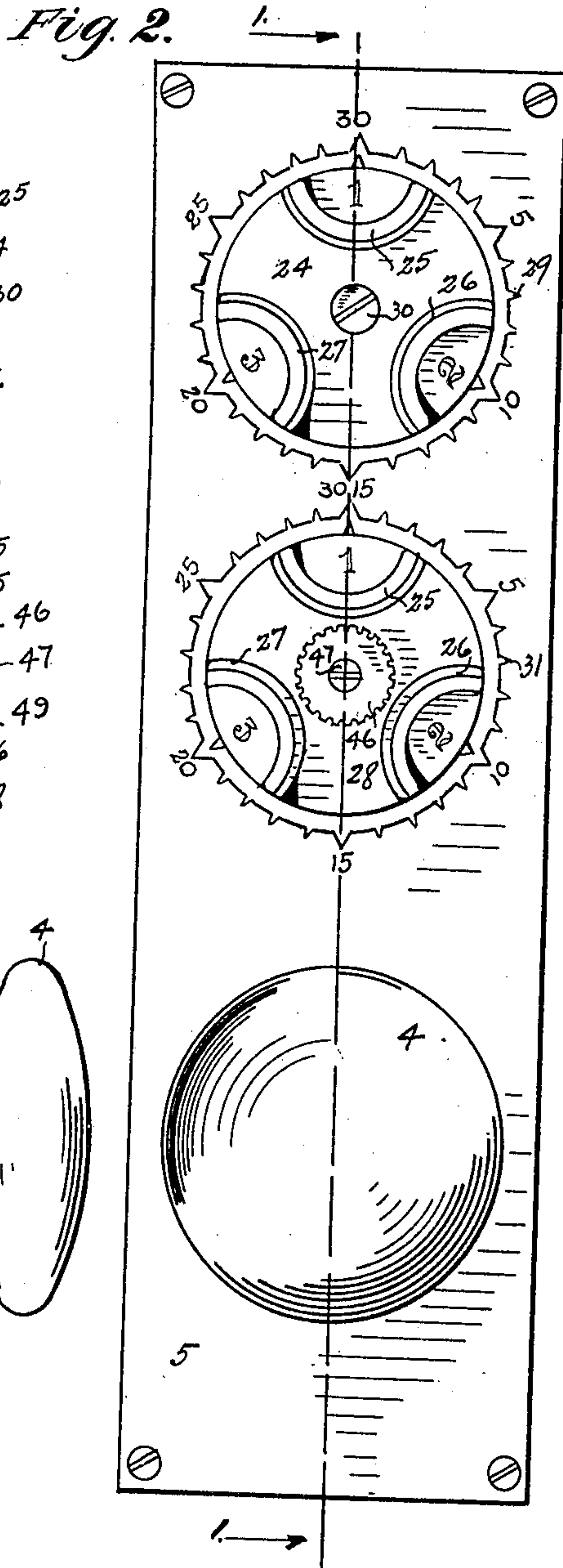
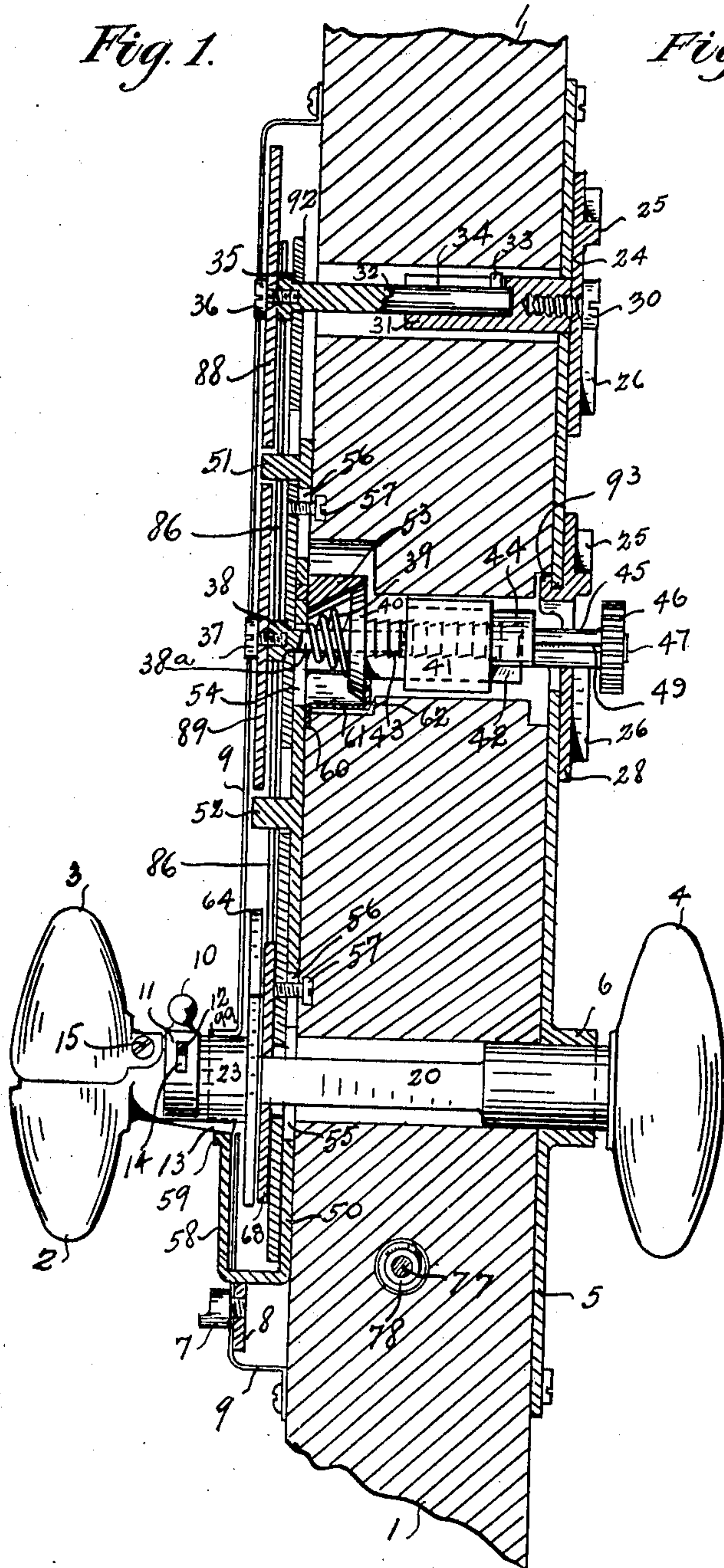
No. 881,999.

PATENTED MAR. 17, 1908.

D. W. CROCKETT.
LOCK.

APPLICATION FILED FEB. 11, 1907.

4 SHEETS—SHEET 1.



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No. 881,999.

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LOCK.

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4 SHEETS—SHEET 2.

Fig. 3.

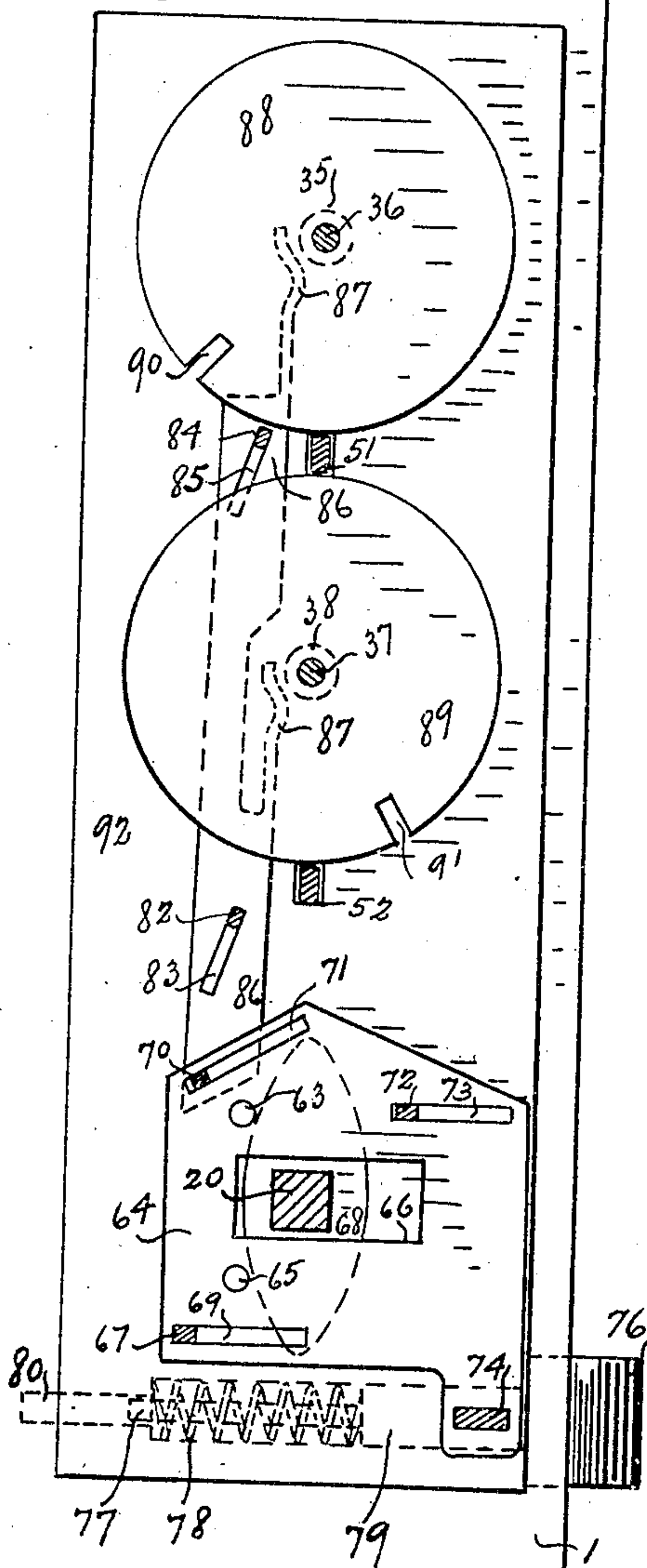
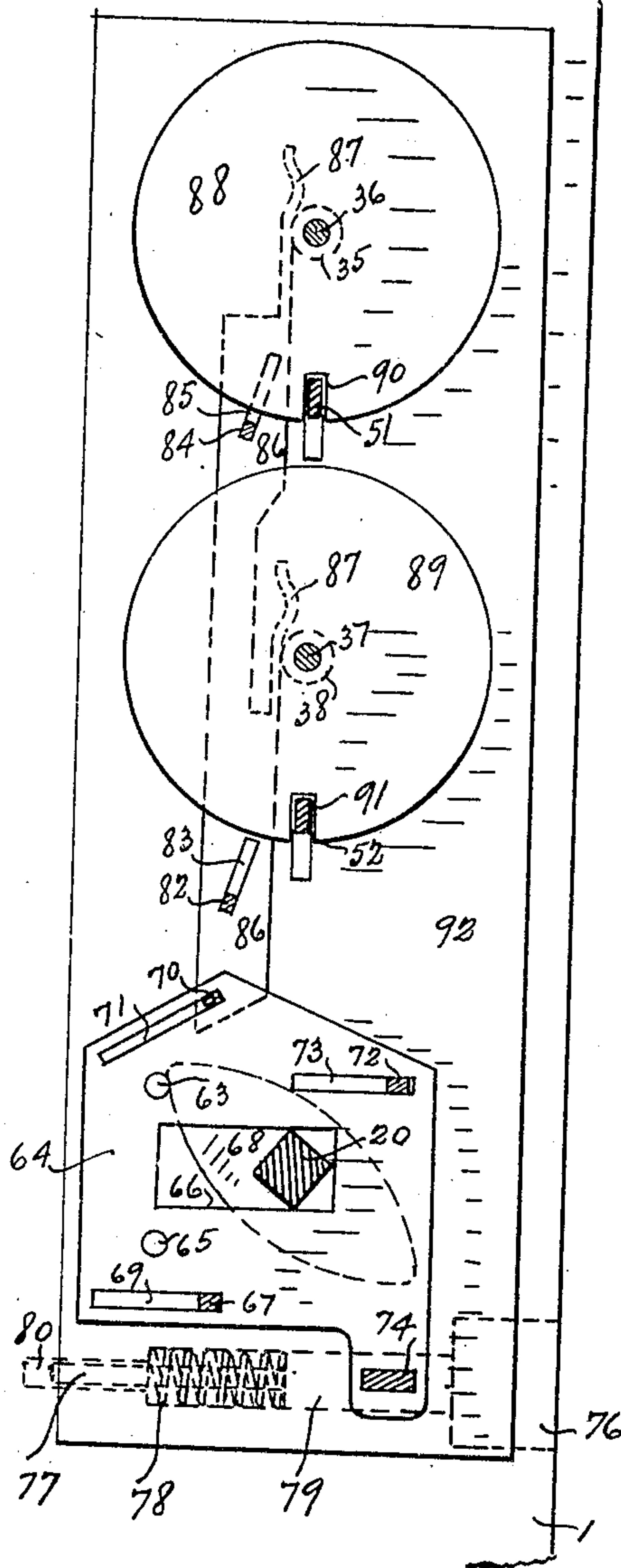


Fig. 4.



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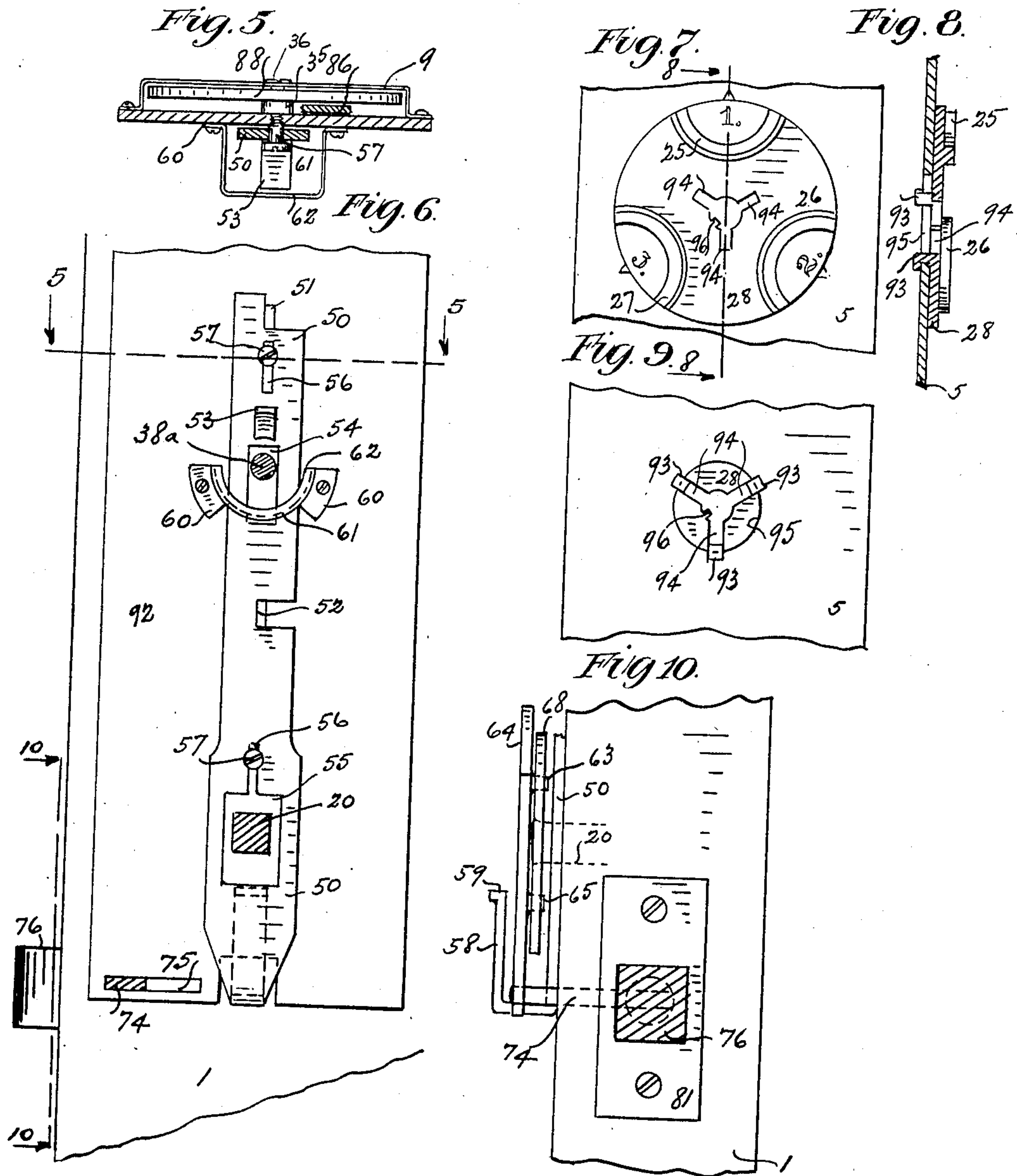
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4 SHEETS—SHEET 3.



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4 SHEETS-SHEET 4.

Fig. 11.

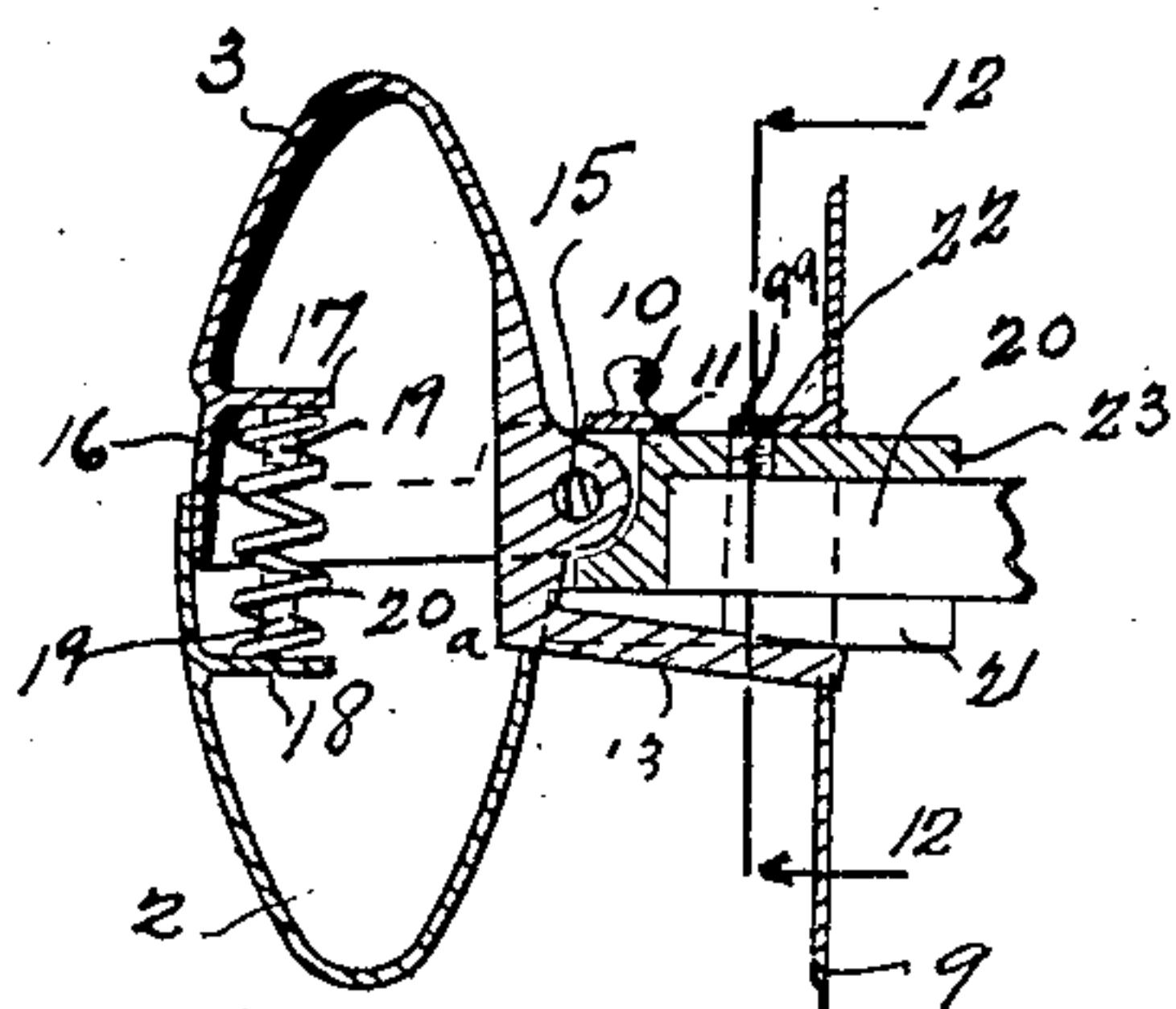


Fig. 12.

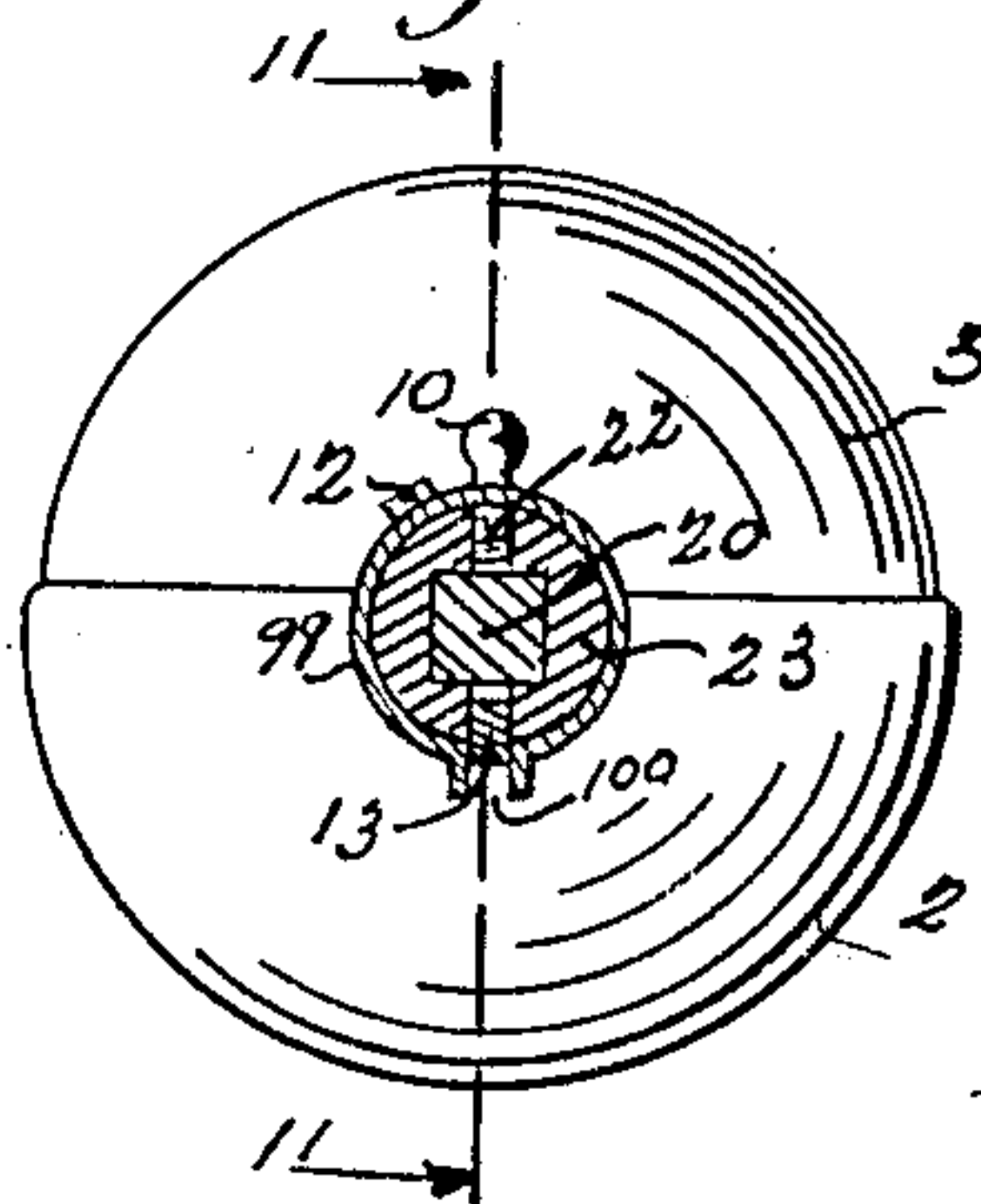


Fig. 13.

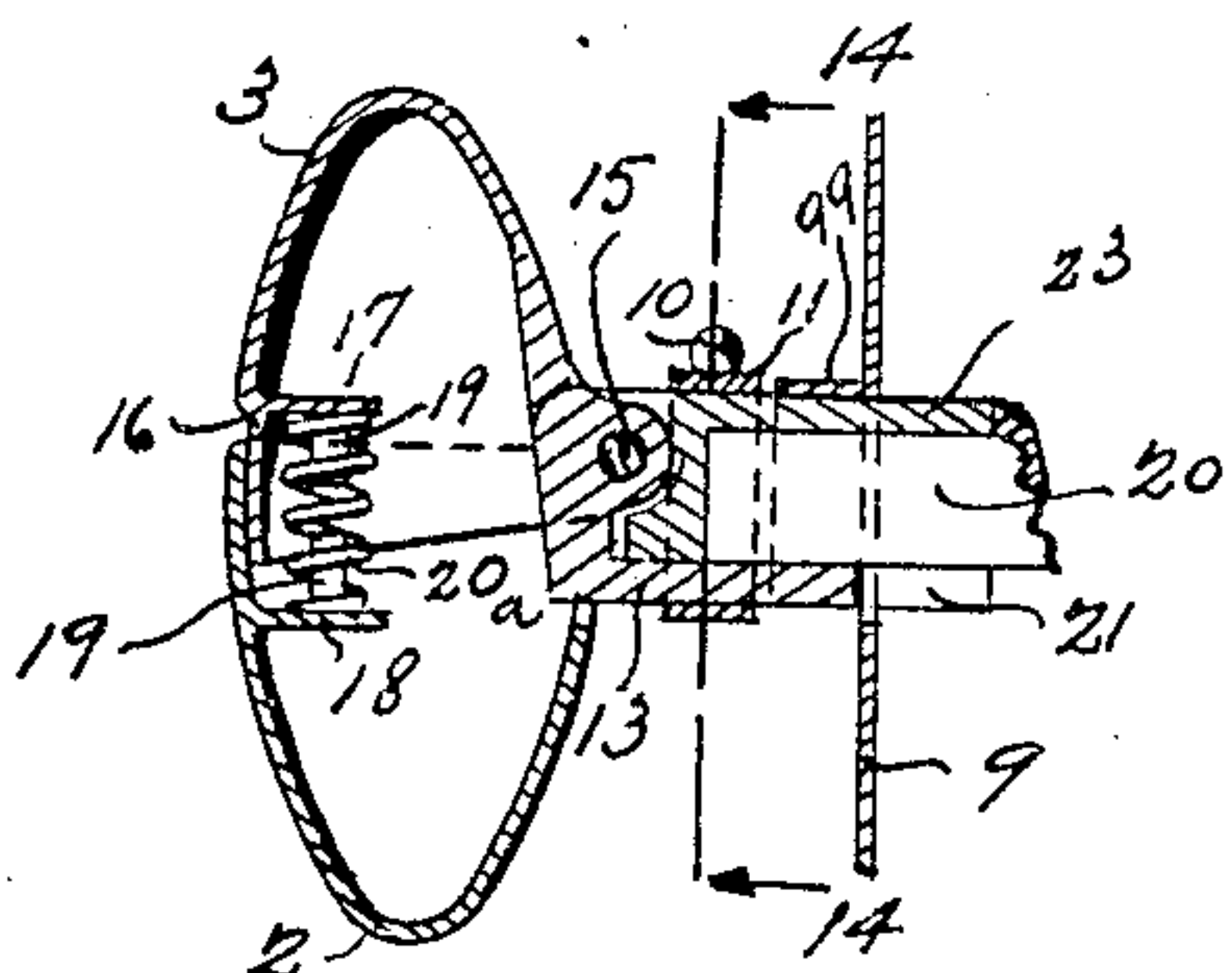


Fig. 14.

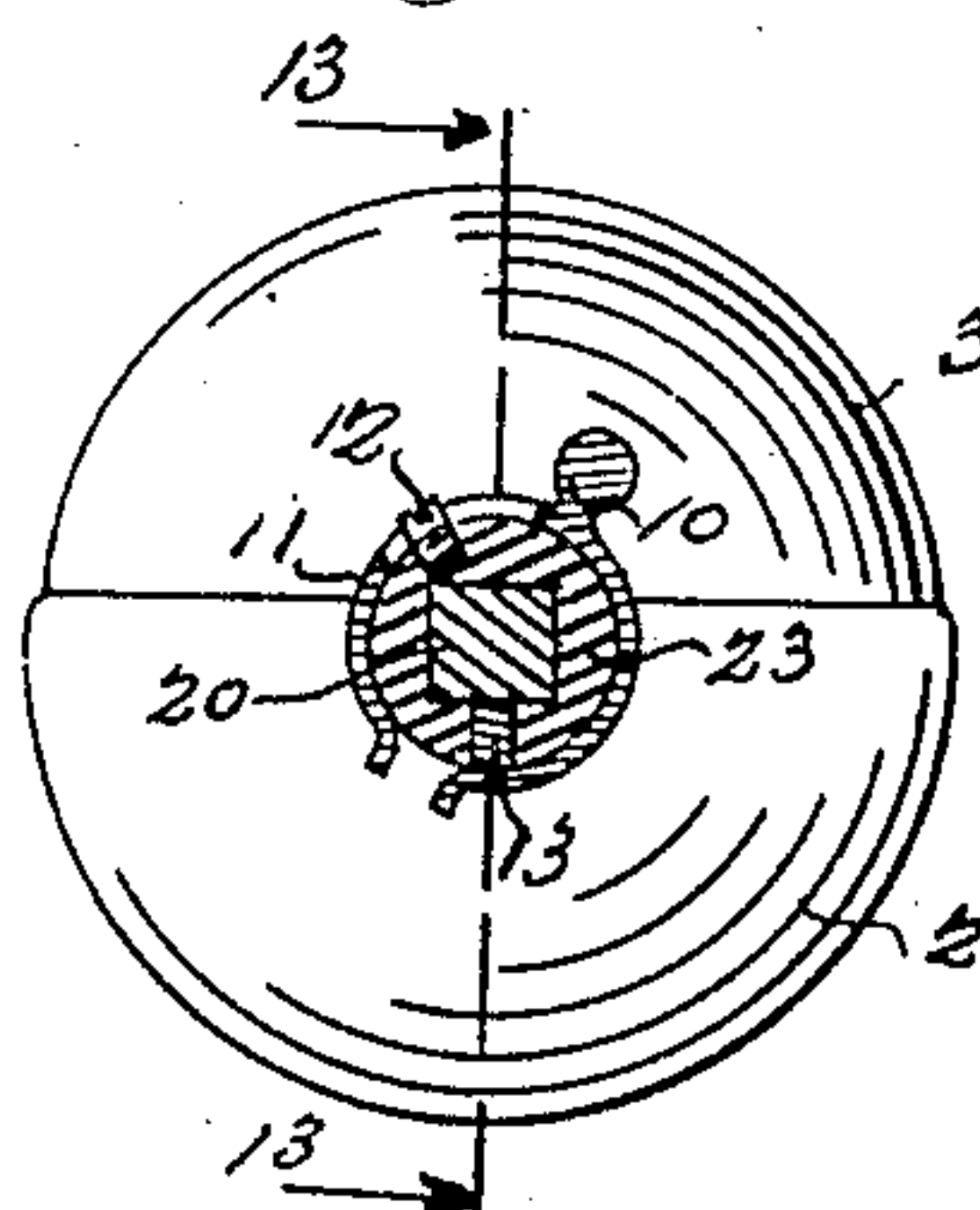


Fig. 19.

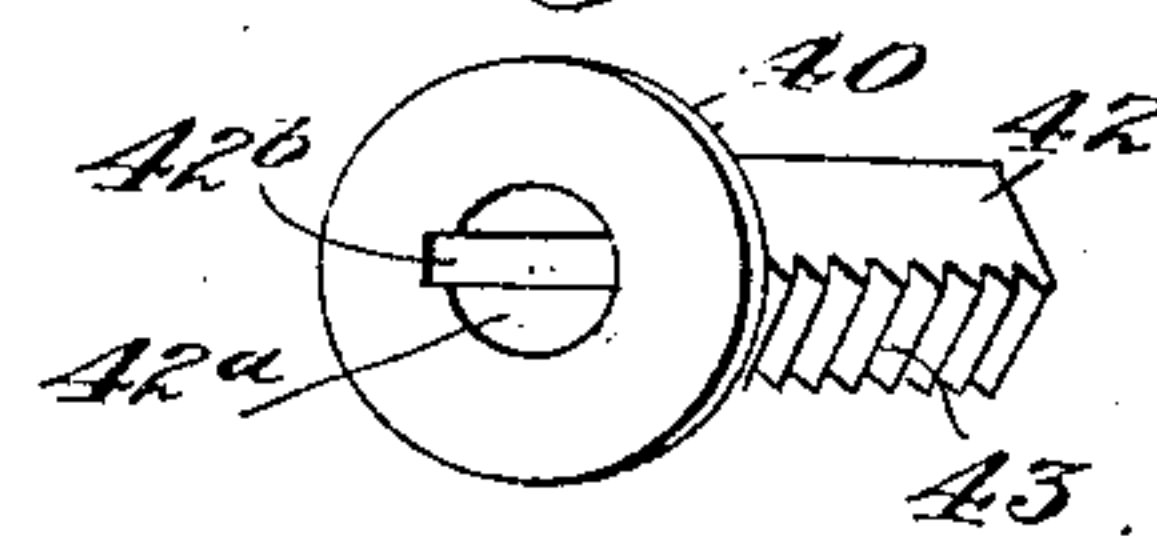


Fig. 15.

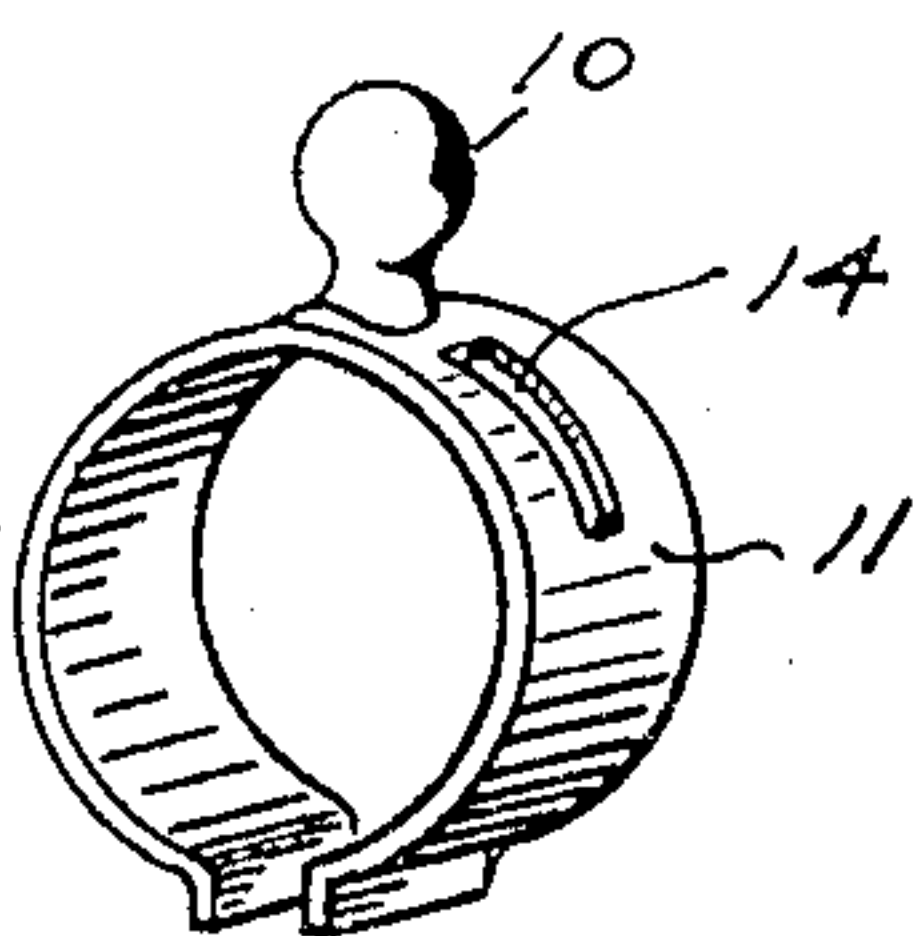


Fig. 16.

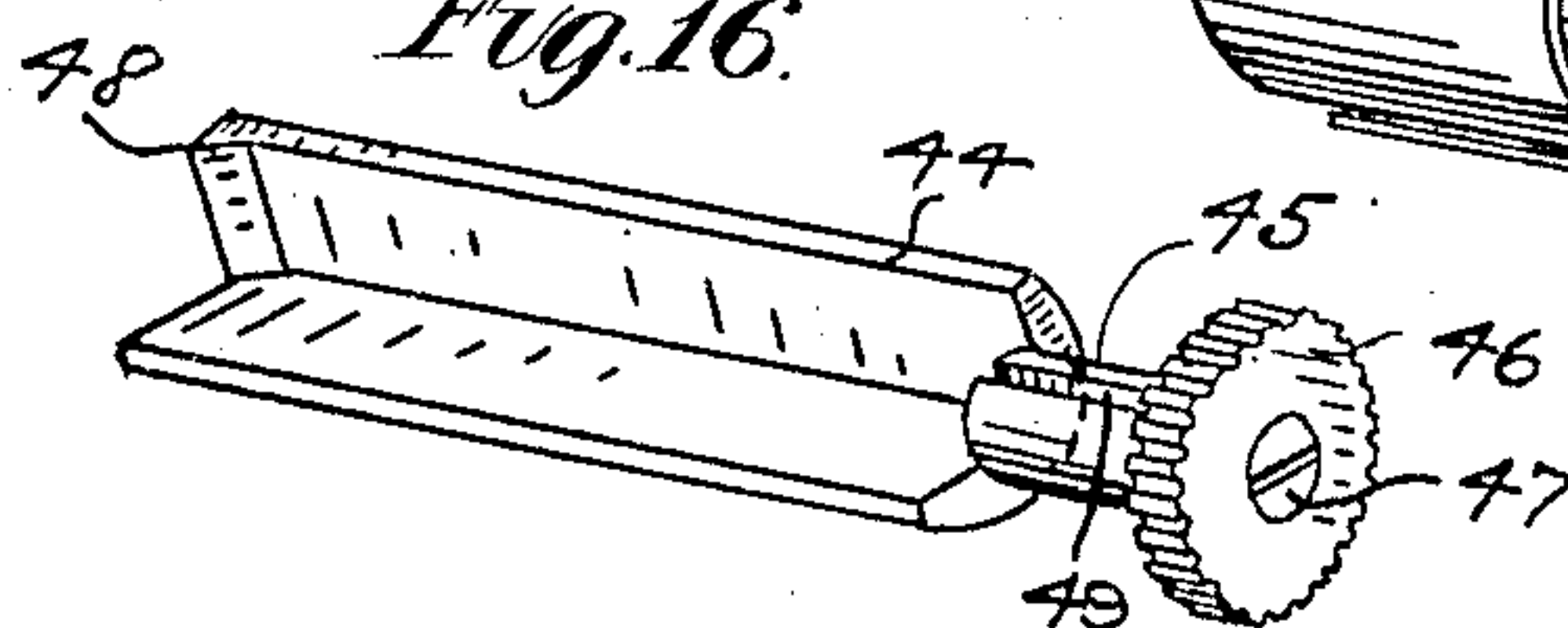


Fig. 17.

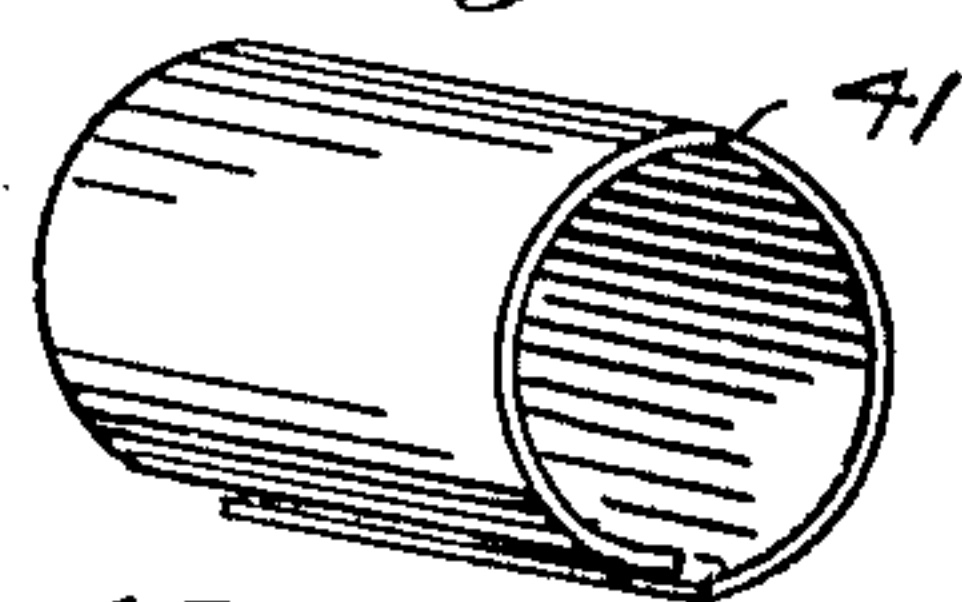
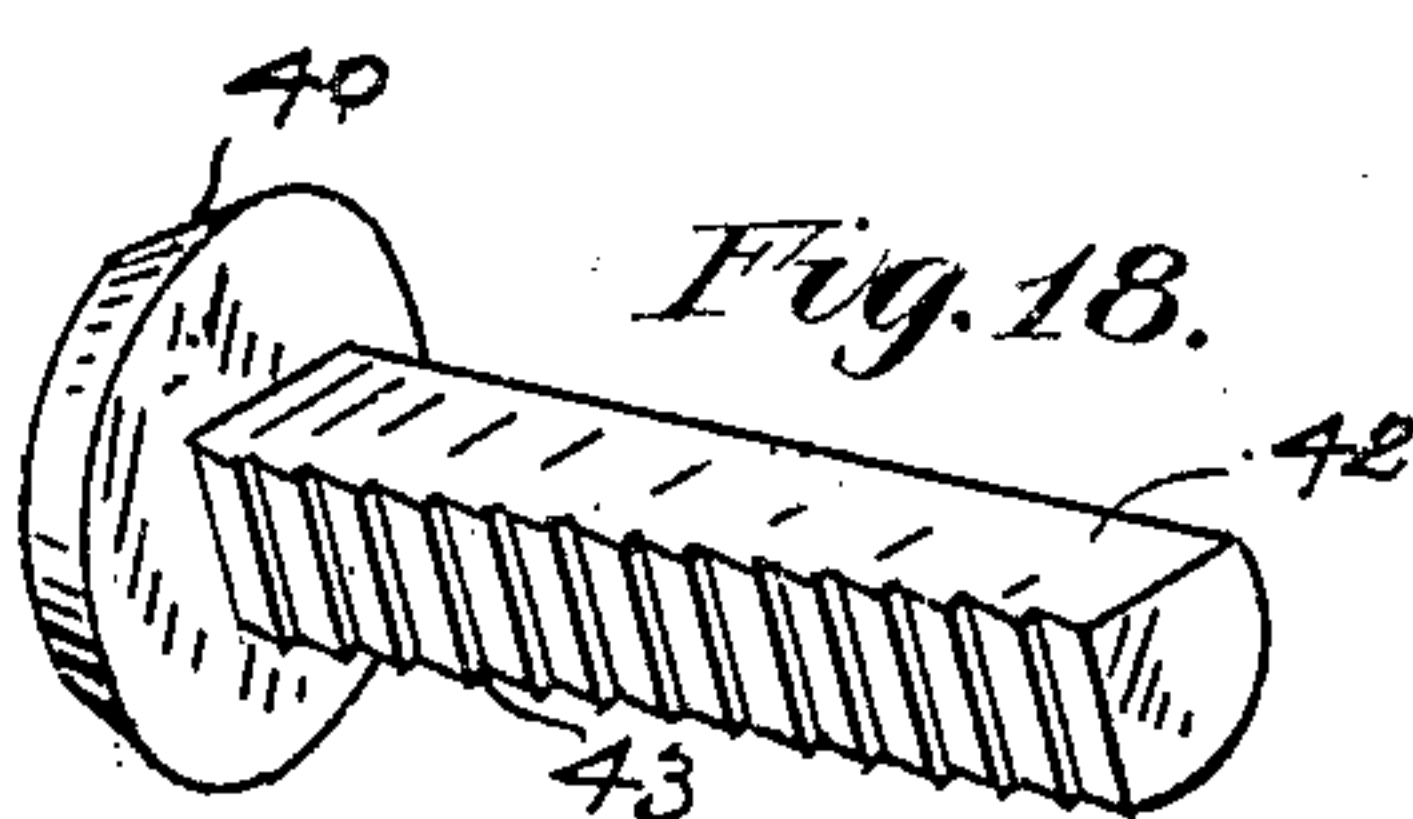


Fig. 18.



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UNITED STATES PATENT OFFICE.

DANIEL W. CROCKETT, OF INDIANAPOLIS, INDIANA.

LOCK.

No. 881,999.

Specification of Letters Patent.

Patented March 17, 1908.

Application filed February 11, 1907. Serial No. 356,826.

To all whom it may concern:

Be it known that I, DANIEL W. CROCKETT, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Lock, of which the following is a specification.

The invention herein set forth relates to locks, and has for its objects to provide a simple, effective and inexpensive lock adapted for use in securing doors, the combination by means of which the lock is operated from the outside of the door being so arranged that it can be quickly changed to any other desired combination without disarranging the lock mechanism.

A further object of the invention is to improve the details of construction of such locks, to lessen the cost of manufacture, dispense with the necessity of a key in the manipulation of such lock, and to produce a lock much more effective than key locks and as easily and quickly operated from the outside by those who know the combination; while its operation from the inside is accomplished by merely clasp ing and turning the knob.

In describing the invention, reference will be had to the accompanying drawings.

In the drawings, Figure 1 is a sectional view of the lock as indicated by the dotted line 1—1 in Fig. 2, as attached to an ordinary door. Fig. 2 represents the escutcheon on the outside of the door, showing the circular graduations, the rotatable dials, the push button of the plunger, and the outer knob. Fig. 3 represents the inner plate of the inside escutcheon carrying the rotatable slotted disks, the horizontally slidable plate, the rollback, the obliquely slidable bar, and the latch-bolt and spring, all in their normal position. Fig. 4 is a similar view as Fig. 3, showing the parts in operative position. Fig. 5 is a horizontal sectional view of the inner escutcheon and the parts attached thereto, as indicated by the dotted line 5—5 in Fig. 6. Fig. 6 is a view of the outside of the inner plate of the inside escutcheon, showing the disengaging bar attached thereto and the plunger guard. Fig. 7 represents a portion of the outside escutcheon containing the lower disk with the push button removed, showing arms cut from center of the rotatable disk by means of which it is attached to the escutcheon. Fig. 8 is a perpendicular

sectional view of a portion of the outside escutcheon, as indicated by the dotted line 8—8 in Fig. 7, showing the means of attachment of the rotatable disk. Fig. 9 is a view of the reverse side of the portion of the outside escutcheon as represented in Fig. 7 showing the means of attaching the rotatable dial to the escutcheon. Fig. 10 is a view of the portion of the door containing the latch-bolt and the lower portion of the inside escutcheon and attachments. Fig. 11 is a perpendicular sectional view of the inside knob and shank, and attachments, as indicated by the dotted line 11—11 in Fig. 12, showing the knob in a locked position. Fig. 12 is a view of the inside knob, and also a sectional view of the shank of the inside knob, the sleeve of the knob shank, attached to the escutcheon, the latch spindle, and the locking lever, as indicated by the dotted line 12—12 in Fig. 11. Fig. 13 is a sectional view of the inside knob as indicated by the dotted line 13—13 in Fig. 14, showing the knob in operative position. Fig. 14 is a view of the inside knob, and also a sectional view of the shank of the inside knob showing the spring clip, the latch spindle, and the locking lever, as indicated by the dotted line 14—14 in Fig. 13. Fig. 15 is a view of the spring clip detached from the shank of the inside knob. Figs. 16 and 18 are views of the detached portions of the plunger. Fig. 17 is a view of a spring clip for binding together the two sections of the plunger. Fig. 19 is a view of the inner section of the plunger and a portion of the disk-shank, showing the slidable connection between the plunger and the said disk.

In the drawings in which corresponding parts are designated by similar characters of reference, 1 (Figs. 1, 3, 4, 6, 10) represents a section of a door to which the lock is attached.

2 and 3 (Figs. 1, 11, 12, 13, 14) represent the inside knob of the door in two sections. 23 represents the knob shank containing a rectangular bore to receive the usual spindle connecting with the outer knob shank and the latch-bolt. 2, the lower section of the knob, which is securely and immovably attached to the knob shank 23. 3, the upper section of the knob, which is pivoted to the knob shank 23 as shown in Figs. 1, 11, 13.

The inside knob, shown in Figs. 1, 11, 13, has an angular lever 13 fulcrumed therein, extending through a slot 21 in the under

portion of the shank. The upper end of said lever 13 is securely attached to the upper section 3 of the knob.

20^a represents a spring to resiliently hold the end of the lever 13 partly out of the slot 21 in the lower portion of the knob shank, for the purpose hereinafter stated.

99 (Figs. 1, 11, 12, 13) represents a circular sleeve firmly attached to the inside escutcheon 9 (Fig. 1) and surrounding the latch spindle hole in the escutcheon and having a slot 100 in its lower side to receive the end of the lever 13, (Fig. 12), as projected by spring 20^a.

17, 18 and 19 are projections from the upper and lower sections of the inside knob for reception of the spring 20^a.

11, (Figs. 1, 11, 13, 14, 15) represents a clip slidably mounted around the shank 23 of the inside knob (Figs. 1, 11, 13, 14, 15) having a slot 14 to register with a pin 12 (Figs. 1, 12, 14) in the knob shank when in operation, and when given a part turn passes under the lever 13 (Figs. 1 and 14) and holds it out of engagement with slot 100 (Fig. 12) in sleeve 99.

10, (Figs. 1, 11, 12, 13, 14, 15) represents a knob to turn the clip 11 on the knob shank 23.

It will be understood from this description of the inner knob and its connections, that when the lever 13 (Figs. 1, 11, 12, 13, 14) engages with the slot 100 (Fig. 12), the outer knob will not operate to withdraw the latch-bolt; and to disengage lever 13 from the slot 100 (Fig. 12), so that the latch-bolt may be withdrawn by means of the inner knob, the upper section of the inner knob must be pressed downward thereby lifting said lever 13 out of the slot 100 (Fig. 12). When, however, clip 11 (Figs. 1, 11, 13, 14, 15) is turned so as to hold lever 13 (Figs. 1, 11, 12, 13, 14), out of engagement with said slot 100 (Fig. 12), either knob will operate the latch. By this construction it will be readily seen that the latch may be used as an ordinary knob-operated latch, or as a lock that can be operated from the outside by means hereinafter described.

5 (Fig. 2) represents the outer escutcheon provided with circular graduations. The graduations adapted for the purpose of this application, being from 1 to 30, but as can readily be seen, it may be of any desired number. Within the circle of these graduations are dials 24 and 28 (Fig. 2), each provided with a plurality of index fingers and also with semi-circular projections 25, 26 and 27, differently numbered, said numbers, as can readily be seen, may be raised so as to be distinguishable by touch. The upper dial 24 (Fig. 2) is attached in any desired manner to the journal end of bar 31 (Fig. 1) so that when said dial is rotated the corresponding rotatable disk 88 (Figs. 1, 3, 4) also rotates in the same degree. Dial 28 (Fig. 2) is rotatably mounted on the outer escutcheon

5 (Figs. 2, 7, 8, 9) and connects with the plunger by means of the projection 96 on said dial (Figs. 7 and 9) and a corresponding groove 49 (Figs. 1 and 16) in the shank or journal end 45 to receive said projection (Figs. 7 and 9), so that when said dial is rotated the corresponding rotatable disk 89 (Figs. 1, 3, 4) revolves in the same degree; the said groove 49 in the shank 45 (Figs. 1 and 16) permitting the plunger to be moved inwardly and outwardly by pressing on the button 46 (Figs. 1 and 2) and by spring 39 (Fig. 1). Dial 28 (Figs. 2, 7, 8, 9) may be rotatably mounted in plate 5 in any desired manner, but preferably by arms 93 (Figs. 7, 8, 9) cut from said dial and attached, as shown in said figures by said arms being extended through the circular bore 95 (Figs. 8, 9) and then deflected in a clamping position with the plate 5, so as to permit said dial to rotate freely upon the walls of said circular bore 95. The raised semi-circles 25, 26 and 27 (Figs. 2 and 7) are means of rotating said dials 24 and 28, and adjusting the proper index finger on each of the dials to the desired number.

88 and 89, (Figs. 1, 3, 4) represent similar rotatable disks of any desired size and thickness, containing the slots 90 and 91, (Figs. 3, 4) said disks being secured to the journals 35 and 38 (Figs. 1, 3, 4) by means of the screws 36 and 37 (Figs. 1, 3, 4) said journal being rotatably mounted in plate 92 (Figs. 1, 3, 4) forming the inner portion of the combination box 9 (Fig. 1).

31 represents a cylindrical bar connected with dial 24 (Figs. 1 and 2) on the outside escutcheon, 5 (Fig. 2), rotatably mounted in said escutcheon, said bar 31 containing, preferably, a circular slotted bore to receive the circular shank 32 (Fig. 1) and the pin 33 operating within the slot 34 so as to be adjustable to doors of various thicknesses.

42, (Figs. 1 and 18) represents one of the two sections of the plunger, provided with the flange 40, the teeth 43, a circular slotted bore 42^a and 42^b (Fig. 19); to receive the shank 38^a (Fig. 1) provided with a pin or projection 38^b (Fig. 19) to operate within said slot 42^b so as to form a slidable connection between the plunger and the lower rotatable disk. But, as can readily be seen, other means of forming slidable connections between the dials 24 and 28 (Fig. 2) and the rotatable disks 88 and 89 may be used without departing from the spirit of the invention.

44, (Figs. 1 and 16) represents the complement of section 42 (Figs. 1 and 18) both together forming the plunger, cylindrical in form, and held together by the spring clip 41 (Figs. 1 and 17), said plunger being rotatably mounted in the outside escutcheon 5 (Fig. 1) and capped with a push button 46 (Figs. 1 and 16).

48 (Fig. 16) represents a bit for engagement with the teeth 43 (Figs. 1 and 18) which serve to lengthen or shorten the plunger, as the various thicknesses of doors
5 may require.

39, (Fig. 1) represents a conical spring which serves to adjust the plunger to its normal outward position.

Guard 61 (Figs. 1 and 6) serves as a support for the plunger, 42, 44, (Figs. 1, 16, 18) to prevent it from sagging when the rim 40 (Figs. 1, 18) comes in contact with the triangular projection 53 (Figs. 1 and 6). The guard 61 (Figs. 1 and 6) is attached to the
15 outside of plate 92 by means of the deflected arms 60, (Fig. 6) in any desired manner; the lug 62 serving to arrest the outward movement of the plunger as shown in Fig. 1. 61 may also serve as a guard for the bar 50
20 (Fig. 6).

50 (Figs. 1 and 6) represents a bar slidably attached to plate 92, and provided with the transverse projections 51 and 52, on one side, to engage the rotatable disks 88 and 89,
25 and the projection 53 on the opposite side to engage the rim of the plunger, said bar being raised by the rim of the plunger being forced against the oblique face of said projection 53 when said projections 51 and 52 engage
30 with the slots 90 and 91 in the rotatable disks 88 and 89. Said bar 50 is also provided with slots 54, 55 and 56, for accommodation, respectively, of the disk shank 38^a (Figs. 1 and 6) the latch-spindle 20 and the
35 guard screws 57. The lower portion of said bar 50 is deflected through openings in said plate 92 and the inner escutcheon 9 (Figs. 1 and 6), and is then, as number 58, bent upwardly on the outside of the inner escutcheon
40 to slot 100 (Fig. 12) in sleeve 99 (Figs. 1 and 12), where the end of said bar serves as a rest for the end of the lever 13 (Figs. 1, 11, 12, 13 and 14), and also serves to raise the end of said lever 13 out of said slot 100,
45 when said bar 50 and 58 is raised by means of the plunger.

8, (Fig. 1) represents a cam rotatably mounted in the inner escutcheon and having a knob 7 so that when the bar 50 (Figs. 1 and
50 6) has been lifted up by the plunger and the slots 90 and 91 (Figs. 3 and 4) register with the transverse projections 51 and 52 from the bar 50 (Figs. 1, 6, 4) said cam may be rotated by means of the knob 7 and said bar 50 held
55 in an elevated position; and by loosening the screws 36 and 37 (Figs. 1, 3 and 4) the dials 24 and 28 (Fig. 2) may be set to any desired combination and said screws 36 and 37 again tightened, then the cam 8 (Fig. 1) again
60 rotated to its normal position.

64 (Figs. 3 and 4) represents a plate slidably mounted on the inner side of plate 92 by means of the slots 69 and 73 and the transverse projections 67 and 72 from plate
65 92. Plate 64 (Figs. 1, 3, 4) is also provided

with a slot, 66, for accommodation of the latch-spindle 20 and also contains an oblique slot 71 for reception of the deflected horizontal portion 70 of the slidable bar 86. Said bar 86 (Figs. 3, 4) is slidably mounted on the inner
70 side of plate 92 by means of the oblique slots 83 and 85 and the transverse projections 82 and 84 from plate 92, portions of the bar 86 being cut away forming the arms 87 which serve to engage the journals 35 and 38 (Figs. 1, 3 and 4) so that when plate 64 (Figs. 3 and 4) is operated either by means of the latch-bolt, with which said plate connects by the projection 74, (Figs. 3, 4 and 10), or by means of the rollback, the disks 88 and 89
80 (Figs. 1, 3, 4) are rotated out of operative position, as shown in Fig. 3, by contact of said arms 87 with said journals 35 and 38 (Figs. 1, 3, 4) requiring the combination to be properly set again, as shown in Fig. 4, 85 before the lock can again be operated. The oblique slots 83 and 85 (Figs. 3, 4) give the bar 86 an oblique motion—upward and towards the journals 35 and 38 and downward and away from said journals—thus revolving
90 the disks 88 and 89 out of operative position as aforesaid.

68 represents a rollback containing an angular bore for passage of the latch-spindle 20. When the knob is turned said rollback
95 68 engages one of the transverse projections 63 or 65, of the sliding plate 64, and by means of the deflected portion 74 (Figs. 3, 4, 10), of plate 64, which connects with the latch-bolt 76, 77, 79 (Figs. 3, 4) within a proper casing
100 81 (Fig. 10) actuated by a spring 78 (Figs. 3, 4); the latch-bolt is withdrawn from its locking position.

80 represents a bore in the interior of the door for accommodation of the latch-bolt. 105

9 (Fig. 1) represents the box-like inner escutcheon which contains the rotatable disks 88 and 89 (Figs. 1, 3, 4), the slidable plate 64 (Figs. 1, 3, 4) the rollback 68 and the slidable bar 86, and is provided with circular openings for accommodation of the set
110 screws 36 and 37 (Fig. 1) of the rotatable disks 88 and 89 (Figs. 1, 3, 4).

Having described the various parts of the lock and the function of each, the operation
115 of the lock from the outside of the door consists in rotating the disks 88 and 89 (Figs. 1, 3, 4) by means of the dials 24 and 28 (Figs. 1 and 2), until the slots 90 and 91 (Figs. 3, 4) engage with the transverse projections 51
120 and 52 (as shown in Fig. 4) of the slidable bar 50 (Figs. 1 and 6), which is accomplished by setting the proper index fingers of the dials to predetermined numbers, and then forcing the plunger against the oblique edge
125 of the projection 53 (Figs. 1 and 6) of the bar 50 until said bar is raised sufficiently to disengage the lever 13 (Figs. 1, 11, 12, 13, 14) from the slot 100 (Fig. 12) in the knob-shank sleeve 99, thus permitting the knobs 130

to be rotated from the outside of the door and the latch-bolt to be withdrawn from its locking position. When the door is closed again or the knobs turned, after the plunger
 5 has been released, the rotatable disks are rotated out of operative position, as shown in Fig. 3, by bar 86 (Figs. 3, 4) operating upon the journals of said disks, as heretofore described, requiring the dials 24 and 28
 10 (Fig. 2) to be again properly adjusted before the lock can again be operated from the outside. The object of having a plurality of index fingers on each dial is to render it more difficult to one not knowing the combination
 15 to operate it, and at the same time not increasing the difficulty of operation to one who knows the combination.

Having thus described said invention, what I claim as new and useful and desire to
 20 secure by Letters Patent is—

1. In a lock, a knob shank fastener consisting of a two-part knob provided with a shank, the upper part of said knob pivoted to said shank, a lever fulcrumed in the knob
 25 shank, an escutcheon, and a collar secured thereto having a slot to receive one end of said lever, the other end of the lever attached to the upper and pivoted part of the knob.

2. In a lock a knob shank fastener consisting of a two-part knob provided with a shank, the upper part of said knob pivoted to said shank, a lever fulcrumed in the knob-shank, an escutcheon, a collar secured there-
 30 to having a slot to receive one end of said lever, the other end of the lever attached to the upper and pivoted part of the knob, and a spring to normally hold the lever end in said slot.

3. In a lock, a knob shank fastener, consisting of a two-part knob provided with a shank, the upper part of said knob pivoted to said shank, a lever fulcrumed in the knob shank, an escutcheon, a collar secured there-
 40 to having a slot to receive one end of said lever, the other end of the lever attached to the upper and pivoted part of the knob, a spring to normally hold the lever end in said slot, and a clip slidably mounted on said knob-shank adapted to hold said lever end
 45 out of operative position when properly adjusted.

4. In a lock, a knob-shank fastener consisting of a two-part knob provided with a shank, the upper part of said knob pivoted to said shank, a lever fulcrumed in the knob-shank, an escutcheon, a collar secured there-
 55 to having a slot to receive one end of said lever, the other end of the lever attached to the upper and pivoted part of the knob, a spring to normally hold the lever end in said slot, a clip slidably mounted on said knob-shank adapted to hold said lever end out of
 60 operative position when properly adjusted, a bar slidably mounted on the inner escutcheon, and adapted to raise said lever end out

of said slot, and means of operating said bar from the outside of the door.

5. In a lock, a knob-shank fastener, consisting of a two-part knob provided with a shank, the upper part of said knob pivoted
 70 to said shank, a lever fulcrumed in the knob-shank, an escutcheon, a collar secured thereto having a slot to receive one end of said lever, the other end of the lever attached to the upper and pivoted part of the knob, a
 75 spring to normally hold the lever end in said slot, a clip slidably mounted on said knob-shank adapted to hold said lever end out of operative position when properly adjusted, a bar slidably mounted on the inner escutch-
 80 eon and adapted to raise said lever end out of said slot, a plunger adapted to operate said bar from the outside of the door, and a spring to adjust and hold said plunger in its normal position.
 85

6. In a lock, a knob-shank fastener, consisting of a two-part knob provided with a shank, the upper part of said knob pivoted to said shank, a lever fulcrumed in the knob-shank, an escutcheon, a collar secured there-
 90 to having a slot to receive one end of said lever, the other end of the lever attached to the upper and pivoted part of the knob, a spring to normally hold the lever end in said slot, a clip slidably mounted on said knob-shank adapted to hold said lever end out of
 95 operative position when properly adjusted, a bar slidably mounted on the inner escutcheon and adapted to raise said lever end out of said slot, a plunger adapted to operate
 100 said bar from the outside of the door, a spring to adjust and hold said plunger in its normal position, an outside escutcheon provided with circular graduations, disks rotatably mounted in the inner escutcheon and provided
 105 with slots, corresponding rotatable dials mounted on the outer escutcheon within said circular graduations, and slidable connections between said disks and said dials.

7. In a lock, a knob-shank fastener, consisting of a two-part knob provided with a shank, the upper part of said knob pivoted to said shank, a lever fulcrumed in the knob-shank, an escutcheon, a collar secured there-
 110 to having a slot to receive one end of said lever, the other end of the lever attached to the upper and pivoted part of the knob, a spring to normally hold the lever end in said slot, a clip slidably mounted on said knob-shank adapted to hold said lever end out of
 115 operative position when properly adjusted; a bar slidably mounted on the inner escutcheon, and provided with projections on its opposite sides to engage with permutation disks and a plunger, and adapted to raise
 120 said lever end out of said slot; a plunger provided with a rim and adapted to operate said bar from the outside of the door by engaging with a projection from said bar, an outside
 125 escutcheon provided with circular gradua-
 130

tions, disks rotatably mounted in the inner escutcheon and provided with slots, corresponding rotatable dials mounted on the outer escutcheon within said circular graduations, and slidable connections between said disks and said dials.

8. In a lock, a knob-shank fastener consisting of a two-part knob provided with a shank, the upper part of said knob pivoted to said shank, a lever fulcrumed in the knob-shank, a collar secured to the inside escutcheon and having a slot to receive one end of said lever the other end of the lever attached to the upper and pivoted part of the knob, a spring to normally hold the lever end in said slot, a clip slidably mounted on said knob-shank adapted to hold said lever end out of operative position when properly adjusted; a bar slidably mounted on the inner escutcheon, adapted to raise said lever end out of said slot, and provided with a projection on one side to receive a plunger, and projections on the opposite side to engage rotatable disks; a plunger consisting of two sections, the inner section being provided with a rim and teeth, the outer section with a bit to engage said teeth, a clip to hold said sections together; a spring to adjust and hold said plunger in its normal position, a guard securely attached to the inner escutcheon and provided with a lug to arrest the outward movement of the plunger, an inside escutcheon, disks rotatably mounted in said escutcheon and provided with slots, an outside escutcheon provided with circular graduations, rotatable dials mounted on the outer escutcheon within said graduations, and slidable connections between said dials and said disks.

9. In a lock, a knob-shank fastener consisting of a two-part knob provided with a shank, the upper part of said knob pivoted to said shank, a lever fulcrumed in the knob-shank, a collar secured to the inside escutcheon and having a slot to receive one end of said lever, the other end of the lever attached to the upper and pivoted part of the knob, a spring to normally hold the lever end in said slot, a clip slidably mounted on said knob-shank adapted to hold said lever end out of operative position when properly adjusted; a bar slidably mounted on the inner escutcheon adapted to raise said lever end out of said slot, and provided with a projection on one side to receive a plunger, and projections on the opposite side to engage rotatable disks; a plunger consisting of two sections, the inner section being provided with a rim and teeth, and the outer section with a bit to engage said teeth; a clip to hold said sections together, a spring to adjust and hold said plunger in its normal position, a guard securely attached to the inner escutcheon and provided with a lug to arrest the outward movement of the plunger, an in-

side escutcheon, disks rotatably mounted in said escutcheon and provided with slots, an outside escutcheon provided with circular graduations, rotatable dials mounted on the outer escutcheon within said graduations, slidable connections between said dials and said disks; a slidable plate mounted in the inner escutcheon, containing an opening for the latch spindle, an oblique slot, and provided with projections on one side to engage with the rollback and another on the opposite side to connect with the latch-bolt; a roll-back mounted on the latch spindle to engage with said projections on said plate, a latch-bolt, a spring to adjust and hold said latch bolt in its normal position; and a bar slidably mounted in the inner escutcheon and provided with arms to engage the journals of the rotatable disks, and also provided with a transverse projection on its lower end to connect with said oblique slot in said slidable plate.

10. In a lock, a contrivance for operating a knob-shank fastener, consisting of a bar slidably mounted on the inner escutcheon and connecting with the knob-shank fastener, said bar being provided with a projection on one side to receive a plunger, and projections on the other side to engage with rotatable disks; a plunger provided with a rim and adapted to operate said bar from the outside of the door, an inside escutcheon, an outside escutcheon provided with circular graduations, disks rotatably mounted in the inner escutcheon and provided with slots, corresponding rotatable dials mounted on the outer escutcheon within said circular graduations, and slidable connections between said disks and said dials.

11. In a lock, a contrivance for operating a knob-shank fastener, consisting of a bar slidably mounted on the inner escutcheon and connecting with the knob-shank fastener, said bar being provided with a projection on one side to receive a plunger, and projections on the other side to engage with rotatable disks; a plunger consisting of two sections, the inner section being provided with a rim and teeth, the outer section with a bit to engage said teeth; a clip to hold said sections together, a spring to adjust and hold said plunger in its normal position, a guard securely attached to the inner escutcheon and provided with a lug to arrest the outward movement of the plunger, an inside escutcheon, disks rotatably mounted in said escutcheon and provided with slots, an outside escutcheon provided with circular graduations, rotatable dials mounted on the outer escutcheon within the graduations, and slidable connections between said dials and said disks.

12. In a lock, a contrivance consisting of a slidable plate mounted on the inner escutcheon containing an opening for the latch

spindle, and provided with projections on one side to engage with the rollback and another on the opposite side to connect with the latch-bolt, a latch spindle a rollback
 5 mounted thereon to engage with said projections on said plate; a latch bolt, and a spring to adjust and hold said bolt in its normal position.

13. In a lock, a contrivance for automatic-
 10 ally rotating permutation disks out of operative position, consisting of a bar slidably mounted on the escutcheon, and provided with arms to engage the journals of said disks; a roll-back, a latch-bolt and a slidable plate
 15 operated by said rollback and latch-bolt, and connected with said bar by means of an oblique slot in said plate and a transverse projection on the lower end of said bar.

14. In a lock, a knob-shank fastener consisting of a two-part knob provided with a shank, the upper part of said knob pivoted to said shank, a lever fulcrumed in the knob-shank, a collar secured to the inside escutcheon and having a slot to receive one
 25 end of said lever, the other end of the lever attached to the upper and pivoted part of the knob, a spring to normally hold the lever end in said slot, a clip slidably mounted on said knob-shank adapted to hold said lever
 30 end out of operative position when properly adjusted, a bar slidably mounted on the inner escutcheon adapted to raise said lever end out of said slot, and provided with a projection on one side to receive a plunger, and
 35 projections on the opposite side to engage rotatable disks; means of holding said bar in

an elevated position; a plunger consisting of two sections, the inner section being provided with a rim and teeth, the outer section with a bit to engage said teeth, a clip to hold
 40 said sections together; a spring to adjust and hold said plunger in its normal position, a guard securely attached to the inner escutcheon and provided with a lug to arrest the outward movement of the plunger, an
 45 inside escutcheon, disks rotatably mounted in said escutcheon and provided with slots, an outside escutcheon provided with circular graduations, rotatable dials mounted on the outer escutcheons within said graduations,
 50 slidable connections between said dials and said disks; a slidable plate mounted in the inner escutcheon, containing an opening for the latch spindle, an oblique slot, and provided with projections on one side to engage
 55 with the rollback and another on the opposite side to connect with the latch-bolt; a rollback mounted on the latch spindle to engage with said projections on said plate, a latch-bolt, a spring to adjust and hold said latch-
 60 bolt in its normal position; a bar slidably mounted in the inner escutcheon and provided with arms to engage the journals of the rotatable disks, and also provided with a transverse projection on its lower end to connect
 65 with said oblique slot in said slidable plate.

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Witnesses:

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