

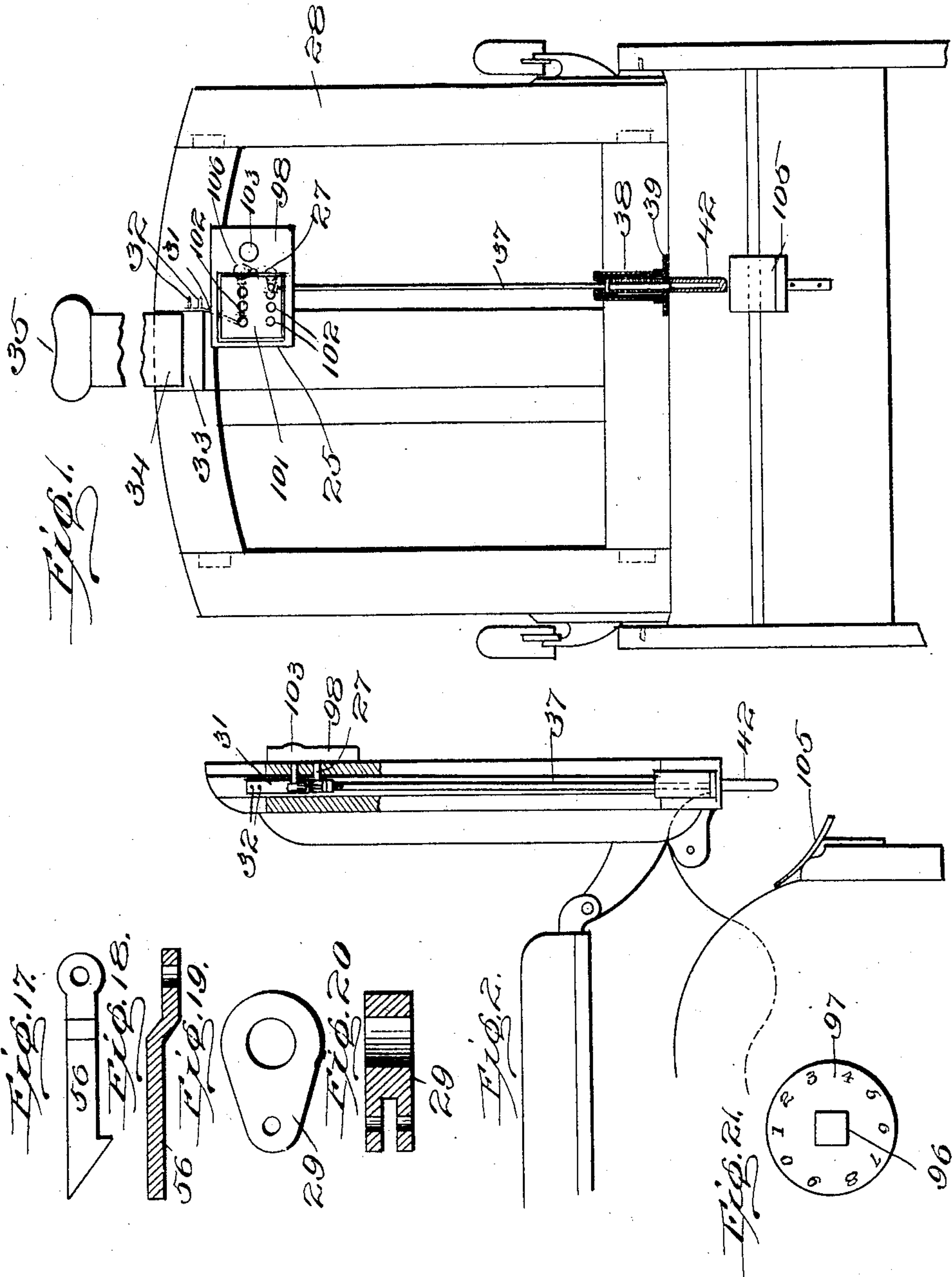
No. 857,309.

PATENTED JUNE 18, 1907.

C. SCHILLINGER.  
REGISTER.

APPLICATION FILED MAR. 15, 1906.

3 SHEETS—SHEET 1.



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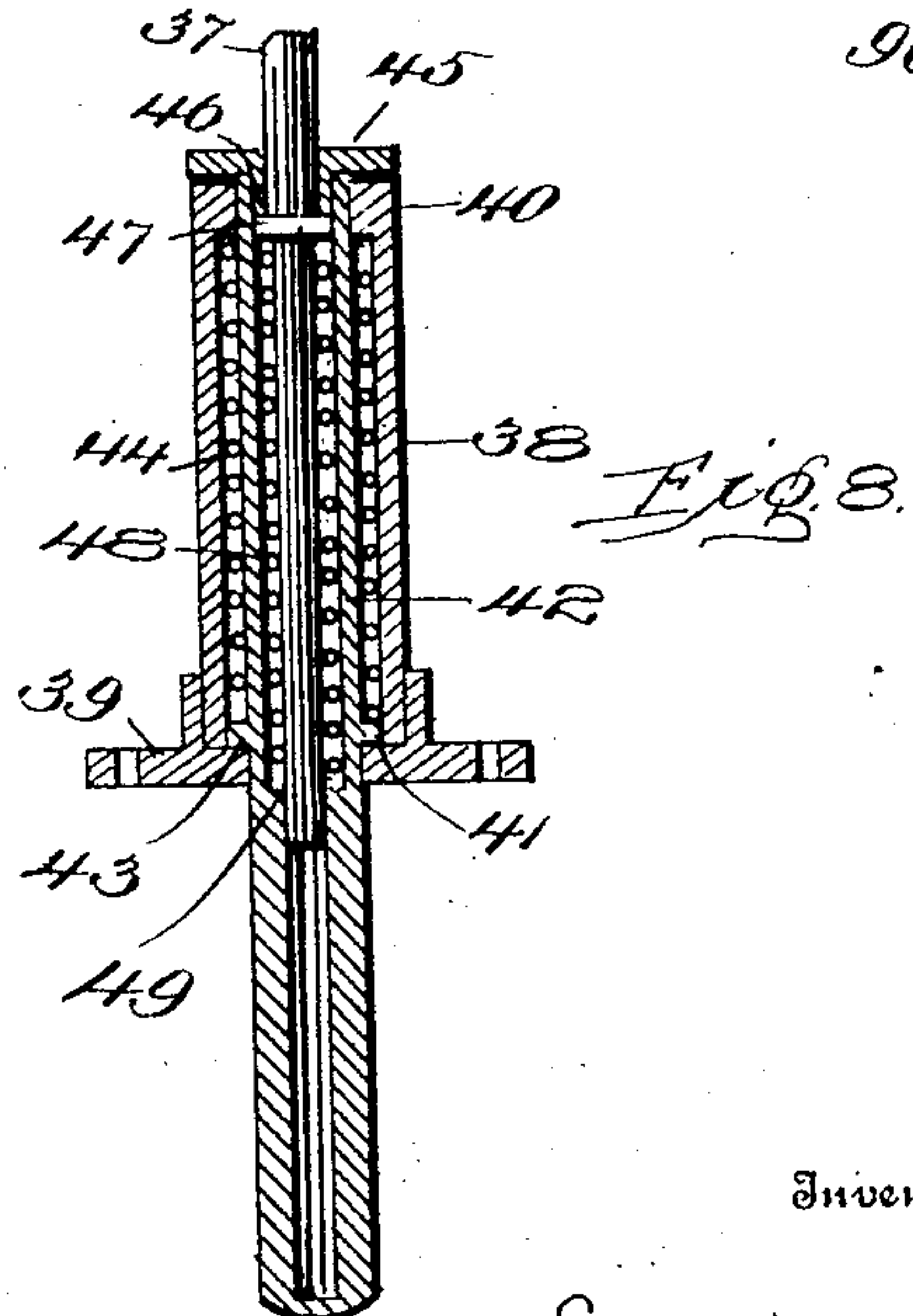
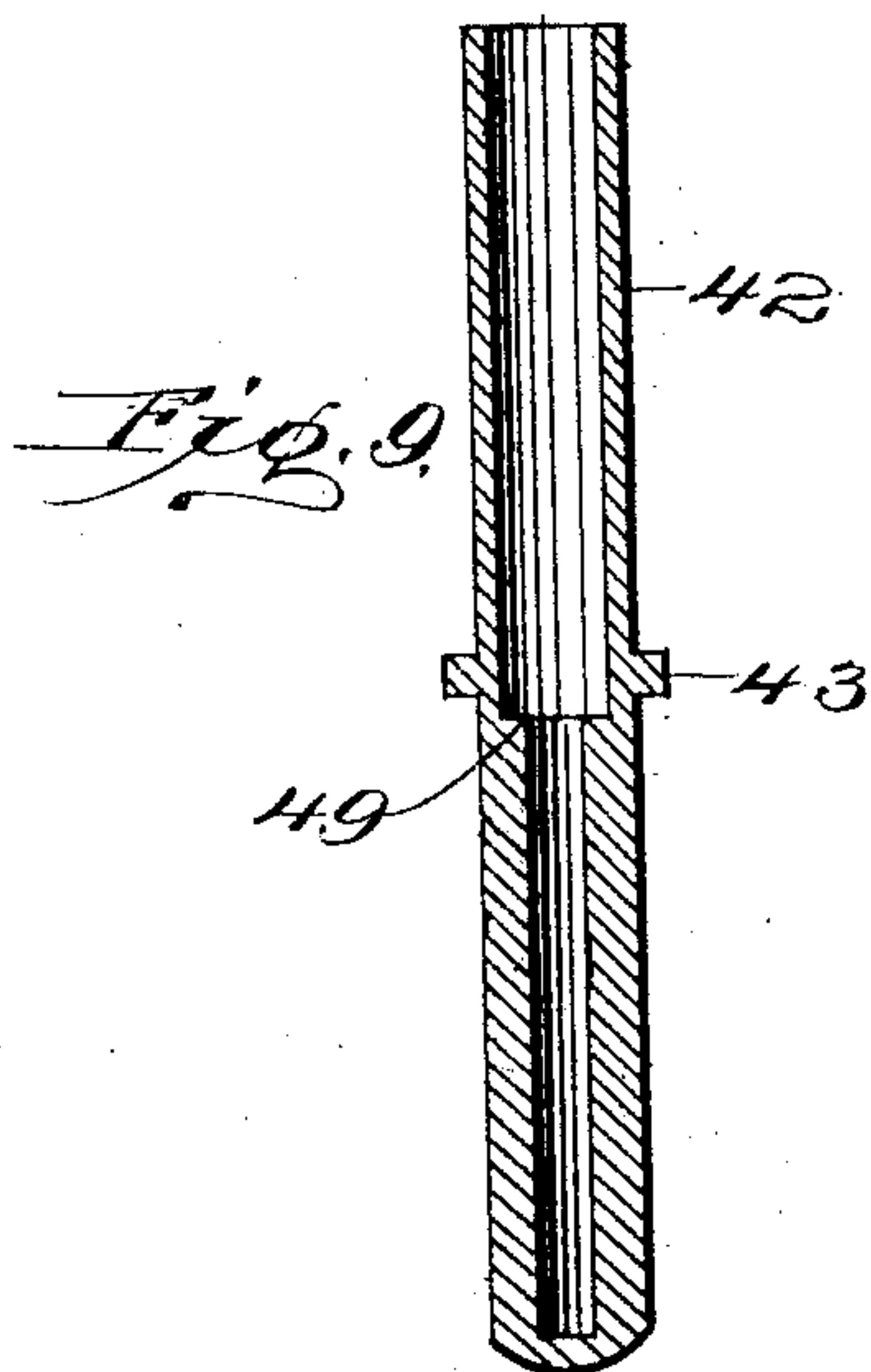
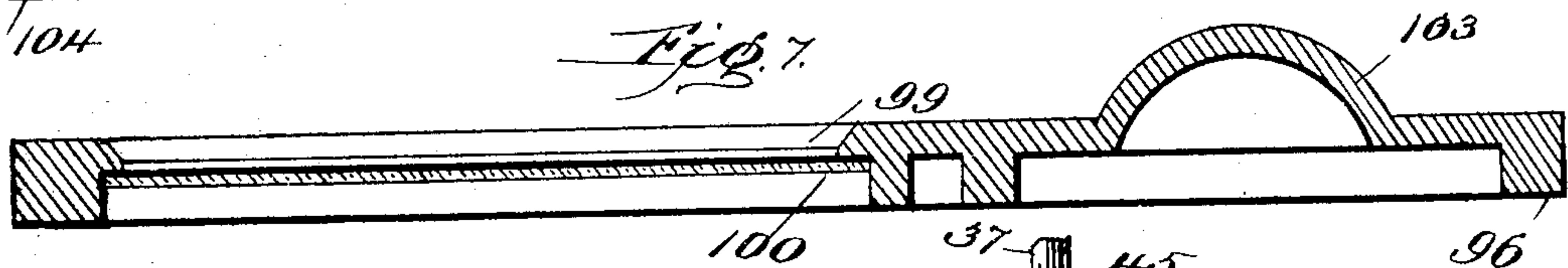
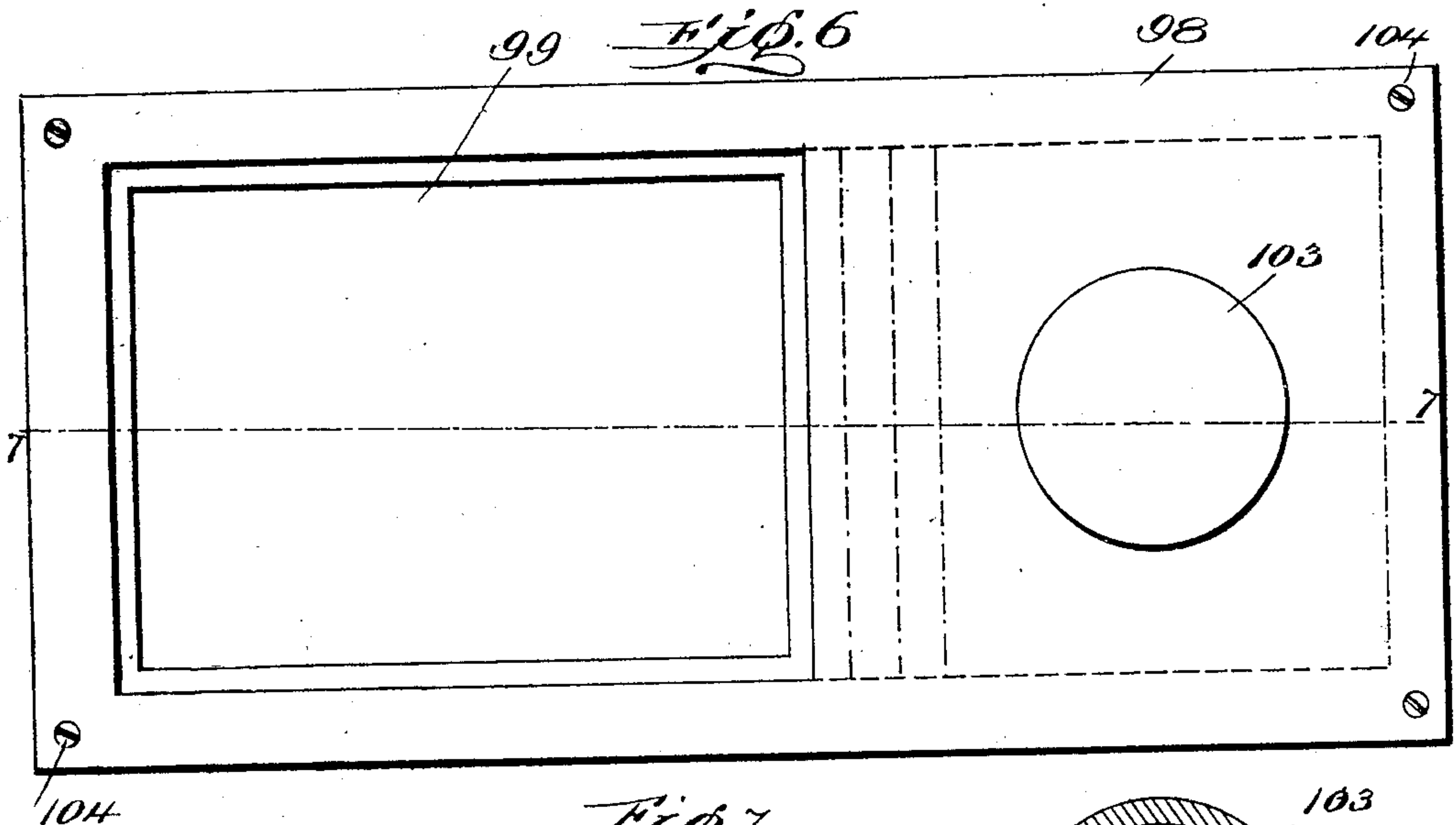
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3 SHEETS—SHEET 3.



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# UNITED STATES PATENT OFFICE.

CHRISTIAN SCHILLINGER, OF SCRANTON, PENNSYLVANIA.

## REGISTER.

No. 857,309.

Specification of Letters Patent.

Patented June 18, 1907.

Application filed March 15, 1906. Serial No. 306,310.

*To all whom it may concern:*

Be it known that I, CHRISTIAN SCHILLINGER, a citizen of the United States, residing at Scranton, in the county of Lackawanna and State of Pennsylvania, have invented certain new and useful Improvements in Registers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to registers for automatically registering the number of shaves and hair cuts performed in a barber chair to which the said register is applied.

The object of the invention is to provide means whereby the removal of the head rest of the barber chair preparatory to performing a hair cut automatically registers upon a register attached to the chair whereby the number of hair cuts performed is visible at a glance at the dials.

A further object of the invention is to provide a register so arranged that each time the chair is tilted backward in position for performing a shave the register is moved forward to exhibit another number so that the complete number of shaves may be read from the dials exhibiting.

With these and other objects in view the invention comprises certain novel constructions, combinations and arrangements of parts, as will be hereinafter fully described and claimed.

In the drawings:—Figure 1 is a view in rear elevation of the barber chair provided with the improved register. Fig. 2 is a view of the barber chair provided with the register taken in side elevation. Fig. 3 is a plan view of the register with the outer case and dials removed. Fig. 4 is a longitudinal sectional view of the improved register taken on line 4—4 of Fig. 3. Fig. 5 is a transverse sectional view taken on line 5—5 of Fig. 3. Fig. 6 is a top plan view of the outer case of the improved register. Fig. 7 is a longitudinal sectional view through the outer case of the improved register and taken on line 7—7 of Fig. 6. Fig. 8 is a longitudinal sectional view through the lower extremity of the plunger for operating one train of dials together with its operating mechanism. Fig. 9 is a similar view through the lower end of the plunger removed from its casing and associated parts. Fig. 10 is a diametrical sectional view of the first spur wheel in the train.

Fig. 11 is a diametrical sectional view of the second spur wheel in the train. Fig. 12 is a diametrical sectional view of the third spur wheel of the train. Fig. 13 is a top plan view of one of the bell ringers. Fig. 14 is a view in edge elevation of the bell ringer shown at Fig. 13. Fig. 15 is a top plan view of the other bell ringer. Fig. 16 is a view in edge elevation of the bell ringer shown at Fig. 15. Fig. 17 is a top plan view of one of the pawls for operating the train of spur wheels. Fig. 18 is a longitudinal sectional view of the pawl shown at Fig. 17. Fig. 19 is a top plan view of one of the levers for operating the train of spur wheels. Fig. 20 is a longitudinal sectional view of the lever shown at Fig. 19. Fig. 21 is a plan view of one of the several numeral-exhibiting dials.

Like characters of reference designate corresponding parts throughout the several views.

In its preferred embodiment, the improved register forming the subject-matter of the present application, comprises a frame through the rearward wall of which extend shafts 26 and 27, the said frame being mounted upon the back of the barber chair, as 28, with the shafts 26 and 27 extending into receiving sockets formed therein. The shaft 26 is provided with a lever 29 extending normally in a substantially vertical position and connected by means of a link 30 with a spring 31 secured in any approved manner, as by the screw 32, so that the said spring extends in an inclined position into the guide-way 33, for receiving the shank 34 of the head rest 35. The shaft 27 is provided with a lever 36 extending normally into a horizontal position and having vertically secured to its end a rod 37 extending downwardly through the back of the chair and through a guide member 38 secured by means of a base plate 39 to the frame of the back of the chair. The guide 38 is provided at its upper end with a shoulder 40 and at its lower end with a shoulder 41 and therein is mounted a sleeve 42 having a shoulder 43 normally against and in contact with the shoulder 41 at the lower extremity of the guide 38 and with a spring 44 disposed about the sleeve 42 and within the guide 38, and with its upper end bearing against the shoulder 40 of the guide, and its lower end bearing against the shoulder 43 of the sleeve to hold the said sleeve yieldingly in normal position.

The sleeve 42 is provided at its upper end with a cap 45 defining a shoulder 46 with-



in which the plunger rod 37 is mounted to reciprocate, the said plunger rod being provided with a collar 47 arranged to bear normally against the shoulder 46 and with a coil spring 48 surrounding the said plunger rod and bearing at its upper end against the collar 47 and at its lower end against a shoulder 49, formed with a sleeve 42, so that the plunger rod 37 is held normally with its collar 47 bearing against the shoulder 46 of the cap 45. Upon the front side of the frame 25 are secured a plurality of trains of spur wheels consisting respectively of the wheels 50, 51 and 52, shown respectively in section at Figs. 10, 11 and 12 with the teeth of the said wheel disposed at different levels.

The wheel 50 (50') is provided with an auxiliary tooth 53 arranged to engage the teeth of wheel 51 at each revolution of the wheel 50 and to move the said wheel 51 through an arc equal to the interval between two adjacent teeth. The wheel 51 is likewise provided with an auxiliary tooth 54 arranged to engage in like manner with the teeth of wheel 52 and to move the said wheel 52 rotatably through an arc equal to the interval between two teeth at each revolution of the wheel 51 in the well-known manner of register trains.

To operate the train of wheel at 50, 51 and 52, the shaft 26 is provided with a lever 55 extending approximately in alinement with the lever 29 and to the bifurcated end of which is pivotally secured a pawl 56 held in engagement with the teeth of wheel 50 by means of the spring 57 and its lateral movement limited by means of the stud 58. To prevent a backward movement of the wheel 50 a detent 59 is employed arranged to engage successive teeth of the said wheel and held in yielding engagement therewith by means of a spring 60, secured to the frame in any approved manner, as by means of the retaining stud 61. The successive spur wheels 51 and 52 are respectively maintained from backward movement of springs 62 and 63, secured to the frame in any approved manner, as by the common retaining stud 64 disposed intermediate the said springs.

To operate the train of spur wheels as at 50', 51' and 52', the shaft 27 is provided with a lever 65 disposed rigidly approximately at right angles to the lever 36 and to the bifurcated end of which is pivotally secured the pawl 66 arranged to engage the teeth of the spur wheel 51 and held normally in engagement therewith by means of the spring 67 secured to the frame in any approved manner as by the retaining stud 68, and its lateral movement limited by means of the stud 69. To prevent a backward movement of the spur wheel 50' a detent 70 is pivotally secured to the frame and arranged to engage successive teeth of the said spur wheel and held in yielding engagement therewith by means of the spring 71 secured to the frame in any

approved manner. To prevent backward movement of the spur wheels 51', and 52' the springs 71 and 72 are secured to the frame in any approved manner as by the retaining stud 73 and positioned to bear upon the said spur wheels in the usual well known manner.

It is found desirable to so arrange the register that it will produce an audible sound at each operation of either train of registering dials for which purpose a bell 74 is secured to the frame at any convenient point and with bell strikers 75 and 76 pivoted as at 77 and 78, respectively, in such manner that the said strikers will strike the bell when moved from normal position. To operate the strikers 75 and 76, the levers 55 and 65 have respectively pivoted thereto bars 79 and 80, provided upon the lower longitudinal side, respectively, with noses 81 and 82 positioned to engage the upwardly extending extremities of the levers 83 and 84 of the said bell strikers so that, when the said bars 79 and 80 are moved longitudinally, the said strikers are moved from normal position. To permit the strikers being released from engagement with the noses 81 and 82, the said bars 79 and 80 are provided with cam surfaces 85 and 86 in engagement with studs 87 and 88, so that as the said bars 79 and 80 are moved longitudinally, they are lifted laterally to disengage the noses 81 and 82 from the extremities of the levers 83 and 84. The bars 79 and 80 are held normally in contact with the studs 87 and 88 by means of springs 89 and 90 bearing upon their upper longitudinal edges, and the return movement of the strikers under the tension of the springs 91 and 92 is limited by means of the studs 93 and 94.

Upon the upper surface of each of the wheels 50, 51 and 52 (50', 51' and 52') are formed the squared shanks 95 proportioned to engage a squared opening 96 in the dials 97 to rotate the said dials in unison with the said spur wheel. Upon the frame 25 is secured a covering 98 provided with an opening 99 within which may be secured a glass 100 and through which may be seen the cover member 101, provided with openings 102 through each of which is visible one of the figures upon the dial 97, the said cover member being provided with a raised cap 103 to accommodate the bell 74 and secured in any approved manner, as by the screws 104. To any convenient portion of the legs or base portion of the chair is secured a curved cam plate 105 in position to engage the lower extremity of the sleeve 42 forming a part of the reciprocating plunger for operating the lower train of dials.

In operation, when a hair cut is to be performed in the chair provided with the improved register, the head rest 35, with its associated shank 34, is withdrawn from its guide-way 33, thereby permitting the spring



31 to move laterally into the said guide-way and to the position shown in Figs. 1 and 3. The movement of the spring 31 moves the link 30 and lever 29 to rotate the shaft 26 and the lever 55 carried upon the front surface of the frame. The movement of the lever 55 moves the pawl 56 and with it the spur wheel 50 is rotatably moved through an arc equal to the interval between two adjacent teeth, and with the said wheel is rotated its associated disk 97 to exhibit the next numeral in series. When the wheel 51 has been subjected to ten intermittent movements the tooth 53 engages one of the teeth of the wheel 51 to move the said wheel through an arc equal to the interval between two adjacent teeth which said wheel after being subjected to ten rotary movements, likewise engages and moves the wheel 52. At each movement of the lever 55 the bar 79 is longitudinally moved to engage and operate the bell striker 76 to produce an audible tone of the bell 74. At each time the chair is tilted backward to perform a shave the lower extremity of the plunger engages the plate 105 to move the plunger rod 37 upwardly and with it the lever 36 to rotate the shaft 27. The rotation of the shaft 27 operates the chain of spur wheels 50', 51' and 52' in the same manner described for the operation of the wheels 50, 51 and 52 under an impulse from the lever 55 and the bell striker 75 is similarly operated by the bar 80.

It will thus be seen that each time the head rest is removed for performing a hair cut, or each time the chair is tilted backward for performing a shave, such action is registered upon the dials and the number so recorded may be readily read through the openings 102 in the cover plate.

What I claim is:—

1. In a device of the class described, the combination of a chair provided with a movable headrest, a spring normally held in a compressed position by the headrest, a registering mechanism, and means whereby the registering mechanism is actuated by the before mentioned spring.

2. In a device of the class described, the combination of a chair provided with a movable headrest, a spring normally held in a compressed position by the headrest, a registering mechanism, a train of gears actuating the registering mechanism, and means whereby the train of gears is operated by the before mentioned spring.

3. In a device of the class described, the combination of a chair provided with a movable headrest, a spring normally held in a compressed position by the headrest, a registering mechanism, a rock shaft provided with means for actuating the registering mechanism, and means whereby the rock shaft is controlled by the before mentioned spring.

4. In a device of the class described, the combination of a chair provided with a movable head rest, a spring normally held in a compressed position by the head rest, a rock shaft controlled by the spring, a registering mechanism operated by the rock shaft, and a sounding device operated by the rock shaft.

5. In a device of the class described, a chair, a register associated with the chair, a barrel mounted upon the chair, a sleeve disposed within the barrel, a cushioning member disposed within the barrel and arranged to hold the sleeve at the lower extremity of its movement, the plunger rod disposed within the sleeve, and a cushioning member disposed within the sleeve and arranged to hold the plunger rod at the upward limit of its movement.

6. In a device of the class described, a chair, a registering train associated with the chair, a rock shaft pivotally connected with the chair structure, means connected to the rock shaft to actuate the train, a plunger connected with the rock shaft, and means carried by the chair for engaging and actuating the plunger.

7. In a device of the class described, a chair, a registering train mounted upon the chair, a rock shaft pivotally mounted upon the chair, means carried by the rock shaft for engaging and actuating the train, a plunger connected with the rock shaft, means carried by the chair for engaging and actuating the plunger, and means carried by the rock shaft for producing an audible sound.

8. In a device of the class described, the combination of a chair provided with a movable head rest, a rock shaft carrying a pair of crank arms, a registering mechanism, a sounding mechanism, means whereby both the sounding and registering mechanism are actuated by one of the crank arms, and means carried by the opposite crank arm whereby the rock shaft is automatically operated when the head rest is moved.

9. In a device of the class described, the combination of a chair provided with a movable head rest, a rock shaft provided with a pair of crank arms, a train of gears, registering mechanism actuated by the train of gears, a sounding mechanism, means whereby the sounding mechanism and train of gears are actuated by one of the crank arms, and means carried by the opposite crank arm whereby the rock shaft is automatically operated when the head rest is moved.

10. In a device of the class described, the combination of a chair provided with a movable back, registering mechanism carried by the back, a rock shaft for actuating the registering mechanism, and a plunger carried by the back and operating the rock shaft, the said plunger being designed to engage the chair body.

11. In a device of the class described, the



combination of a chair provided with a movable back, a rock shaft mounted upon the back, a train of gears actuated by the rock shaft, registering mechanism controlled by the train of gears, and a plunger mounted upon the chair back for operating the rock shaft, the said plunger being designed to engage the chair body when the back is moved.

12. In a device of the class described, the combination of a chair provided with a movable back, a rock shaft mounted upon the back, a registering mechanism actuated by the rock shaft, a sounding mechanism actuated by the rock shaft, and means whereby the rock shaft is automatically operated when the chair back is moved.

13. In a device of the class described, the combination of a chair provided with a movable back, a rock shaft mounted upon the back, a registering mechanism actuated by the rock shaft, a sounding mechanism actuated by the rock shaft, and a plunger for operating the rock shaft, the said plunger being mounted upon the chair back and designed to engage the chair body when the back is moved.

14. In a device of the class described, the combination of a shaft, a registering mechanism actuated by the shaft, a reciprocating bar provided with a nose and actuated by the shaft, a sounding device, a striker for the

sounding device, one end of the striker being designed to be engaged by the nose upon the reciprocating bar, and means for moving the reciprocating bar laterally to release the striker from engagement with the said nose.

15. In a device of the class described, the combination of a shaft, a registering mechanism actuated by the shaft, a reciprocating bar actuated by the shaft, a sounding device, a striker for the sounding device designed to be actuated by the reciprocating bar, and a cam for moving the reciprocating bar laterally to release the striker.

16. In a device of the class described, the combination of a shaft, a registering mechanism actuated by the shaft, a reciprocating bar actuated by the shaft and provided with a laterally projecting nose, a sounding device, a striker for the sounding device, one end of the striker being designed to be engaged by the before mentioned nose, and a cam surface for moving the reciprocating bar laterally to release the striker from engagement with the nose.

In testimony whereof I affix my signature in presence of two witnesses.

CHRISTIAN SCHILLINGER.

Witnesses:

W. W. BAYLOR,  
J. M. SHEFFIELD.