

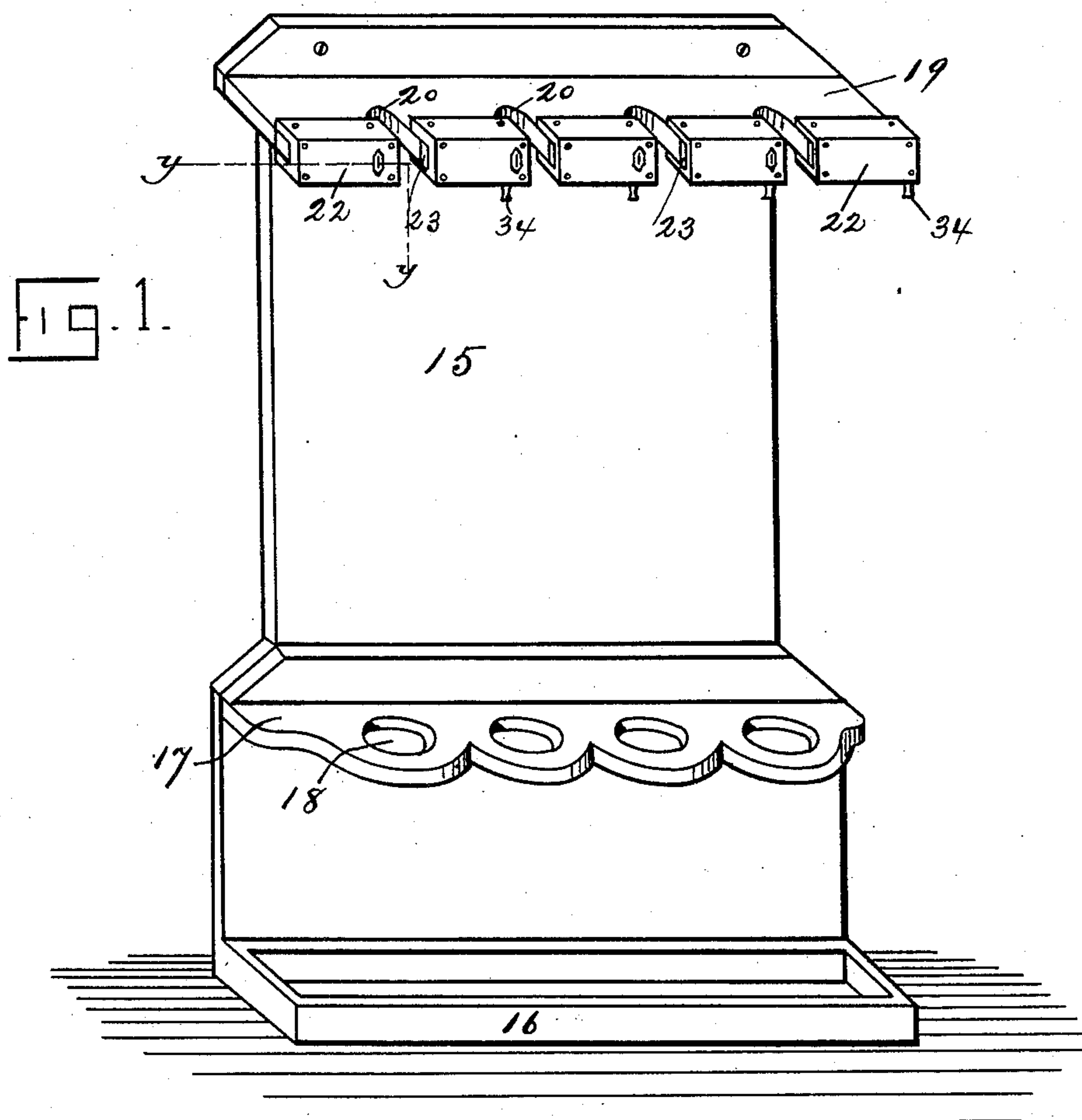
(No Model.)

4 Sheets—Sheet 1.

L. W. MORSE.
UMBRELLA RACK AND LOCK.

No. 428,814.

Patented May 27, 1890.



Witnesses

Alonzo H. Harris
Alonzo M. Luther

Inventor

Leonard W. Morse.

By his Attorney

Frank H. Allen

(No Model.)

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Fig. 2.

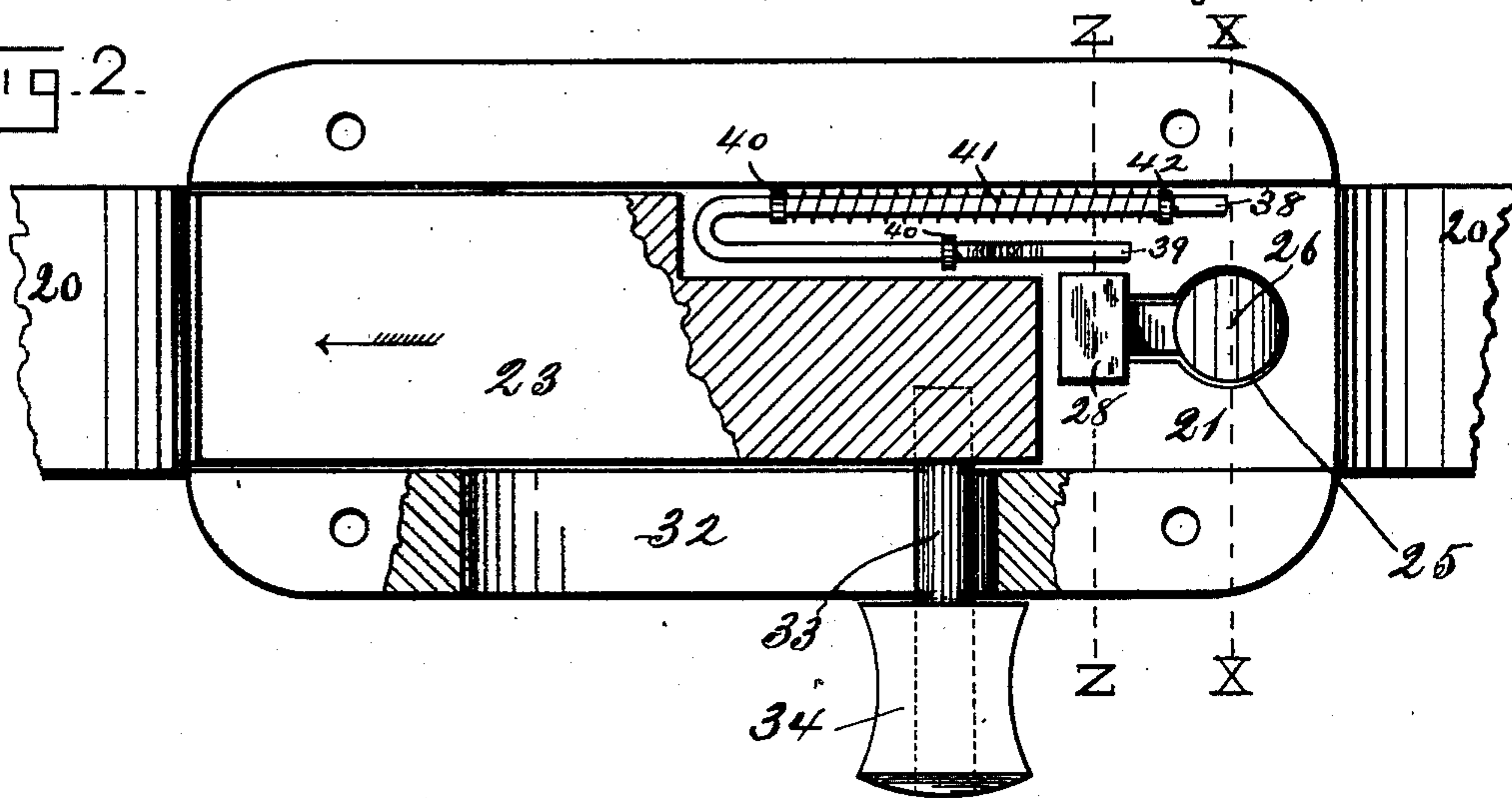


Fig. 5.

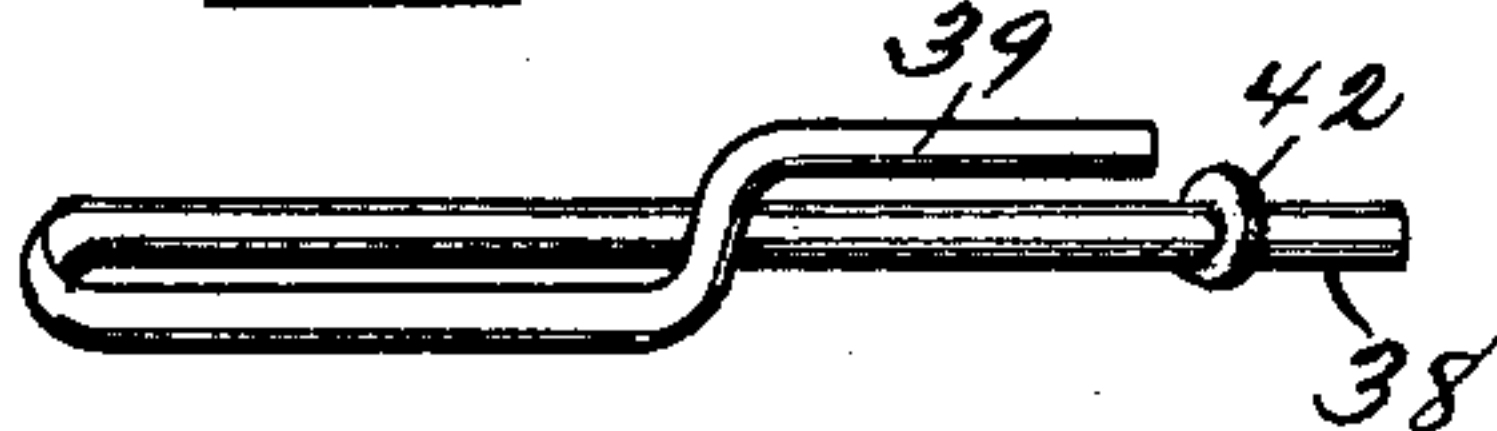


Fig. 6.

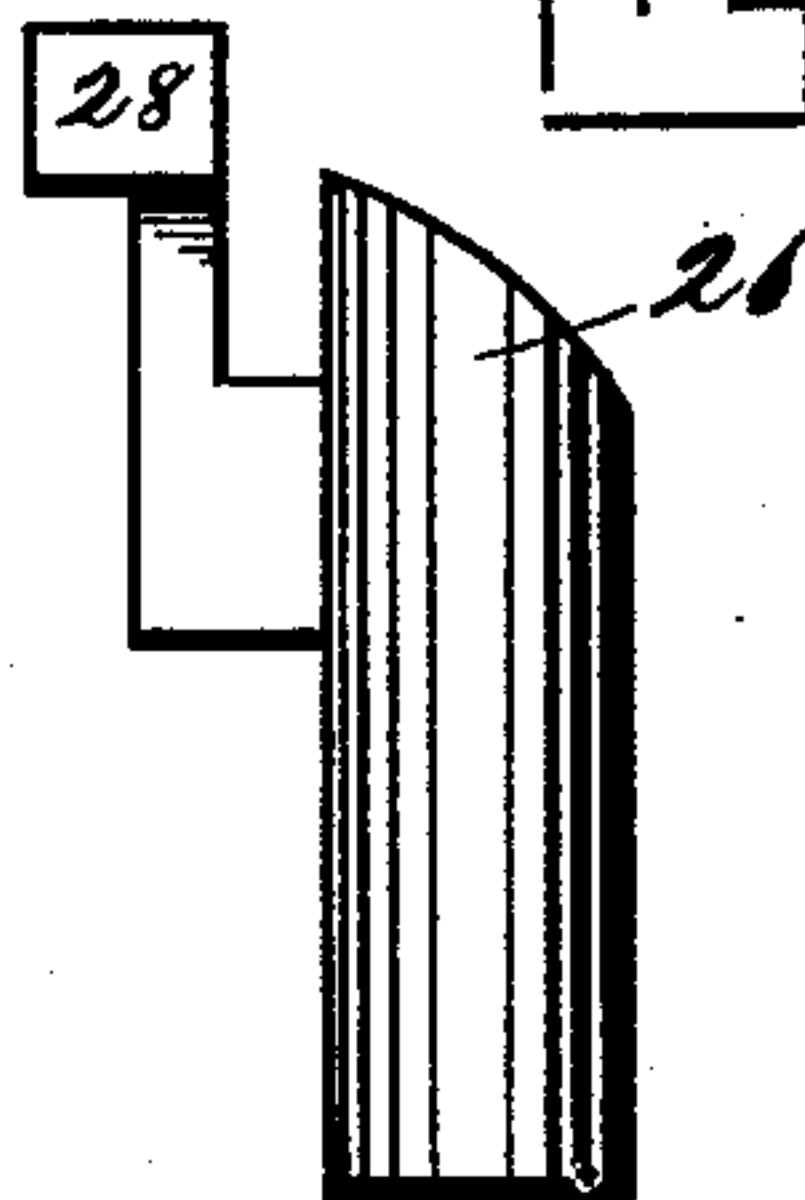


Fig. 3.

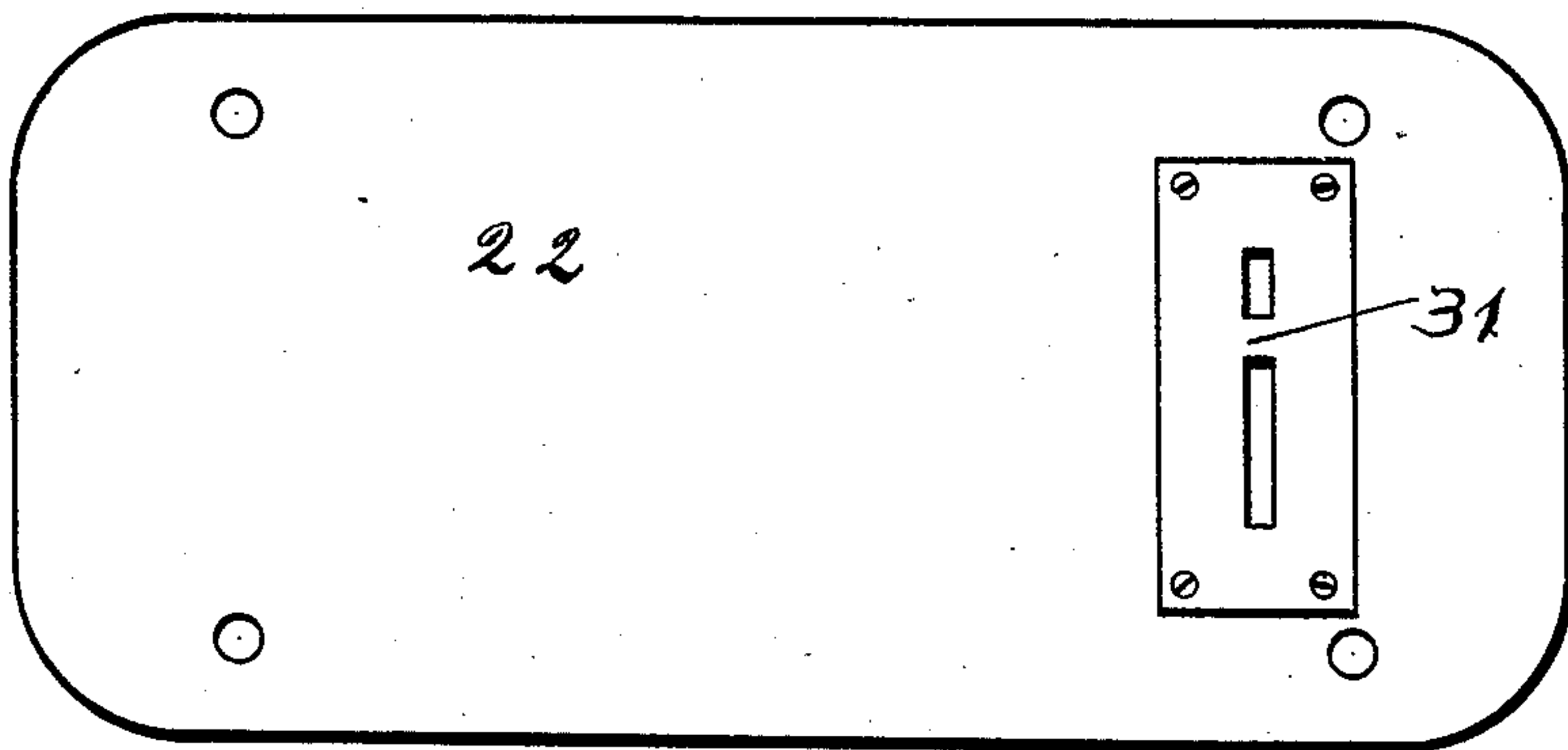
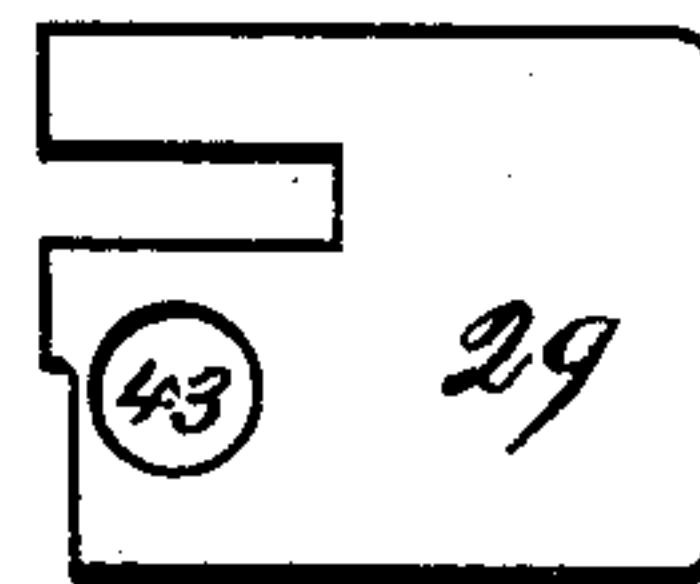


Fig. 4.



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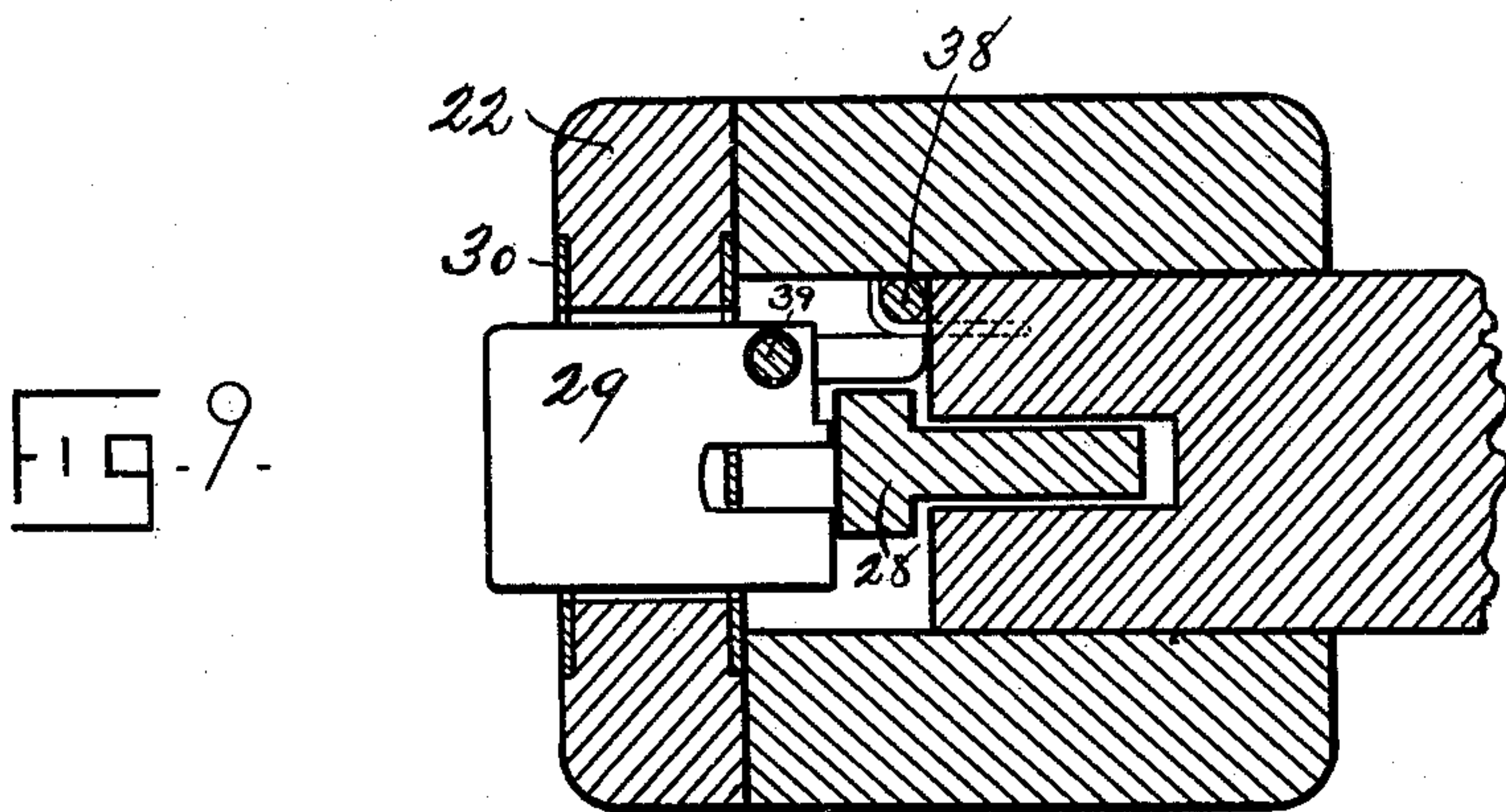
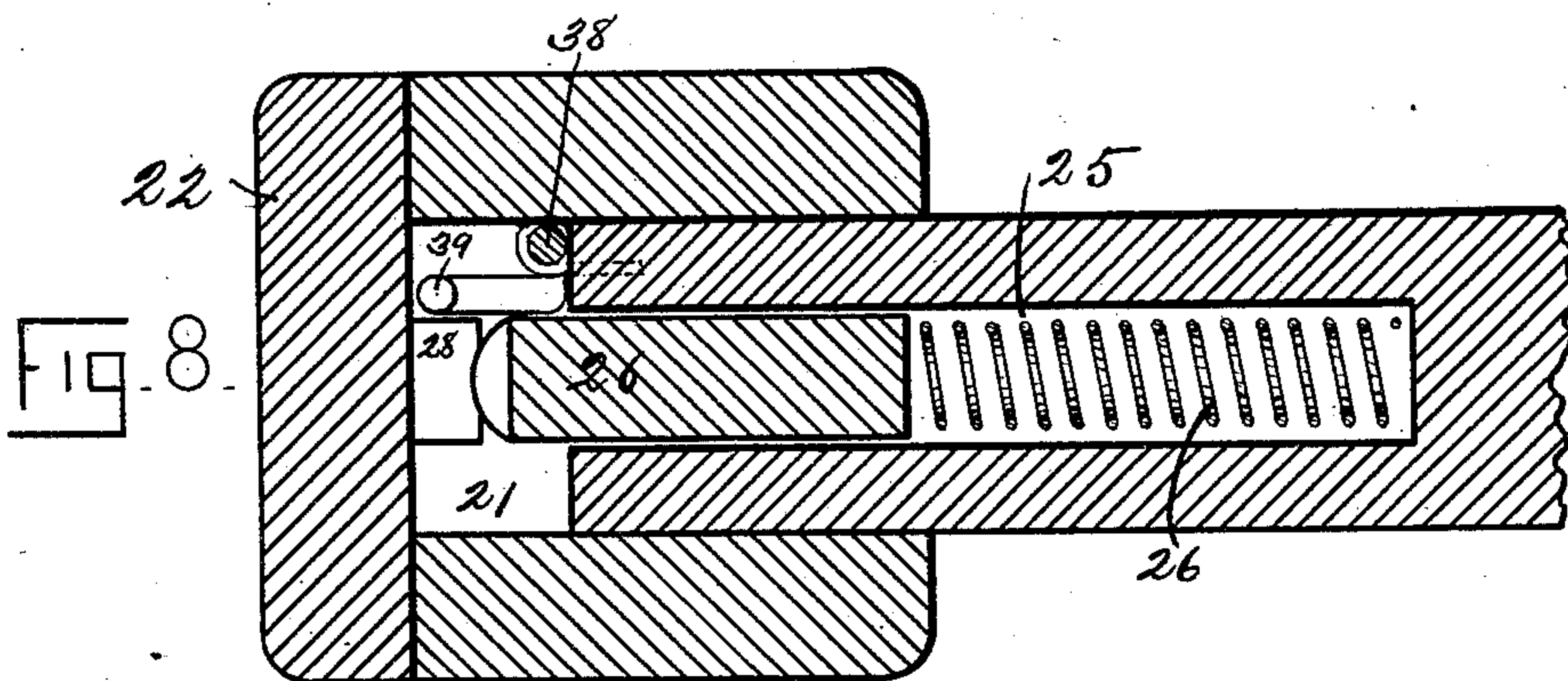
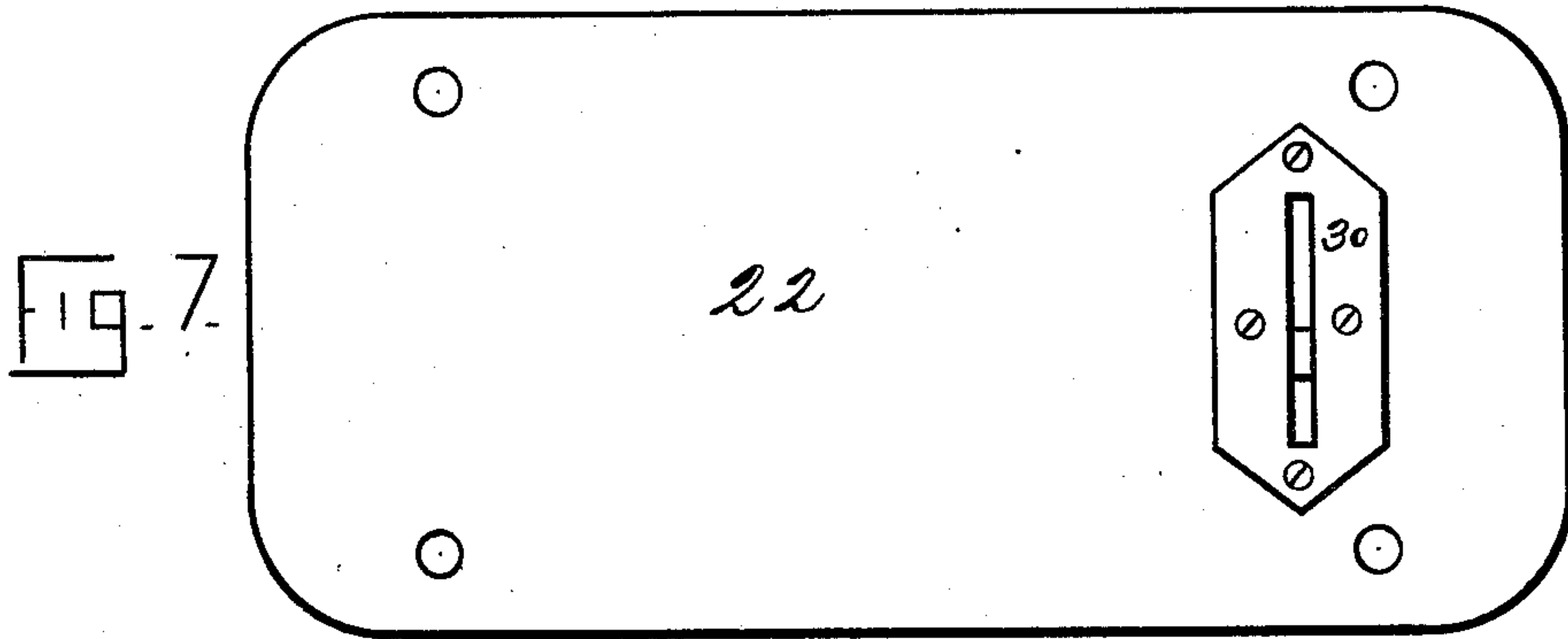
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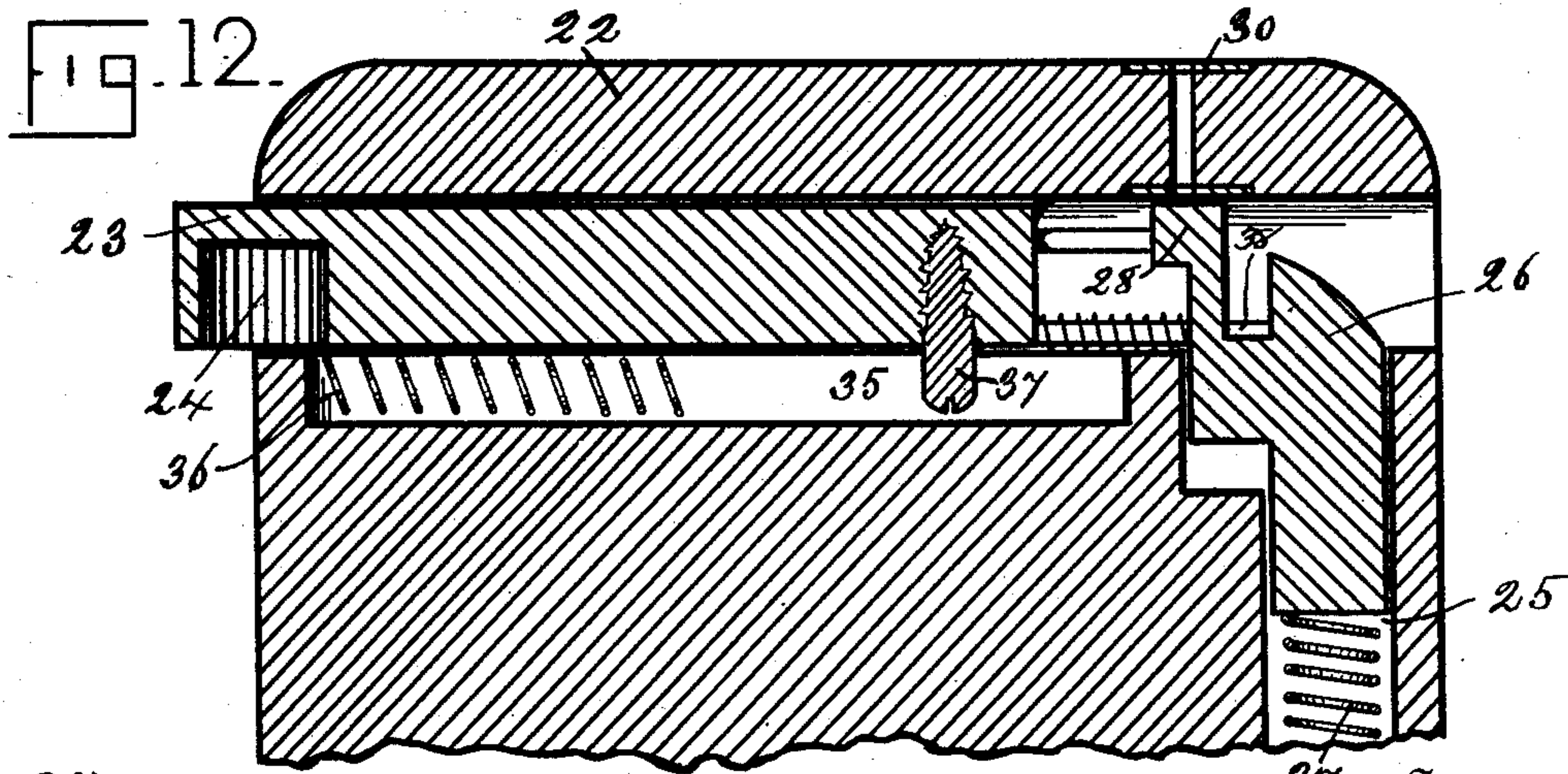
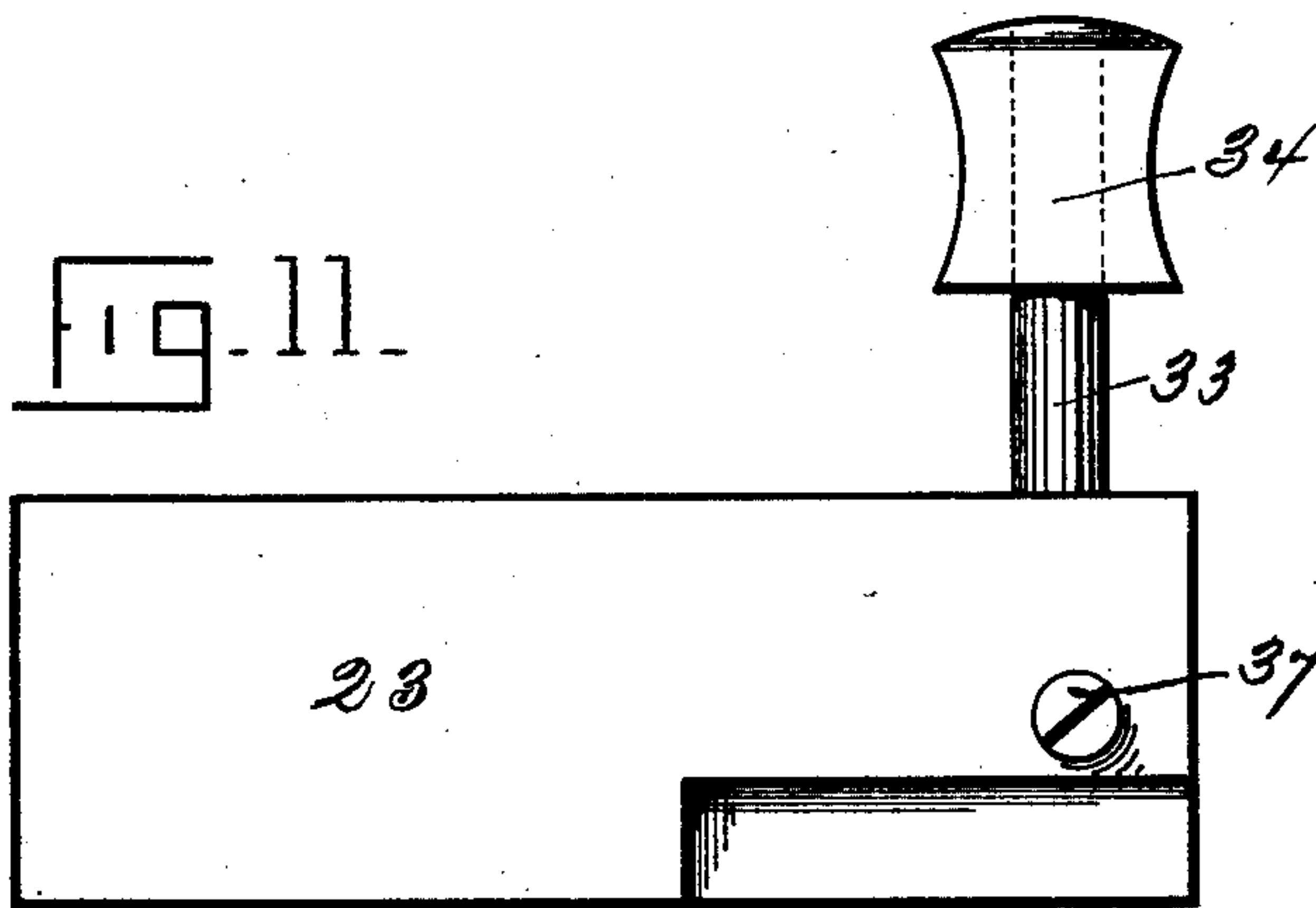
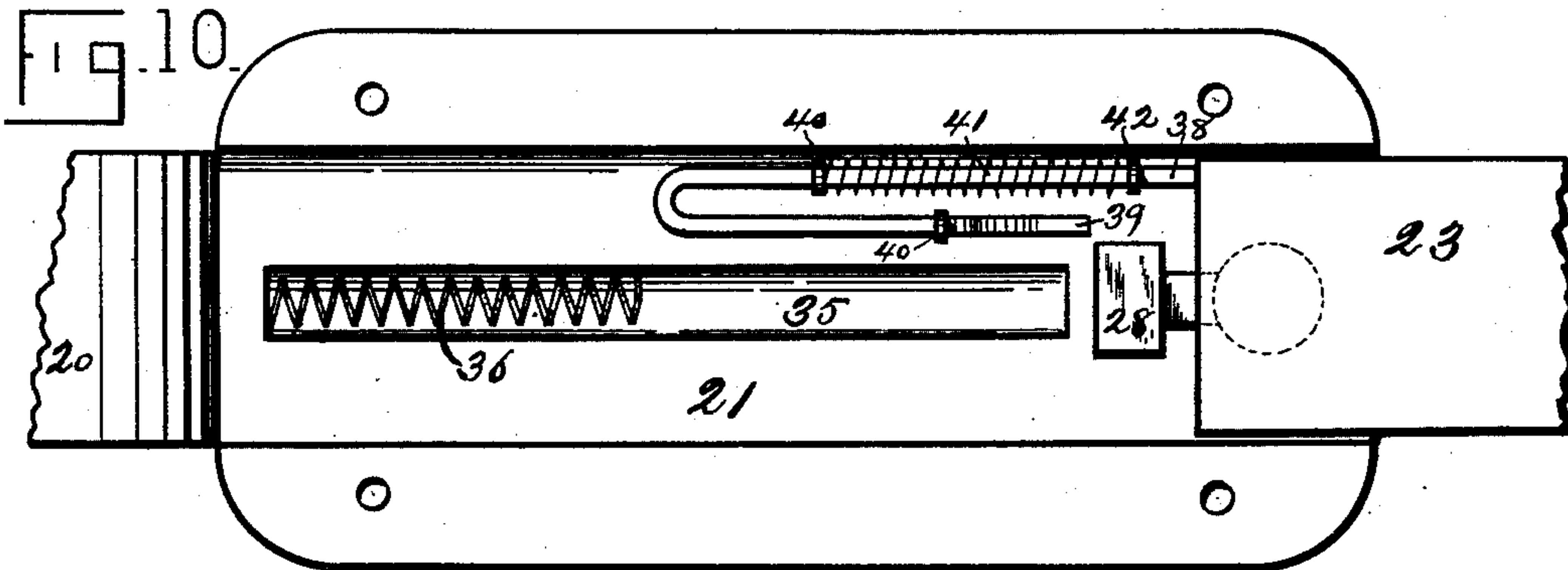
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UNITED STATES PATENT OFFICE.

LEONARD W. MORSE, OF MYSTIC RIVER, CONNECTICUT, ASSIGNOR OF ONE-HALF TO FRANK FOOTE, OF SAME PLACE.

UMBRELLA RACK AND LOCK.

SPECIFICATION forming part of Letters Patent No. 428,814, dated May 27, 1890.

Application filed April 13, 1889. Serial No. 307,191. (No model.)

To all whom it may concern:

Be it known that I, LEONARD W. MORSE, a citizen of the United States, residing at Mystic River, in the county of New London and State of Connecticut, have invented certain new and useful Improvements in Umbrella Racks and Locks, which improvements are fully set forth and described in the following specification, reference being had to the accompanying four sheets of drawings, in which—

Figure 1 is a perspective view of an umbrella rack or stand embodying my said invention. Fig. 2 is an enlarged outer face view of one of the lock-sections, the covering-plate 22 being removed to expose the inner parts of the lock mechanism. Fig. 3 is a view of said plate 22, showing its inner face—that is, the face that confronts the lock-work when said plate is secured in place and the lock ready for use. Fig. 4 is a detached view of a key adapted for use with the lock thus far illustrated. Fig. 5 is a perspective view of the bolt 39, that serves to retain the key in the lock when said lock is not called into service to hold an umbrella; and Fig. 6 is an elevation of the bolt 26, whose office is to prevent the withdrawal of the sliding bar 23, that holds an umbrella in place in the rack. Fig. 7 is a view of the plate illustrated in Fig. 3, but showing the reverse (outer) face. Figs. 8 and 9 are, respectively, cross-sections of Fig. 2 on lines *x* and *z*. Fig. 10 is a view of a lock-section with plate 22 and sliding bar 23 removed, but having the end of the next bar 23 of the series moved forward and locked by bolt 26. Fig. 11 is a view of one of the sliding bars as it appears from the under side. Fig. 12 is a longitudinal section of a lock on line *y y* of Fig. 1.

This invention is in the class of umbrella-racks that contain a multiple number of locking devices of peculiar construction, by means of which umbrellas deposited therein are securely locked and cannot be removed except by aid of a suitable key. The act of inserting a key and releasing the bolt or bar that holds the umbrella in place also causes an independent bolt to pass through said key, and thus lock it in the rack until said rack is again brought into use to hold an umbrella.

My object is to attain these desirable effects by simple and comparatively cheap mechanism.

Referring to the drawings, the reference-figure 15 indicates a plate or standard of wood or metal and of any desired design, to which is secured a pan 16, to receive the drip from wet umbrellas, and a bracket 17, having openings 18, to receive umbrellas and prevent any lateral displacement of the same. The upper end of the plate 15 is formed as a bracket 19, provided with a series of notches 20, that are in vertical alignment with the openings 18 above referred to. These notches 20 are of a size to just receive the handle or stick of an umbrella.

At the front edge of bracket 19 are located the bolts and locking devices that form the essential features of my invention. Said devices are held and concealed in a chamber or recess 21, located at one side of the entrance to each notch 20, said chamber being closed by a plate 22, that is screwed or otherwise fastened in place and forms the outer wall of said chamber.

In each of the chambers 21 is a bar or bolt 23, arranged to slide longitudinally across the entrance to one of the notches 20, to close said entrance, and thus prevent the removal of an umbrella deposited therein. The continued movement of said bar 23 causes its end to enter the chamber 21 next adjoining, where it engages and is held by locking mechanism, which I will proceed to describe.

In the bar 23 (on its inner side) is a hole 24, (see Fig. 12,) and in a recess 25 in the end of chamber 21 is a bolt 26, with beveled end, that is engaged by bar 23 as said bar moves forward. Bolt 26 is forced outward by a spiral spring 27, seated in the bottom of the recess 25, and is also provided with a lateral arm 28, whose end projects beyond the beveled end of the main bolt 26 and forms a stop that abuts against the inner face of the covering-plate 22, and thus limits the movement of said main bolt. Immediately over or at the point where said arm 28 abuts against plate 22 said plate is slotted to receive a key made, preferably, of sheet metal, substantially as shown at 29 in Figs. 4 and 9. An escutcheon 30, with plain key-slot, is preferably screwed to

the outer face of plate 22, and immediately opposite on the inner face of the plate is secured a similar escutcheon, whose slot is broken by one or more intermediate cross-bars 31, conforming in width and position to the edge of the key to be used therewith. This construction provides for a multiple of different keys of simple form and prevents the insertion of a plain piece of sheet metal.

When the proper key is inserted, it engages the end of arm 28, and when sufficient pressure is applied said arm and its attached bolt 26 are pushed inward against the force of spring 27. This action withdraws said bolt 26 from the opening 24 in the sliding bar 23, allowing said bar to slide backward, and thus open the entrance to notch 20. The lower wall of chamber 21 is slotted lengthwise, as at 32, Fig. 2, to receive the stem 33 of an operating-knob 34. Stem 33 enters the bar 23, and it will be understood that by grasping the knob 34 said bar may be moved a distance equal to the length of slot 32. The bottom of chamber 21 is also slotted lengthwise, as at 35, to receive a spiral spring 36, (see Figs. 10 and 12,) that is engaged and compressed by a stud 37, projecting downward from bar 23 into said slot 35, when said bar is slid outward. Spring 36 remains compressed so long as bar 23 is held by the beveled bolt 26, above described; but when said bolt is forced back by the insertion of a key spring 36 acts to shoot the bar 23 back to its normal position in chamber 21, instead of requiring the operator to grasp knob 34 and draw said bar back.

Within the chamber 21, adjacent to the bolt 26, is a wire bolt, that is bent back upon itself to form two arms 38 39 and is held by staples 40 in such manner that said bolt may move longitudinally under or through said staples. Arm 38 of said wire bolt carries a spiral spring 41, one of whose ends abuts a staple 40 and the opposite end abuts a shoulder or collar 42 on said arm 38, so that said spring acts constantly to force said bolt to the right hand, as viewed in Figs. 2 and 10. Arm 38 lies at the bottom of the chamber 21 and its end extends outward to a point about opposite the center of the bolt 26 and lies directly in the path of the sliding bar 23. The companion arm 39 is bent upward, as plainly shown in Fig. 5, and terminates opposite and slightly below the end of arm 28. When a bar 23 is slid forward across a notch 20, the double-wire bolt 38 39 is abutted by said bar and pushed ahead against the force of spring 41, as illustrated in Fig. 10. When it becomes necessary to again release bar 23, a key is inserted to press down arm 28 and its connected beveled bolt 26. As said bar 23 shoots forward under pressure of spring 36 the double-wire bolt follows and the end of its limb 39 passes through a hole 43 in the key, (see Fig. 9,) thus locking said key in its slot and preventing its removal until bar 23 is again brought into use. This construction effectually precludes all possibility of said key being lost, stolen, or carried away by mistake.

When an umbrella has been deposited in the rack, the bar 23 is slid across the entrance to the notch containing the handle of said umbrella, and as said bar advances it engages the beveled end of bolt 26 and forces said bolt backward into its recess and at the same time engages and pushes back the double-wire bolt, whose arm 39 is thus withdrawn from the hole 43 of the key. When the bolt 26 is snapped forward into the hole 24 by its spring 27, the key is simultaneously forced outward through the plate 22. Thus it will be seen that the insertion of the key releases the bar 26, and also that the sliding and locking of said bar act to release said key.

My described device is particularly valuable for use in hotels, offices, and other public places and requires no attendant or operator. When a person enters, he deposits his umbrella in one of the notches 20 and slides the bar 23, when the key is immediately thrown into his hand. This key he keeps as a check or receipt until he again has need of said umbrella, when the said key or check is entered, locked, and left in the key-slot.

Having described my invention, I claim--

1. In combination with a notched bracket, a bar arranged to slide across the entrance to said notch and having both an opening 24 and a projecting stud 37, as set forth, a spring-actuated bolt, substantially as described, for engaging said opening 24, and a spring 36, lying in the path of said stud, as and for the object specified.
2. In combination with a notched bracket, a bar arranged to slide across the entrance thereto, a spring-actuated bolt, as set forth, for locking said bar, a perforated key, as set forth, for pressing back said bolt, and a double-wire bolt one of whose arms lies in the path of said sliding bar, the companion arm being bent upward and adapted to enter the key-perforation when said sliding bar is withdrawn, all being substantially as and for the objects specified.
3. In combination with a bracket having a notch to receive an umbrella-handle, a bar arranged to slide across the entrance to said notch, bolt mechanism, as herein set forth, for locking said sliding bar, and a slotted key plate or escutcheon located adjacent to the locking end of said bolt, all being substantially as and for the purpose specified.

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Witnesses:

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