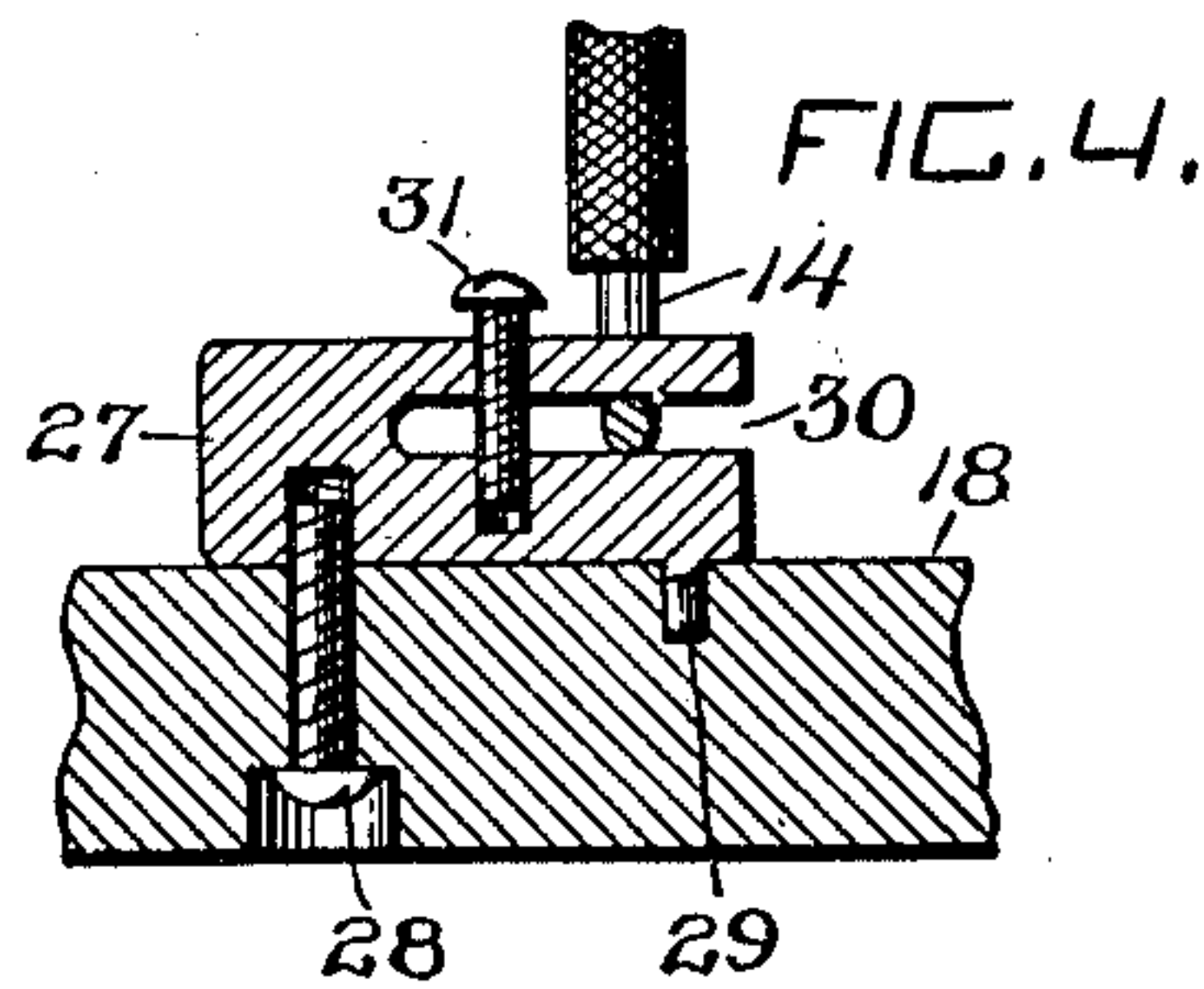
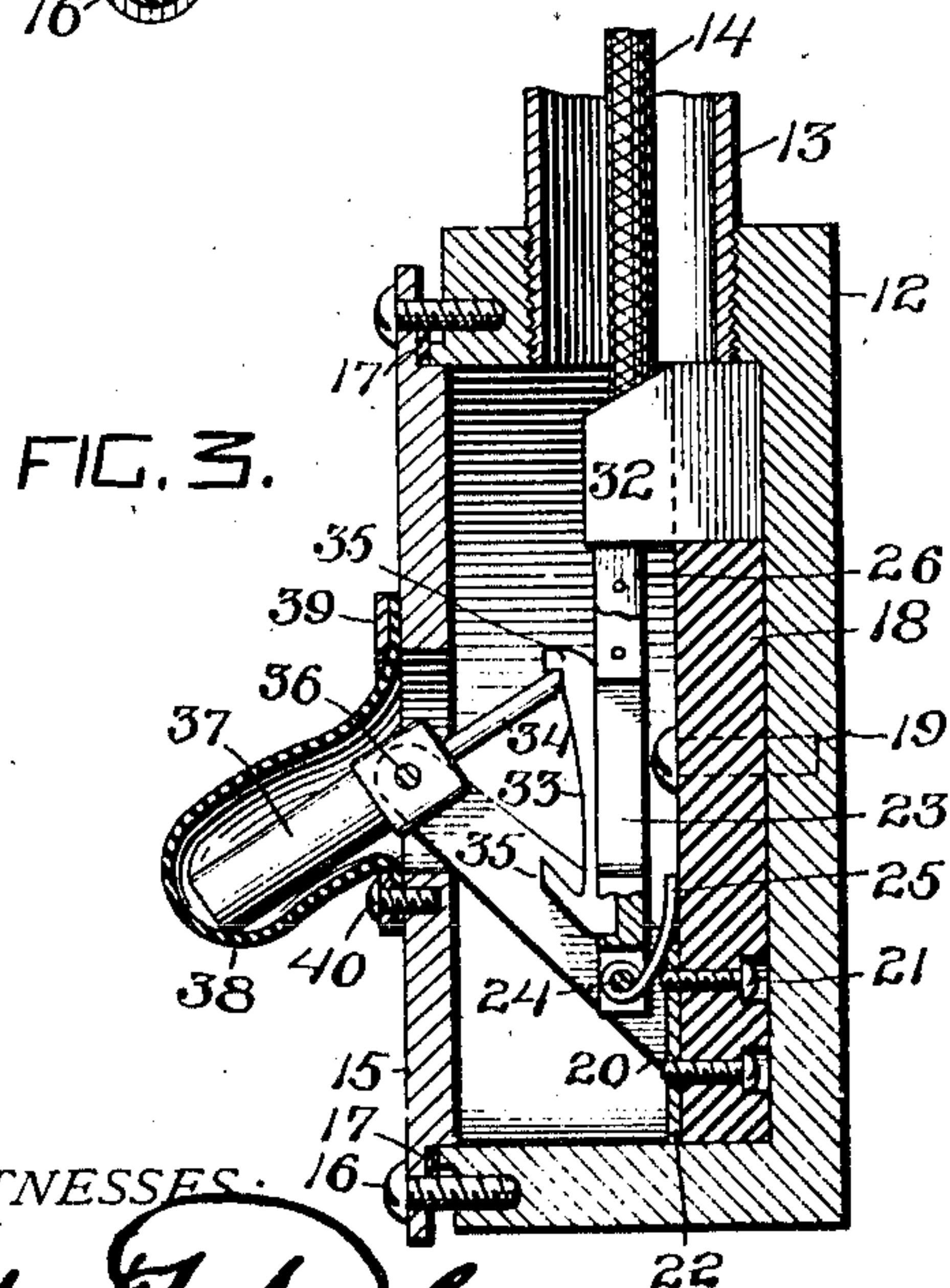
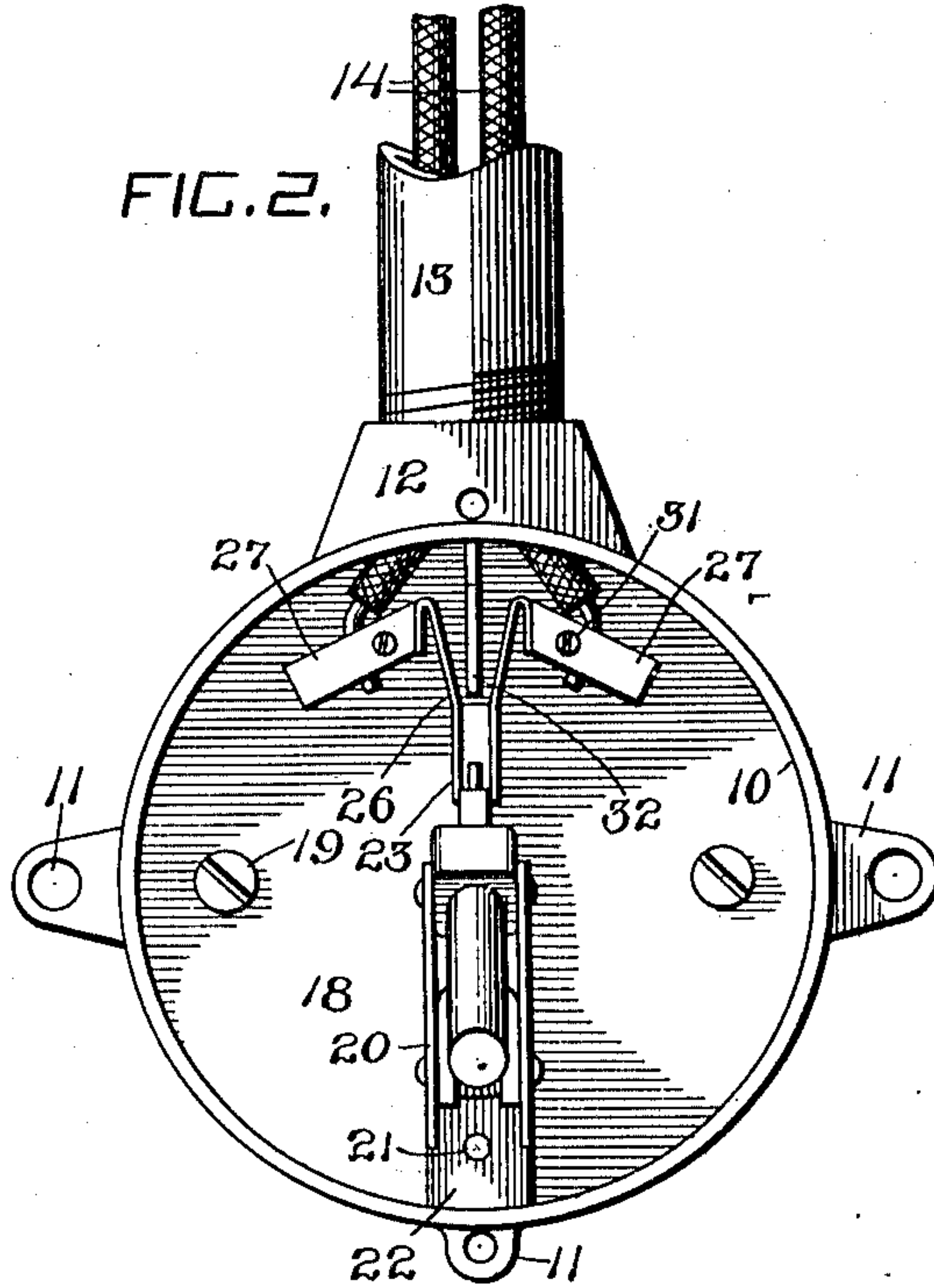
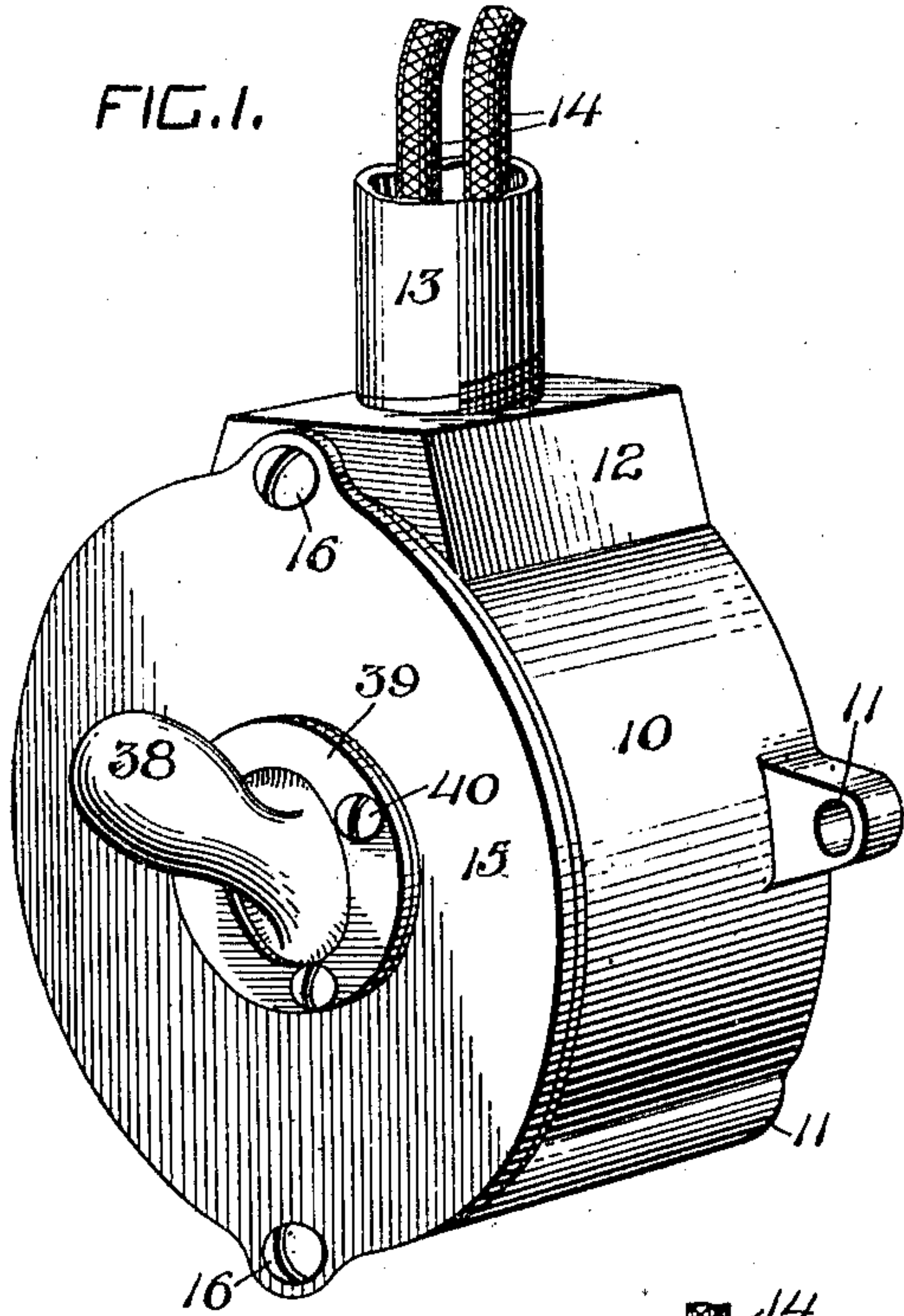


D. McL. LANG.  
WATERPROOF SWITCH.  
APPLICATION FILED NOV. 2, 1909.

992,009.

Patented May 9, 1911.



WITNESSES.

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BY

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Attorney



# UNITED STATES PATENT OFFICE.

DANIEL McLELLAN LANG, OF CORRY, PENNSYLVANIA.

## WATERPROOF SWITCH.

992,009.

Specification of Letters Patent.

Patented May 9, 1911.

Application filed November 2, 1909. Serial No. 525,933.

*To all whom it may concern:*

Be it known that I, DANIEL McLELLAN LANG, a subject of the King of Great Britain, residing at Corry, county of Erie, State of Pennsylvania, have invented certain new and useful Improvements in Waterproof Switches, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to a waterproof switch and particularly to a construction wherein the switch members and their operating lever are protected against moisture to prevent corrosion or short-circuiting thereof.

15 The invention has for an object to provide a novel and improved construction of switch and also an inclosing cover having a flexible portion within which the switch operating lever is disposed so as to prevent the access of water or moisture thereto which would interfere with its proper operation.

20 Other and further objects and advantages of the invention will be hereinafter set forth and the novel features defined by the appended claims.

25 In the drawing—Figure 1 is a perspective of the invention; Fig. 2 is a front elevation of the cover removed; Fig. 3 is a central, vertical section therethrough; and Fig. 4 is an enlarged detail elevation of the contact block.

Like numerals of reference refer to like parts in the several figures of the drawing.

30 The numeral 10 designates the switch case which may be a cast boxing provided with attaching lugs 11 and a connection 12 at its top adapted to receive a conduit 13 through which the conducting wires 14 extend. This casing is provided with a cover plate 15 removably secured thereto by screws 16 and having a packing 17 disposed between the case 10 and the cover 15 as shown in Fig. 3. The casing 10 is provided with a block 18 of insulating material removably secured thereto by screws 19 or other means. Upon this block, switch standards 20 are held by screws 21 extending through the block 18 and plate 22. Upon these standards, a switch blade 23 is pivotally mounted at 24 and normally held in cut out position by a spring 25 applied to the pivot as shown in Fig. 3. This blade is provided at its free end with spring contact plates 26 adapted to engage the opposite contact blocks 27 in which the ends of the conductors 14 are clamped. This con-

tact block is secured to the base 18 by means of a screw 28 and a socket pin 29 to prevent turning. One end of the block is provided with a bifurcated portion 30 in which the end of the conductor is inserted and wherein it is clamped by the screw 31. Intermediate of the contacts 26, an insulating wall 32 is disposed to prevent sparking or other short circuit.

60 The switch blade 23 is provided with a cam face 33 mounted thereon and adapted to contact with the switch lever 34 which travels in contact therewith and is held by the stops 35 at the opposite ends of said surface. This lever is pivotally mounted on the standards 20 at 36 and the handle portion 37 thereof is inclosed within a waterproof flexible cover 38 which is clamped in contact with the cover plate 15 by means of a ring 39 held in position thereon by means of the screws 40 so that it can be readily removed and replaced when necessary.

70 In the operation of the invention it will be seen that the switch construction provides an absolutely waterproof protection which adapts the invention for application upon ship board or in other exposed places as both the switch members and the operating lever therefor are inclosed and protected. The flexible waterproof covering carried by the cover of the switch box permits the ready operation of this lever while the packed cover to the box and the tight conduit connection therewith absolutely protects the switch against atmospheric conditions. The contact posts carried by the switch are mounted upon an insulated base and held against movement by the socket pin while the conductor may be clamped therein through the binding screw. The invention therefore presents a simple, efficient and economically constructed form of waterproof switch adapted for application at any place.

100 Having described my invention and set forth its merits what I claim and desire to secure by Letters Patent is—

1. In a waterproof switch, a casing, a switch blade therein provided with contacts, contact blocks cooperating with said contacts, a spring for moving said blade away from said contacts, a cam face carried by said blade and having stops at each end, and a lever pivoted intermediate the ends of said blade and adapted to engage said face.

2. In a waterproof switch, a casing, an in-

insulating block mounted therein, standards carried by said block, a switch blade pivoted in said standards and provided with opposite contacts, contact blocks cooperating with said contacts, an insulating plate disposed between said contacts, a spring for moving said blade away from said contacts, a cam face carried by said blade and having stops at each end, and a lever pivoted inter-

mediate the ends of said blade and adapted to engage said face.

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

DANIEL McLELLAN LANG.

Witnesses:

JOHN WINSOR,

PHILIP KNIGHT.