No. 842,082. PATENTED JAN. 22, 1907

E. S. CLAYTON.

CIRCUIT CLOSER.

APPLICATION FILED DEC. 16, 1905.

Fig. 1.

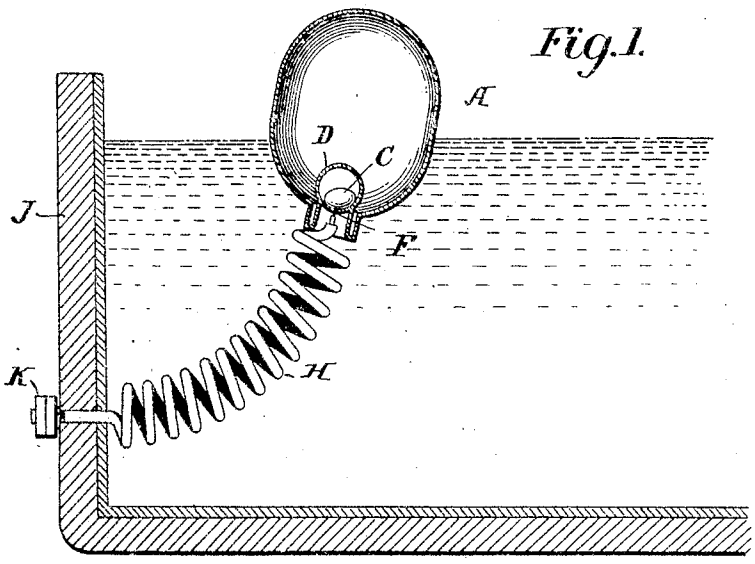
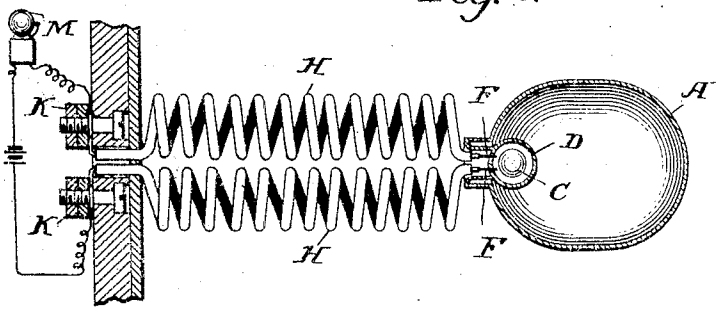


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

ERNEST SEYMOUR CLAYTON, OF NEWARK, NEW JERSEY.

CIRCUIT-CLOSER.

No. 842,082. Specification of Letters Patent. Patented Jan. 22, 1907.

Application filed December 16, 1905. Serial No. 292,031.

To all whom it may concern:

Be it known that I, ERNEST SEYMOUR CLAYTON, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Circuit-Closers, of which the following is a specification.

My invention relates to circuit-closing devices, and has for its object to provide an improved device of this character; and to these ends it consists in a device embodying the various features of construction and arrangement of parts having the mode of operation substantially as hereinafter indicated.

A preferred embodiment of my invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side view illustrating my improved circuit-closer applied to a float; Fig. 2, a plan of Fig. 1.

The circuit-closer may be used in various constructions, one of which is illustrated in Figs. 1 and 2. In Figs. 1 and 2 is shown the device in connection with an alarm adapted for use where it is desired to indicate the discharge of a body of water into a receptacle J, which may be a tank of any suitable character.

To insulated terminals K K of the tank are connected the wires of an electric circuit, and to each terminal is also connected a spiral spring H, which at its outer end is in electrical connection with a platinum terminal F, extending through a block of glass closing the mouth of a small glass or vitreous bulb or receptacle D, and this in turn is inclosed within a larger bulb or float A, and the joints between the block and bulbs are hermetically sealed to prevent the access of air, moisture, or dust. Within the bulb D is a movable metallic contact-piece C, preferably in the form of a globule of mercury.

The springs H tend to hold the parts in a horizontal position, in which case the contact C is carried away from the terminals F; but when the water rises in the tank the receptacle will swing about its fixed support at the side of the tank and the parts take the position shown in Fig. 1, when the contact C is brought against both terminals F, completes the circuit, and sounds an alarm through the medium of any suitable alarm devices, (indicated at M.)

It will of course be understood that by properly arranging the parts the device may be used where it is desired to sound an alarm upon the discharge of the water from the tank.

The construction shown in Figs. 1 and 2 is especially adapted for use in connection with the chamber of a dry-pipe valve of a fire-extinguisher system, where the parts may be inoperative for many years and where it is especially desirable that there shall be no failure to operate under the contingency where water is discharged into the tank, and it will be evident that whatever may be the length of time during which the parts are not in action there will be no deterioration of the efficiency of the circuit-closing devices.

Without limiting myself to the special construction and arrangement shown, I claim—

1. A circuit maker and breaker comprising a closed receptacle having terminals and a movable contact-piece within the receptacle and flexible spring electric connections between the terminals and a source of electric energy, whereby the electric circuit is controlled by changes in position of the receptacle, permitted by the flexible spring connections.

2. The combination of a receptacle provided with separated terminals in electrical connection with a generator and containing a movable contact-piece, and a float inclosing said receptacle, substantially as and for the purpose set forth.

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

ERNEST SEYMOUR CLAYTON.

Witnesses:

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