W. D. & L. C. TICKNER.

AUTOMATIC CIRCUIT CLOSER FOR ELECTRIC LAMP HOLDERS.

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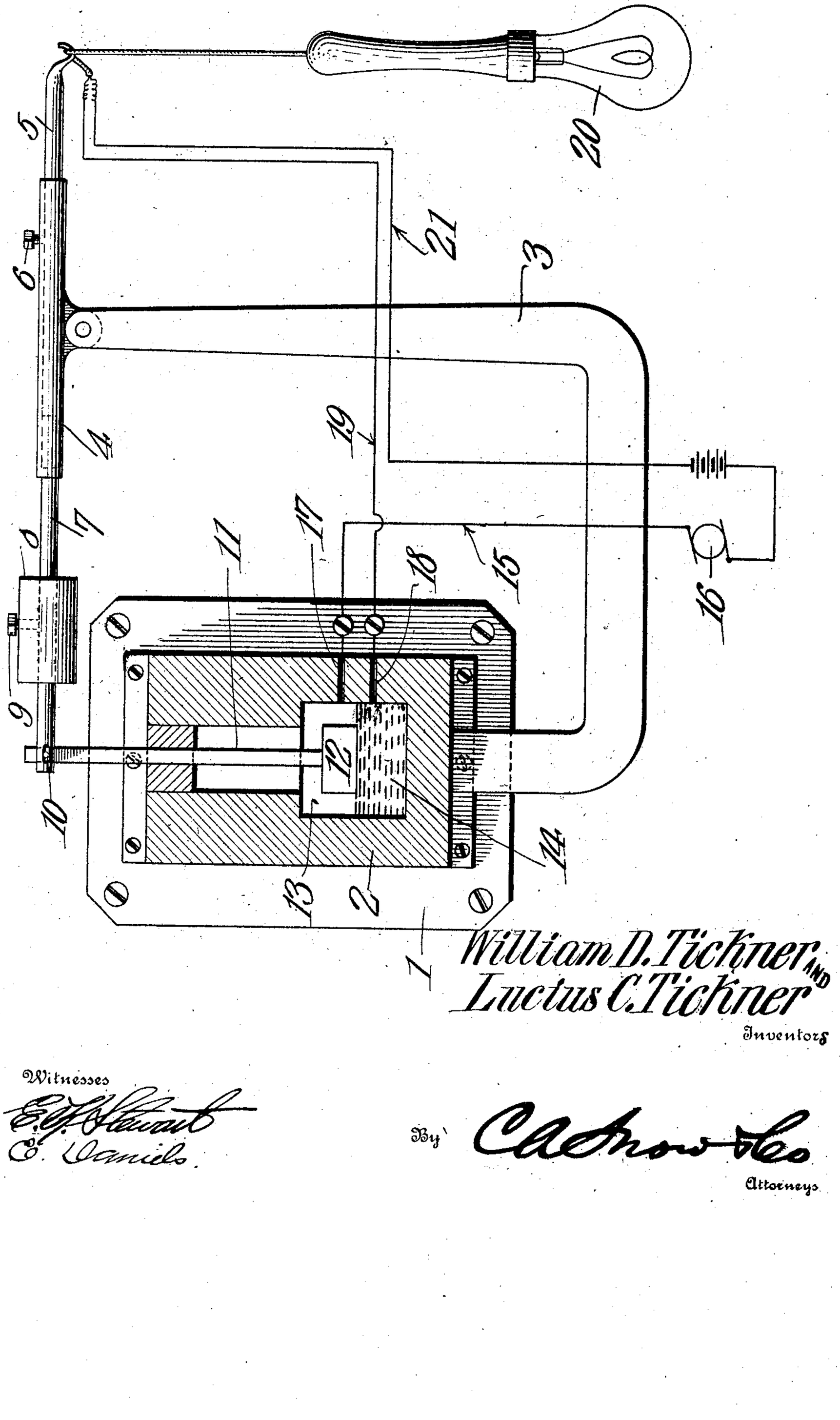

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UNITED STATES PATENT OFFICE

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AUTOMATIC CIRCUIT-CLOSER FOR ELECTRIC-LAMP HOLDERS.

No. 900,613. Specification of Letters Patent. Patented Oct. 6, 1908.

Application filed February 3, 1908. Serial No. 414,085.

To all whom it may concern:

Be it known that we, WILLIAM D. TICKNER and LUCIUS C. TICKNER, citizens of the United States, residing at Blanchardville, in the county of Lafayette, State of Wisconsin, have invented a new and useful Automatic Circuit-Closer for Electric-Lamp Holders, of which the following is a specification.

This invention has relation to automatic circuit closers for electric lamp holders and it consists in the novel construction and arrangement of its parts as hereinafter shown and described.

The object of the invention is to provide a holder for an electric lamp which is provided with a means for automatically closing the electric circuit to the lamp when the weight of the lamp is removed from the holder and conversely the said circuit is opened when the lamp is placed upon the holder. Thus when the lamp is removed from the holder it is automatically lighted and is automatically extinguished when placed upon the holder. Such lamps are especially convenient for use by dentists and surgeons during operations where light is desired at particular quarters and the holder is also economical in that the electric current is not consumed while the lamp is out of use.

In the drawing the figure is an elevation of the holder showing the circuit closer in section.

The holder consists of the base plate 1 upon which is mounted the block 2 the arm 3 extends laterally from the block and base plate and the sleeve 4 is pivotally connected to the upper outer end of the said arm. The hook section 5 is slidably mounted in the sleeve 4 and may be fixed with relation thereto by means of the set screw 6. The rod 7 is attached to the sleeve 4 and the weight 8 is shiftably mounted upon the rod 7 and may be fixed with relation thereto by means of the set screw 9. The rod 7 has a pin and slot connection 10 with the plunger rod 11 which extends into the interior of the block 1 and may slide longitudinally with relation to the same. The plunger 12 is carried by the lower end of the rod 11 and is located in the chamber 13 provided in the block 2. Said chamber 13 is adapted to contain a liquid 14, such as mercury, or any other good conductor of electricity. The wire 15 is connected at one end with an electric generator 16 and at its other end connects with the terminal 17 which is located above the normal level of the liquid 14 in the chamber 13. Said terminal 17 passes transversely through the side of the block 2. The terminal 18 also passes transversely through the side of the block 2 and its inner end is located below the level of the liquid 14 located in the chamber 13. The wire 19 connects the terminal 18 with the filament of the lamp 20 and the wire 21 connects the filament of the lamp 20 with the pole of the generator 16 opposite to that with which the wire 15 is connected.

When the lamp 20 is suspended from the hook member 5 as shown in the drawing the weight of the said lamp swings the sleeve 4 which moves the rod 7 vertically and elevates the rod 11 and plunger 12. As the said plunger is withdrawn from the liquid 14 the level of the said liquid falls below the terminal 17. Thus the circuit from the generator 16 is opened and the lamp 20 is extinguished. When however the said lamp is removed from the hook member 5 the rod 11 and plunger 12 descend under the action of the weight 8 and the said plunger 12 displaces the liquid 14 which causes the level thereof to ascend above the terminal 17 when the electric circuit is completed from the generator 16 through the lamp 20 and the same is lighted.

Having described our invention, what we claim as new and desire to secure by Letters Patent is:

1. An automatic circuit closer for electric lamp holders comprising a pivotally mounted lamp holder, a plunger and plunger rod connected with the same, a chamber receiving the plunger, a liquid located in said chamber and adapted to be displaced by immersion of the plunger, electric terminals entering the chamber at different levels and a lamp electrically connected with the terminals and a generator.

2. An automatic circuit closer for lamps comprising a pivotally mounted holder, a weight shiftably mounted thereon, a plunger operatively connected with the holder, a

chamber receiving said plunger, a conducting liquid located in the chamber, an electric generator, terminals entering the chamber at different levels and a lamp adapted to be suspended from the holder and being electrically connected with the generator and terminals.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures in the presence of two witnesses.

WILLIAM D. TICKNER.
LUCIUS C. TICKNER.

Witnesses:
M. J. CLEARY,
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