Nov. 18, 1924.

1,516,128

C. WACHTEL

ELECTRIC BOUDOIR LAMP

Filed June 28, 1923

2 Sheets-Sheet 1

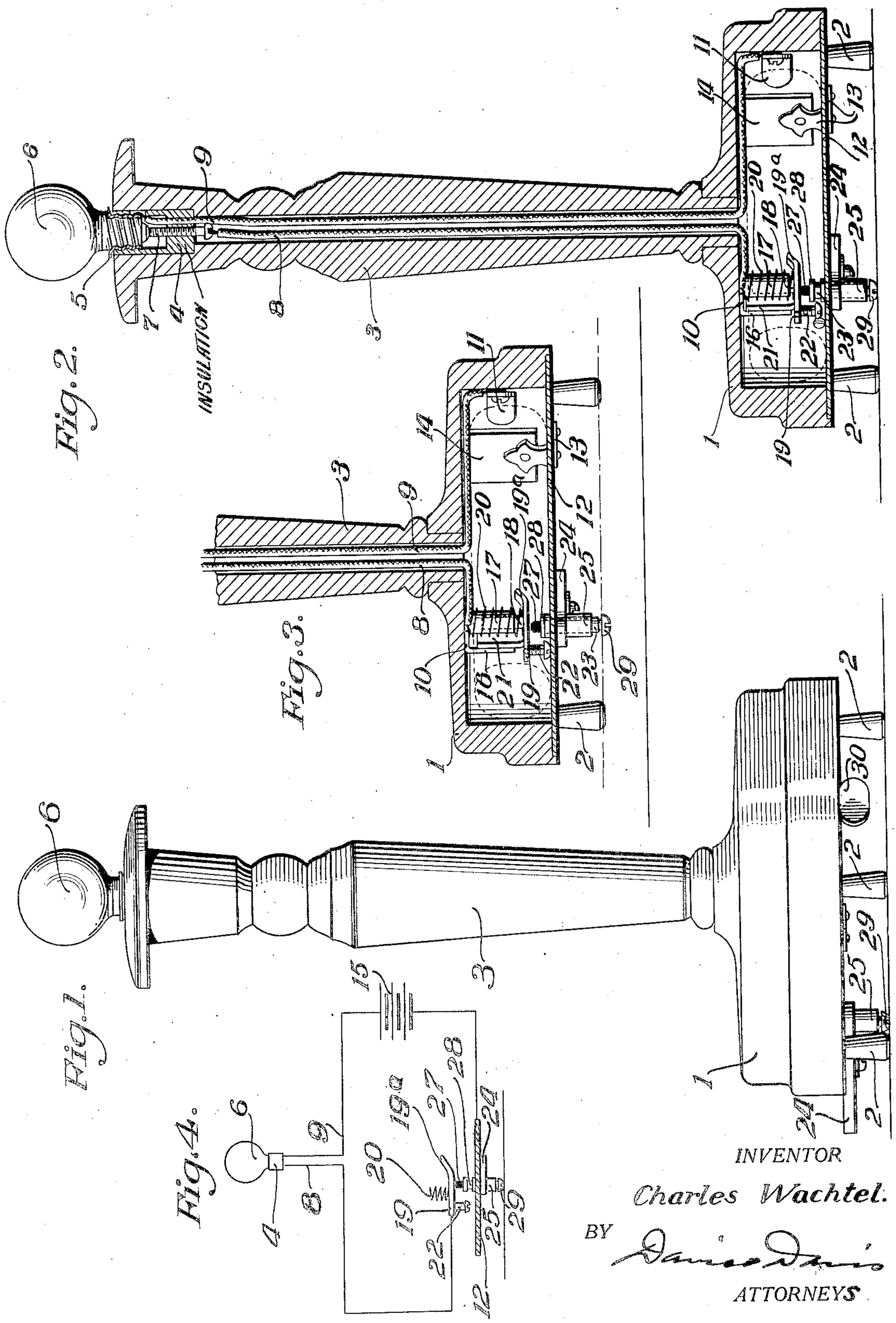

Fig. 2.

Fig. 3.

Fig. 1.

Fig. 4.

INVENTOR

Charles Wachtel.

BY

ATTORNEYS

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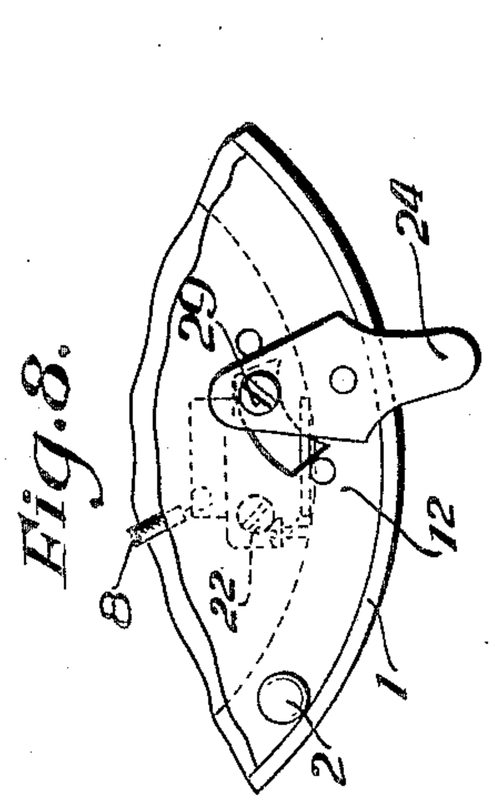

Fig. 8.

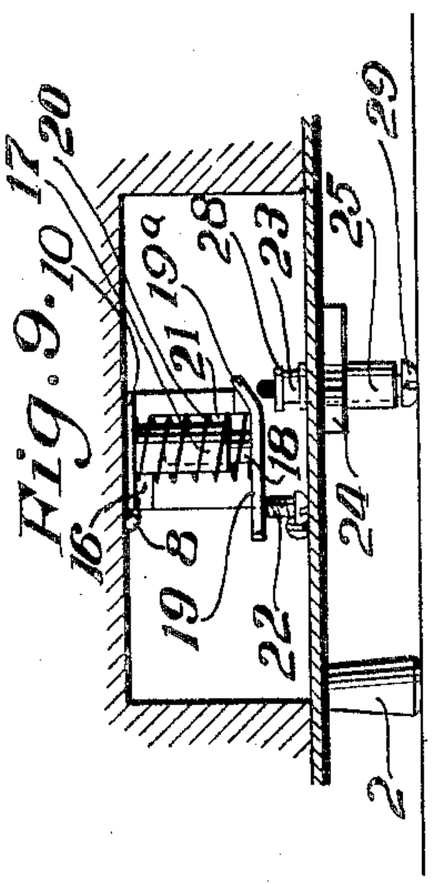

Fig. 9.

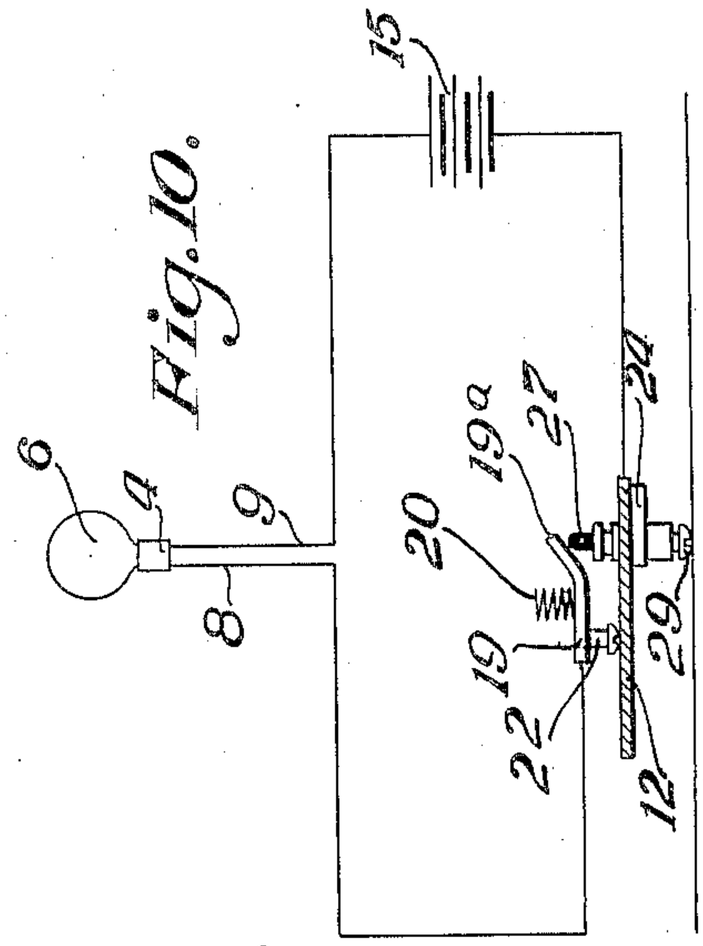

Fig. 10.

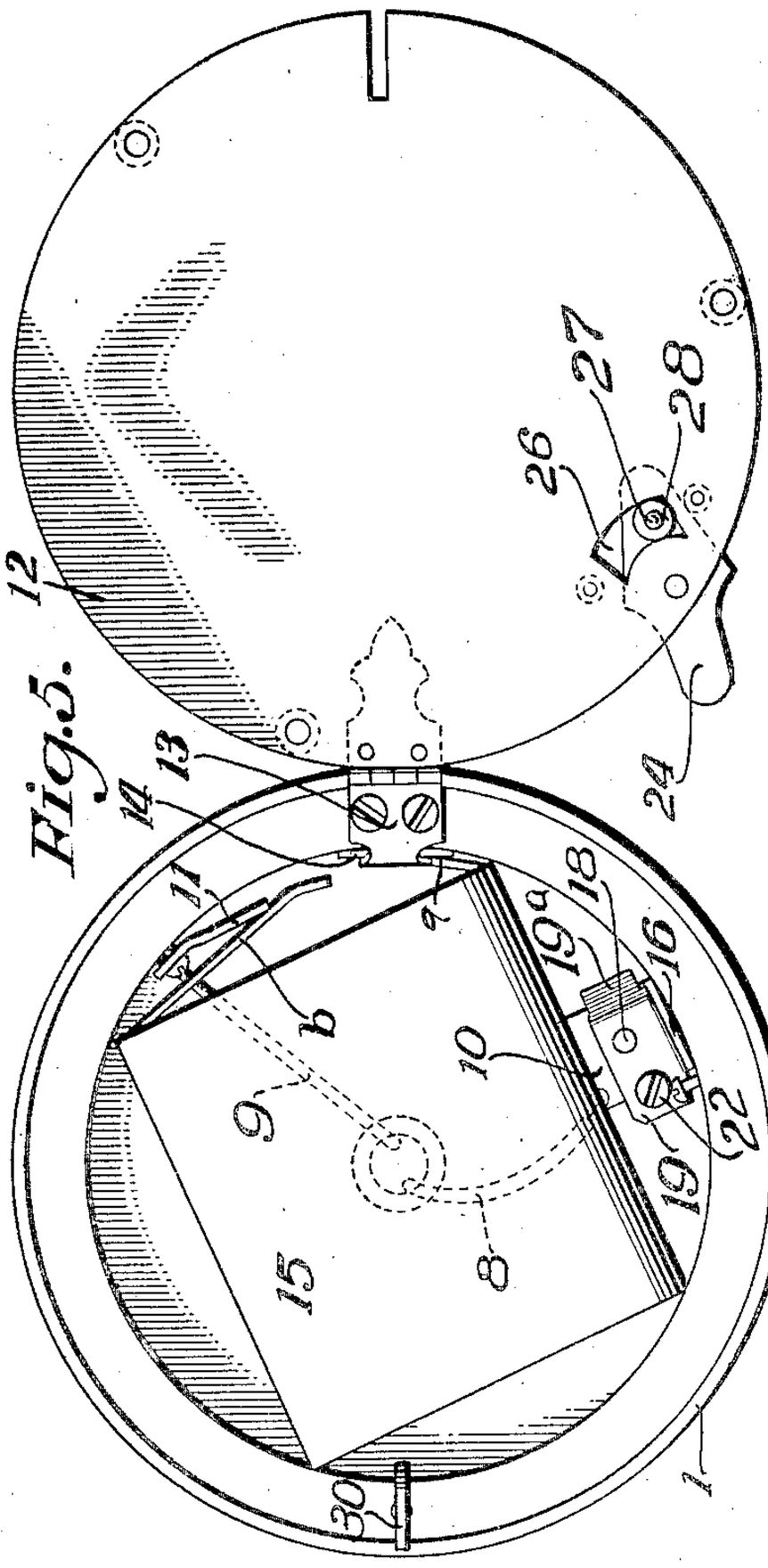

Fig. 5.

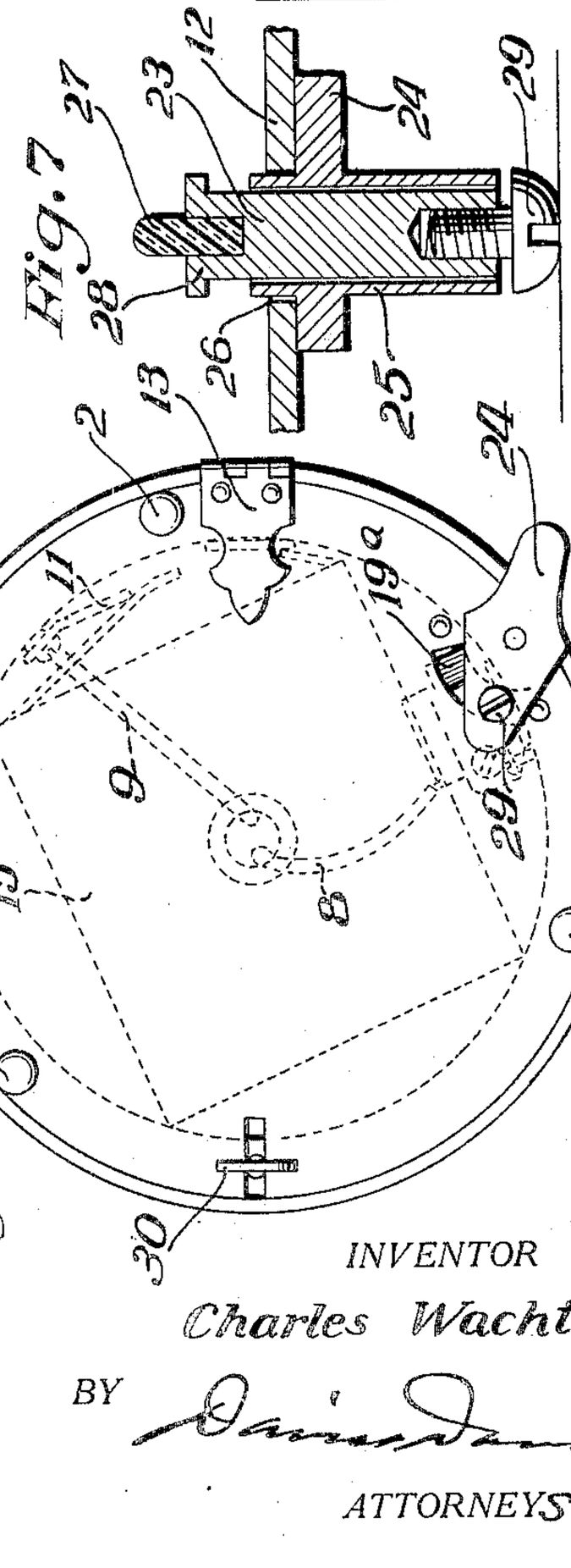

Fig. 7.

Fig. 6.

INVENTOR

Charles Wachtel.

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Patented Nov. 18, 1924. 1,516,128

UNITED STATES PATENT OFFICE.

CHARLES WACHTEL, OF NEW HYDE PARK, NEW YORK, ASSIGNOR TO LEO SCHLESINGER & COMPANY, INC., OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

ELECTRIC BOUDOIR LAMP.

Application filed June 28, 1923. Serial No. 648,266.

To all whom it may concern:

Be it known that I, CHARLES WACHTEL, a citizen of the United States, residing at New Hyde Park, county of Nassau, and State of New York, have invented certain new and useful Improvements in Electric Boudoir Lamps, of which the following is a specification.

One of the principal objects of this invention is to provide a small ornamental and readily portable self contained electric lamp adapted for household use.

Another important object of the invention is to provide a small portable self contained electric lamp with means whereby the lamp circuit will be interrupted when the lamp is placed on a table or other support, and will be complete or closed when the lamp is lifted and carried about in the hand.

Another object of the invention is to provide means whereby the lamp circuit may be permanently closed so that it will not be affected by placing the lamp on a table or support, or lifted therefrom.

The lamp is illustrated in the drawings in the form of a candle stick, but of course it will be understood that it may be made up in any suitable form.

In the drawings, Fig. 1 is a side elevation of the lamp;

Fig. 2 a vertical central sectional view thereof resting on a support and the lamp circuit interrupted;

Fig. 3 a vertical sectional view of the base of the lamp showing it raised from its support with the lamp circuit complete or closed;

Fig. 4 a diagrammatic view illustrating how the lighting circuit is opened by placing the lamp on a support;

Fig. 5 a bottom plan view of the lamp with the bottom plate in open position;

Fig. 6 a bottom plan view of the lamp with the bottom plate in closed position;

Fig. 7 a detail vertical sectional view of the switch operating plunger;

Fig. 8 a detail bottom plan view of a portion of the base showing the switch operating plunger moved into inoperative position;

Fig. 9 a detail vertical sectional view of a portion of the base showing the switch operating plunger in the position shown in Fig. 8; and

Fig. 10 a diagrammatic view illustrating how the lighting circuit is permanently closed when the switch operating plunger is moved into inoperative position.

The lamp is illustrated in the drawings in the form of a candle stick having a circular hollow base 1 open at its bottom and supported on short rigid legs 2. A central vertical hollow post 3 is mounted on the base. The interior of this post is in communication with the interior of the base and serves as a passage for the circuit wires. In the upper end of the post is formed an enlarged chamber adapted to receive a cup-like receptacle 4 of insulating material. Into the upper end of this receptacle is screwed a metal lamp socket 5 designed to receive the threaded end of a lamp bulb 6. Threaded through the bottom of the cup 4 is a terminal 7 to the lower end of which, within the post 3, is connected one wire 8 of the lamp circuit. The terminal 7 is adapted to engage the central contact of the lamp base. The other terminal of the lamp is connected to the threaded outer shell of the lamp base which forms an electrical connection with the threaded socket 5 in the usual manner. Connected to the socket 5 is the other wire 9 of the lamp circuit, said wire being carried downwardly through the insulating cup 4 and thence downwardly through the tubular post 3. The circuit wire 8 is carried into the lamp base and is rigidly connected to a contact plate 10; and the circuit wire 9 is carried into the lamp base and connected to the contact plate 11 mounted on the inner side of the circular side wall of the base.

The lower side of the base is closed by a bottom plate 12, which preferably is of sheet metal and is hinged to the lower edge of the base at 13. The hinge 13 is in direct engagement with a contact plate 14 secured to the inner surface of the side wall of the base, said contact plate being adapted to be engaged by one of the poles *a* of a dry battery 15, the dry battery fitting within the hollow base as shown in Fig. 5. The other pole *b* of the battery is adapted to engage the contact plate 11. The short rigid legs 2 are connected to the bottom plate 12 and the lower edge of the annular wall of the bottom is cut out slightly to receive the bottom plate, so that the lower surface of said plate is flush with the lower edge of the base.

The contact plate 10 carries a depending vertical contact member 16 and a depending tubular post 17, said post being open at its lower end. Sliding vertically in said tubular post is a stud 18 which carries at its lower end a horizontal plate 19 and between said plate and surrounding the post 17 is a light coil spring 20, said spring tending to force the plate 19 downwardly. The plate 19 carries an upstanding flat contact plate 21 which is in constant sliding engagement with the contact member 16. The plate 19 also carries a depending contact pin 22, which normally engages the bottom plate 12 and makes electrical contact therewith. The lamp circuit is normally closed through the battery poles and contacts 11 and 14 thence through the hinge 13, bottom plate 12 and contact pin 22, the plate 19 and its contact members constituting a normal closed switch.

A switch operating plunger 23 is carried by the bottom plate 12 directly below the switch plate 19. This switch operating plunger is mounted in a lever 24 pivoted to the under side of the bottom plate 12. This lever is formed with a vertical opening in the tubular part 25, the upper end of which projects through a slot 26 formed in the bottom plate. The switch operating plunger is provided with an upper tip 27 of insulating material which is adapted to engage the switch plate 19 and force it upwardly to thereby lift the contact pin 22 away from the bottom plate 12. The plunger slides freely in the tube 25 and is provided with a collar 28 at its upper end which is adapted to engage the upper end of the tubular part 25 and serve as a stop to limit the downward movement of the plunger. The lower end of the plunger is provided with a downwardly adjustable contact head 29 which is adapted to engage the table or support on which the lamp rests. The contact head 29 is of sufficient diameter to engage the lower end of the tubular portion 25 and thereby limit the upward movement of the plunger. The plunger is mounted on the lever 24 so that it may be swung laterally out of the path of the switch plate 19, as shown in Figs. 8 and 9 of the drawings. In this position of the plunger it is inoperative to open the lamp circuit and the said circuit will remain closed. With the lever 24 in position to bring the switch operating plunger below the switch plate, as illustrated in Figs. 2, 3 and 6, the plunger will act to force the switch plate upwardly and thereby open the lamp circuit. The plunger slides freely through the lever 24 and the tubular housing so that when the lamp is placed on a support there will be a relative vertical movement between the lamp body and the plunger and this relative movement will bring about the opening of the lamp circuit. The plunger is so adjusted as to length that when the lamp is raised from its support the lower end of the plunger will be below the lower ends of the supporting legs 2. This position of the plunger is illustrated in Fig. 3. When the lamp is placed on a support the weight of the lamp is sufficient to cause the plunger to move upwardly into the base and thereby force upwardly the switch plate 19. This moves the contact plate 22 away from the closure plate 12 and thereby opens the lamp circuit. When the lamp is lifted from its support the spring 20 forces the switch plate 19 downwardly to bring the contact pin 22 into engagement with the plate 12. This closes the lamp circuit. The plunger will be forced downwardly by the spring if it does not drop by gravity. By swinging the lever 24 on its pivot, as shown in Figs. 8 and 9 the switch operating plunger is carried laterally out of operative relation to the switch plate. The end of the switch plate is turned upwardly at 19[a] to form an inclined cam surface, directly over the end of the plunger, when it is in its non-operating position. This prevents the end of the plunger engaging and locking on the edge of the switch plate should the plunger stick in its upper non-operating position.

It is manifest that the dry battery may be readily removed from the lamp base and that it will be locked within the lamp base by the closure plate 12. The closure plate is slotted at one edge to receive a turn button 30, said button forming a simple lock to hold the plate 12 in its closed position.

From the foregoing it is clear that I provide a very simple portable self contained electric lamp adapted for household use. When the switch operating plunger is properly adjusted the lamp may be lighted by merely lifting it from its support. The lamp will be extinguished by placing it back on its support. Whenever it is desired to maintain the light it is only necessary to move the lever 24 and thereby shift the switch operating plunger into its non-operating position.

What I claim is:

1. An electric lamp comprising a tubular standard, a hollow wide base supporting the standard and open at its under side, a lamp socket at the top of the standard, circuit wires connected at their upper ends to said lamp socket and extending downwardly through the standard into the hollow base, fixed contacts secured to the inner side of the base and connected to the said wires, a thin flat electric battery disposed horizontally in said hollow base and carrying contacts adapted to engage the said contacts secured within the base, said battery being adapted to be inserted and removed flatwise through the lower open side of the base,

means for holding said battery in place, a normally closed yieldable switch in the lamp circuit and mounted in the hollow base, means operated by the weight of the lamp to open said switch, and manually operable means exterior of the lamp to move the switch operating means out of operative relation to the switch.

2. An electric lamp comprising a tubular standard, a hollow wide base supporting the standard and open at its under side, a cover plate to close the under side of the base, a lamp socket at the top of the standard, circuit wires connected at their upper ends to said lamp socket and extending downwardly through the standard into the hollow base, fixed contacts secured to the inner surface of the side wall of the base and connected to the said wires, a thin flat electric battery disposed horizontally in said hollow base and carrying contacts at one of its ends adapted to engage the said contacts secured within the base, said battery being adapted to be inserted and removed flatwise through the lower open side of the base, the said cover serving as means for holding said battery in place, a normally closed yieldable switch in the lamp circuit and mounted in the hollow base, means carried by the cover and operated by the weight of the lamp to open said switch, and manually operable means carried by the cover and exterior of the lamp to move the switch operating means out of operative relation to the switch.

3. An electric lamp comprising a hollow base, a standard carried thereby, a lamp socket at the top of the standard, a metal plate hinged to the base and serving as a closure for the bottom thereof, a vertically movable switch plate electrically connected to the lamp socket, a contact pin carried by the switch plate, a battery in the base having one of its poles in electrical connection with the closure plate and its other pole in electrical connection with the lamp socket, a spring engaging the switch plate and normally forcing the said contact pin into engagement with the metal closure plate to close the lamp circuit, and a vertically movable switch operating plunger mounted on the closure plate below the switch plate and extending below the said closure plate and adapted to engage a table or support whereby the weight of the lamp will force said plunger upwardly and open the lamp circuit.

4. An electric lamp comprising a hollow base, a standard carried thereby, a lamp socket at the top of the standard, a metal plate hinged to the base and serving as a closure plate for the bottom thereof, a vertically movable switch plate electrically connected to the lamp socket, a contact pin carried by the switch plate, a battery in the base having one of its poles in electrical connection with the closure plate and its other pole in electrical connection with the lamp socket, a spring engaging the switch plate and normally forcing its said contact pin into engagement with the metal closure plate to close the lamp circuit, a lever pivoted on the closure plate, and a vertically movable switch operating plunger carried by said lever beneath the switch plate and extending below said closure plate and adapted to engage a table or support, whereby the weight of the lamp will force said plunger upward against the switch plate and open the lamp circuit, the said lever being manually adjustable to move the said plunger out of operative relation with the switch plate.

5. An electric lamp comprising a base, a lamp socket, an electric battery electrically connected with said socket, a switch in the lamp circuit, means for yieldingly holding said switch closed, means operated by the weight of the lamp to open said switch, the switch opening means and the switch being mounted for a relative movement out of operative relation, and manually adjustable means for causing said relative movement whereby the switch opening means are rendered ineffective to open the switch.

6. An electric lamp comprising a base, a lamp socket, an electric battery electrically connected with said socket, a normally closed switch in the lamp circuit, a vertically reciprocable switch operating member adapted to be forced upwardly by the weight of the lamp to engage and open said switch and break the lamp circuit, and means to move said member laterally out of the way of the switch to render it inoperative as a switch opening means.

In testimony whereof I hereunto affix my signature.

CHARLES WACHTEL.