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FLUSH CURLING IRON HEATER.
APPLICATION FILED JUNE 3, 1910.

978,980.

Patented Dec. 20, 1910.

Fig. 1.

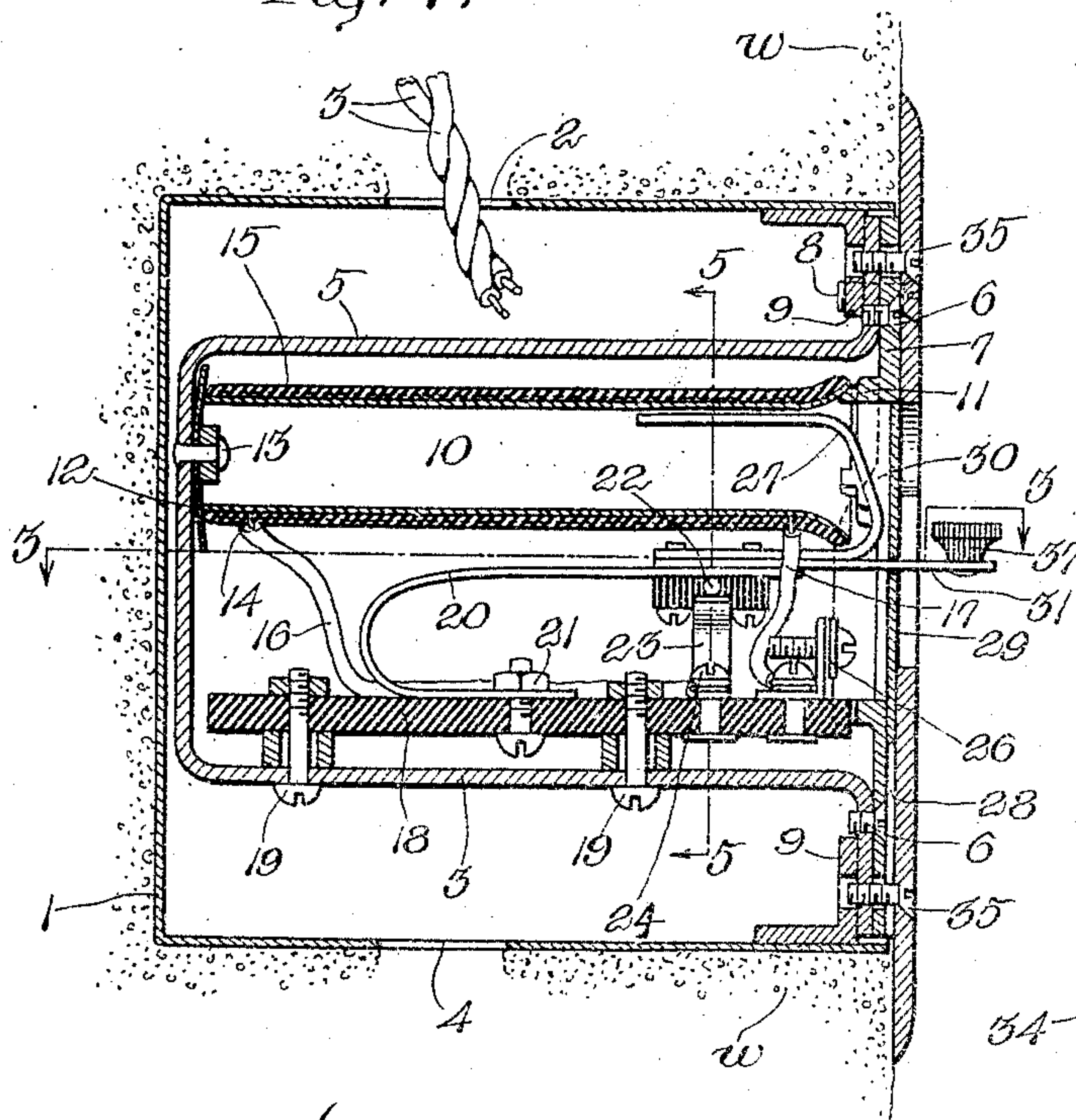


Fig. 2.

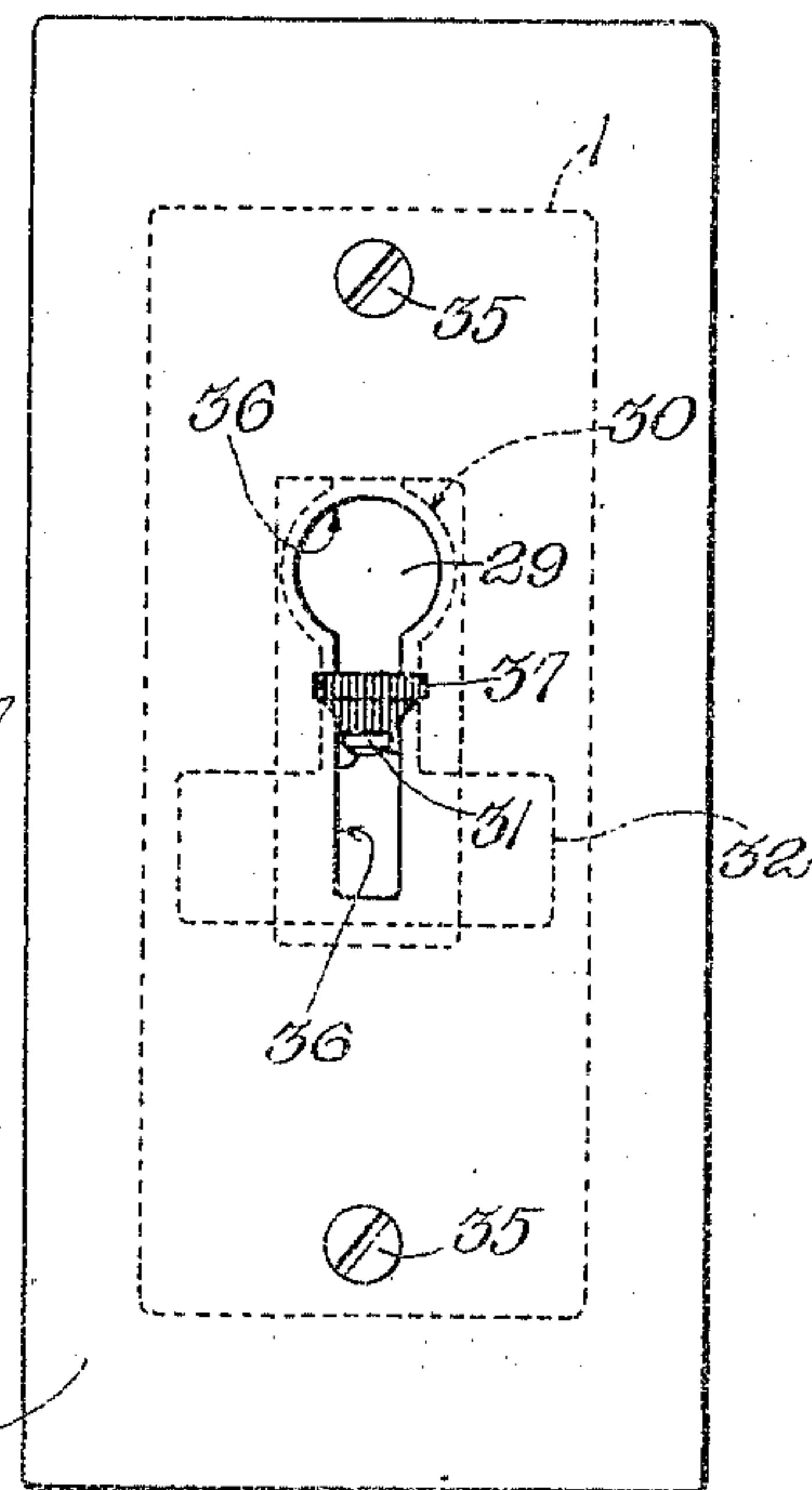


Fig. 3.

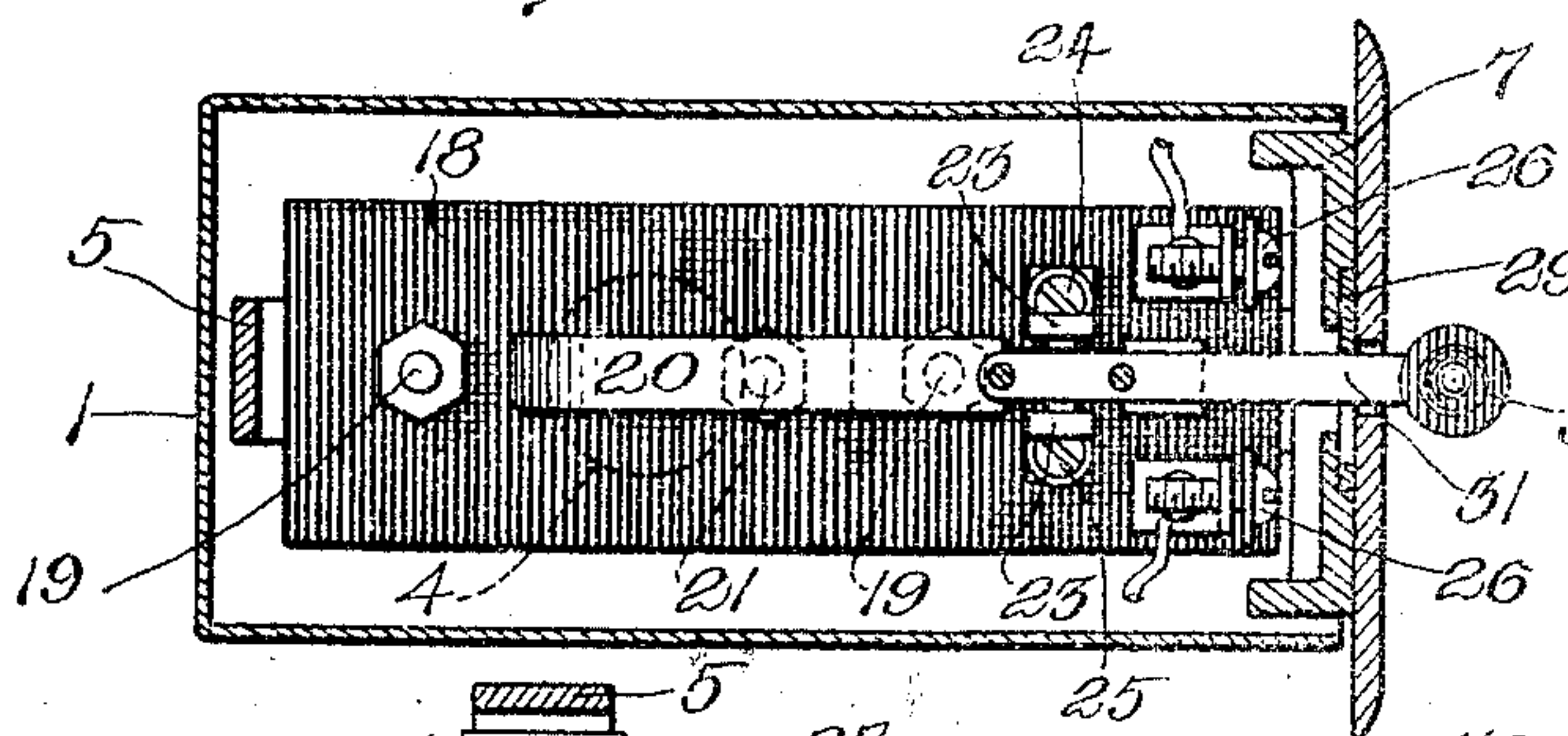


Fig. 4.

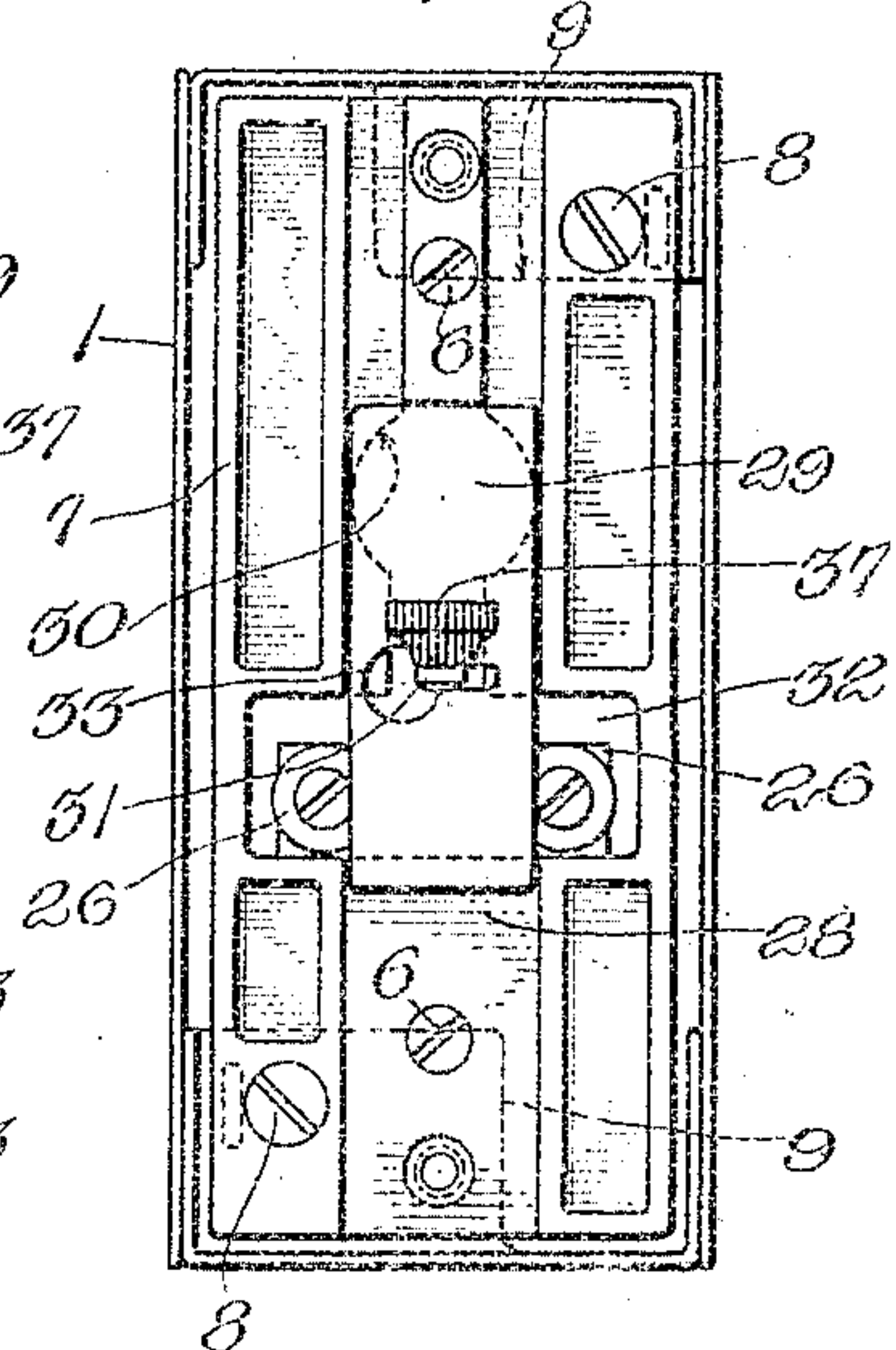


Fig. 5.

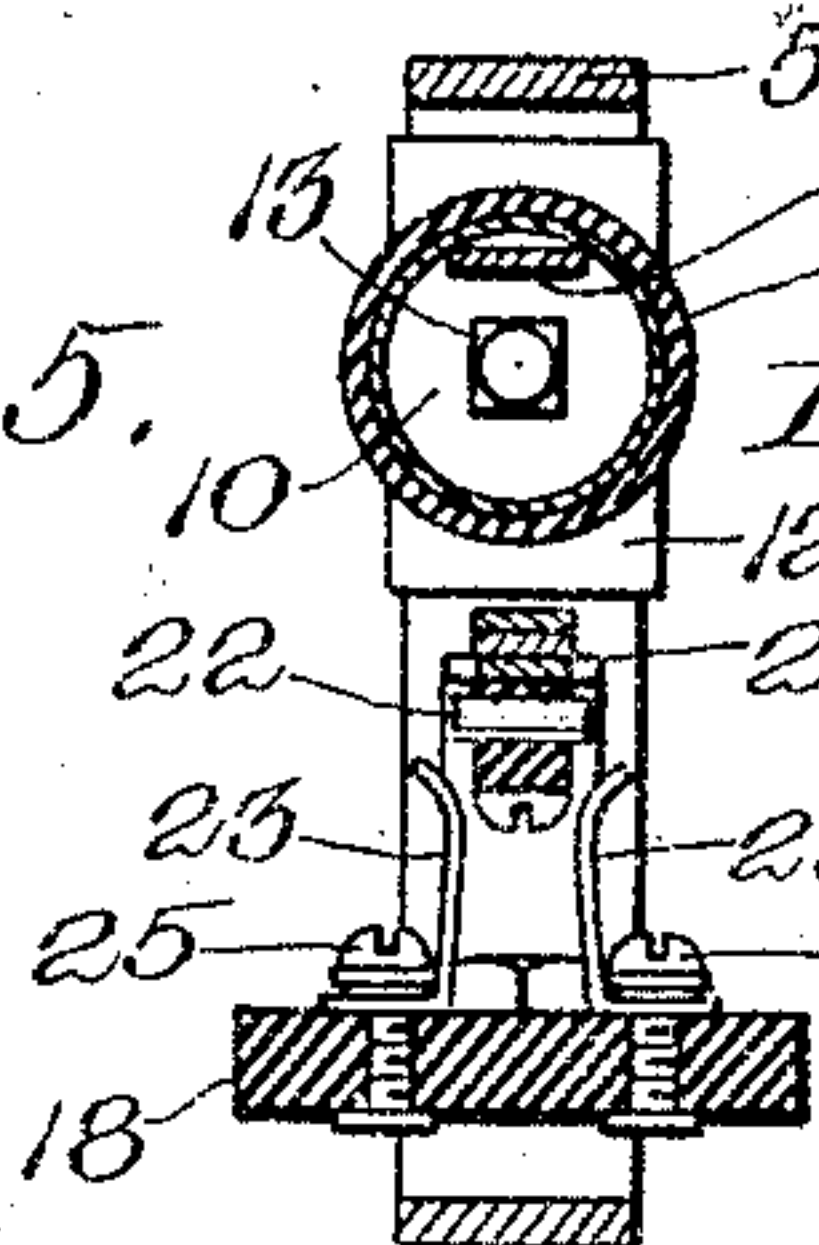
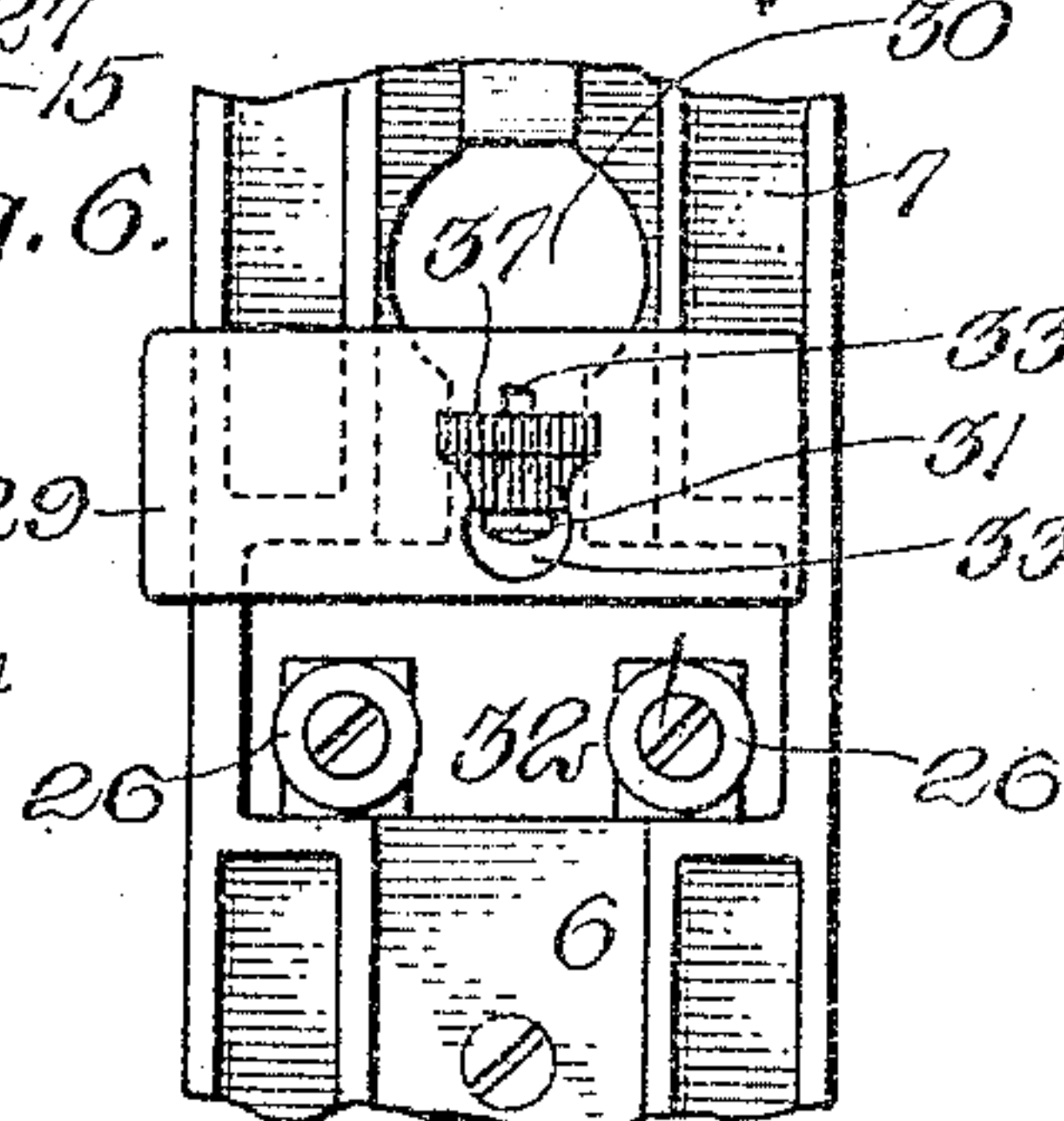


Fig. 6.



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UNITED STATES PATENT OFFICE

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FLUSH CURLING-IRON HEATER.

978,980.

Specification of Letters Patent. Patented Dec. 20, 1910.

Application filed June 3, 1910. Serial No. 564,747.

To all whom it may concern:

Be it known that we, JAMES I. AYER and HORACE B. GALE, citizens of the United States, and residents, respectively, of Cambridge and Natick, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Flush Curling-Iron Heaters, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

Our invention is an improvement in curling iron heaters, whereby greater efficiency, neatness of appearance, convenience and durability are attained.

A further object of the invention is to provide an instrument especially adapted, for instance, to hotel use, the instrument being constructed as a wall pocket to be set into the wall flush with the outer surface thereof so that it becomes practically impossible for it to be tampered with or materially injured by the carelessness or curiosity of the hotel guests.

The constructional details and further advantages of our invention will be pointed out more at length in the course of the description taken with reference to the accompanying drawings, in which we have illustrated a preferred embodiment of the invention.

In the drawings, Figure 1 is a central vertical sectional view of the complete instrument shown in place in a wall; Fig. 2 is a view thereof in front elevation; Fig. 3 is a horizontal cross sectional view on the line 3—3 Fig. 1; Fig. 4 shows the instrument in front elevation with the face plate removed; Fig. 5 is a vertical cross sectional view on the line 5—5 Fig. 1; and Fig. 6 is a view of a fragmentary portion of Fig. 4 showing the gate or slide closure in a different position.

In a wall box 1 closed on all sides excepting its front and provided with an opening 2 for the circuit wires 3 and preferably with a similar opening 4 at the opposite side in case the wires should have to enter from the bottom, is mounted a U-shaped frame 5 secured at its laterally bent or outturned ends by screws 6 to a supporting and closing plate 7 which closes the open front end of the box 1. The frame 5, closing plate 7 and parts supported thereby are secured immovably in the box 1 by screws 8, one adjacent the upper

right-hand corner and the other adjacent the lower left-hand corner, passing through angle irons or lugs 9 projecting therefor from the adjacent ends of the box 1. A heating tube 10 is supported at its flared outer end on a rearwardly projecting flange or rim 11 of the plate 7 and at its rear end on a preferably spring plate 12 riveted at 13 to the rear end of the frame 5 so that said heating tube is directly beneath and in the plane of the said frame 5, as best shown in Fig. 5. This heating tube is surrounded by a coil of resistance heating-wire 14 embedded in vitreous enamel 15, said wire receiving current through conductors 16, 17, controlled by a switch mounted on a base 18 of slate or other insulation bolted at 19 to the frame 3.

The switch comprises a bent-over leaf spring 20 secured at 21 to the base and provided with a knife contact 22 to cooperate with contact springs 23 secured by binding posts 24, 25 to the base. Binding posts 26 are provided for the feed wires 3. The switch spring 20 also preferably carries an upwardly and inwardly bent deflecting spring or guard 27 which extends into the tube 10 as clearly shown in Fig. 1. The supporting and closing plate 7 is provided on its front side with a depression or way 28 in which is mounted a sliding gate 29 for normally closing an opening 30 in alinement with the tube 10. Said gate 29 may be movably supported by any suitable means, being preferably supported on a projecting end 30 of the switch spring. The plate 7 is also provided with a lateral opening 32 and the gate 29 is provided with a neck-shaped opening 33 so that when in upright operative position as shown in Fig. 4, the spring projection 31 occupies the narrow neck portion of the slot, but when the gate is moved laterally so as to bring the spring 31 into the enlarged portion of the opening 33, said gate can be turned to the position shown in Fig. 6, thereby entirely exposing the opening 32 so that the operator can readily get at the binding post 26 for fastening or removing therefrom the wires 3. Normally the apparatus thus far described is covered by a face plate 34 secured in place by screws 35, said face plate being provided with a neck-shaped opening 36 whose enlarged upper end alines with the opening 30 and the tube 10 for receiving the curling iron. An

external knob or finger-hold 37 is provided for operating the gate 29, said knob being mounted preferably convenient to said gate and for convenience not directly on the gate but on some adjacent moving part, herein shown as the end of the spring 31, and arranged to move vertically in the narrow lower portion of the slot or opening 36 in the face plate.

In use, the switch maintains the circuit broken and the current "off" and the apparatus closed by the gate 29 when the curling iron is not being heated. In order to heat the iron the operator must first depress the knob 37, thereby lowering the gate 29 so as to open the apparatus for the reception of the curling iron. This same downward movement of the knob closes the switch and thereby turns on the current. Also the same movement depresses the deflecting spring or guard 27 so that when the curling iron enters it engages said guard and thereby holds the switch closed while the iron is being heated. At all times the apparatus is entirely out of reach, being wholly concealed in the wall of the room or place where the heater is provided. The construction is light, strong and simple. If any part breaks the face plate is removed and then the frame 5 and all its connected parts can be readily taken out from the pocket without in any way disfiguring the wall or causing inconvenience.

Many other advantages will be obvious to those skilled in the art.

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

1. A curling iron heater, comprising a face plate adapted to occupy a position flush with the face of the wall, a wall box inclosing the operative parts of said heater adapted to be set permanently into the wall behind said face plate, said face plate having an opening for the insertion of a curling iron, a tubular electric heater supported behind said face plate within said wall box for receiving said curling iron, a switch also within said box for controlling the current supply to said heater, and a movable gate behind said face plate for normally closing the opening in the face plate.

2. A curling iron heater, comprising a face plate adapted to occupy a position flush with the face of the wall, a wall box inclosing the operative parts of said heater adapted to be set permanently into the wall behind said face plate, said face plate having an opening for the insertion of a curling iron, a tubular electric heater supported behind said face plate within said wall box for receiving said curling iron, a switch also within said box for controlling the current supply to said heater, a movable gate behind said face plate for normally closing the opening in the

face plate, and an operating knob for said gate projecting forward from said face plate.

3. A curling iron heater, comprising a face plate removably secured to occupy a position flush with the face of the wall, a wall box adapted to be set permanently into the wall behind said face plate, a frame removably secured within said wall box behind said face plate, a tubular electric heater carried by said frame for receiving a curling iron to be heated, said face plate having an opening for the passage of the curling iron, a switch for controlling the current for said heater, mounted in said frame, and external means for operating said switch, said switch, heater and frame being removable together from said box.

4. A curling iron heater, comprising a face plate having an opening for the curling iron, a wall box secured behind said face plate, having an open front end, a supporting plate for closing said front end provided with an opening in alignment with the face plate opening, a tubular heater mounted at the rear of said supporting plate in alignment with said two openings, a gate removably mounted between said two plates for normally closing the apparatus against the entrance of the curling iron, and a switch mounted in said box at the rear of said supporting plate for controlling the electric heater.

5. A curling iron heater, comprising a wall box adapted to be permanently set in a wall, a frame within said wall box mounted in the wall box, means for removably securing said frame at the front end of the wall box, a tubular electric heater and a controlling switch therefor carried by said frame, said wall box having an opening back from its front end for the entrance of feed wires for the heater.

6. A curling iron heater, comprising a wall box adapted to be permanently set in a wall having an open front end, a frame removably secured in said front end and projecting rearwardly into said box, an electric heater for a curling iron, carried by said frame, a switch also carried by said frame for controlling the heater, said parts being inclosed by said wall box, and closing means for closing said box provided with an opening for the curling iron in alignment with said heater.

7. A curling iron heater, comprising a wall box having an open front end, a frame removably secured in said front end and projecting rearwardly into said box, an electric heater for the curling iron carried by said frame, a switch also carried by said frame for controlling the heater said parts being inclosed by said wall box, and a face plate adapted to close the box and cover said frame, having its edges overlapping the adjacent peripheral and of the box.

8. A curling iron heater, comprising a face plate having an opening enlarged at one end and provided with a narrow neck portion therefrom, a tubular electric heater at the rear of said plate in alinement with the enlarged portion of said opening, a gate for closing said opening, extending between said heater and said plate, and a knob projecting from the front side of said plate for operating said gate, said knob having movement in the narrow neck portion of said opening.

9. A curling iron heater, comprising a face plate having an opening enlarged at one end and provided with a narrow neck portion therefrom, a tubular electric heater at the rear of said plate in alinement with the enlarged portion of said opening, a gate for closing said opening, extending between said heater and said plate, a knob projecting from the front side of said plate for operating said gate, said knob having movement in the narrow portion of said slot, and a switch for controlling said heater also operated by said knob.

10. A curling iron heater, comprising a supporting plate having an opening for the entrance of the curling iron and an adjacent opening for further access to the apparatus, a tubular electric heater at the rear of said plate in line with said first mentioned opening, a switch for controlling the heater, circuit connections for supplying current, and a gate normally mounted in position to control both of said openings, said gate having provision for movement when desired, to uncover the second mentioned opening to give access to said circuit connections.

11. A curling iron heater, comprising a supporting plate having an opening for the entrance of the curling iron and an adjacent

opening for further access to the apparatus, a tubular electric heater at the rear of said plate in line with said first mentioned opening, a switch for controlling the heater, circuit connections for supplying current, a face plate inclosing the afore-said mechanism, having an opening in alinement with the heater, said opening having an elongated portion extending laterally therefrom, a gate mounted between said two plates to close said openings, and an externally operable knob for actuating said gate lengthwise of said elongated portion, said gate being also capable of movement in a transverse direction when it is desired to expose said circuit connections.

12. A curling iron heater, comprising a supporting plate having an opening for the entrance of the curling iron and an adjacent opening for further access to the apparatus, a tubular electric heater at the rear of said plate in line with said first mentioned opening, a switch for controlling the heater, circuit connections for supplying current, a gate for normally closing said openings, and means for operating said gate to open the first mentioned opening while normally maintaining the second opening closed, said gate being capable of lateral movement on said operating means for uncovering the second mentioned opening when access is desired to said circuit connections.

In testimony whereof, we have signed our names to this specification, in the presence of two subscribing witnesses.

JAMES I. AYER.
HORACE B. GALE.

Witnesses:

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