

G. E. STEVENS.
 • ELECTRICALLY HEATED FLAT IRON.
 APPLICATION FILED MAY 8, 1909.

962,989.

Patented June 28, 1910.

Fig. 1.

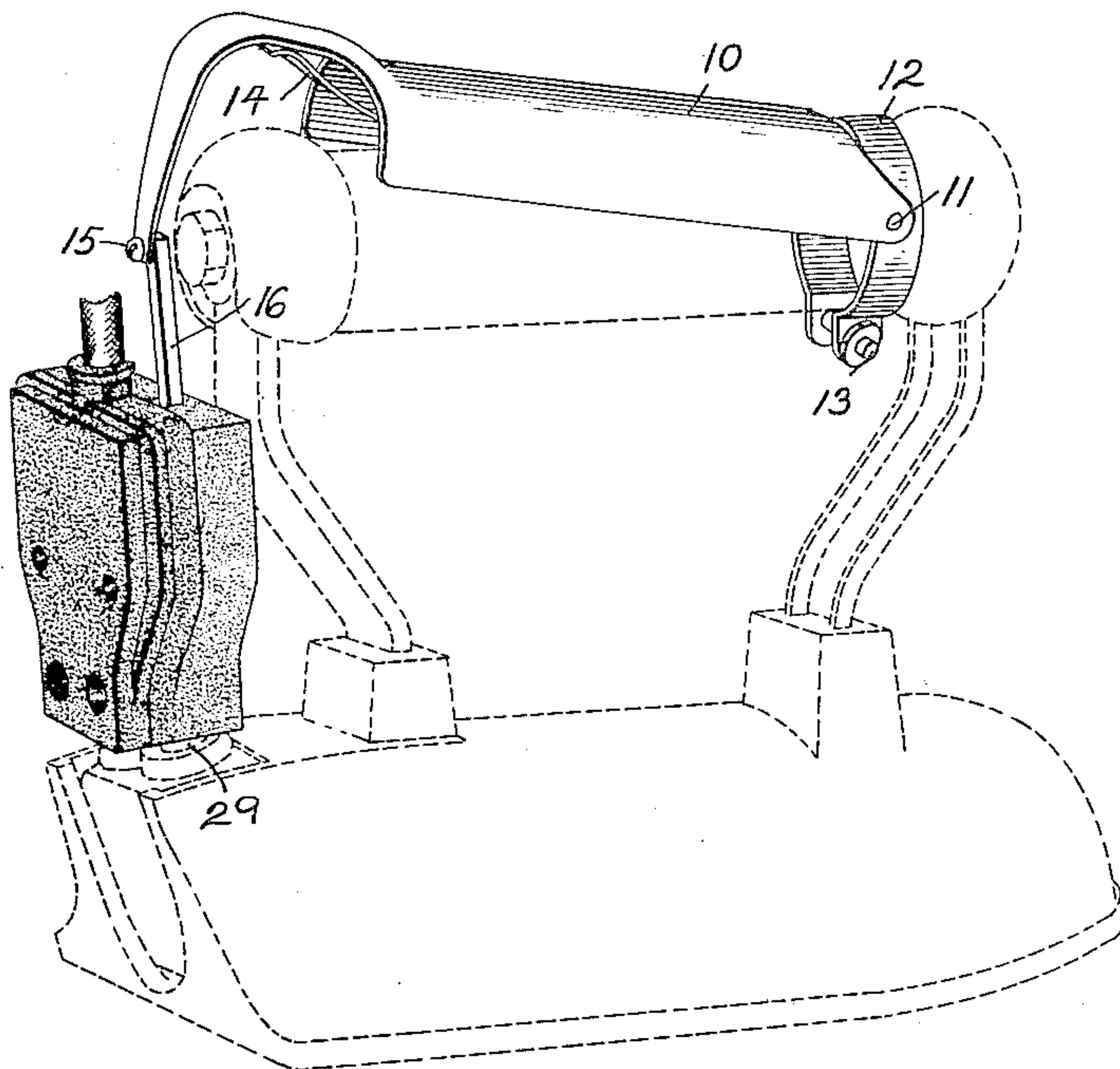


Fig. 2.

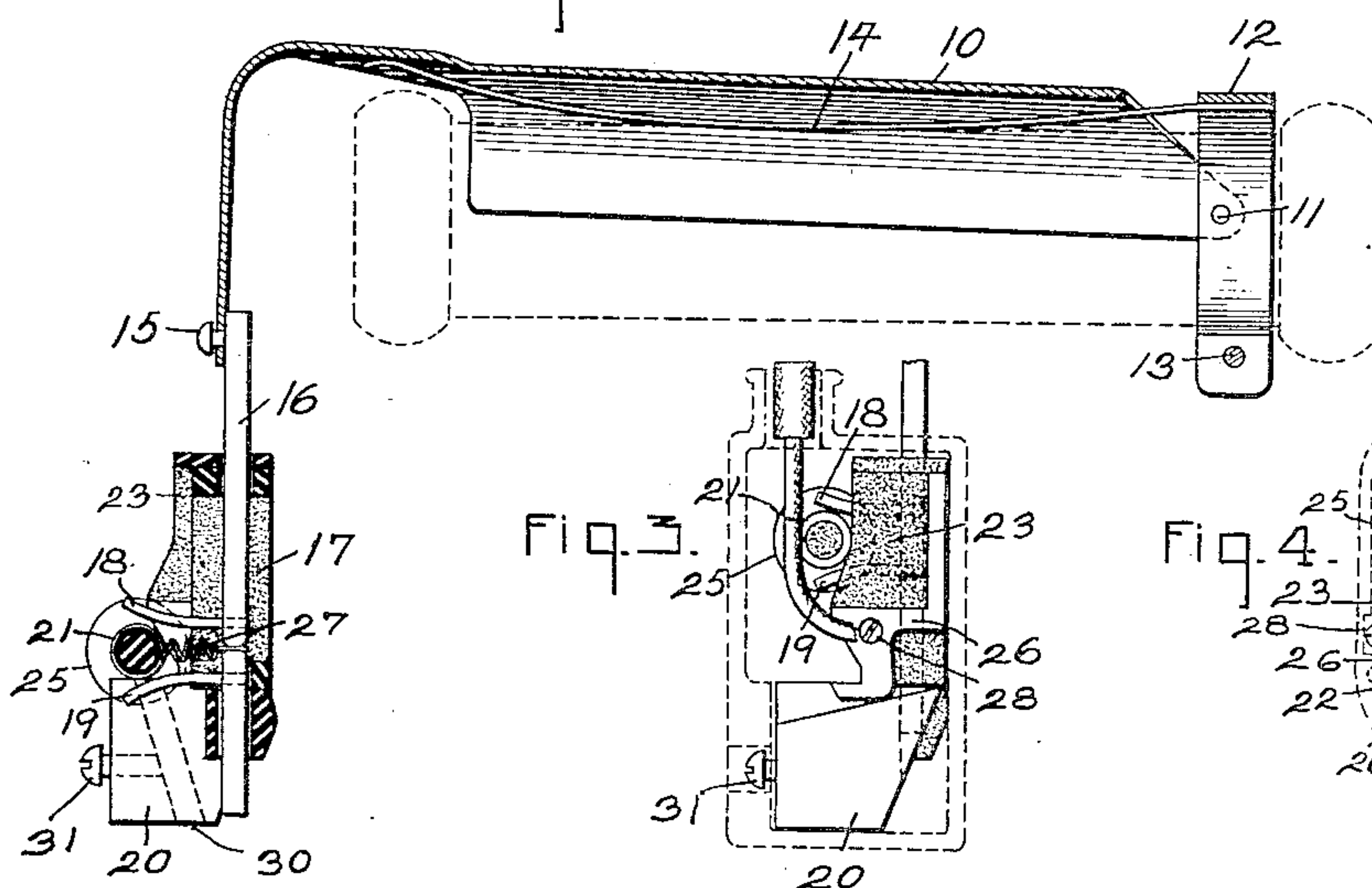


Fig. 3.

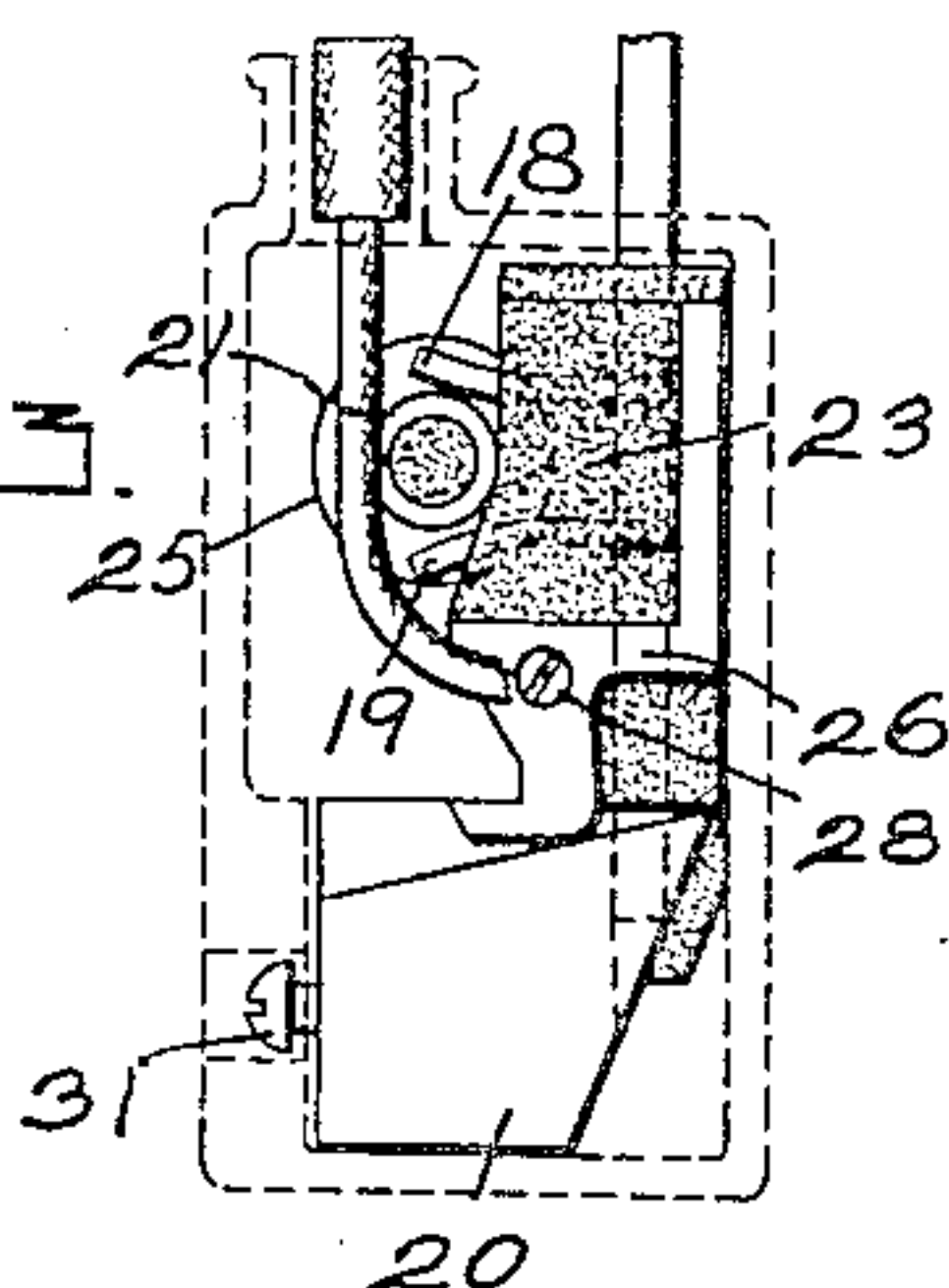
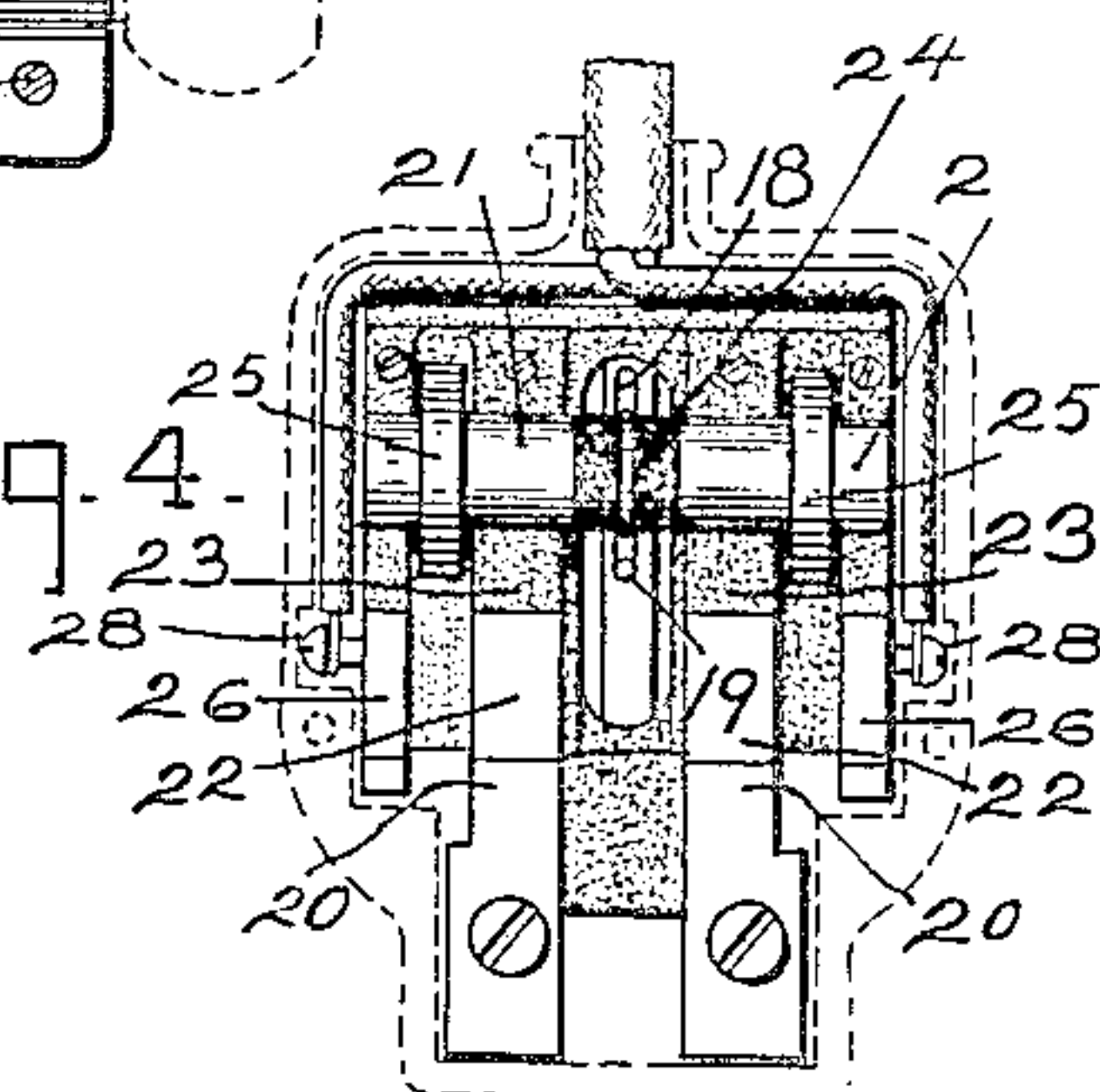


Fig. 4.



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UNITED STATES PATENT OFFICE.

GEORGE E. STEVENS, OF LYNN, MASSACHUSETTS, ASSIGNOR TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK.

ELECTRICALLY-HEATED FLAT-IRON.

962,989.

Specification of Letters Patent.

Patented June 28, 1910.

Application filed May 8, 1909. Serial No. 494,880.

To all whom it may concern:

Be it known that I, GEORGE E. STEVENS, a citizen of the United States, residing at Lynn, county of Essex, State of Massachusetts, have invented certain new and useful Improvements in Electrically-Heated Flat-Irons, of which the following is a specification.

This invention relates to electrically heated tools and the like, and has for its object the provision of a device of this character in which the electric current is automatically cut off when the tool is not in use, in a simple and efficient manner.

One of the objects of my invention is to provide an electrically heated tool in which the current is applied when the handle of the tool is grasped and automatically cut off when the handle is released.

Another object of my invention is to provide an automatic cut-out which may be applied to a standard existing tool without any change whatever in the tool.

My invention is of particular value in connection with flatirons, my arrangement being such that I may clamp an auxiliary member to the handle which will be grasped by the hand of the operator. I also have a switch which is secured to the terminal pins of the iron. The connection between the switch and the operating member is such that when the operator grasps the handle, the switch will be closed, and when the member is released, the switch will be opened.

In the accompanying drawing, in which I have shown my invention embodied in concrete mechanism, Figure 1 is a perspective view of my device, shown applied to a flat-iron; Fig 2 is a sectional view of the attachment; and Figs. 3 and 4 show, respectively, side and front elevations of the switch.

Referring to the drawings, 10 represents a member in the nature of an auxiliary handle which is pivoted at 11 to a collar 12, which is clamped to the handle of the flat-iron by fastenings 13. This member 11 is normally pressed away from the handle by means of a spring 14. The rear end of the member is bent downward and secured at 15 to a switch operating rod 16. This rod 16 is arranged to slide longitudinally in a block of insulating material 17 and is provided with curved projections 18 and 19. The rod with the projections mounted thereon slides between the two ways 20, upon

which a roller 21, which is the movable element of the switch, travels. These ways each consist of a conducting portion shown as the light portion at 22, and the insulating material shown as the dark portion at 23. The surface upon which the roller 21 rides is cam-shaped, having a peak at the joint of the conducting and the insulating material as shown in the drawing. The roller 21 is divided into two portions by an insulating center 24, and each portion is provided with a collar 25 on the outside of the ways. The ends of these rollers also bear on ways 26 which are similarly shaped and divided into conducting and insulating sections. These ways 26 are separated from the ways 20 by insulating material, as shown. The roller 21 rests between projections 18 and 19 and is held down into engagement with the ways by a spring 27. The curved members 18 and 19 form a V-shaped slot in which the roller fits loosely.

In Figs. 3 and 4, the roller is shown in engagement with the insulating portion of the ways and therefore the circuit is open, whereas in Fig. 2 it is shown in engagement with the conducting portion and hence the circuit is closed.

It will be observed that when the operator grasps the handle and presses downward on the member 10, the rod 16 is pushed into the switch casing. This presses the projection 18 against the roller and carries it over the peak of the cam. As soon as it is over the peak, the spring 27 carries it quickly to the other side and closes the circuit. In this position it would normally stay, were it not for the fact that the spring 14 is strong enough to pull it back when the member 10 is released.

The circuit connections are made to the terminals 28 on the ways 26, and the terminal pins 29 of the iron fit into sockets 30 in the members 20 and are held there by means of set screws 31. When the parts are in the position shown in Fig. 2, that is, when the member 10 is grasped, the two ways on each side are bridged by the roller and the circuit thereby completed through the heating coil. When the handle is released, the parts are pulled back by the spring 14 into the position shown in Figs. 3 and 4, in which the circuit is opened.

It will be observed that I have provided a very simple arrangement for attaching to

existing flatirons without modifying the iron itself to the slightest degree. The arrangement is simple and is such that there is practically no strain or pressure upon the hands of the operator during normal operation.

While I have described my invention as constructed in a specific manner in accordance with the patent statutes, it should be understood that I do not limit my invention thereto, since various modifications thereof will suggest themselves to those skilled in the art without departing from the spirit of my invention, the scope of which is set forth in the annexed claims.

What I claim as new and desire to secure by Letters Patent of the United States, is,—

1. An electric flatiron comprising an electrically heated body provided with terminal pins, a switch secured to the terminal pins, a handle for the iron, and a member clamped to the handle and arranged to be engaged by the hand to operate the switch.

2. An electric flatiron comprising an electrically heated body provided with terminal pins, a switch secured to the terminal pins, a handle for the iron, and a spring-pressed member clamped to the handle of the iron and operatively connected with the switch so as to normally hold the same in open position.

3. An attachment for electric flatirons having terminal pins comprising a switch provided with means for securing it to the terminal pins, a handle for the iron, a member arranged to be clamped to the handle,

and connections between the switch and said member for operating the switch.

4. An attachment for electric flatirons having terminal pins comprising a switch provided with means for securing it to the terminal pins, a handle for the iron, and a spring member arranged to be clamped to the handle and operatively connected to said switch so as to normally hold the latter in open position.

5. An attachment for electric flatirons having terminal pins comprising a switch provided with means for securing it to the terminal pins, a handle for the iron, a pivotal member arranged to be clamped to the handle and resiliently engage the same, and operative connections between the switch and the handle whereby the switch is normally held open.

6. An attachment for electric flatirons having terminal pins comprising a switch having a conducting element arranged to be secured to the terminal pins, a second element movable into and out of engagement therewith, a handle for the iron, and a spring-pressed member arranged to be clamped to the handle and operate said movable member.

In witness whereof, I have hereunto set my hand this sixth day of May, 1909.

GEORGE E. STEVENS.

Witnesses:

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CHARLES A. BARNARD.