

March 17, 1931.

V. DE PONTE

1,796,591

SWITCH FOR ELECTRICAL DEVICES

Filed July 9, 1929

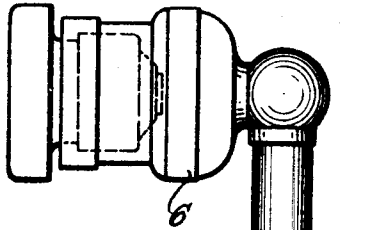
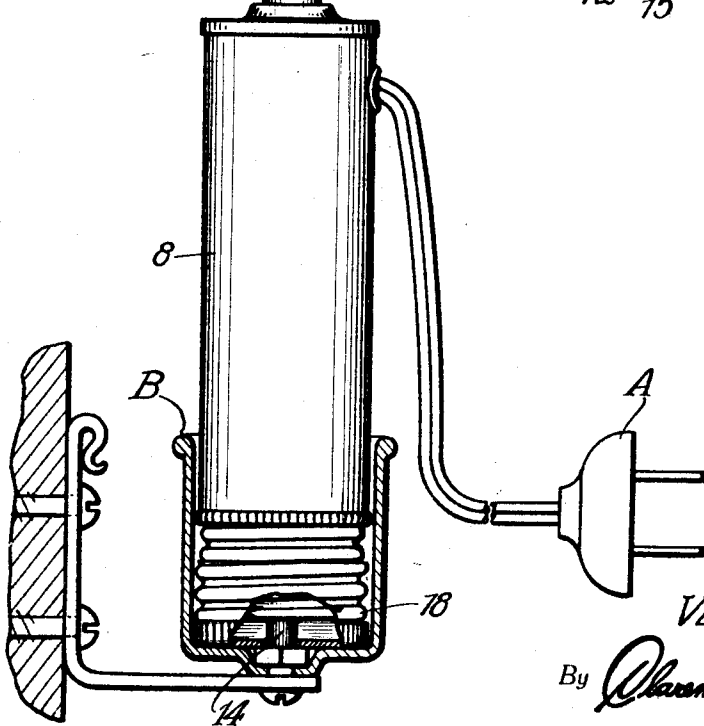
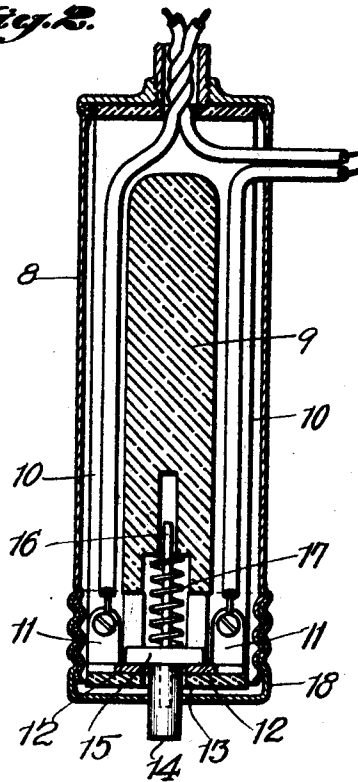


Fig. 1.

Fig. 2.



Inventor

VENTURO DE PONTE

By *Clarence A. O'Brien*
Attorney

UNITED STATES PATENT OFFICE

VENTURO DE PONTE, OF BROOKLYN, NEW YORK

SWITCH FOR ELECTRICAL DEVICES

Application filed July 9, 1929. Serial No. 376,995.

This invention relates to new and useful improvements in switches for electrical devices especially gas lighters, portable electric lights and the like.

5 The invention aims to provide a switch for an electrical device that is adapted to be normally arranged within a support, the switch operating normally to complete the circuit to the lighting coil or electric bulb when the device is removed from the support but that will act to open the circuit when the device is disposed within the support. However, the structure is such that if desired the switch 10 arranged within the support in order that the current will continuously flow to the bulb if the device is associated with a portable lamp.

15 An important object of the invention is to provide a switch construction of this character that is extremely simple of construction and that may be associated with ornamental and serviceable gas lighters, hand lamps and the like so as to produce a useful and relatively inexpensive electrical device of 20 this character.

In the drawing wherein like reference characters indicate corresponding parts in both of the views,

25 Figure 1 is a side elevation of a gas stove, or cigar or cigarette lighter within which is embodied my improved switch, the device being disclosed as arranged within a support, which is disposed in cross section, and

30 Figure 2 is a detailed longitudinal cross section of the switch as associated with a particular character of electrical device.

35 Now having reference to the drawing, 5 designates a length of piping of any suitable dimensions and shape and that is equipped at its outer end with an electric socket 6 preferably arranged at right angles to the standard 5 and adapted to receive an electrical coil, electrical bulb or other electrical current utilizing element. Arranged upon the lower end 40 of this standard 5 is a switch casing in the form of a cylinder 8 that provides a handle for the standard 5, said cylinder 8 having communication at its upper end with the interior of the standard so as to enable the electrical wires from the switch to pass through 50

the standard and to the socket 6. The switch construction consists of a body of non-conducting material 9 shaped before arrangement within the housing 8 and having at opposed sides longitudinal wire receiving channels 10—10. Attached within the lower ends of these channels 10—10 are contact members 11—11 that are constructed with inwardly extending contact plates 12—12 having spaced relation as illustrated in Figure 2. The lower end of the said body 9 directly beneath the space between these contact plates 12—12 is provided with an opening 13 for which is freely slidable a switch pin 14 the inner end of which is equipped with a circuit closing bridge piece 15. Extending inwardly from this bridge piece 15 is an elongated pin 16 adapted for longitudinal movement within a socket formed in the lower end of the body 9 as illustrated. Surrounding this pin 16 between the bridge piece 15 and an abutment at the lower end of the socket is an expansible coil spring 17, the purpose of which is normally to urge the bridge piece 15 downwardly to complete the circuit across the contact plate 12—12.

The lower end of the housing 8 is open and externally threaded and has mounted thereon a threaded cap 18, the bottom wall of which is formed with an opening in line with the opening in the lower end of the body 9 so that said pin 14 will project therethrough.

45 One of the wires to the socket 6 as well as one of the wires to the switch mechanism are extended through an opening in the upper end of the housing 8 and are equipped with a conventional plug A to enable the current to be conducted to the device.

50 Normally the device is adapted to be supported within a suitable supporting cup B arranged upon the wall, cigar store counter or the like. When the cap 18 of the housing 8 is threaded inwardly as illustrated in Figure 2 the pin 14 will engage the bottom wall of the cup B when the device is arranged within the cup to obviously raise the bridge piece thereby breaking the circuit across the contact plates 12—12. However, as soon as the device is removed from the cup the spring 17 will act to throw the bridge piece down-

wardly thus completing the circuit to the lighting coil, electric bulb or whatever current utilizing element is associated with the socket 6. However, in the event it is desired to have the current flow through the coil or bulb when the device is disposed within the support B it is only necessary to thread cap 18 downwardly until the bottom wall thereof is substantially flush with the lower end of the pin 14 as disclosed in Figure 1. This then will prevent the pin 14 from moving inwardly to break the circuit.

In view of the foregoing description when considered in conjunction with the accompanying drawing it will be apparent that I have provided a novel, simple and useful switch construction for association with portable electric lights, cigar and cigarette lighters and the like and even though I have herein shown and described the invention as consisting of certain detailed structural elements it is nevertheless to be understood that some changes may be made therein without affecting the spirit and scope of the appended claims.

Having described the invention, what I claim as new is:—

1. In a structure of the character described, a casing, an insulating base disposed in the casing having longitudinal channels in its opposite sides for the passage of conductor wires and further having a vertically aligned socket and an opening in its lower end portion, binding posts mounted in the lower end portion of the base to which the wires are secured, contact elements formed on the binding posts and disposed on opposite sides of the opening, a pin slidably disposed through the opening, a bridge piece formed on the inner end of the pin for engagement with the contacts, a guide pin mounted on the bridge piece and extending therefrom into the socket, a coiled spring encircling the guide pin and engaged with the base and the bridge piece in a manner to yieldingly urge said bridge piece into engagement with the contacts and a closure cap adjustably threaded on the casing and having an opening in alignment with the base opening through which the first named pin is operable, said cap adjustably on the casing in a manner to prevent operation of said first named pin.

2. In a structure of the character described, a casing open at one end, an insulating base mounted in the casing, contacts on the base, a contact pin slidably mounted on the base and projecting from the open end of the casing, and a closure cap adjustably mounted on the open end of the casing and having an opening through which the pin slidably extends, said cap adjustably on the casing in a manner to prevent operation of the pin.

In testimony whereof, I affix my signature.

VENTURO DE PONTE.