No. 657,221. Patented Sept. 4, 1900.

I. KITSEE.

STATIC RELAY.

(Application filed May 20, 1899. Renewed Mar. 17, 1900.)

(No Model.)

Fig. 1.

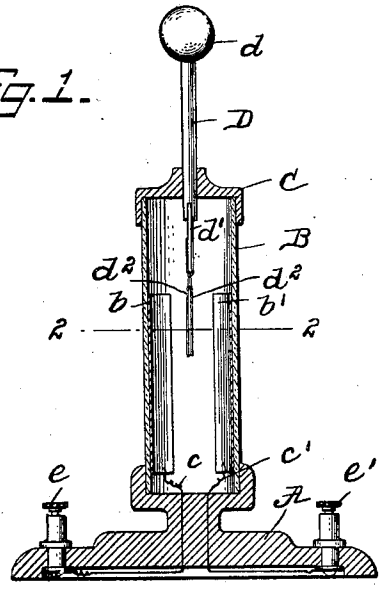


Fig. 2.

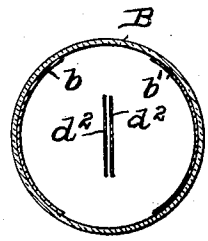
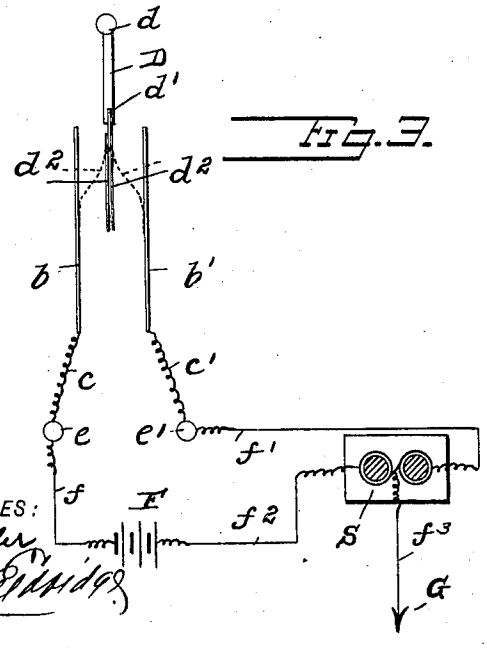


Fig. 3.



WITNESSES:

Jesse B. Keller

Warner B. Ellis

INVENTOR

Isidor Kitsee

UNITED STATES PATENT OFFICE.

ISIDOR KITSEE, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO CHARLES E. WILSON, OF SAME PLACE.

STATIC RELAY.

SPECIFICATION forming part of Letters Patent No. 657,221, dated September 4, 1900.

Application filed May 20, 1899. Renewed March 17, 1900. Serial No. 9,109. (No model.)

To all whom it may concern:

Be it known that I, ISIDOR KITSEE, of the city and county of Philadelphia, State of Pennsylvania, have invented certain new and useful Improvements in Static Relays, of which the following is a specification.

My invention relates to an improvement in static relays.

The object of my invention is to produce a device useful for relaying rapidly-recurring or alternating currents or currents generated with the aid of friction-machines.

Referring to the drawings, Figure 1 is a vertical section through an electroscope provided with my arrangement. Fig. 2 is a section through the tube on the line 2 2 of Fig. 1. Fig. 3 is a diagram showing the electrical connection.

A is the non-conducting base; B, the non-conducting tube, preferably made of glass; C, the cap, and D the conducting-rod, provided with the conducting-ball d, the conducting lower portion d', and the conducting-leaves d^2.

b b' are two conductors placed in juxtaposition to the leaves d^2.

c c' are wires connecting the conductors b and b' to the binding-posts e and e'.

To the binding-post e is connected the wire f, connected to the battery F, the other pole of which is connected through the wire f^2 with the sounder or other receiving instrument S. The wire f' connects the free terminal of the sounder to the binding-post e'. This circuit is grounded at G through wire f^3.

The *modus operandi* of actuating this device is as follows: Normally if all parts of the instruments are at zero the leaves d^2 d^2 are converged. The battery-circuit therefore, including the sounder, is open; but as soon as the atmosphere surrounding the conducting-ball d is charged with electricity, or a conductor carrying the current of electricity is either in proximity to said ball or is touching the same, the leaves will separate and will touch the conducting-uprights b b', thereby closing the local circuit, including the battery F, which in turn will actuate the sounder. In some cases, such as space telegraphy, it is preferred to have the air in the tube B partially exhausted. The static or high-tension impulses of electricity having caused the diversion of the conducting-leaves will pass through the conductors b b' to the ground G and will establish the zero condition necessary for the convergence of the leaves, thereby opening the local circuit.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In electricity a relay consisting of conducting-leaves in juxtaposition to conductors connected with the interposition of a battery to an electromagnetic device and to the ground, said conducting-leaves being provided with means for connecting the same to one terminal of the receiving-circuit.

2. In electricity a relay consisting substantially of an electroscope provided with conductors in juxtaposition to the conducting-leaves, said conductors being electrically connected to a local circuit containing a generator of electricity and an electromagnetic device said circuit being also connected to the ground.

3. In electricity, a relay consisting of conducting foil or leaves inserted in a partially-exhausted tube, said leaves being provided with means to connect the same with the terminal of a circuit, in combination with conductors placed in juxtaposition to said foil or leaves, the conductors being connected to a local circuit including a battery and electromagnetic device.

In testimony whereof I sign my name, in the presence of two subscribing witnesses, this 12th day of May, A. D. 1899.

ISIDOR KITSEE.

Witnesses:
E. R. STILLEY,
WALLACE B. ELDRIDGE.