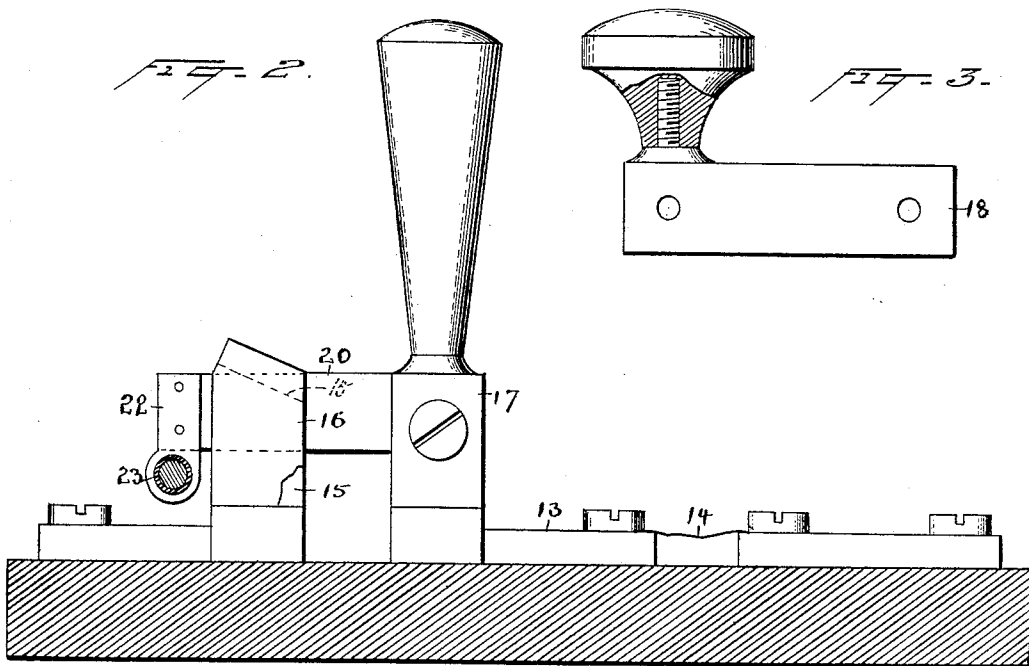
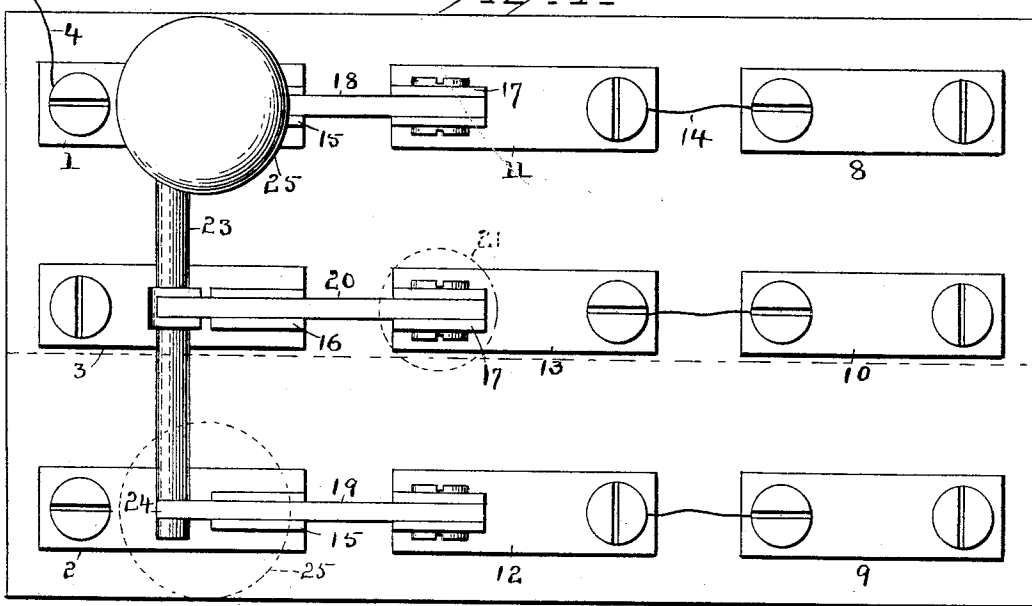


(No Model.)

H. M. PILKINGTON & R. S. WHITE.
ELECTRIC SWITCH.

No. 477,869.

Patented June 28, 1892.



Witnesses
Morris A. Clark.
Eugene Couran

Inventors:
H. M. Pilkington & R. S. White
By their Attorneys
Syer & Seely

UNITED STATES PATENT OFFICE.

HERBERT M. PILKINGTON AND ROGER S. WHITE, OF BROOKLYN,
NEW YORK.

ELECTRIC SWITCH.

SPECIFICATION forming part of Letters Patent No. 477,869, dated June 28, 1892.

Application filed October 8, 1891. Serial No. 408,187. (No model.)

To all whom it may concern:

Be it known that we, HERBERT M. PILKINGTON and ROGER S. WHITE, both citizens of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented a certain new and useful Improvement in Switches for Three-Wire Circuits, of which the following is a specification.

The present invention relates to means for making and breaking the wires of a three-wire or other multiple-wire compensating circuit, the object being to provide a switch by which the circuit-wires can be simultaneously or separately controlled.

The main feature of novelty is the construction of the switch in such manner that the several blades may be thrown simultaneously by a single movement or whereby the blades in the positive and negative mains may be separately moved to control their own sides of the system.

In the accompanying drawings, illustrating the invention, Figure 1 is a plan view of a switch and cut-out board embodying our improvement. Fig. 2 is a view on line *xx* of Fig. 1. Fig. 3 is a detached view of one of the switch-blades.

In the preferred form of the switch the terminals 1 2 3, to which the wires 4 5 6, which are the positive, negative, and neutral mains of the system, are connected, are mounted near one end of the insulating-plate 7. At the opposite end of the plate are blocks 8 9 10, to which the wires of the system are also connected. About centrally on the plate are mounted other terminals 11 12 13, these terminals being connected to the end blocks by fusible cut-outs 14. From the terminals 1 2 3 project contact-springs 15 16, and from the terminals 11 12 13 rise standards 17, to which the switch-blades 18 19 20 are pivoted. The central blade 20 is provided with a handle 21 at its pivoted end, and at its outer end is provided with an extension 22, carrying a rod 23, extending across the switch, as shown in Fig. 1. The blades 18 19 have projecting parts 24, which extend over the rod 23. These blades are also provided at this end with knobs or handles 25. With this arrangement when the handle 21 is operated all three blades

will be simultaneously raised and all the wires will be opened; but when one of the knobs or handles 25 is grasped and moved one blade only will be operated. This switch and cut-out board may be placed in any desired position. It is not essential that the fusible cut-outs and the switch should be on the same base as shown in the drawings.

In three-wire or similar multiple-wire or compensating systems if one of the cut-outs is fused and the circuit is opened by an ordinary switch to make it safe to replace the cut-out the wires will all be interrupted and the entire system thrown out of use until that cut-out is replaced; but with our arrangement if the upper fuse burns the blade 18 merely will be raised, so that the fuse can be safely replaced, while at the same time the lower half of the system is maintained complete. The same would be true of the upper half of the system if the switch-blade 19 were moved to open the negative main.

We do not confine ourselves to the particular use for the switch which has been described.

What we claim is—

1. The combination, in a switch, of several switch-blades or members movable both together and independently and having a common operating-handle and separate handles for operating said members separately, substantially as described.

2. A switch having positive, negative, and neutral circuit making and breaking devices for the wires of a multiple-wire or compensating system and means for moving all the positive and negative devices simultaneously, the devices being also independently movable, whereby by operating the handle all the wires are simultaneously disconnected and by moving the other devices separately one or the other side of the system is thrown out of operation, substantially as described.

3. A switch having positive, negative, and neutral circuit making and breaking devices for the wires of a three-wire or compensating system and means for moving all the devices simultaneously, the positive and negative devices being also independently movable, whereby by operating the handle all the wires are simultaneously disconnected and by mov-

ing the other devices separately one or the other side of the system is thrown out of operation, substantially as described.

4. A switch having positive, negative, and
5 neutral circuit making and breaking devices for the wires of a three-wire or compensating system and means for moving all the devices simultaneously, the positive and negative devices being also independently movable,
10 whereby by operating the handle all the wires are simultaneously disconnected and by moving the other devices separately one or the other side of the system is thrown out of operation and fuses in circuit with the switch,
15 substantially as described.

5. The combination, in a switch, of a positive and negative switch-blade, a neutral blade, and a handle and cross-rod on or connected to the latter, the positive and negative blades having parts engaging with the rod, so as to be moved thereby, said positive and negative blades being also separately movable, substantially as described.

This specification signed and witnessed this 7th day of October, 1891.

HERBERT M. PILKINGTON.
ROGER S. WHITE.

Witnesses:

CHARLES M. CATLIN,
J. A. YOUNG.

It is hereby certified that in Letters Patent No. 477,869, granted June 28, 1892, upon the application of Herbert M. Pilkington and Roger S. White, of Brooklyn, New York, for an improvement in "Electric Switches," an error appears in the printed specification requiring correction, as follows: In line 86, page 1, the words "positive and negative" should be stricken out and the same inserted before the word "devices" in line 87, same page; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 5th day of July, A. D. 1892.

[SEAL.]

GEO. CHANDLER,

First Assistant Secretary of the Interior.

Countersigned:

N. L. FROTHINGHAM,

Acting Commissioner of Patents.

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