

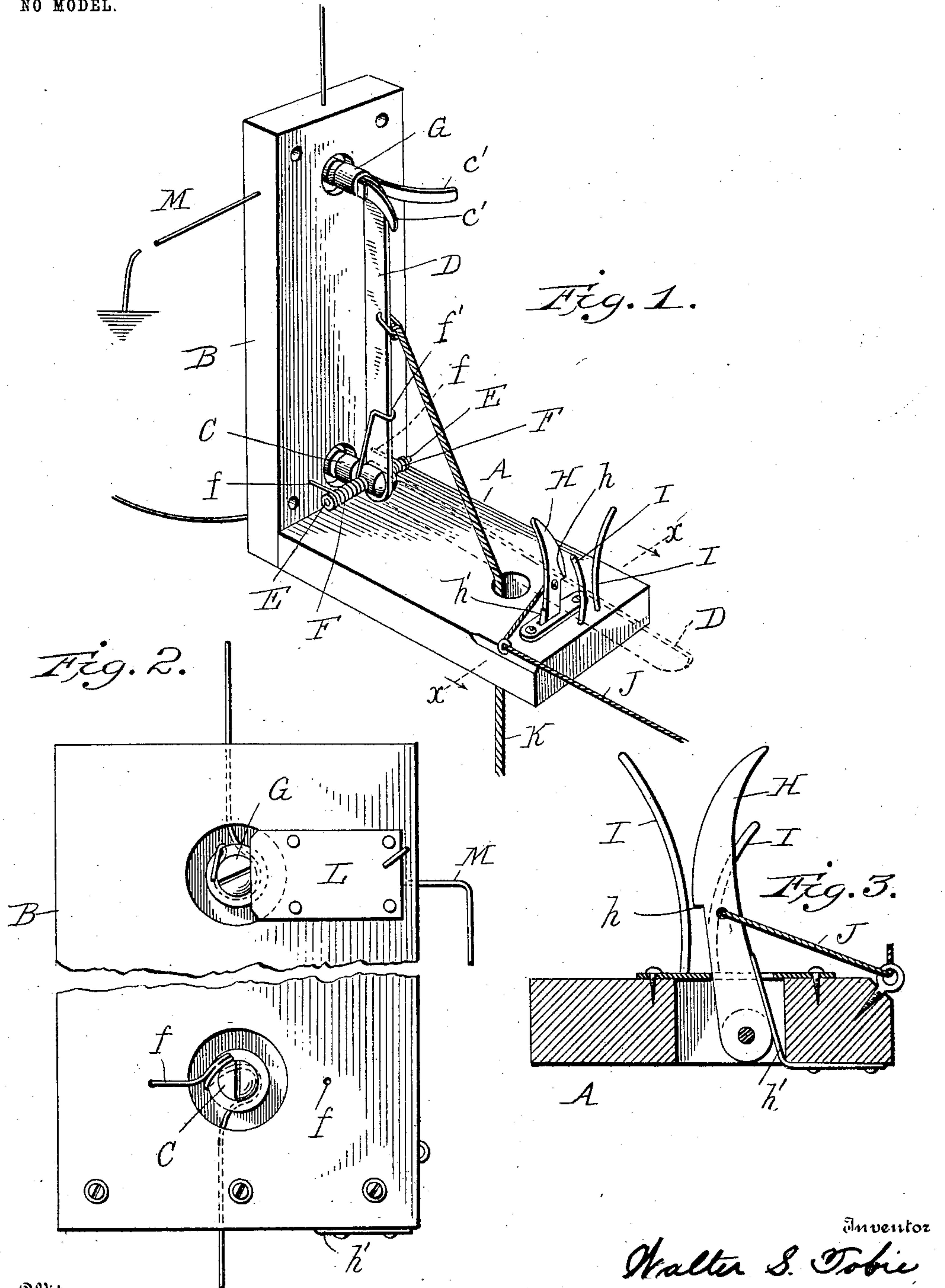
No. 763,520.

PATENTED JUNE 28, 1904.

W. S. TOBIE.
ELECTRIC SWITCH.

APPLICATION FILED FEB. 10, 1904.

NO MODEL.



UNITED STATES PATENT OFFICE.

WALTER S. TOBIE, OF AUGUSTA, ILLINOIS.

ELECTRIC SWITCH.

SPECIFICATION forming part of Letters Patent No. 763,520, dated June 28, 1904.

Application filed February 10, 1904. Serial No. 192,997. (No model.)

To all whom it may concern:

Be it known that I, WALTER S. TOBIE, of Augusta, in the county of Hancock, State of Illinois, have invented certain new and useful
5 Improvements in Electric Switches; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to
10 the letters of reference marked thereon.

This invention relates to improvements in electric switches or cut-outs for telephones, by means of which the telephone instrument may be cut out or disconnected from the line-
15 wire when necessary—as, for instance, in case of an electric storm—thus preventing the instrument from being burned out or otherwise damaged.

The invention has for its object to provide
20 such a device which shall be especially adapted for use in connection with rural telephone systems and which while placed out of doors at a distance from the telephone instrument may be readily operated from within doors.

To this end the invention consists in certain
25 novel details of construction and combinations and arrangements of parts, all as will be now described, and the particular features of novelty pointed out in the appended claims.

In the accompanying drawings, wherein is
30 illustrated a preferred form of embodiment of the invention, Figure 1 is a perspective view of the switch, the working position shown in full lines and the cut-out or disconnected position in dotted lines. Fig. 2 is a rear elevation. Fig. 3 is a section on line *x x*, Fig. 1.

Similar letters of reference in the several figures indicate the same parts.

Referring to the drawings, it will be seen
40 that the operating parts of the device are carried by a bracket or support consisting of a base portion A and upright portions B, of some suitable or preferred non-conducting material, in the present instance wood being
45 used on account of its cheapness and lightness. Extending through an opening in the upright portion B of the bracket and near the bottom thereof is a metallic stud or post C, said post or stud being held firmly in place in any suitable
50 manner and constituting the house-line

terminal. At the front said post C is divided or bifurcated, and between the arms of the bifurcation is pivoted a movable member or conducting-blade D, of any suitable or desired
55 metal of good conductivity, said blade being pivoted upon a pin or bar E, passing through the post C, as will be readily understood. Surrounding the pivot-pin E on each side of the post C is a coiled spring F, the ends *f f* of
60 which are passed through to the rear of the upright A of the bracket and secured in a manner to be hereinafter described.

The central portion of the spring F is bent into a loop *f'*, which embraces the blade D and normally holds said blade in operative po-
65 sition, as shown in full lines, Fig. 1. Passing through the upper portion of the upright portion B is a post or stud G, constituting the line-terminal. Against the front face of said post the upper end of the blade D is brought
70 and held in contact by the spring F, as will be explained. To the rear of the post G is connected the line-wire leading to the main line-wire of the telephone system.

To the rear of the post C is connected the
75 line-wire leading to the telephone instrument, one end of the spring F being also soldered to this wire to effect better electrical connection, as will be understood from an inspection of
80 Fig. 2. In the front end of the base portion A of the bracket is pivotally mounted a spring catch or lock H, below the shoulder *h* of which the blade D is adapted to engage when brought
85 to the position shown in dotted lines, Fig. 1. The spring *h'* presses the catch H forward or in the path of the descending blade D, and it will be noted that the upper portion of the catch H is curved, so that the blade will press
90 said catch back out of its path against the tension of the spring *h'*, and when the blade has passed the curved portion of the catch said spring *h'* will press the catch forward, the shoulder *h* will pass over the blade, and the latter will be held.

To further insure the end of the blade being
95 guided and steadied properly, guide-fingers I I may be provided, located beyond the catch H.

To the catch H is secured a flexible connection, such as cord J, leading to the interior of
100 the house, where the telephone instrument is

located in position to be grasped, so that the latch may be pulled back and the blade released, as will be understood.

Secured to the blade D is a cord or other flexible connection K, also leading to the house in position to be grasped, so that said blade may be pulled down into the position shown in dotted lines, Fig. 1.

The operation of the device will now be readily understood. When in working or normal position, the parts are as shown in full lines, Fig. 1. If for any reason, as in case of an electrical storm, it is desired to disconnect or cut out the telephone instrument from the main line, the cord K, connected to the blade D, is pulled until the catch H is engaged, when it will be held in this position. When in this position, there will be such a distance between the line-wire terminal and the house-wire terminal that there is no danger of the lightning charge damaging the instrument. However, as a further safeguard, in order to take the charge to the ground a plate L, of copper, is secured to the back of the upright A in close proximity to the line-wire connection, and leading from this plate is a wire M to ground.

When it is desired to restore the parts to working position, the cord J, attached to the catch H is pulled, thus releasing the blade D, which will be thrown and held in contact with the post C by the spring F, and to insure the blade being guided to the post C outwardly-curved fingers or plates *c' c'* extend on each side of the post.

The device is simple, consisting of few parts, can be easily set up and connected, and accomplishes most admirably the object for which it is intended.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. In a device such as described, the combination with the support, of the house and line terminals carried thereby, the blade for connecting said terminals, pivotally mounted on said house-line terminal, the spring for normally holding said blade in contact with the line-wire terminal, whereby the circuit is completed, the cord connected to the blade whereby said blade may be moved on its pivot to break the circuit, the pivoted spring-pressed latch for holding said blade when said circuit is broken, the cord connected to the latch, whereby the latch may be moved to release the blade, and permit the spring to return the blade to normal position to again complete the circuit; substantially as described.

2. In a device such as described, the combination with the support, of the house and line terminals carried thereby, the blade for connecting the terminals pivotally mounted on said house-line terminal, the spring for holding the blade in contact with the line-wire terminal, the outwardly-curved fingers for guiding the blade to the line-wire terminal, the cord connected to the blade whereby the blade may be pulled out of contact with said terminal, the pivoted spring-pressed catch working at right angles to blade, for holding the blade retracted, curved guide-fingers located beyond the catch, and a cord connected directly to the catch for withdrawing the catch to release the blade; substantially as described.

WALTER S. TOBIE.

Witnesses:

CHAS. H. MEAD,
JACOB KLIPPER.