(No Model.)

C. E. SCRIBNER.

SWITCH BOARD.

No. 383,014. Patented May 15, 1888.

FIG. 1.

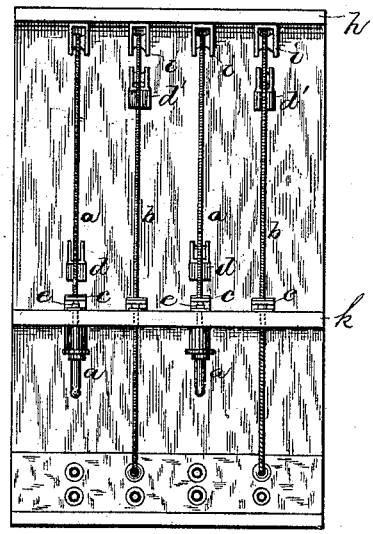


FIG. 2.

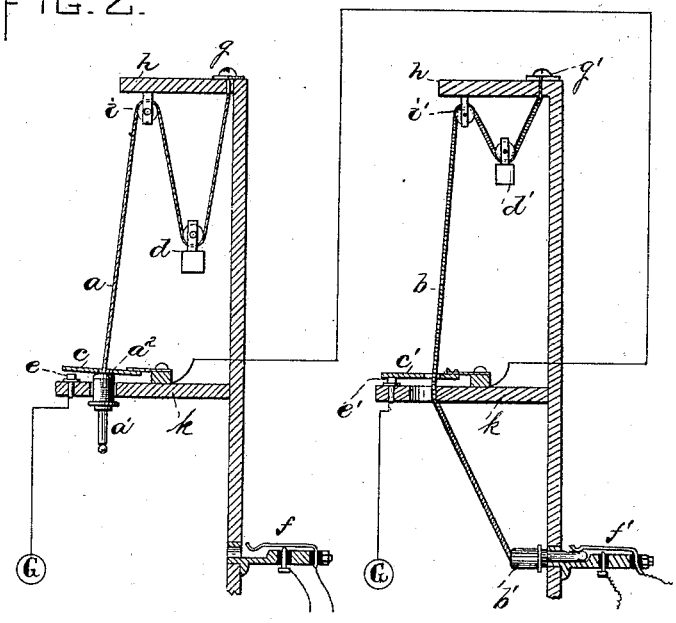
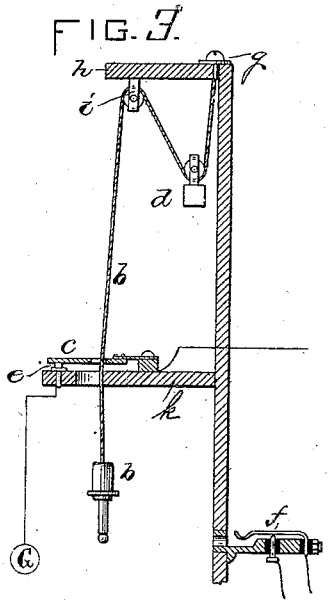


FIG. 3.



WITNESSES:

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Henry Faulkner.

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BY

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UNITED STATES PATENT OFFICE.

CHARLES E. SCRIBNER, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE WESTERN ELECTRIC COMPANY, OF SAME PLACE.

SWITCH-BOARD.

SPECIFICATION forming part of Letters Patent No. 383,014, dated May 15, 1888.

Application filed June 16, 1884. Serial No. 135,084. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. SCRIBNER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Switch-Board Apparatus for Telephone-Exchanges, (Case 79,) of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to the means for taking up the slack of telephone-cords which are used for making the temporary connections between the switches upon the switch board of a telephone-exchange, and also to the switching apparatus used for grounding the different pairs of cords, as herein described and claimed.

The object of my invention is to so arrange the cords that the plugs may be carried up out of the way when not in use, and yet remain within easy reach of the switchman.

This result has been heretofore accomplished by the use of various devices, as is shown in the patent to Charles W. Ross, No. 252,259, issued January 10, 1882, and in my application No. 122,014, filed February 25, 1884, for telephone-exchange switching apparatus. The operator's telephone may be so placed as to be connected and disconnected from the circuit of the different pairs of cords as they are pulled down and drawn up in making the temporary connections.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 shows a front elevation of a switch-board provided with two pairs of cords. Fig. 2 shows sectional views of a switch board and a pair of cords and plugs in connection with the automatic switching apparatus. Fig. 3 is a view of the cord and weighted pulley, showing the pulley swung back to the position which it takes while the plug is going up.

Like parts are indicated by similar letters of reference in the different figures.

In Fig. 2 the flexible conducting-cords *a b* are provided with terminal plugs *a' b'*. The upper part, a^2, of the handle of plug *a'* is of metal and normally rests against the switch lever or spring *c*, the weight of the pulley *d* being sufficient to keep the lever from closing upon the ground-point *e*. Plug *b'* is shown inserted in the switch *f'* of a subscriber. The switch *c'* on being relieved from the weight of the pulley *d'* closes upon the ground-point *e'*, as shown. It will thus be seen that the moment the plug *b'* of a pair is pulled away from the switch the circuit of the pair of plugs will be closed to ground by a half-connection. This circuit may be traced, as shown in Fig. 2, from the ground-point *e'* to switch *c'*, and thence to the switch *c*, and thence to the metallic part a^2 of plug *a'*, which is in connection with the conductor of the cord *a*. These cords *a b* may be connected together through any apparatus desired between binding-posts *g g'*. The cords are suspended from the under side of the shelf *h* at the back. Each cord passes thence under a weighted pulley, *d*, and thence over a fixed pulley, *i*, fixed to the under side of the shelf *h* near the front. The cord passes down over this fixed pulley through an opening provided in the lower shelf, *k*. When the cords are not in use, they are held taut by the weighted pulleys *d*, and the plugs are held up against the lower side of shelf *k* within easy reach of the switchman. As the weights descend they are carried back of the center, as indicated in Fig. 3. On the other hand, when a plug is being pulled down, the weighted pulley carried by its cord is brought forward. Thus when a weight goes up it is carried back out of reach of the other cords near it on either side, and when a weight moves down it is carried forward, and is not liable to become entangled with the weighted pulleys or cords on either side.

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

The combination, with the switch board, of the cords attached to the lower side of the upper shelf toward the back, the weighted pulleys and the fixed pulleys, the lower shelf provided with openings for the cords, and the plugs below the lower shelf, whereby the cords are held taut and the weighted pulleys respectively carried out of the way of the weights and cords on either side as the plugs are drawn down or allowed to return to their position against the lower shelf, substantially as and for the purpose specified.

In witness whereof I hereunto subscribe my name this 31st day of May, A. D. 1884.

CHARLES E. SCRIBNER.

Witnesses:

GEORGE P. BARTON,

HENRY FRANKFURTER.