(No Model.)

W. M. GOODRIDGE.

TELEPHONE EXCHANGE SWITCH FASTENER.

No. 393,824. Patented Dec. 4, 1888.

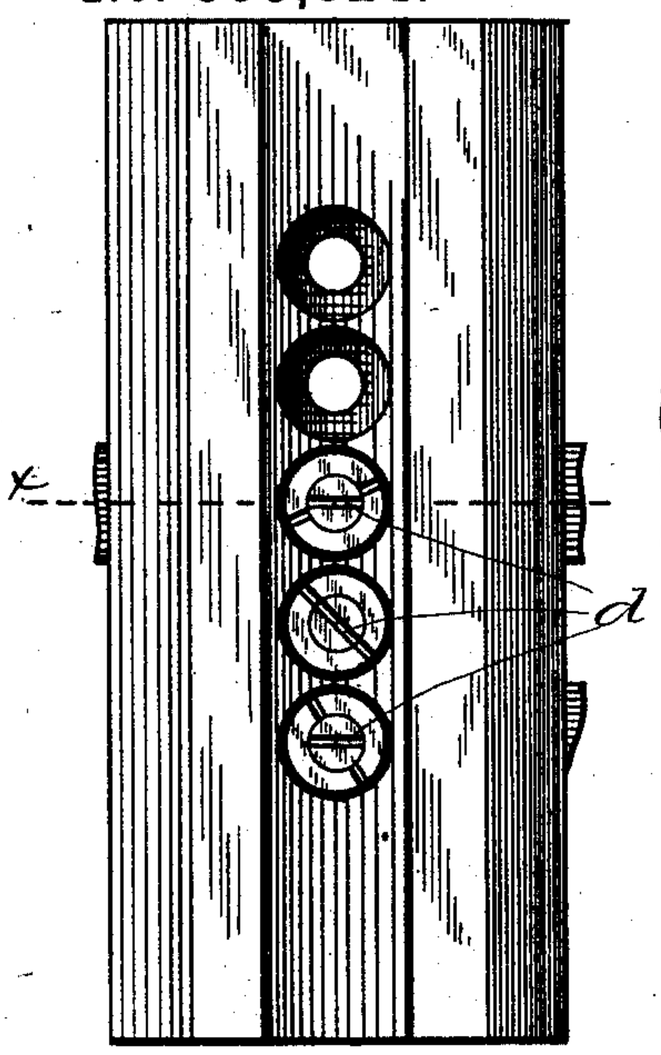

Fig. 1.

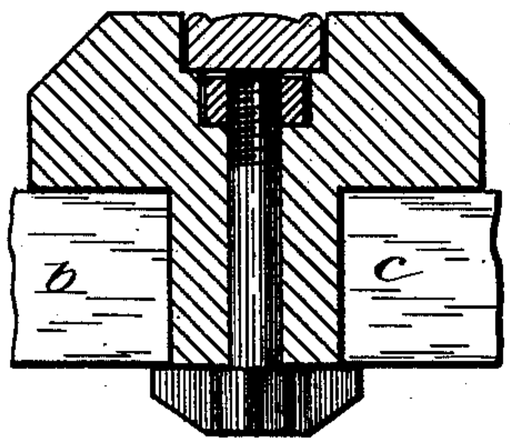

Fig. 3.

Fig. 4.

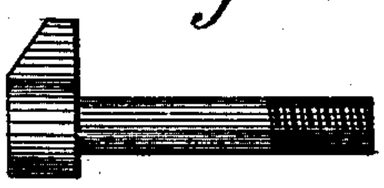

Fig. 5.

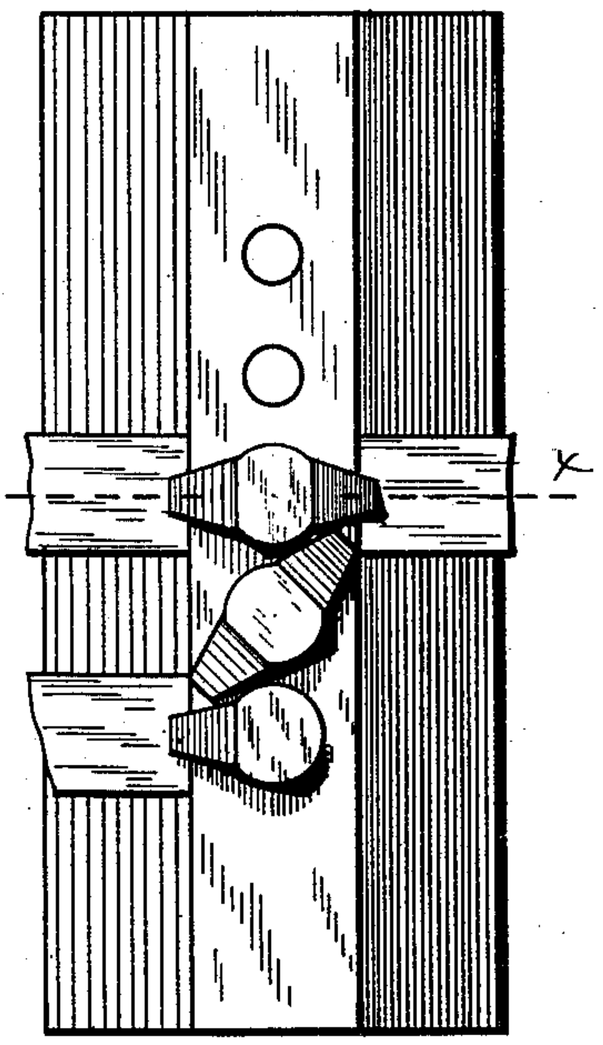

Fig. 2.

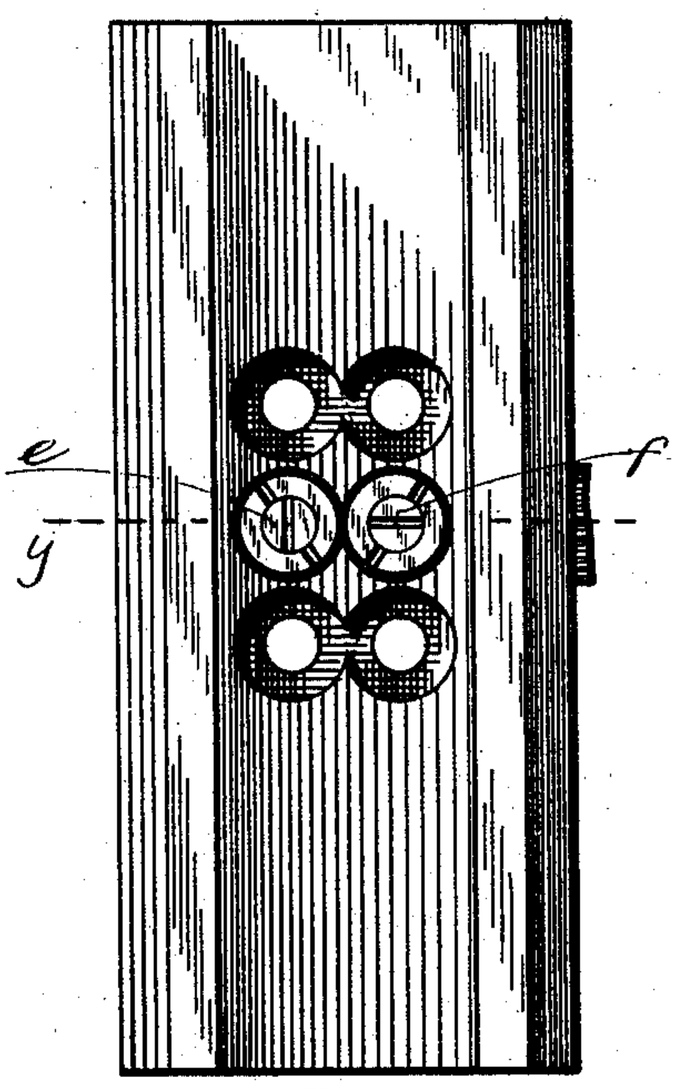

Fig. 6.

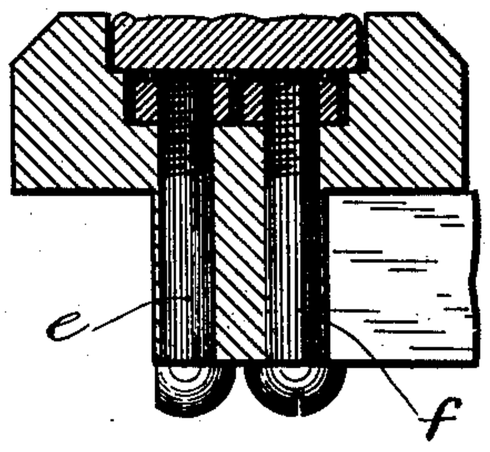

Fig. 8.

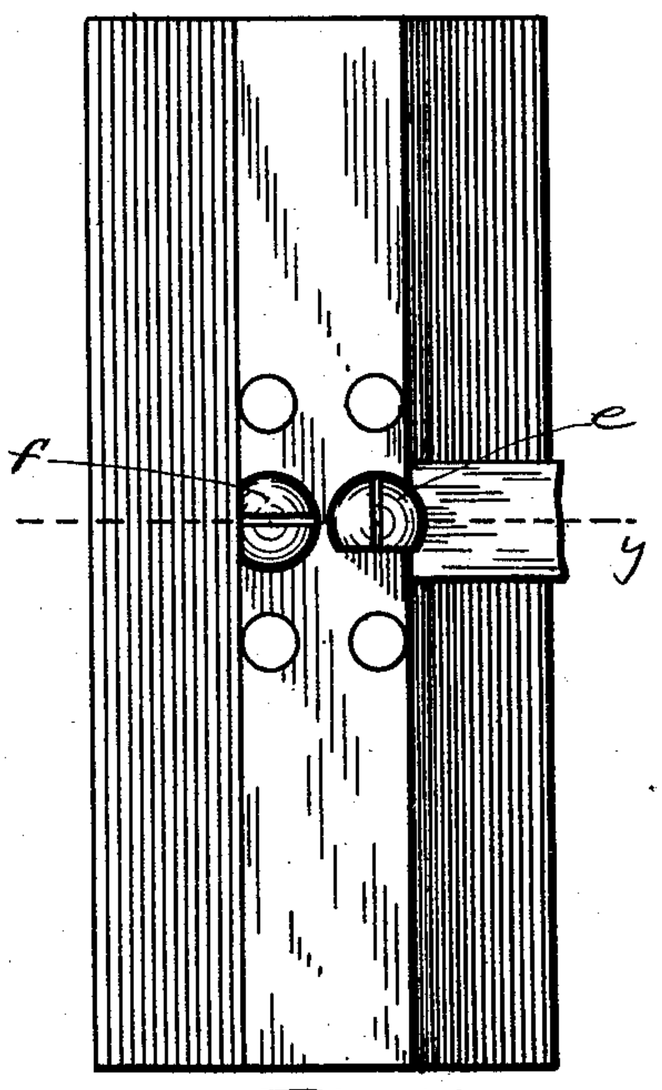

Fig. 7.

Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM M. GOODRIDGE, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE WESTERN ELECTRIC COMPANY, OF SAME PLACE.

TELEPHONE-EXCHANGE-SWITCH FASTENER.

SPECIFICATION forming part of Letters Patent No. 393,824, dated December 4, 1888.

Application filed October 15, 1888. Serial No. 288,063. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM M. GOODRIDGE, 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 Telephone-Exchange-Switch Fasteners, (Case 11,) 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 holding the strips of spring-jack switches upon the switch-boards of telephone-exchanges.

As is well known, the spring-jack switches are usually made up in strips of, say, twenty each. Each strip may be twelve inches long and one-half or three-fourths of an inch thick, each strip consisting of a piece of rubber, upon which the contacts of the different spring-jack switches are mounted. In Letters Patent No. 357,538, granted Charles E. Scribner February 8, 1887, is shown such a strip of spring-jack switches. In Letters Patent No. 367,730, granted August 2, 1887, to John A. Seely, is shown the manner of mounting the strips upon the switch-board in use prior to my invention.

It is necessary to provide for readily removing any strip of spring-jack switches when desired.

My invention is designed to provide a cheap and convenient clamp for fastening the strips to the switch-board, which may be clamped or unclamped from the front of the board to hold or release the strips which are inserted at the rear of the switch-board.

Heretofore the different strips have been secured by screws inserted from the rear of the board, one screw being inserted through each end of each strip into the frame of the switch-board. In order to remove such a strip it has been necessary to spread the wires apart and use very long and slim screw-drivers.

By the use of my invention the clamp is readily turned in any desired position from the front of the board to permit of the removal of any strip or to clamp any strip after it has been replaced.

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

Figure 1 is a front view of a portion of the frame or the stile of a switch-board. Fig. 2 is a rear view of the same. Fig. 3 is a sectional view upon line *x x* of Figs. 1 and 2. Figs. 4 and 5 are different views of the preferable form of my clamp. Figs. 6 and 7 are front and rear views, respectively, of a portion of a stile of a switch-board provided with a modified form of clamp. Fig. 8 is a sectional view upon line *y y* of Figs. 6 and 7.

Referring to Figs. 1, 2, 3, 4, and 5, it will be observed that the clamp consists of a screw or bolt provided with a head in the form of a button so arranged that when the bolt is turned in one direction the extreme ends of the head will come over the ends of strips *b c*, as shown in Fig. 3. On turning the bolt the head or button is brought in a position indicated by the central bolt in Figs. 1 and 2, so as to release the strips. In the front end of each bolt is provided a slot, *d*, this slot being parallel with the line passing longitudinally through the button. Thus by observing the direction of the slot *d* at the front of the board the position of the head or button may be determined and regulated.

In Figs. 5, 6, and 7 I have shown bolts *e f*, placed side by side, so arranged as to each clamp the end of a single strip. One side of the head of each screw is filed off, as shown, so that when turned in one direction the strip will be clamped and when turned in the other direction the strip will be unclamped.

In Fig. 2 the head or button of the lower bolt is provided with a lug or projection on one side only. Clamps of this form are preferably used at the ends of each section of the switch-board or wherever only one strip of spring-jack switches is to be clamped.

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

1. The combination, with the stile or frame of the switch-board, of strips of spring-jack switches mounted thereon from the rear and a clamp inserted from the rear and held in place by a nut, the head of said bolt being in the form of a button, as described, whereby

the strips may be held in place or removed on turning the bolt, substantially as and for the purpose specified.

2. The combination, with the bolt provided with a head having projecting lugs at one end and at the front end provided with a slot, *d*, in a direction to indicate the direction of said lugs, of the frame of the switch-board and the strips of the spring-jack switches secured upon the frame in the rear by said lugs, substantially as and for the purpose specified.

In witness whereof I hereunto subscribe my name this 4th day of June, A. D. 1888.

WILLIAM M. GOODRIDGE.

Witnesses:
GEORGE P. BARTON,
CHAS. C. WOODWORTH.