

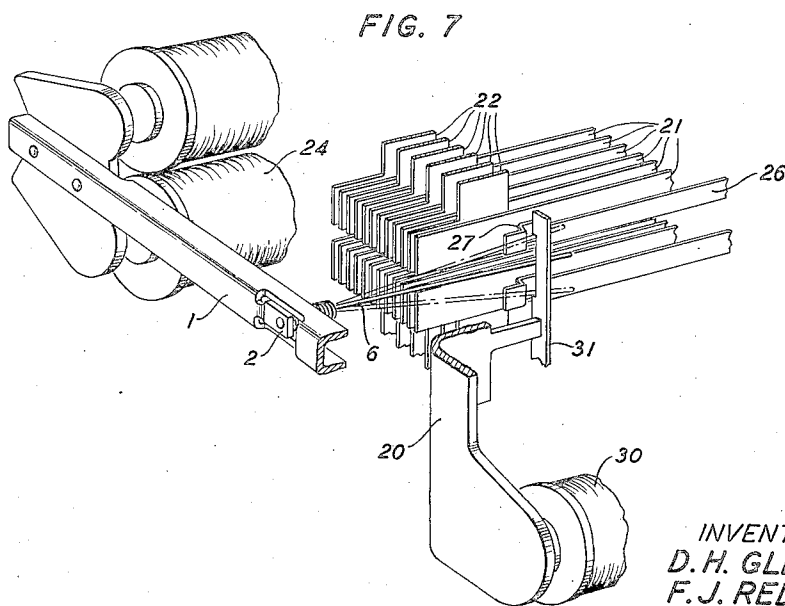
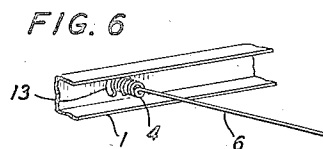
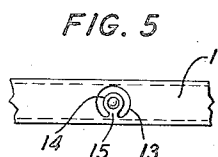
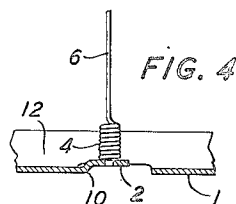
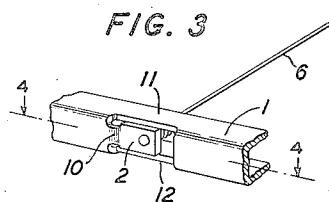
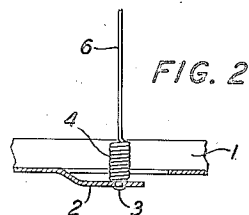
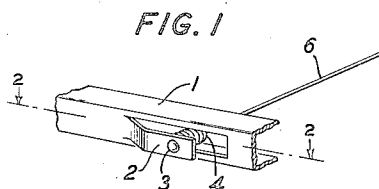
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D. H. GLEASON ET AL

2,039,644

SELECTIVE SWITCH

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2,039,644

SELECTIVE SWITCH

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Application July 23, 1935, Serial No. 32,697

6 Claims. (Cl. 179—27.54)

This invention relates to selective switches and particularly to improvements in automatic switches for telephone systems.

The object is to improve the construction and operation of selective switches of the cross-bar type.

The invention is applicable to the horizontal bars of the general construction used in cross-bar switches of the type disclosed in the Patent 2,021,329 to J. N. Reynolds of Nov. 19, 1935. In such switches the sets of horizontal and vertical bars are employed to actuate sets of contacts at the cross-points of the bars. A selecting finger is mounted on each horizontal bar at each point where said bar is crossed by a vertical bar and means is provided whereby when a horizontal bar is rotated, the selecting fingers thereon are moved in a position where if a vertical bar is operated, it will, due to the position of the corresponding selecting finger, cause the operation of one set of contacts to connect with another set of contacts at the cross-points of said two operated bars. The selecting fingers usually consist of wires attached to the horizontal bars by a coiled portion engaging a screw threaded stud riveted to the bar. These fingers must be individually adjusted to occupy positions where they will be properly acted upon when a selection is made by movements of the bars.

It is a feature of the present invention to provide a horizontal bar for switches of this type having cut away portions to form individually adjustable elements for the mounting of the selecting fingers. These bars may be U-shaped in cross-section having rectangular prongs cut out from the bottom portion of the bar and extending in their longitudinal directions in line with the axis of the bar. At the free end of each prong may be secured the usual screw threaded stud on which the coiled end of a finger is mounted. Thus by adjusting the position of each prong in two directions with respect to the bar each finger may be permanently located at its proper position.

The cut-out elements may be of other shapes such as for example a semi-circular cut-out may be made to produce a central portion for the stud with a shank connecting this portion with the bar. This shank may be turned or twisted in two directions to properly adjust the finger.

The invention has been illustrated in the accompanying drawing in which:

Fig. 1 is a perspective over part of a bar in accordance with a preferred form of the applicants' invention;

Fig. 2 is a cross-section of this bar taken on line 2—2 of Fig. 1;

Fig. 3 is a portion of a bar in perspective of another modified form of applicants' invention;

Fig. 4 is a cross-section of the bar shown on Fig. 3 taken on line 4—4 Fig. 3;

Fig. 5 is a front view of a bar showing another modified form of applicants' invention;

Fig. 6 is a perspective of a portion of the bar shown in Fig. 5; and

Fig. 7 is a fragmentary perspective view of a portion of a switch to which there has been shown a bar constructed in accordance with the form of the applicants' invention as illustrated in Figs. 5 and 6.

Referring now to the preferred form of applicants' invention as shown in Figs. 1 and 2 the bar 1 is U-shaped in cross-section and the rectangular prong 2 has been cut out from the bottom portion of this U-shaped bar and bent slightly outwardly from this bottom portion. As shown prong 2 is rectangular in shape and is located in a longitudinal direction in parallel with the bottom portion of the bar. To this prong is secured a rivet 3 having a threaded portion extending inwardly between the two sides of the bar and on this threaded portion is secured a coiled portion 4 of a selecting finger 5 having its straight portion 6 extending perpendicular to the bar.

In switches in which this bar may be used the selecting fingers have to be positioned with considerable accuracy and the construction as shown in these two figures makes it possible to adjust these fingers to permanently locate them in their proper position by bending the prong 2 in two directions with respect to the bar. That is, the free end of the prong may be bent, if reference is made to Fig. 1, towards or away from the bar to locate the finger in its correct position horizontally and may be twisted sideways in either direction in relation to the bar to locate the finger accurately in its vertical position.

In Figs. 3 and 4 of a modified form of applicants' invention the prong 2 is at its base where it is connected to the bottom portion of the U-shaped bar slightly narrowed down as shown at 10 and the prong itself has been bent inwardly between the two sides of the U-shaped bar but is parallel with the bottom portion. The cut-out portion of the bar is also extended to include part of the sides of the bar as shown at 11 and 12 to facilitate the adjusting of the prong in its proper position and the prong is located inside the outer surface of the bottom portion of the bar so that it may be protected from accidental disturbance

after having been once adjusted in its permanent position.

Figs. 5 and 6 show another form of the applicants' invention in which instead of a prong 2 a 5
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