

March 7, 1939.

H. C. HARRISON

2,149,341

EARPHONE SUPPORT

Filed Sept. 11, 1935

FIG. 1

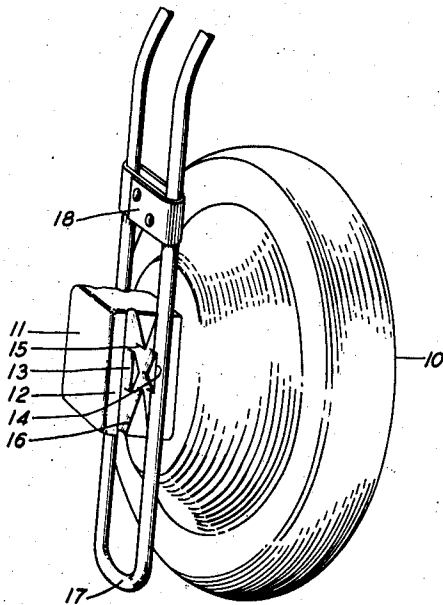


FIG. 3

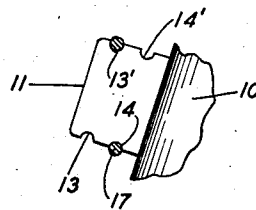
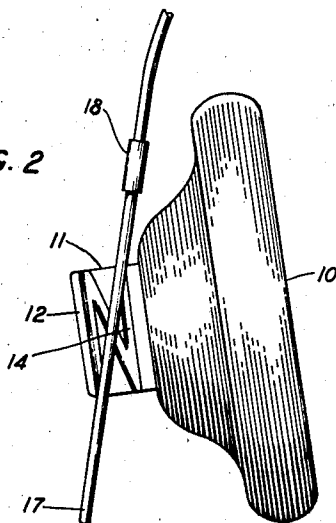


FIG. 2



INVENTOR  
H. C. HARRISON  
BY *G. M. Campbell*  
ATTORNEY

## UNITED STATES PATENT OFFICE

2,149,341

## EARPHONE SUPPORT

Henry C. Harrison, Port Washington, N. Y., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application September 11, 1935, Serial No. 40,062

5 Claims. (Cl. 179—156)

This invention relates to supports and particularly to those used for devices which are required to assume any one of a plurality of positions with respect to the user, such, for example, as ear-  
5 phone supports.

The object of this invention is to provide a support for a sound receiver which is inexpensive, rugged and durable and which allows the receiver to be maintained in any one of a number of positions with respect to the user.

In its preferred form this invention comprises an extension on the receiver cooperating with a slot in a depending portion of a head-band. The slot engages grooves in the side of the extension, a plurality of grooves being supplied in various locations to permit the user to select any two opposed grooves which will give the desired receiver position. The sides of the extension are preferably surfaced with resilient material, and the slot may be formed of wires spaced apart a distance slightly smaller than the width of the extension across the bottom of opposed grooves so that a certain amount of pressure is exerted upon the grooves.

In the drawing which accompanies this specification and forms a part thereof:

Fig. 1 is an elevation in perspective of a receiver showing the novel supporting means;

Fig. 2 is an elevation showing the receiver rotated about a horizontal axis; and

Fig. 3 is a plan view showing the receiver rotated about a vertical axis.

Referring now to Fig. 1, 10 is a receiver adapted to be placed against the ear of the user. The receiver may be either electrical or acoustical and may be constructed of any desirable composition. Secured to some convenient surface of receiver 10 is a resilient block 11, preferably made of rubber. Block 11 is provided with two symmetrical surfaces which may or may not be flat. Only one of these surfaces 12 is shown in Fig. 1, the other being hidden. In each surface are two parallel grooves 13, 14 and two diagonal grooves 15, 16 which cross one another. The corresponding grooves in the hidden surface may be designated 13', 14', 15' and 16', respectively. Engaging one of the grooves on each side is a slotted member 17 which forms a head-band by which receiver 10 is supported. An economical method of forming the slot and head-band is by bending a wire into a U and fastening the sides of the U together by means of a strap 18. The diameter of the wire is chosen small enough so that it readily engages the grooves in the sides of block 11.

The adjustability of the receiver support is

illustrated in Figs. 2 and 3. For example, if it is desired to have the receiver in its normal vertical position with respect to the user, groove 14 and the corresponding groove 14' in the opposite surface are used. If, however, it is desired to tilt the receiver in either direction with respect to the head-band, then slots 15 and 15' or 16 and 16' are used. Fig. 2 shows the position of receiver 10 when grooves 16 and 16' are used.

In Fig. 3 the receiver 10 is shown rotated about a vertical axis. This is accomplished by engaging diagonally opposed grooves as, for example, 13 and 14' or 14 and 13'.

The position of the receiver with respect to the ends of the slot can readily be adjusted by sliding the receiver up or down to the desired position.

It is apparent from the foregoing description that any adjustment of the receiver with respect to the head-band is possible with my novel supporting block and yet no set screws or other machined or stamped-metal parts are necessary to effect the adjustment. Block 11 may be made integral with receiver 10 and non-resilient, in which case wire 17 should possess sufficient resiliency to permit the expansion of the slot formed thereby so that it may pass over the ridges between grooves.

It is understood that the description and drawing of the invention herein contained is merely illustrative of the invention and that the invention, therefore, is not to be limited thereto, but is to be determined by the appended claims.

What is claimed is:

1. In combination, a support having a slot, a receiver, a resilient extension on the receiver and a plurality of pairs of grooved portions on the extension complementary to and adapted for frictional engagement with said slot.

2. An acoustic sound receiver comprising a resilient body having an acoustic sound channel therein, a plurality of pairs of oppositely disposed grooves on the sides of said body and means cooperating with said grooves to maintain the receiver in proximity to the ear, said means comprising a head-band and spaced wires at the ends of the head-band, said wires being adapted to engage any two opposed grooves whereby the receiver can be maintained in any one of a plurality of positions with respect to the head-band.

3. A sound receiver having a soft rubber extension, a slotted support to hold said receiver, and a pair of flutes on oppositely disposed sides of said extension adapted to frictionally engage said slotted support.

4. A sound receiver, an extension of soft rub-

ber integral therewith, a support therefor having an elongated slot and a plurality of pairs of angularly displaced flutes integral with said extension and complementary to and adapted for frictional engagement with oppositely disposed sides of said slot.

5. A sound receiver, an extension of soft rubber

integral therewith and having a plurality of angularly displaced flutes on each of two oppositely disposed sides thereof, a support therefor having oppositely disposed parallel sides adapted for frictional engagement with said flutes.

HENRY C. HARRISON.