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MICROPHONE HOLDER

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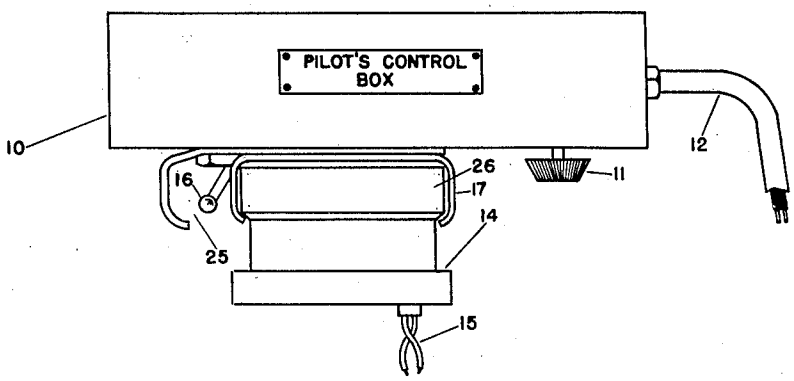


FIG. 2

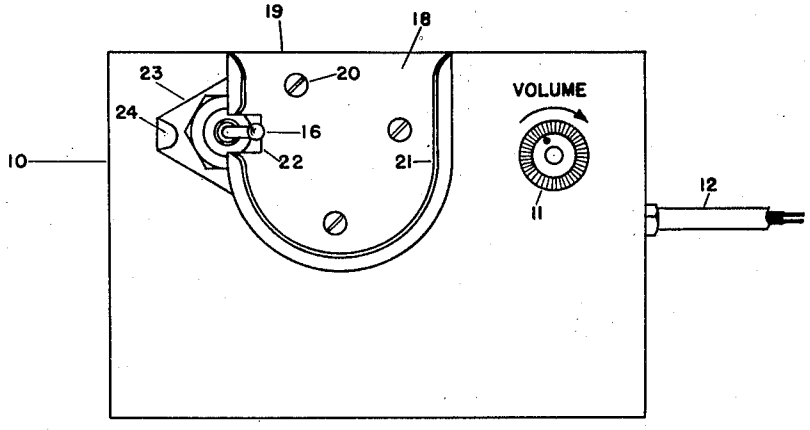


FIG. 1

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MICROPHONE HOLDER

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5 Claims. (Cl. 179—146)

(Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757)

This invention relates to a microphone holder and has for an object to provide an improved microphone holder especially intended for use on an I. C. S.-radio switch so that when the microphone is placed in the holder it will automatically move the switch to the I. C. S. position, thereby insuring that when the microphone is next used it will be in the I. C. S. position and not accidentally or inadvertently connected to the radio system, thereby preventing the operator from talking through the radio system unless he has deliberately changed the switch to the radio position after he has picked up the microphone.

This invention is expressly intended for use on aircraft where there are two or more fliers on the aircraft and where there is an intercommunication system (I. C. S.) and a radio system to either of which the operators may be connected by a suitable switch. Prior to the present invention this switch had to be manually operated to shift from either system to the other with the result that there is the ever present possibility that the switch may be accidentally or carelessly placed or left in the radio position when the user intends to talk only to his co-flier and not on the radio, thus broadcasting conversation which is always embarrassing and sometimes detrimental through broadcasting of confidental information for the edification of anyone listening on such frequency.

A further object of this invention is to make it impossible for the flier to accidentally use the radio system after picking up the microphone until he has deliberately thrown the switch from I. C. S. to radio position.

A further object of this invention is to provide a combination microphone holder and toggle switch for the I. C. S.-radio system of a plane wherein the switch is automatically placed in I. C. S. position whenever the microphone is returned to the holder and can be placed in radio position only by deliberate action after the microphone has been removed from the holder.

A further object of this invention is to provide a combination microphone or telephone holder and switch so located that the restoration of the microphone or telephone to the holder would insure that a certain one of two systems will not accidentally be in use the next time the microphone or telephone is used except by deliberate manipulation of the switch after the microphone or telephone has been removed from the holder.

With the foregoing and other objects in view, the invention consists in the construction, combination and arrangement of parts hereinafter described and illustrated in the drawing, in which,

Fig. 1 is an elevational view of a pilot's control box to which this invention is applied; and

Fig. 2 is a top plan view of Fig. 1, showing the microphone in position on the holder.

There is shown at 10 a pilot's control box having the usual control knob 11 and provided with its customary connections 12 for operating either the radio or the I. C. S. system, this box being of a size that it may be used on aircraft. The usual connections are provided within the box 10 for operating either the intercommunication system (I. C. S.) of the aircraft or of a building and the radio system or an outside telephone system. A switch is located in the box for connecting the microphone 14 through its wires 15 to one or the other of the systems. This switch within the box is provided with a switch toggle 16 extending exteriorally of the box 10 so that when it is in one position it connects the microphone to the I. C. S., and when in the other position it connects the microphone to the radio or telephone system. Mounted on the side of the box 10 is a microphone or telephone holder 17 into which the microphone or telephone holder may be placed when not in operation. This holder 17 as shown may consist of a flat plate 18 secured to the box by screws or bolts 20 and having a U-shaped inwardly flanged edge 21 open at the top end 19 for receiving and supporting the microphone 14.

This plate 18 and one side of edge 21 are cut away as at 22 so as to allow the toggle 16 to extend therethrough. The center line of the switch toggle 16 is approximately on the left edge of the base of the plate 18 in alignment with the flanged edge 21. Extending outwardly from the plate 18 is a guard plate 23 having an upwardly and inwardly extending edge 24 disconnected from the microphone holder edge 21 as at 25, so as to allow access of the finger thereto to throw the switch toggle 16 to the other position than that shown in Fig. 2.

In operation, the switch mechanism within the box 10 is so arranged that when the toggle 16 is in the position shown in Fig. 2 the microphone 14 is connected only to the intercommunication system. If it is desired to use the radio or outside telephone system the switch toggle 16 may be manually moved to the position shown in Fig. 1 after the microphone has been removed from the holder, thereby connecting the microphone up to the radio system. When through

using the microphone it is restored to the holder, and as it slides down into the holder the edge 26 of the microphone abuts against the switch toggle 16 and moves it from the radio position shown in Fig. 1 to the I. C. S. position shown in Fig. 2. The next time the microphone is used it is automatically connected only to the intercommunication system unless and until the user deliberately moves the switch toggle from the I. C. S. position of Fig. 2 to the radio position of Fig. 1 after he has removed the microphone therefrom. It is therefore practically impossible for him to accidentally use the radio or outside telephone system rather than the intercommunicating system without realizing it, for the radio or outside telephone system is connected to the microphone only by a deliberate act of moving the toggle after he has picked up the microphone.

While described principally for use in connection with aircraft, the same system is equally applicable to an intercommunication system within a building wherein the same microphone or telephone is used both for the intercommunication system within the building and the outside telephone, so that the user will always be connected for intercommunication within the building unless he deliberately moves the switch toggle to connect the outside telephone.

Other modifications and changes in the proportions and arrangements of the parts may be made by those skilled in the art without departing from the nature of the invention, within the scope of what is hereinafter claimed.

The invention described herein may be manufactured and/or used by or for the Government of the United States of America for governmental purposes without the payment of any royalties thereon or therefor.

Having thus set forth and disclosed the nature of the invention, what is claimed is:

1. In combination, a microphone holder having a predetermined path which must be followed by a microphone being placed into said holder, a switch movable to two positions to selectively connect either of two circuits to the microphone placeable in said holder, a switch toggle movable to either of two positions for operating said switch, one position of said toggle being in the predetermined path of the microphone entering the holder, the other position being out of said path whereby the microphone entering and leaving the holder necessarily leaves the switch toggle in the position out of its path and necessitates manual operation of said toggle if the switch is to be operated to the other circuit connecting position.

2. In combination, a microphone holder having a predetermined path which must be followed by a microphone being placed into said holder, a switch movable to two positions to selectively connect either of two circuits to the microphone placeable in said holder, a switch toggle movable to either of two positions for operating said switch, the switch toggle extending through a cut-away portion of the edge of the holder, one position of said toggle being in the predetermined path of the microphone entering the holder, the other position being out of said path whereby the microphone entering and leaving the holder necessarily leaves the switch toggle in the position out of its path and necessitates manual operation of said toggle if the switch is to be operated to the other circuit connecting position.

3. A combination microphone holder and toggle switch, said toggle switch being movable to either of two positions, said holder being adapted to receive and support a microphone, said holder providing a predetermined path for the microphone entering and leaving the same, one position of the toggle switch being clear of the path of the microphone entering the holder, the other position of the toggle switch extending into the path of the microphone entering the holder whereby the microphone in entering and leaving the holder will automatically move the toggle switch if in the path thereof to the position where it is clear of the path thereof.

4. In combination, a microphone holder and toggle switch in combination therewith, said toggle switch being movable to either of two positions, said microphone holder comprising a plate having a U-shaped flanged edge for receiving and holding the microphone thereon, said U-shaped flanged edge providing a predetermined path for the microphone entering and leaving said holder, said toggle switch extending through said plate and through a cut-away portion of said U-shaped flanged edge, one position of the toggle switch being in the path of the microphone entering the holder and the other position of the toggle switch being free of the path of the microphone entering the holder, whereby the microphone on entering the holder will move the toggle switch if in the path thereof to the position clear of the path thereof, thereby insuring that the toggle switch will be in a position clear of the path of the microphone next time the microphone is removed therefrom.

5. In combination, a microphone holder and switch in combination therewith, said microphone holder comprising a plate having a U-shaped flanged edge for receiving and holding the microphone thereon, said switch extending through said plate, one position of the switch being in the path of the microphone entering the holder and the other position of the switch being free of the path of the microphone entering the holder whereby the microphone on entering the holder will move the switch if in the path thereof to the position clear of the path thereof, thereby insuring that the switch will be in a position clear of the path of the microphone next time the microphone is removed therefrom, the edge of the microphone holder being cut away where the switch extends therethrough, and a switch guard extending from said holder, said switch guard being spaced from said holder to allow access to the switch for manual manipulation thereof after the microphone is removed from the holder.

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