# United States Patent

**Oskar**

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## [54] MICROPHONE ATTACHMENT FOR GUITARS AND SIMILAR STRINGED INSTRUMENTS


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[21] Appl. No.: **24,494**

**Related U.S. Application Data**

[63] Continuation-in-part of Ser. No. 868,011, Oct. 21, 1969, abandoned.

[52] **U.S. Cl.** .....**179/146 R,** 84/267, 84/453, 84/329, 84/1.01

[51] **Int. Cl.** .....**H04m 1/04**

[58] **Field of Search**.....84/453, 267, 1, 1.01, 1.16, 84/329, 327; 179/146, 150



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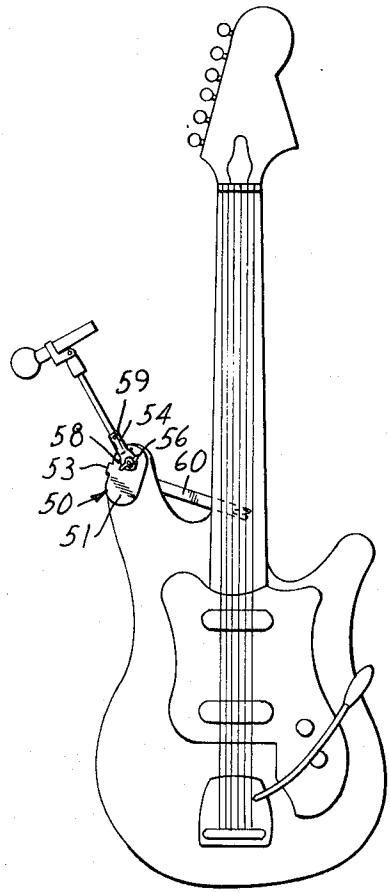
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[57] **ABSTRACT**

Guitars and similar plucked-string instruments are provided with a microphone-holding attachment at a corner adjacent the neck of the instrument. This frees a singer-player from dependence on a stationary microphone.


**6 Claims, 9 Drawing Figures**



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SHEET 1 OF 2

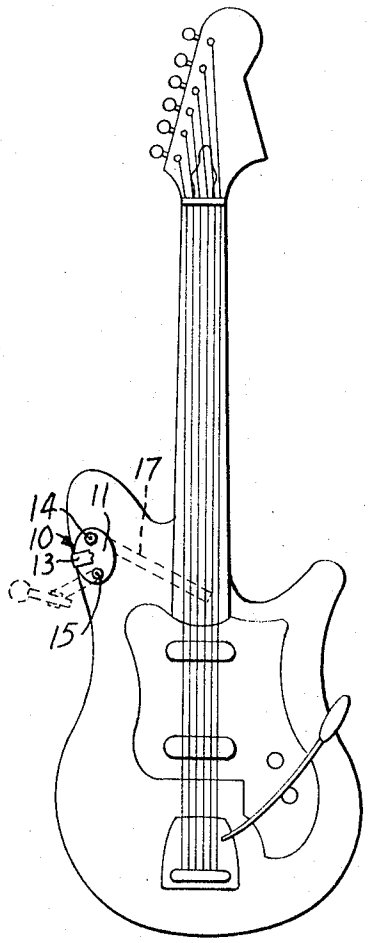



FIG. 1

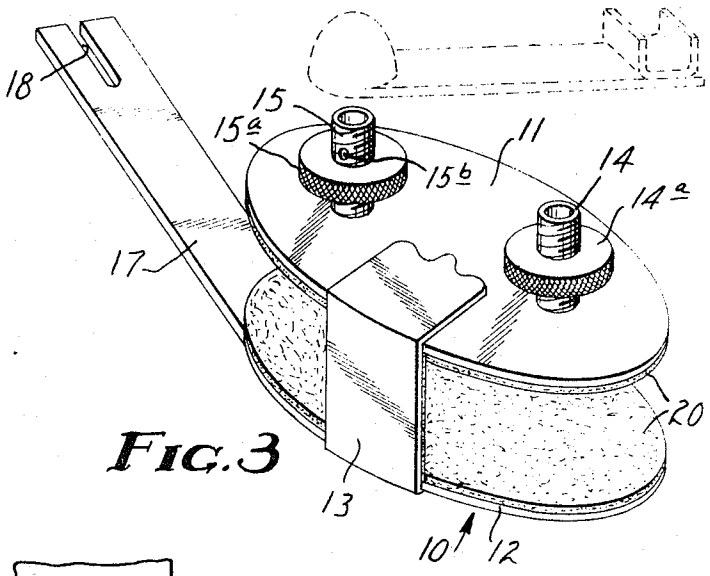



FIG. 3

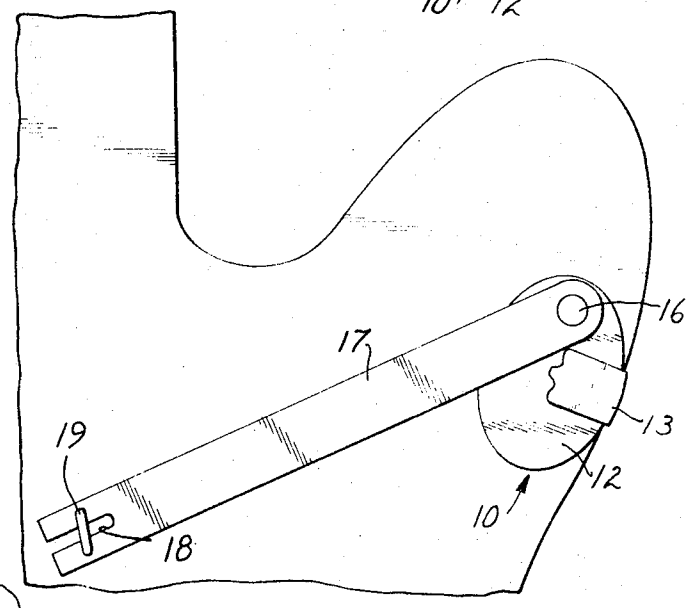



FIG. 2

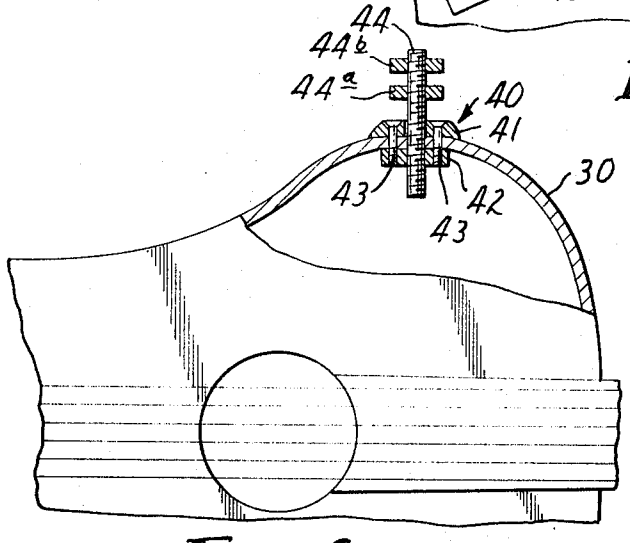



FIG. 4

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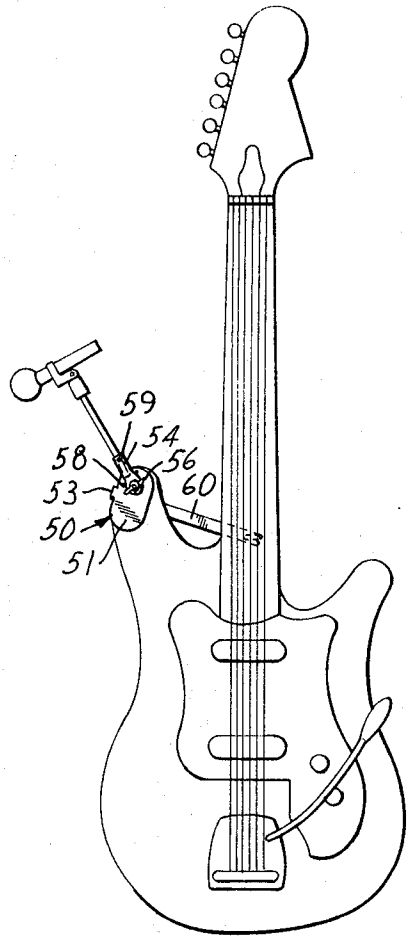



FIG. 5

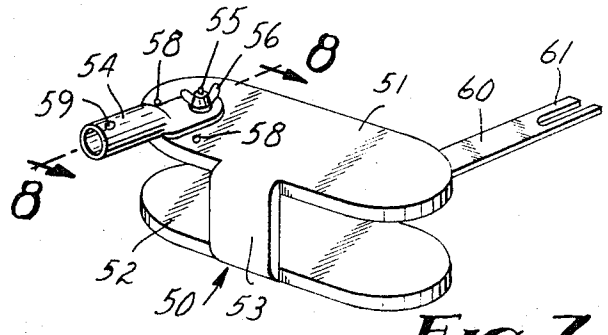



FIG. 7

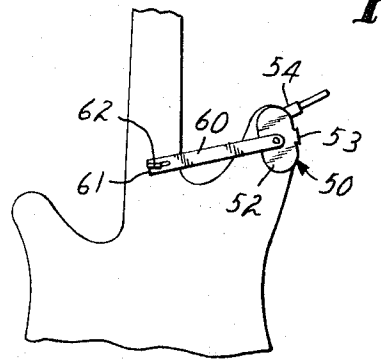



FIG. 6

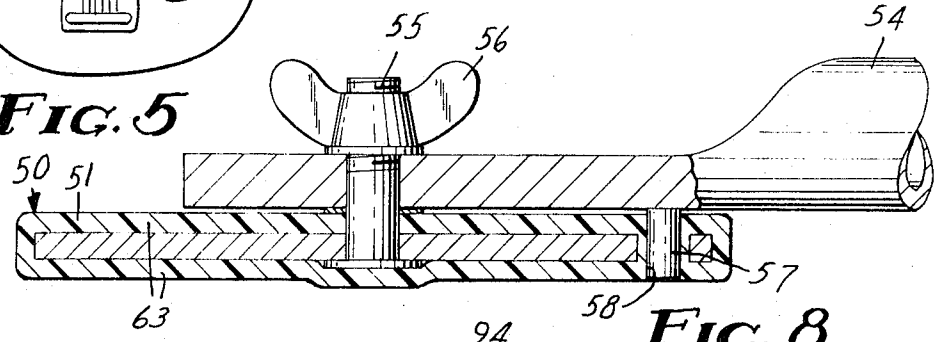



FIG. 8

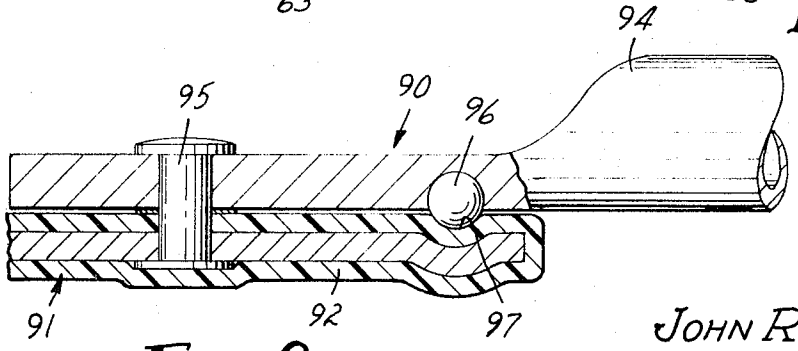



FIG. 9

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# MICROPHONE ATTACHMENT FOR GUITARS AND SIMILAR STRINGED INSTRUMENTS

## CROSS-REFERENCES TO RELATED APPLICATION

This application is a continuation-in-part of my copending application Ser. No. 868,011, filed Oct. 21, 1969, now abandoned.

## BACKGROUND OF THE INVENTION

This invention relates to portable stringed instruments of the type which are played by plucking, especially guitars, mandolins, banjos, bass viols and the like.

A singer who accompanies himself on a guitar while performing before large groups is forced to depend on electronic amplification of both his voice and the sound of the musical instrument. This typically necessitates two microphones, one so positioned as to pick up the music emanating from the strings, and the other positioned adjacent the mouth of the performer. The microphones are typically mounted on heavy stands and booms, which the performer is often responsible for transporting to the place where he performs, at great personal inconvenience.

Musicians who both sing and accompany themselves on a stringed instrument are required to stay close to the microphone. Modern music is often accompanied by considerable physical activity on the part of the performer, resulting in his moving away from the microphones and causing erratic amplification of the music.

Prior to the present invention, it has been assumed that the problems set out above could not be conveniently solved.

## SUMMARY

The present invention provides a simple, lightweight, convenient and inexpensive means for freeing a singer who accompanies himself on a guitar from dependence on conventional microphone stands and booms. With the present invention, he is likewise freed from the inconvenience of having to remain in a relatively fixed location and can actually range about over a considerable area without loss in effectiveness of amplification.

The foregoing advantages are accomplished by a simple lightweight clamp which is mounted on the guitar body at or near a corner adjacent the neck of the instrument. The clamp is provided with means for holding one or more microphones; this is typically accomplished by mounting on the clamp a holding means comprising one or more protruding studs, the distal end of which is adapted to matingly engage microphone supporting equipment. For example, the stud may be externally threaded to provide for mounting thereon a conventional internally threaded microphone mounting bracket. Alternatively, a holder may be pivotally mounted to accommodate an extension tube on which the microphone is mounted. When the bracket and microphone are mounted on devices of the present invention, the performer is always at essentially the same position with respect to the microphone, regardless of how much he may wander, or turn to face different segments of the audience.

## BRIEF DESCRIPTION OF THE DRAWING

Understanding of the invention will be facilitated by referring to the accompanying drawings, in which like numbers refer to like parts in the several views, and in which:

FIG. **1** shows a guitar having mounted thereon a device made in accordance with the invention;

FIG. **2** is a rear view of the guitar and device shown in FIG. **1**;

FIG. **3** is an enlarged view of the device shown in FIGS. **1** and **2** showing in dashed lines a microphone holding bracket positioned for mounting on the device;

FIG. **4** shows a partially cut away view of a portion of the face of a classical guitar having mounted thereon another embodiment of the invention;



FIG. **5** shows a guitar having mounted thereon an alternative form of the device of the invention;

FIG. **6** is a rear view of the guitar and device shown in FIG. **5**;

FIG. **7** is an enlarged view of the device shown in FIGS. **5** and **6**;

FIG. **8** is a cross-sectional view of the device of FIG. **7**, taken along section line **8—8** and looking in the direction of the arrows; and

FIG. **9** is a cross-sectional view of a modified form of the device shown in FIG. **8**.

## DESCRIPTION OF PREFERRED EMBODIMENTS

Although the invention is subject to numerous modifications, it is believed that understanding will be facilitated by describing specific embodiments with the aid of the pertinent drawings.

Referring first to FIGS. **1**, **2** and **3**, attachment **10** comprises upper plate **11** and lower plate **12**, desirably contoured to conform, respectively, to the upper and lower surfaces of one corner of a guitar adjacent the neck. Plates **11** and **12** are connected by strap **13**, which may be integral with them, but is preferably formed from a separate piece. Since the thickness of guitars varies rather widely, this arrangement permits the manufacture of a minimum number of sizes of parts, strap **13** being bent over at the desired location, depending upon the thickness, and soldered or welded to plates **11** and **12**. Each of these three component parts, and especially strap **13**, is preferably formed of a strong, stiff resilient material, such as spring steel or functionally equivalent material.

Mounted on the upper face of plate **11** are studs which desirably take the form of tubes **14** and **15**, attached by soldering, welding, or press fitting and riveting. The distal ends of tubes **14** and **15** are externally threaded to accommodate the internally threaded end of a conventional U-shaped microphone holding bracket. Also threaded on tubes **14** and **15**, respectively, are knurled nuts **14*a*** and **15*a***, which are used to maintain the microphone holding bracket in fixed position. If a performer wishes to use a microphone only for singing, he will, of course, attach a suitable microphone mounting bracket to only one of the two threaded tubes, turning the microphone upward towards his mouth. If, on the other hand, he also wishes to amplify the sound of his guitar (as may well be the case where the guitar is not provided with electronic amplification itself), he may mount an additional microphone bracket and microphone on the other threaded post, turning that microphone down toward the strings.

For a guitar player who prefers to hold his guitar near his belt line, a wide variety of straight, curved or elbowed extension tubes may be attached to tube **15** to permit properly locating the microphone. To help maintain such an extension tube in fixed position, tube **15** is provided with hole **15*b***, a hole on the extension tube aligned therewith, and a thumbscrew inserted through the two.

Connected to lower plate **12** by rivet **16** is bifurcate arm **17**, having slot **18** at the distal end thereof. When attachment **10** is mounted on a guitar as shown in FIGS. **1** and **2**, slot **18** of arm **17** may be slid over the shaft of eye bolt **19**, which is present in many guitars for holding the neck strap. Where the guitar is not provided with such an eye bolt, arm **17** may be omitted, although it is then preferable to provide the guitar with an eyebolt.

The inner faces of plates **11** and **12**, as well as the inner face of strap **13**, are preferably provided with a resilient cushioning material **20**, such as polyurethane foam, to prevent marring the surface of the guitar and to enhance the friction of gripping.

The embodiment of the invention just described has the advantage that it can be mounted on virtually any guitar simply and easily. It can be left in place, even when the instrument is in its case, since it does not protrude more than one-fourth inch beyond the edge of the guitar. For some purposes, how-

ever, a more permanent attachment may be desirable, as will now be described with respect to another embodiment of the invention.

FIG. 4 shows a form of the invention adapted to mounting in a hollow body guitar, e.g., a classical guitar. A hole is drilled through the side wall 30 of the guitar body, and plates 41 and 42 positioned, respectively, on the inside and the outside of the guitar body and connected by screws 43. Both plate 41 and plate 42 have a hole which line up with the one previously drilled in the guitar body, the hole in plate 42 being internally threaded to accommodate a typical microphone-mounting extension tube. The hole in plate 41 need not be threaded, and may be substantially the same diameter as the outer diameter of the microphone extension tube 44, which is inserted therethrough and threaded into the hole in plate 42. Threaded on the exterior of mounting tube 44 are knurled nuts 44*a* and 44*b*. Tube 44 is inserted to the desired depth, depending on the manner in which the performer holds his guitar, his own physical dimensions, etc. Knurled nut 44*a* is then turned down to hold the tube in position. A microphone holding bracket is then threaded on the distal portion of tube 44 and knurled nut 44*b* turned up, again to hold the equipment in fixed position.

As was true in the device described in connection with FIGS. 1–3 inclusive, the embodiment shown in FIG. 4 may be similarly modified to accommodate more than one microphone tube and microphone, to utilize a variety of brackets and fittings, etc.

When the embodiment shown in FIG. 4 is employed, tube 44 may be removed to permit placing the instrument in its case or, alternatively, it may be threaded in completely, passing into the hollow interior of the guitar body and being stored there until the next time the instrument is used.

Referring now to FIGS. 5–8 inclusive, attachment 50 comprises upper plate 51 and lower plate 52, connected by strap 53. Pivotally mounted on plate 51 is tube-holding bracket 54, having hole 54*a* for use in connecting an extension tube to bracket 54. Bolt 55 extends through one end of bracket 54, wing nut 56 being threaded on to help hold bracket 54 at a desired angle. Stud 57 protrudes from the lower face of bracket 54 and is inserted into the desired one of several arcuately arranged holes 58 in plate 51, further assisting in maintaining the proper angle. Arm 60 is pivotally connected to lower plate 52, forked end 61 being slid over the shaft of neck strap-holding eye bolt 19. The entire attachment 50 is desirably dipped or electrostatically sprayed with a black vinyl composition 63, which serves the combined functions of providing an attractive appearance and providing a non-marring frictional surface on the guitar-contacting faces of plates 51 and 52.

Stud 57 is subject to various structural modifications; for example, it may be fixed, adjustable in length, or spring-retractable. Still another variation is shown in FIG. 9, where device 90 comprises upper plate 91 covered with a vinyl layer 92. Microphone bracket 94 is pivotally connected to plate 91 by rivet 95. A recess in the lower surface of bracket 94 accommodates a small ball bearing, a corresponding depression 97 being provided in the upper face of plate 91. A series of such depressions are spaced on an arc equidistant from rivet 95, providing for easier repositioning of bracket 94.

It will, of course, be appreciated that for permanent installations on a guitar, the upper plate of the devices just described could be adhered or otherwise affixed to the face of a guitar, simplifying construction considerably. Other modifications which do not depart from the spirit of the invention will readily occur to musicians.

What I claim is as follows:

1. A voice microphone holder, adapted to being readily mounted on and dismounted from a guitar or similar instrument, comprising in combination:

two substantially parallel plates,

a stiff strap connected to one edge of each of said two plates, the length of said strap being determined by the thickness of the guitar body on which said holder is to be mounted,

a tubular means mounted on the outer face of one of said plates, said tubular means being threaded to matingly engage complementarily threaded microphone-supporting equipment,

the other of said plates being provided with an elongate adjustable connecting means, one end of said means being connected to said other plate and the distal end of said means being adapted for connection to another portion of the guitar to enhance stability of the microphone holder when mounted on the guitar.

2. The device of claim 1 wherein the inner faces of the two plates are provided with a soft, compressible material which promotes frictional gripping of the guitar faces without disfigurement thereof.

3. The device of claim 2 wherein the soft compressible friction-promoting material is a tough vinyl coating.

4. The device of claim 2 wherein the soft compressible friction-promoting material is a tough vinyl coating.

5. The device of claim 1, wherein the connecting means is an arm adapted to be engaged by the eye bolt which holds the neck strap on the back of a guitar.

6. The holder of claim 5 wherein the holding means comprises an extension tube-holding bracket which is pivotally connected to the upper plate so as to be movable thereover, said bracket and upper plate being provided with complementary interlocking means to assist in holding the two in a desired relationship.

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