

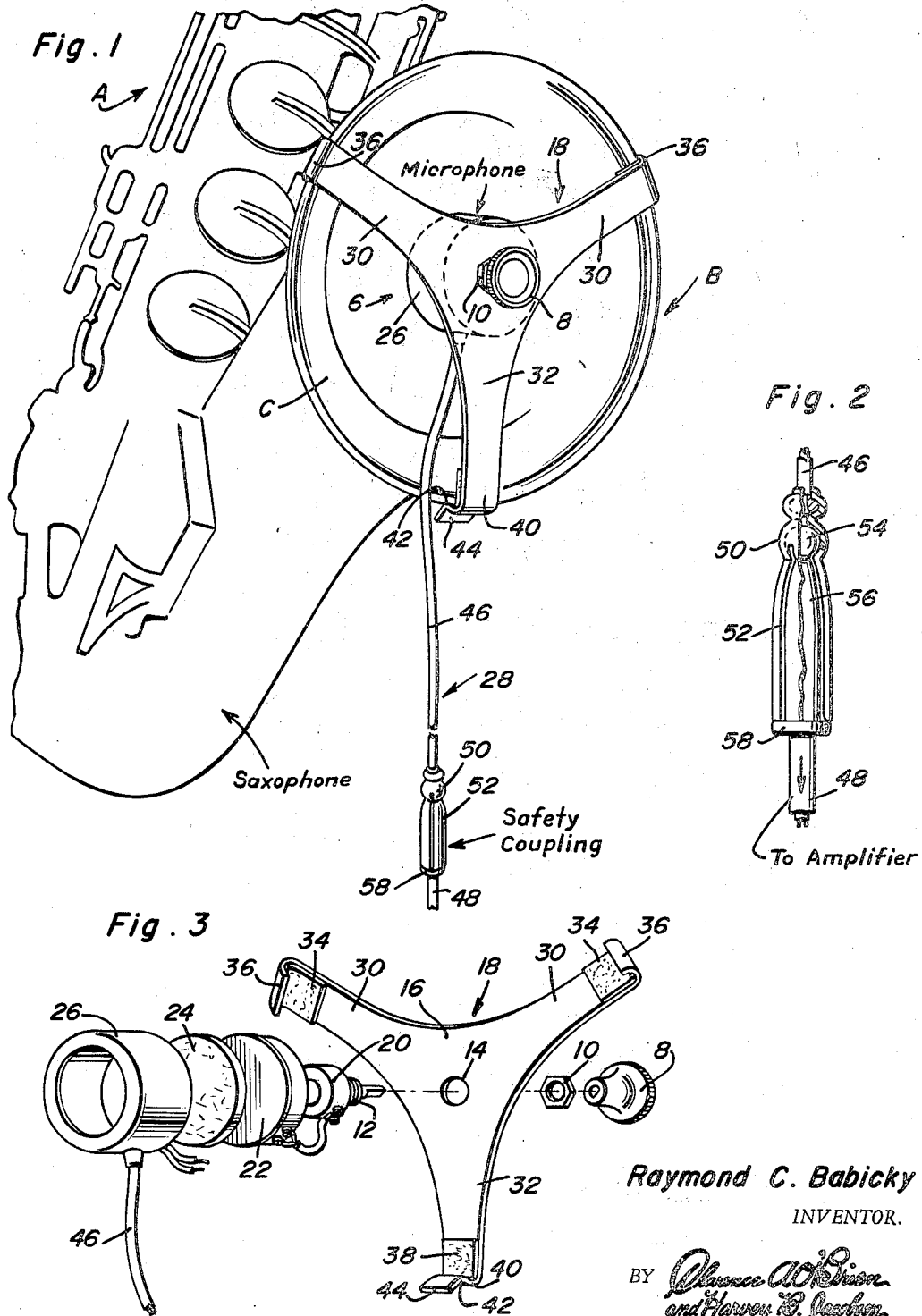
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R. C. BABICKY

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MICROPHONE AND ADAPTER FOR ATTACHMENT TO SAXOPHONE

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Raymond C. Babicky, Milwaukee, Wis.
(237 N. Euclid St., Bldg. I, Anaheim, Calif. 92801)
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3 Claims

ABSTRACT OF THE DISCLOSURE

A microphone which lends itself to acceptable use on any horn having a bell. A volume control knob is mounted on the hub of a spider-like adapter frame having legs terminating in padded hooks two of which are "hung" over the rim of the bell at the top and the other one at the bottom being bendable and clipped in place. The cable means embodies one component joined to the microphone, the other one to an amplifier. The adjacent cable ends are separably joined by a pull responsive coupling. If anyone trips over the cable the coupling will pull apart and safeguard the player and horn.

BACKGROUND OF THE INVENTION

This invention relates to sound pickup means for musical instruments which are equipped at the tone discharge end with a bell, such as for example brass instruments and reed instruments, and has to do with an appropriate cable-equipped microphone wherein a special purpose break-away cable leads to and is connected with an amplifier and a triple-legged spider-like frame or adapter supports and detachably mounts the microphone on the mouth-end of the bell.

PRIOR ART

It is old in this field of endeavor to equip brass and reed instruments with electrical pickups. Prior patents teach the idea of electrical amplification for clarinets wherein a microphone on the barrel or, alternatively, mouthpiece is operably connectible with a volume-controlled speaker unit. Then, too, persons conversant with the art under advisement are aware that it is not new, broadly stated, to mount pickup means on a trumpet or a cornet bell. The fact that prior art adaptations have not met, or so it would seem, with enthusiastic endorsement and commensurable or widespread use has given rise to the herein disclosed improvement wherein the adapter or frame for the volume controllable microphone is unique and the coupling-equipped cable, for safeguarding use, is an innovation.

SUMMARY

Briefly and broadly the concept, construed as a novel combination achieving an improved end result, is directed to a musical instrument such as a saxophone and the combination therewith of an appropriate microphone and an adapter on which said microphone is operatively and accessibly mounted, said adapter embodying means where-bell-mouth, and cable means having one end operatively by it can be readily attached to and removed from said joined to said microphone and means at its other end for operative connection with a suitable musical-instrument-type amplifier.

More specifically, novelty is predicated on a sound pickup microphone suitable for the particular horn on which it is to be used, said microphone having self-contained manually regulatable volume control means operatively attached cable means for connection with an appropriate amplifier, and an adapter on which said microphone is mounted, said adapter having self-con-

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tained means which is capable of being attached to the mouth portion of the bell of said horn, and wherein said adapter comprises a one-piece frame having a flat central hub portion with an axial opening in which a component part of said microphone is fittingly detachably mounted and is provided with two upper legs with terminal orienting and supporting hooks and a complementary lower leg with a manually bendable hook which is capable of being releasably but retentively snapped in place.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout.

DESCRIPTION OF THE DRAWING

FIG. 1 is a view showing a fragmentary portion of a saxophone in perspective and showing, what is more important, the microphone and the spider-like adapter or frame on which it is mounted and how the frame or adapter is mounted for use on the bell with coupled components of the cable or cord suspended.

FIG. 2 is a view on an enlarged scale with parts in section and elevation showing the pull responsive coupling means which functions to join adjacent or coacting ends of the cable components.

And FIG. 3 is an exploded perspective view showing the principal component parts of the microphone and the spider-type adapter frame.

DESCRIPTION OF THE PREFERRED EMBODIMENT

By way of introduction to the description of the details it is to be pointed out that the microphone, adapter and cable combination, construed as a combination or an assemblage, is usable when properly proportioned on the lip or mouth portion of the bell of any musical instrument which terminates in a bell. This means that the expression "saxophone or the like" is to be construed as covering any one of the saxophones of the over-all saxophone family, cornets, trumpets, trombones and other bell-equipped musical instruments. Manifestly there are times when players of instruments in the category stated are called upon to perform standout passages and with a microphone attached directly to the bell of the instrument it is obvious that a result more satisfying to the performer can be attained. In FIG. 1 the saxophone is denoted generally by the letter A, the bell at B and the rim or lip at C.

The microphone is of the composite construction suggested generally in FIG. 3 and is here conveniently denoted as a unit by the numeral 6. With reference to FIG. 3 the numeral 8 designates a finger grippable volume control knob and 10 designates an assembling nut connectible with the screw threaded shank 12 which in practice is designed and adapted to pass through a suitable aperture or hole 14 provided at the axial portion of the hub part 15 of the adapter frame 18. This part 18 can be designated as an adapter, a frame or a readily attachable and detachable spider. Reverting to the microphone it embodies component parts 20 including the microphone proper as at 22 and which is associated with a coaxial baffle 24 with all parts fitting together within the confines of an annular shell or casing 26. The cable means is denoted, generally speaking, by the numeral 28. As to the adapter it is a one-piece flat-faced frame with a plurality of radial circumferentially spaced legs. The upper legs, which are identical in construction are denoted at 30 and the lower adaptable leg is denoted at 32. The upper legs 30 are provided with suitable protective pads or cushions 34 and terminal substantially rigid hooks 36 which are spaced apart in a manner that they can be

hung and suspended over the lip or rim of the bell mouth B in the manner shown in FIG. 1. The lower free end portion of the leg 32 is provided not only with a suitable pad 38 but with bent portions 40 and 42 and a terminal free end portion 44 which features combine in providing a bendable as well as a snap-on adapter positioning and retaining hook. In use the user will have to bend the features 40, 42 and 44 in order to satisfactorily apply and retain the leg 32 aptly and satisfactorily in place.

The adapter frame and microphone thereon is a highly important aspect of the over-all concept. Also, the cable means 28 is an innovation in that it comprises an upper component part 46 and a lower component part 48. More importantly the adjacent ends of the parts 46 and 48 are joined by a safety type pull responsive coupling which comes into play just in case any one nearby trips over the cable. The idea is that the coupling would then come into play and permit the portions or parts 46 and 48 to separate thus providing a two-part break-away cable. The upper portion 50 of the female coupling unit 52 is fashioned into a resilient socket to accommodate the ball end 54 of the male coupling member 56. The numeral 58 designates a limit stop flange which functions in the manner shown in FIG. 2.

In practice the microphone-equipped adapter or frame 18 is mounted in place on the bell B of the instrument in the manner shown in FIG. 1. The cable component 48 is connected in any suitable manner with an amplifier (not shown).

The invention well serves the purposes for which it is adapted. Also, the manner of attaching and using the same is doubtless clear from the views of the drawing. A more extended description is thought to be unnecessary.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

What is claimed as new is as follows:

1. In combination, a musical instrument, a saxophone for example, characterized by tubing defining an unobstructed passage for tone waves and terminating at an outward end in an outwardly flaring bell having an endless annular bellmouth, a self-contained microphone, an adapter separate from said microphone, said adapter comprising a one-piece flat spider-type frame including (1) a central hub portion having an inner face on which said microphone is accessibly detachably mounted an outer face on which a volume controlling knob is accessibly mounted and (2) a plurality of circumferentially spaced coplanar arms radiating from and coplanar with said hub portion and having outer terminal end portions which are supportively but releasably connected with coacting marginal edge portions of said bell mouth, and cable means

comprising a first cable component having an outer end which is fixedly operatively joined to said microphone, and a second cable component complementary to said first cable component and having an outer end which is adapted to be operatively connected with a musical-instrument-type amplifier, said cable components having adjacent inner ends operatively but separately joined together by safety-type pull responsive separable coupling means capable of parting and uncoupling itself should someone accidentally trip over the over-all cable and impose a dangerous endwise or a similar danger promoting pull on said cable means whereby in this manner to safeguard the player of the aforementioned instrument.

2. For use on the bell of a horn, a saxophone for example, a sound pickup microphone structurally and functionally suitable for the particular horn on which it is to be used, said microphone having self-contained manually regulatable volume control means, and an adapter on which said microphone is mounted, said adapter having self-contained means which is capable of being attached to the mouth portion of the bell of said horn, said adapter comprising a flat spider-like frame including (1) a central apertured hub portion on which said microphone is detachably mounted and (2) a plurality of coplanar circumferentially spaced arms radiating from said hub portion and having free outer terminal end portions which are supportively but releasably connectible with coacting marginal edge portions of said bell mouth, said outer terminal end portions being provided with individual pad-protected hooks which are individually shaped to be attachably and detachably hooked over circumferentially spaced rim portions of the mouth of said bell.

3. The combination defined in and according to claim 2, and, in combination, cable means comprising a first cable component, one end of which is fixedly joined to said microphone, and a second complementary cable component, said cable components having adjacent inner ends operatively but separably joined together by safety-type pull-responsive separable coupling means which has the capability of uncoupling itself should someone accidentally trip over the over-all cable and impose a dangerous endwise or similar danger-promoting pull on said cable, whereby to safeguard the player of said instrument.

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ELI LIEBERMAN, Primary Examiner

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