Feb. 1, 1949. W. J. BABICKY 2,460,408

AMPLIFIED ACCORDION

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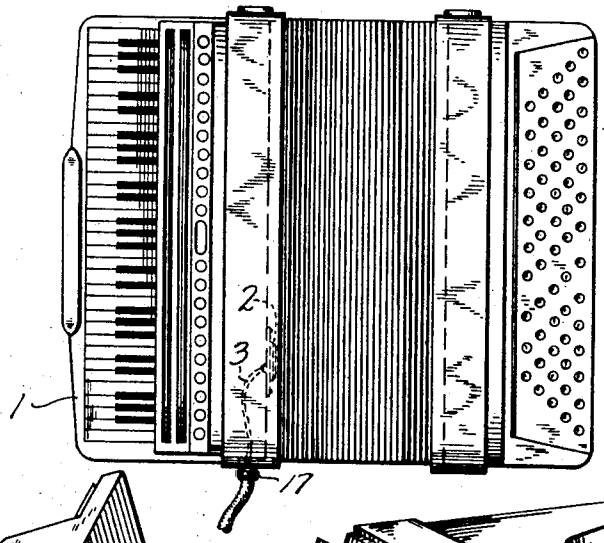
Fig. 1



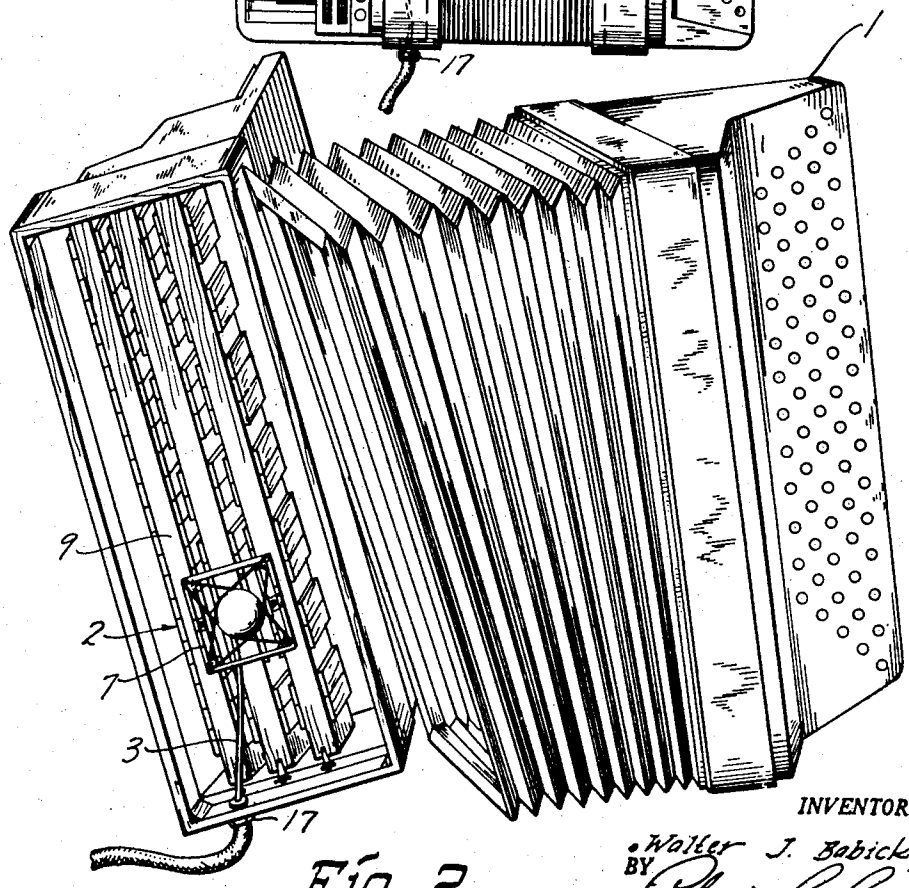


Fig. 2

INVENTOR.
Walter J. Babicky
BY Alvin A. Andrus
Attorney

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Fig. 3

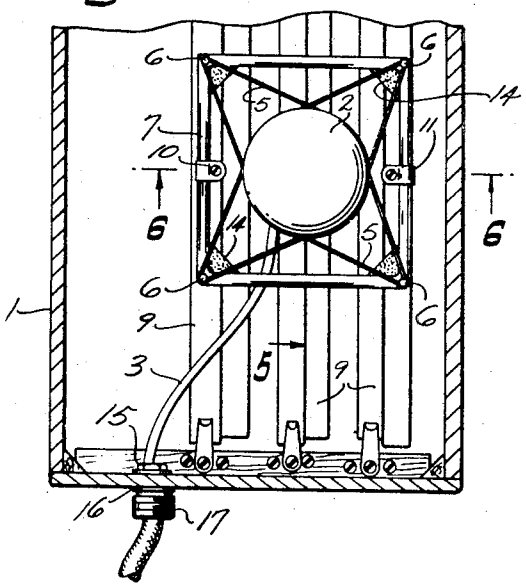


Fig. 4

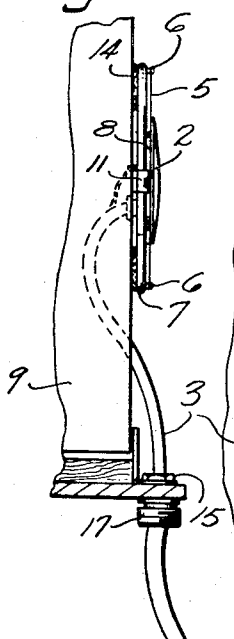


Fig. 5

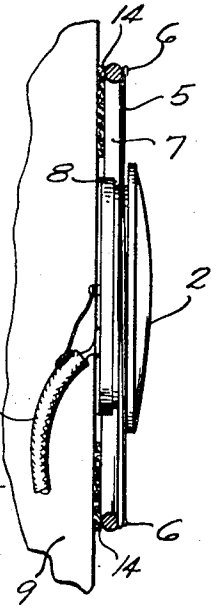


Fig. 6.

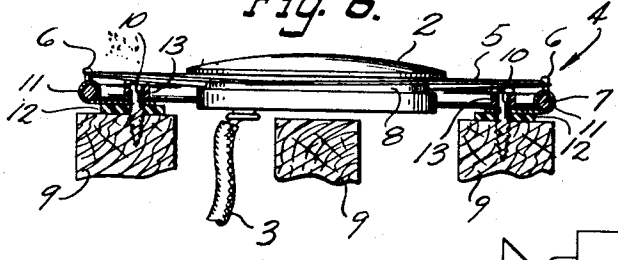
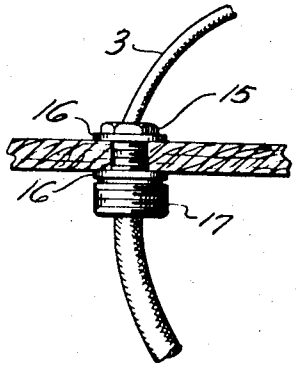
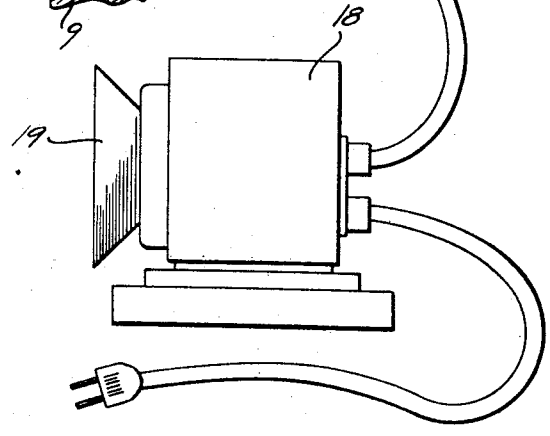


Fig. 7





INVENTOR.

Walter J. Babicky

BY

Alvin A. Andrus

Attorney

Patented Feb. 1, 1949

2,460,408

UNITED STATES PATENT OFFICE

2,460,408

AMPLIFIED ACCORDION

Walter J. Babicky, Milwaukee, Wis.

Application June 28, 1946, Serial No. 680,314

5 Claims. (Cl. 84—1.04)

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This invention relates to an amplified accordion, or the like.

Accordions have been one of the most difficult musical instruments to amplify in a manner pleasing to the ear. Attempts to attach the microphone to the inside of the casing have resulted in the pickup of noise from the keys, valves and bass mechanism, vibrato of the steel reeds, and an excessive disproportionate amplification of the treble part as compared to the bass part of the music.

The principal object of the present invention is to provide an accordion amplification in which the noises referred to are eliminated and in which the treble and bass parts are more nearly equally amplified to produce music pleasing to the ear.

Another object of the invention is to provide a novel accordion amplification which is more accurate for the player and which does not require special training to adjust the touch of the keys and the playing to the idiosyncrasies of the amplifier pickup.

Another object is to reduce the amount of work to play an accordion.

Another object is to provide an amplification pickup for an accordion that is more accurate and less apt to pick up noises.

A more specific object is to provide a mounting for the microphone inside the accordion, that will greatly improve the quality of amplification.

Another specific object is to provide an improved connection for the microphone in the accordion.

The invention is illustrated in the accompanying drawings in which:

Figure 1 is a front elevation of an accordion showing the amplifier hookup thereto;

Fig. 2 is an enlarged perspective view showing the accordion opened up, with the microphone mounting in clear view;

Fig. 3 is an enlarged top plan view of the microphone mounted in the accordion;

Fig. 4 is a side elevation of the microphone mounted in the accordion;

Fig. 5 is a transverse section taken on line 5—5 of Fig. 3;

Fig. 6 is a similar section taken at right angles to Fig. 5; and

Fig. 7 is a transverse detail section through the case taken axially of the lead wire connector.

The invention is applicable to any type of accordion and is generally used in connection with large concert accordions such as the one illustrated in the drawing.

The amplifier pickup for the accordion 1 should

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comprise a very light weight microphone 2, preferably of the crystal type having but a single lead wire 3 therefore. Contact type microphones such as those employed for electric guitars and violins should not be used, as they have a tendency to pick up noises.

The microphone 2 should be shielded from casing vibrations by a cushion mounting 4 and the lead wire 3 should be electrically shielded from interference, the latter shield constituting a ground lead from the microphone and encasing the lead 3.

For the purpose of completely shielding the microphone 2 from casing vibration the microphone is suspended in mid-air inside the accordion by rubber bands 5 stretched between suitable posts 6 on a copper frame 7 and encircling the microphone in a circumferential groove 8 in the latter.

The frame 7 may be rectangular with the posts 6 disposed at the opposite corners, as shown. It is mounted on the piano side reed blocks 9 with the microphone 2 preferably facing the bass side of the accordion, in a space where it will not be touched or interfere with the operation of the accordion.

The mounting comprises a pair of wood screws 10 passing through thin sheet metal straps 11 which encircle the opposite sides of the frame, and into the corresponding wood reed blocks. A rubber or felt washer 12 lies beneath each strap 11 and between it and the corresponding reed block, and a rubber tube 13 encircles each screw 10 and is confined between the screw head and strap 11.

The corners of frame 7 rest on felt pads 14 glued to the wood reed blocks 9.

The shielded lead wire 3 is secured to the back of microphone 2 and extends outwardly to a screw connector 15 clamped through the outer casing wall of the accordion with suitable rubber washers 16 therebetween. The ground shield encasing wire 3 is secured to the connector 15.

The connector 15 is adapted to receive a removable coupling connector 17 and shielded cable leading to the amplifier set 18 and loud speaker 19.

The amplifier set 18 and speaker 19 should be set to favor bass amplification.

With the pickup constructed and mounted as described it has been found that the key and valve noises are not picked up. The floating microphone picks up all musical tones directly from the reeds and without distortion or echoes. All transmittal of tonal vibrations through the

casing of the microphone are avoided. The tonal quality of amplification is far superior to any obtainable heretofore where microphones were attached directly to the casing and the like.

The invention may have various modifications and embodiments within the scope of the accompanying claims.

I claim:

1. The combination with a musical instrument having reed blocks and piano keys at one side thereof, of an amplifier pickup comprising a light weight microphone and a floating mounting therefor, and fastening means for securing the mounting to the piano side reed blocks in an otherwise unused space in the instrument.

2. In an accordion having reed blocks and piano keys at one side thereof, an amplifier pickup comprising a crystal microphone, a floating support for said microphone, and cushion means securing said support to the piano side reed blocks in the central space in the accordion.

3. The combination with a musical instrument having reed blocks and piano keys at one side thereof, of an amplifier pickup comprising a light weight microphone and a floating mounting therefor, and fastening means for securing the mounting to the piano side reed blocks in an otherwise unused space in the instrument with the microphone facing the bass side of the instrument.

4. In a portable musical instrument of the reed type having reed blocks and also having valves

making amplifier pickup difficult, an amplifier pickup comprising a microphone, a floating mounting therefor, and fastening means for securing the mounting upon the reed blocks of the instrument.

5. In an accordion having reed blocks and piano keys at one side thereof, an amplifier pickup comprising a crystal microphone, a frame surrounding said microphone, rubber bands held by said frame and encircling said microphone to float the same in mid-air, means securing said frame to the piano side reed blocks of the accordion in the central space in the accordion with said microphone facing the bass side of the accordion, and cushion means disposed between said frame and said reed blocks to prevent pick up of noises by the microphone.

WALTER J. BABICKY.

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