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SOUND PRODUCING BANJO

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This invention relates to a new sound producing banjo and has for an object to provide a combination banjo and magnetic pickup that produces new sounds such as no other electric fretted instrument is able to produce.

A further object of this invention is to provide a combination banjo and magnetic pickup wherein the pickup is so located on the banjo that it is capable of producing new sounds unlike that ever produced by any electric fretted instrument.

A further object of this invention is to provide a combination banjo and a magnetic pickup wherein the pickup is located and supported between the parchment or calf skin head of the banjo and the music string thereover, wherein the pickup is in contact with the banjo head and is not secured to the banjo head, and as a result, is capable of producing a new range of original sounds.

The magnetic pickup of this combination is connected in any conventional manner to a conventional amplifier, but, due to its particular location against the banjo head between the strings, it produces new and original sounds, in decided contrast with other fretted instruments to which magnetic pickups have been attached and connected to amplifiers which produce sounds which are true reproductions of the sounds produced by the strings. With applicant's combination, the sounds are new and original for a banjo.

For instance, by slapping the palm of the hand on top of the bridge, it produces a perfect bass drum sound. In this invention, the magnetic pickup picks up and blends the vibration from the strings and from the parchment or calf skin head and produces a cello like tone.

It is a further object of this invention to provide a new combination of a banjo and a magnetic pickup which produces new and original sounds not previously produced by other fretted electrical instruments having magnetic pickups which are mounted generally on a solid piece of material, and not in contact with a stretched parchment or calf skin head between the head and the strings as in applicant's invention, so that they result in mere amplification of the true sounds rather than be capable of producing new and original sounds.

With the foregoing and other objects of this invention, as will hereinafter become apparent, this invention comprises the combination and arrangements hereinafter set forth, disclosed and defined, and illustrated on the accompanying drawing, wherein:

FIGURE 1 is a top plan view of this invention, showing the magnetic pickup mounted on the banjo.

FIGURE 2 is a side elevational view of the pickup, on line 2—2 of FIG. 4.

FIGURE 3 is a similar but front elevational view on line 3—3 of FIG. 1.

FIGURE 4 is an elevational view of the amplifier control unit on line 4—4 of FIG. 1.

There is shown at 10 a banjo, generally conventional in construction, and at 12, a magnetic pickup, likewise generally conventional, but so located on the banjo 10 as to provide a novel combination for producing new and original sounds unlike those normally produced by a banjo with or without a magnetic pickup.

In this invention, the banjo 10 is conventional, and may be any type of banjo, such as a four string banjo, five string banjo, a banjo uke, a banjo mandolin or other type of banjo, which utilizes a calfskin head 14, or other parchment head stretched over and mounted in a conventional manner on the banjo hoop 16 as by conventional fastening means at 18 and 20. Extending from one side of the hoop 16 is the usual string neck 22 and having the usual adjusting keys 24 for the ends of the strings 26, here illustrated as six in number, with their other ends secured to a string anchor 28 conventionally mounted on the opposite side of the hoop 16. The strings extend in a conventional manner over a bridge 30. The bridge 30 is held slidably against the head 14 by the tautness of the strings when in adjusted tension, as customary. The bridge 30 has the usual frets 32 through which the strings 26 extend. The banjo 10 as thus described is typical of any conventional banjo.

The magnetic pickup 12 is likewise conventional per se. The novel combination of the pickup 12 and the banjo 10 is in the particular location of the pick up 12 with relation to the banjo 10. The pickup 12 is located and positioned against stretched calf skin or parchment head 14 and between the head 14 and the strings 16 extending thereover. The term banjo head or parchment head as used herein defines any banjo head made of stretched parchment, irrespective of whether the parchment be calf skin or any other type of natural or synthetic parchment. The banjo thus is different from the solid head of a violin or fiddle.

Furthermore, it is desirable that the pickup 12 be so mounted as to be securely held in position, and as may be necessary for the optimum results. While the pickup 12 is mounted in contact with the banjo head 14, it is preferably not secured to the head, but is secured so as it may be supported against the banjo head 14 and between the head 14 and the strings 26. While of course it is possible to mount the pickup 12 on means extending from the banjo hoop 16, a more convenient and desirable manner of mounting it is to attach it to the conventional bridge 30 in any suitable manner. One such suitable manner, as herein illustrated, includes a pair of links 34. One link is secured at each end of the bottom of the bridge as by rivets 36, or other fastening means. The other ends of the links 34 are secured by rivets or the like 38 to the other ends of supporting bar 40 on which the magnetic pickup 12 is mounted in any suitable manner. The bar 40 provides physical contact between the pickup 12 and the head 14.

With this or a similar construction, the pickup 12 is held in contact with the head 14 and is located between the head 14 and the strings 26. The pickup 12 also is slidable over the head 14 along with the bridge 30, but will still remain in the same relative location against the head 14 between the head 14 and strings 26 as well as transversely of the strings 26. Extending from magnetic pickup 12 is a conventional circuit cable 42 leading through a volume and tone control unit 44 mounted for convenience on the side 16 and leading to any conventional amplifier assembly (not shown).

In operation, the banjo may be played in the usual manner, for the particular location of the pickup 12 does not in any way interfere with the conventional handling or playing of the banjo, for the pickup does not extend into the usual position of either of the player's hands. However, the sounds produced by this combination banjo and pick up are quite original, unlike the usual sounds. Such new sounds result from the fact that the pickup 12 not only picks up the vibration of the strings 26, but also picks up and blends with it the vibrations of the head 14. Further, when the player's hand is slapped against the bridge 30, a bass drum like sound is produced, so that conveniently, suitable adjustment of the volume and tone control unit will greatly extend the range of sounds produced according to the desire of the player. Also with the
amplifier electrically disconnected, the banjo \(10\) may be used in the conventional manner to produce the conventional banjo sounds.

Although this invention has been described in considerable detail, such description is intended as being illustrative rather than limiting, since the invention may be variously embodied, as pointed out, and the scope of the invention is to be determined as claimed.

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

1. A new sound producing musical instrument comprising the combination of a stringed musical instrument including a parchment head tautly secured thereon, a fretted neck extending from said instrument, a plurality of music strings adjustably secured to said fretted neck at its outer extending end, said strings extending over said parchment head and secured at their other ends to a string anchor on the side of said instrument opposite from said fretted neck side, a bridge interposed between said plurality of strings and said parchment head, said strings when adjusted providing the sole means holding said bridge taut against said parchment head, said bridge being slidably positioned between said parchment head and said plurality of strings, and a magnetic pickup means for simultaneously translating the blended vibrations of both the strings and said parchment head into electrical energy, said pickup means secured solely to said bridge and held in contact against said parchment head directly under the strings between said bridge and said fretted neck, and electroacoustic translating means for converting said electrical energy into sound.

2. The combination defined in claim 1, said musical instrument being a banjo.

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