April 15, 1924. 1,490,875

H. J. WELLMAN

TALKING MACHINE NEEDLE

Filed July 12, 1922

Fig. 1.

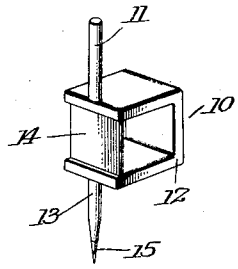



Fig. 2.

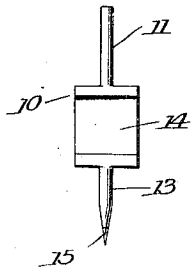



Fig. 3.

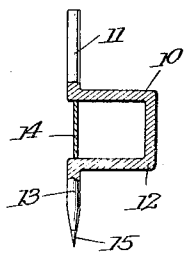
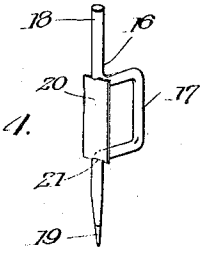



Fig. 4.




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WITNESS:

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# UNITED STATES PATENT OFFICE.

HENRY J. WELLMAN, OF NOLAN, WEST VIRGINIA.

## TALKING-MACHINE NEEDLE.

Application filed July 12, 1922. Serial No. 574,533.

*To all whom it may concern:*

Be it known that I, HENRY J. WELLMAN, a citizen of the United States, residing at Nolan, in the county of Mingo and State of West Virginia, have invented new and useful Improvements in Talking-Machine Needles, of which the following is a specification.

This invention relates to reproducing needles or styli for talking machines and has for its object the provision of a novel stylus of composite form which will operate to reproduce the sounds with clearness and with the elimination of the usual scratching and other noises, so that a more pleasing effect will be produced.

An additional object is the provision of a device of this character which might be made permanent if desired and which will be simple and inexpensive in its temporary or changeable form and which will be efficient in all forms and an improvement in the art.

With the above and other objects and advantages in view the invention consists in the details of construction to be hereinafter more fully described and claimed and illustrated in the accompanying drawings, in which:

Figure 1 is a perspective view of the device,

Figure 2 is a front elevation,

Figure 3 is a side elevation with parts in section,

Figure 4 is a perspective view of a modified form.

Referring more particularly to the drawing, I have shown my stylus as comprising an open frame 10 which would preferably be probably constructed of more or less soft iron. This frame is of angular shape as shown and includes a free end 11 adapted for insertion within the needle socket of the sound box or reproducer of the talking machine. Intermediate its ends the frame includes a laterally extending rectangular portion 12 from which extends a projection 13 which is preferably in line with and opposite to the free end 11. Bridging the open part of the frame 12 is a plate 14 of copper. Carried by the free end of the extension 13 is the point 15 which may be formed of a piece of glass, preferably, though of course steel might be used.

In the use of the device it is placed in position in exactly the same manner as the ordinary needle and I have found in actual practice that the sounds produced by the playing of a record are more satisfactory than is ordinarily the case owing to the fact that the usual scratching is eliminated almost entirely.

In case it is desired to make the stylus permanent instead of changeable, the glass point 15 may be replaced by a diamond point which would of course add to the cost of manufacture but which would make the device most durable.

In Figure 4 I have shown a modified form of the device which is formed from a single length of wire 15 bent intermediate its ends to define a rectangular frame 17 which is open at one side. One end 18 of the wire member is adapted to be inserted within the usual stylus holding socket of a reproducer while the other end 19 is as shown. If preferred a tip might be used formed of glass, diamond or the like. The open side of the frame 17 is bridged by a small plate 20 preferably of copper which may be welded or soldered in place. As shown in Figure 4 the corners of the open side of the frame are slightly notched as shown at 21 for the reception of the ends of this bridge plate.

While I have shown and described the preferred embodiment of the invention it is of course to be understood that I reserve the right to make such changes in the form construction and arrangement of parts as will not depart from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention I claim:

1. A stylus for talking machines comprising a metallic open frame provided at one end with an extension adapted for engagement within the needle holding socket of a talking machine reproducer and formed at its other end with an extension constituting a stylus, and a member bridging the open portion of the frame.

2. A stylus for talking machines comprising an open frame provided at one end with an extension adapted for engagement within the needle holding socket of a talking machine reproducer, said frame being formed at its opposite side with an extension terminating in a point, and a plate of copper extending across the open frame and bridging the open side thereof.

3. A stylus for talking machines compris-

ing a member formed from a single piece of material provided intermediate its ends with an open sided frame portion, one end of the member being adapted for insertion within the stylus socket of a reproducer and the other end being pointed, and a bridge plate secured across the open side of the frame.

4. A stylus for talking machines comprising a member of frame like formation provided at one end with an extension adapted for engagement within the needle holding socket of a talking machine reproducer and having its other end formed to be engaged within the sound grooves of a record, and an element extending across the open portion of the frame and constituting a bridge piece.

5. A stylus for talking machines comprising a member of frame like formation provided at one end with an extension adapted for engagement within the needle holding socket of a talking machine reproducer and having its other end formed to be engaged within the sound grooves of a record, and an element extending across the open portion of the frame and constituting a bridge piece, said element being formed of a material dissimilar to the material of the frame.

In testimony whereof I affix my signature.

HENRY J. WELLMAN.