E. A. WIDMANN.

TALKING MACHINE NEEDLE OR STYLUS.

APPLICATION FILED FEB. 1, 1915.

1,409,630. Patented Mar. 14, 1922.

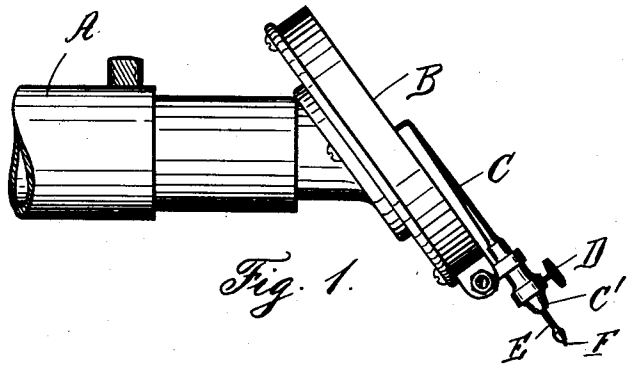


Fig. 1.



Fig. 2

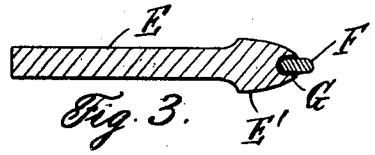


Fig. 3.

WITNESSES:

Robert Gray

Edwin Fuller

INVENTOR

Eugene A. Widmann

BY

George W. Casey Jr.

ATTORNEY

UNITED STATES PATENT OFFICE.

EUGENE A. WIDMANN, OF BROOKLYN, NEW YORK, ASSIGNOR TO PATHE FRERES PHONOGRAPH COMPANY, A CORPORATION OF DELAWARE.

TALKING-MACHINE NEEDLE OR STYLUS.

1,409,630. Specification of Letters Patent. Patented Mar. 14, 1922.

Application filed February 1, 1915. Serial No. 5,375.

To all whom it may concern:

Be it known that I, EUGENE A. WIDMANN, a citizen of the United States, and resident of the borough of Brooklyn, county of Kings, city and State of New York, have invented certain new and useful Improvements in Talking-Machine Needles or Styli, of which the following is a specification.

My invention relates to a talking machine stylus and has for its object to provide a stylus which will avoid the defects inherent in the results obtained by the customary metal needles, particularly the scratchy, metallic sounds and the unpleasant mingling of blaring noises produced by the ordinary needles. To accomplish the improved results of my invention, I make the talking-machine stylus of a non-metallic elastic material, such as lignum-vitæ or boxwood or various equivalent substances referred to hereinafter.

A specific embodiment of my invention will now be described in detail with reference to the accompanying drawings, in which Fig. 1 is a side elevation of a talking-machine reproducer fitted with my improved needle; Fig. 2 is a side view of such needle; and Fig. 3 is a longitudinal section of the needle.

The tone-arm A of the talking-machine is shown in connection with the customary reproducer or diaphragm-holder B having the vibrating lever C and socket C′ in which the needle is held by a clamping screw D. These parts may be of any usual or approved construction, my invention relating exclusively to the stylus proper. This stylus preferably has a relatively slender cylindrical shank E and a conoidal enlarged integral head E′ with a recess or axial socket in which the reproducing point as of sapphire F is suitably secured, as by glue G. This stylus E, E′ is made of an elastic non-metallic material such as bone.

The long shank and the conoidal head provide an elastic stylus which has the requisite strength at the head where the point F is secured. The use of non-metallic elastic material such as bone gives substantially a half tone effect, that is to say, eliminates substantially all scratching noises, softens the tone produced and improves its quality, prevents blast and confusion of tones, avoids metallic noises, and is particularly superior when the instrument is used in a small space, where with the metal needles chiefly employed hitherto screeching metallic sounds are very unpleasantly prominent.

I claim as my invention:

A half tone stylus for phonographs comprising a bone member having a relatively slender shank adapted to be received and held in the stylus arm of a phonograph reproducer and a head of greater diameter than the shank, said head having a recess therein at its outer end, and a reproducer jewel permanently set in said recess.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

EUGENE A. WIDMANN.

Witnesses:

JACOB R. ROETHER,

GEORGE W. CASE, Junr.