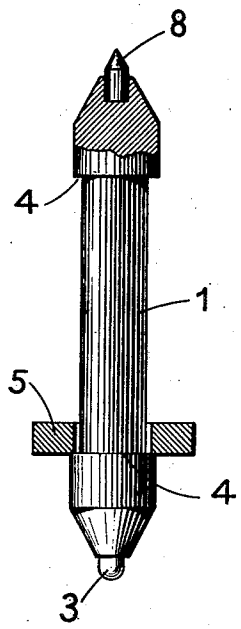
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PHONOGRAPH TONE RECORDING POINT.

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1,362,173. **Patented Dec. 14, 1920.**



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PHONOGRAPH TONE-RECORDING POINT.

1,362,173. Specification of Letters Patent. Patented Dec. 14, 1920.

Application filed February 18, 1920. Serial No. 359,654.

To all whom it may concern:

Be it known that I, WILHELM OSKAR MOSER, a citizen of the Swiss Republic, residing at 54 Rue du Stand, Bienne, Switzerland, have invented new and useful Improvements in Phonograph Tone-Recording Points, of which the following is a specification.

The phonograph disks and cylinders in use are of different types, and require different forms of points on the tone reproducing needles. For instance, the well known Pathé records are reproduced by means of needles having rounded points, and the Edison records require conically shaped points. Consequently it is advantageous to provide a needle having one form of point on one end, and another form on the other end, which has been done, a fixed collar on the shank, or screw threaded means being employed to determine the location of the point when the needle is in use. This form of construction has the disadvantage that, if the needle is made of such length as to provide an adequate grip in the holder of the sound box when the collar abuts the end, the needle is too long and the other end projects out too far for proper sound reproduction. On the other hand, if the needle is short enough for proper sound reproduction, the part inserted into the sound box clamp is not long enough for the needle to be properly held.

The object of this invention is to provide a form of double pointed needle in which the proper amount will project from the sound box holder when in use, and a sufficient length will extend within the holder to afford an adequate grip.

In the accompanying drawing I have illustrated a preferred embodiment of my invention. Referring to this drawing, 1 designates the shank of a needle, having one end provided with a tone producing point 2, which may be of the Edison type, and the other end provided with a tone producing point 3, which may be of the Pathé type.

On the shank 1 there is slidably disposed a ring, or collar 5; and each end of the needle is enlarged beyond the diameter of the shank to provide shoulders 4 holding the collar on the shank and providing abutments against which the collar may rest when the needle is in use. The location of the shoulders 4 with respect to the points 2, 3, is such that when the needle is inserted into the holder until the collar abuts the holder, and the lower shoulder abuts the collar, the distance which the point projects from the sound box needle holder is exactly that required for the best reproduction of sound; and the length of the shank portion is such as to afford ample grip to the device of the sound box for holding the needle. The abutment of the shoulders with the collar, and of the collar with the sound box needle holder insures a firm connection, and sure transmission of motion to the membrane of the sound box.

Having now described my invention, I claim and desire to secure by Letters Patent:

1. A phonograph needle pointed at each end, a collar slidable thereon, and means for limiting the movement of the collar.

2. A phonograph needle comprising a shank enlarged and pointed at the ends, and a collar slidable on the shank between the enlarged portions.

3. A phonograph needle comprising a shank having centrally facing shoulders, a collar slidable on said shank between said shoulders, said shoulders being so disposed and said collar of such thickness that on insertion of the needle into a holder with the collar abutting the holder, and the exposed shoulder abutting the collar, the point extends a proper distance for use, and the shank being of such length as to afford the holder an adequate grip.

In testimony whereof I have signed my name to this specification.

WILHELM OSKAR MOSER.