

A. J. MICKLEY.
 NEEDLE HOLDER FOR A TALKING MACHINE.
 APPLICATION FILED JULY 28, 1915.

1,182,922.

Patented May 16, 1916.

Fig. 1.

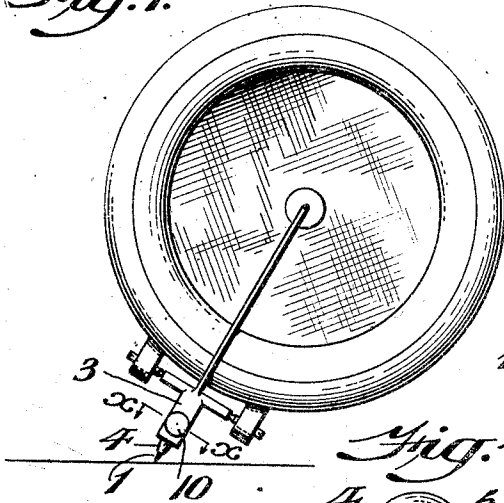


Fig. 2.

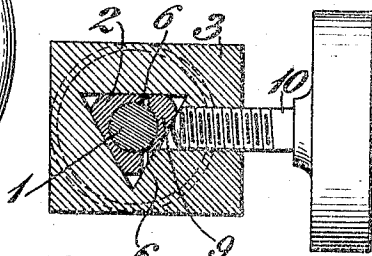


Fig. 4.

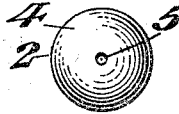


Fig. 3.

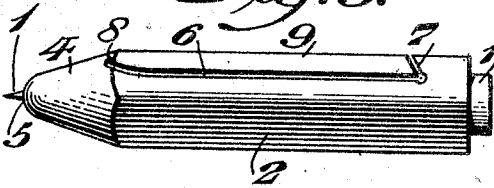


Fig. 5.

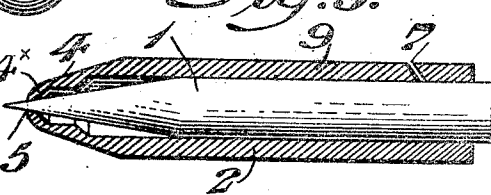


Fig. 6.

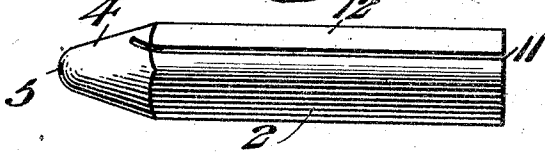


Fig. 7.



Fig. 8.

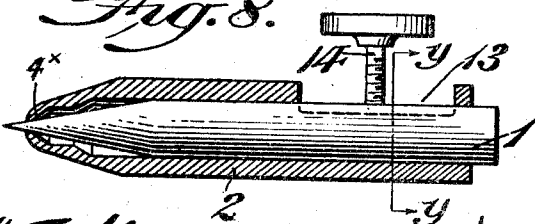
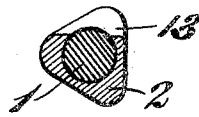


Fig. 9.



WITNESSES

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NEEDLE-HOLDER FOR A TALKING-MACHINE.

1,182,922.

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To all whom it may concern:

Be it known that I, ALBERT J. MICKLEY, a citizen of the United States, residing in the city, county, and State of New York, have invented a new and useful Needle-Holder for a Talking-Machine, of which the following is a specification.

My invention consists of an improvement in the means for firmly, immovably and uniformly holding the needle of a talking machine, the same embodying a sleeve or socket in which such needle is contained, the same being adapted to support directly the point portion of the needle, as well as the body thereof, so that the needle is solidly and steadily sustained throughout its length, whereby the rasping, metallic, and other unsatisfactory sounds in the reproduction are obviated, and there are fuller, more distinct, clearer and more resonant tones produced with much less wear upon the records than heretofore, due to the greater length and finer pointed needles that can be used with my invention.

The invention is satisfactorily illustrated in the accompanying drawing, but the important instrumentalities thereof may be varied, as long as they are included in the scope of the claims.

Figure 1 represents a side elevation of a needle holder for a talking machine embodying my invention. Fig. 2 represents a transverse section thereof on the line $x-x$ Fig. 1, on an enlarged scale. Fig. 3 represents a side elevation thereof on an enlarged scale. Fig. 4 represents a front end view thereof. Fig. 5 represents a longitudinal section thereof. Fig. 6 represents a side elevation showing a slight modification thereof. Fig. 7 represents an end view thereof. Fig. 8 represents a longitudinal section of another embodiment of the invention. Fig. 9 represents a transverse section thereof on the line $y-y$ Fig. 8.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings, 1 designates the needle or stylus of a talking machine, and 2 designates a socket in which said needle is contained, said socket preferably formed of tool-steel being fitted in the needle holding chuck 3, the latter excepting the feature of my invention applied thereto being heretofore in use. The inner wall of the bore of said chuck is of angular form, and the exterior face of said socket 2 is similarly

shaped so that when said socket is fitted in said chuck, it is prevented from turning or shifting therein in rotary direction. The socket 2 is of the form of an elongated sleeve, its forward or lower end being conical forming the nose 4 which has an opening therein, the wall of said opening being inturred forming the flange 4^x which when the needle is inserted in the socket, its tapering point-portion, a short distance back of its apex or point proper, is embraced tightly by said flange which holds said portion close to said apex, avoiding the protrusion of said apex to a great extent from said nose, while the main portion of the body of the needle is contained in the socket and held therein tightly, and thus the needle is solidly and steadily sustained in the socket, and its protruding point-portion short in extent is properly positioned for engagement with a record, as most plainly shown in Fig. 1.

The wall of the socket is cut or kerfed through in opposite portions thereof in longitudinal direction as at 6, and also cut or kerfed through in diametrical direction as at 7, near the inner end of the socket, the cut 7 joining the ends of the cuts 6, thus separating three sides of a portion of the wall of the socket, leaving the portion 8 of said wall at the terminal of the cuts 6 solid, producing the resilient tongue 9 whose back is adapted to be engaged by the point of the set screw 10, which is fitted in the side of the chuck so that when the said screw is properly rotated it will cause the tongue 9 to flex toward the side of the needle and so engage the contiguous portion of the needle as to press the latter firmly against the opposite wall of the bore of the socket with resilient effect, whereby the body of the needle will be firmly held in the socket while being furthermore held at its point portion in the wall of the opening 5 in the nose 4. In this manner the needle is most firmly and steadily retained in position without liability to vibrate or wobble, producing results in the talking machine as hereinbefore stated.

In Figs. 6 and 7 I show kerfs 11 cut in the socket from the extreme inner end thereof to the nose 4, forming the resilient tongue 12 in said socket, the operation of which is similar to the tongue 9 in the prior figures.

In Figs. 8 and 9 I show a socket without a tongue but exteriorly angular adapting it to be fitted in a chuck, the wall of the bore of which will be similarly angular the re-

sult of which is the same as shown in Fig. 2, the wall of the socket being cut away in longitudinal direction forming the slot 13 to receive the shank of the screw 14, so that the point of said screw will engage directly the side of the needle 1, and so clamp the same, instead of by the interposed tongue, as in the other figures.

Having thus described my invention what I claim as new and desire to secure by Letters Patent, is:—

1. A holder for a needle of a talking machine comprising a socket member which is adapted to receive the body of said needle, said member having a perforated nose and an inturned flange on the wall of said nose, said flange being adapted to embrace tightly the tapering point-portion of the needle comparatively close to the point proper.

2. A holder for a needle of a talking machine comprising a socket having an inturned perforated nose, the inner wall of which tightly embraces the tapering portion of said needle close to the point proper thereof, and a clamping member on said socket adapted to engage tightly the body of the needle.

3. A holder for a needle of a talking machine comprising a needle receiving tubular member having thereon a resilient tongue, the latter being integral with the wall of said member and adapted to engage the body of the needle and clamp it therein.

4. A holder for a needle of a talking machine comprising a chuck member, a needle receiving tubular member therein having a movable tongue, the latter being adapted to bear against the body of the needle, and a tightening member on said chuck adapted to engage said tongue to press it against the body of the needle.

5. A holder for a needle of a talking machine comprising a needle receiving tubular member, a tongue comprising a portion of said member adapted to engage resiliently the side of the needle, a chuck member on a proper portion of the machine adapted to receive said tubular member, and a device on said chuck member adapted to engage the tongue to force it against the needle.

6. A holder for a needle of a talking machine comprising an inner socket member in whose bore a needle is adapted to be received, a resilient tongue in the wall of said socket member adapted to be clamped on the body of the needle, and a tubular chuck member adapted to receive said socket member, the bore of said chuck member, and the exterior face of said socket member, and said resilient tongue thereon being respectively of angular form.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."