

F. PETMECKY.
SOUND REPRODUCER.
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1,410,115.

Patented Mar. 21, 1922.

Fig. 1.

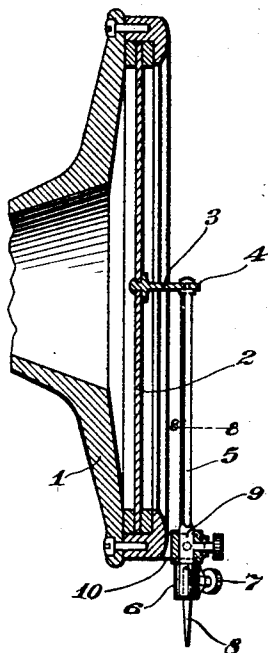


Fig. 2.

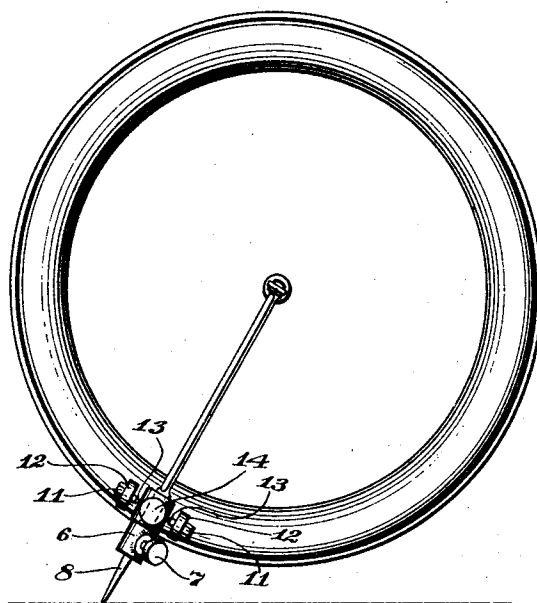


Fig. 3. Fig. 4. Fig. 5. Fig. 6.

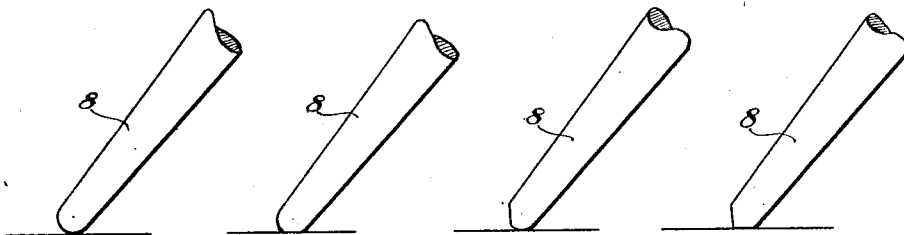


Fig. 8.

Fig. 7.



WITNESSES
E. Allison
A. W. Foster

INVENTOR
FRED PETMECKY
BY *Mumler*
ATTORNEYS

UNITED STATES PATENT OFFICE.

FRED PETMECKY, OF AUSTIN, TEXAS.

SOUND REPRODUCER.

1,410,115.

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To all whom it may concern:

Be it known that I, FRED PETMECKY, a citizen of the United States, and a resident of Austin, in the county of Travis and State of Texas, have invented a new and Improved Sound Reproducer, of which the following is a full, clear, and exact description.

This invention relates to improvements in sound reproducers, an object of the invention being to provide an improved construction of stylus bar and mounting therefor which permits a turning or rotary adjustment of the stylus bar so that the sound or tone can be varied and also permits the sharpening of the stylus or needle.

A further object is to provide a sound reproducer which not only permits an economy in the use of needles or styli by reason of the fact that the stylus or needle can be sharpened or maintained sharp by the rotary or turning adjustment of the stylus, but also so construct and mount the stylus that its various positions of adjustment result in a varying sound reproduction.

With these and other objects in view the invention consists in certain novel features of construction, and combinations and arrangements of parts as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings—

Figure 1 is a view in longitudinal section illustrating my improved sound reproducer.

Figure 2 is a view in elevation of Figure 1.

Figures 3, 4, 5 and 6 are enlarged views illustrating the manner of sharpening the stylus or needle when employed in connection with my improved reproducer.

Figure 7 is a view in transverse section on the line 7—7 of Figure 3.

Figure 8 is an enlarged view in transverse section on the line 8—8 of Figure 1.

1 represents a sound box which may be of any ordinary construction provided with the usual mica or other form of diaphragm 2, and 3 is a diaphragm post which is secured centrally to the diaphragm and is provided at its outer end with an opening 4 in which one end of my improved stylus bar 5 has rotary mounting. It is, of course, to be understood that the connection between the stylus bar 5 and the post 3 is a snug one so as to prevent independent or lost motion, but is such as to permit a rotary adjustment or turning movement of the stylus

bar in the post without disconnecting the parts.

The stylus bar 5 is flat, or, in other words, comprises a strip of metal which is of general oblong shape in cross-section so that it has a greater width than thickness. This stylus bar 5 carries at its free end a stylus receiving socket 6 having a set screw 7 therein for removably clamping the needle or stylus 8 to the stylus bar.

Adjacent the socket 6 the stylus bar 5 is preferably made circular or cylindrical in cross-section as shown at 9, and this cylindrical portion 9 has turning movement in a collar 10, the latter having pivotal or fulcrum connection with the sound box through the medium of a pair of pointed screws 11 mounted in lugs 12 on the sound box and engaging in sockets 13 in opposite sides of the collar 10. A set screw 14 is carried by the collar 10 and jams against the stylus bar 5 so as to secure the bar 5 against rotary movement after it is adjusted.

As above stated, the stylus bar 5 is flat throughout the greater portion of its length so that when its flat face is parallel with the diaphragm a relatively soft tone will result. When the stylus bar is turned edge-wise relative to the diaphragm, a louder tone is produced due to the relative rigidity of the bar and the variations in tone between the two extremes can be had by locating the stylus bar at angles between the two extremes above set forth.

Furthermore, the rotary movement or adjustment of the stylus bar 5 permits the stylus or needle 8 to be sharpened. As each new wearing surface at the end of the stylus becomes flat, a continual presenting of such new surfaces gives a sharp end to the stylus, as indicated by Figures 3, 4, 5 and 6 of the drawings.

In Figure 3 I illustrate in exaggerated form the free end of a stylus or needle showing its initial shape.

Figure 4 shows the shape of the stylus after it is worn, say, from a single operation in connection with a record.

Figure 5 shows the stylus bar turned to present another portion of its end to the record, and Figure 6 illustrates the stylus bar after the second operation.

It will thus be noted that by partially turning the stylus bar after each operation, the point of the stylus or needle can be sharpened which results not only in an econ-

omy of needles, but also in improved sound reproduction.

Various slight changes might be made in the general form and arrangement of the parts described without departing from the invention, and hence I do not limit myself to the precise details set forth, but consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claims.

I claim:

1. A sound reproducer, comprising a sound box, a diaphragm in the box, and a stylus bar having rotary adjustment relative to the diaphragm.

2. A sound reproducer, comprising a sound box, a diaphragm in the box, a post on the

diaphragm, and a stylus bar having rotary adjustment relative to the post.

3. A sound reproducer, comprising a sound box, a diaphragm in the box, a post on the diaphragm, and a stylus bar having rotary adjustment relative to the post, said stylus bar of greater width than thickness.

4. A sound reproducer, comprising a sound box, a diaphragm in the sound box, a post secured to the diaphragm, a collar, means pivotally connecting the collar and the sound box, a stylus bar having rotary mounting in the post and in the collar, and means in the collar for clamping the stylus bar at different positions of rotary adjustment.

FRED PETMECKY.