

H. H. DYKE.
 PHONOGRAPH REPRODUCER.
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1,036,469.

Patented Aug. 20, 1912.

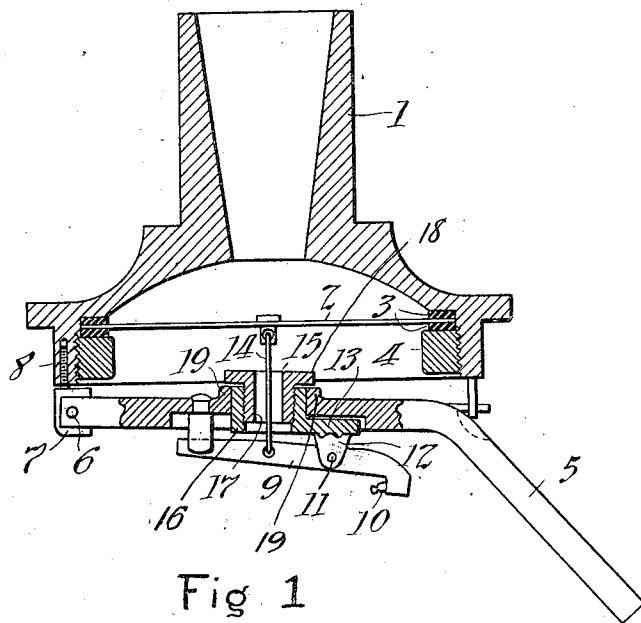


Fig 1

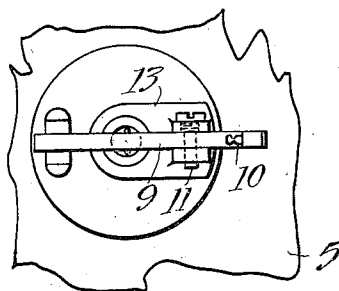


Fig 2.

Witnesses:
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UNITED STATES PATENT OFFICE.

HERBERT H. DYKE, OF WEST ORANGE, NEW JERSEY, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THOMAS A. EDISON, INCORPORATED, OF WEST ORANGE, NEW JERSEY, A CORPORATION OF NEW JERSEY.

PHONOGRAPH-REPRODUCER.

1,036,469.

Specification of Letters Patent.

Patented Aug. 20, 1912.

Application filed April 12, 1909. Serial No. 489,467.

To all whom it may concern:

Be it known that I, HERBERT H. DYKE, a citizen of the United States, and a resident of West Orange, county of Essex, and State of New Jersey, have made a certain new and useful Improvement in Phonograph-Reproducers, of which the following is a description.

My invention relates to phonograph reproducers, and the particular object of my invention is to provide an improved mounting for the stylus lever, whereby the same may be permitted freely to travel in a direction transverse to the record groove tracked by the stylus.

My invention resides chiefly in an improved construction whereby this desirable freedom of movement can be attained, which construction will be disclosed in the following description and claimed in the appended claim.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar characters of reference indicate corresponding parts in the figures.

Figure 1 is a side elevation, partly in section, of a phonograph reproducer showing my invention; and Fig. 2 is a fragmentary bottom view of the same.

Referring to the drawings, the reproducer comprises a sound box body 1 of the usual form and a diaphragm 2 secured between gaskets 3 by a clamping ring 4 threaded in a depending flange of the body 1. The floating weight 5 is pivoted at 6 to the pivot block 7, which is pivoted to the body 1 by the usual screw 8. The stylus lever 9 carries the stylus 10, and the lever 9 is pivoted on the horizontal screw or stud 11, which is mounted in depending lugs 12. The lugs 12 have formed integral therewith or secured thereto an arm 13 which extends parallel to the under surface of the floating weight 5. The lever 9 is connected to the center of the diaphragm 2 by a link 14, as is usual. The link 14 passes through the passageway 15 in the floating weight 5. The arm 13 has formed integral therewith or secured thereto

a hollow stud or member 16 which is rotatably mounted in the floating weight. This stud forms the pivot about which the stud 11 and stylus 10 carried by the stylus lever are free to rotate in a direction transverse to the record groove. The arm 13 between the pivot 16 and the ears 12 provides a radius of such length that the stylus 10 in its movements transverse to the record groove will travel in an arc of considerable flatness, whereby greater freedom and a more universal movement of the stylus lever are attained. At the same time the pivot 11, about which the stylus lever oscillates in following the vertical movement of the stylus in tracking the record groove, is placed sufficiently near the stylus end of the lever 9, so that the lever arm of the link 14 will be sufficiently greater than the lever arm of the stylus 10 to provide for proper amplification of the vertical movements of the stylus.

The stud 16 is formed with a vertical longitudinal passageway therethrough, through which the link 14 extends. By placing the stud 16 in the axis of the link 14 and making the same hollow, the necessity of drilling a second hole or recess in the floating weight 5 is eliminated. The hollow stud 16 may be mounted in the floating weight in any suitable way to provide for the easy rotation of the stud. As shown in the drawings, the stud 16 is formed with a screw thread on its bore, which engages with a screw thread on the periphery of a thimble 17, which is formed at the upper end thereof with an annular flange 18 which rests upon a boss 19 on the upper surface of the floating weight 5.

Having now described my invention, what I claim and desire to protect by Letters Patent is as follows:

In a phonograph reproducer, the combination with a diaphragm, of a floating weight having a central aperture therethrough in line with the center of said diaphragm, a stud having a central aperture therethrough mounted to rotate freely in said aperture, a hollow cylindrical member mounted within said stud and secured there-

to, said member having a flange upon its
upper end bearing upon the upper surface
of said weight, said stud having an arm
upon its lower end at right angles to its
axis, a pivot pin parallel to said diaphragm
carried by said arm, a stylus lever pivoted
upon said pin, and a connection between
said lever and diaphragm passing through

the apertured stud and hollow member, sub-
stantially as described.

This specification signed and witnessed
this 10th day of April 1909.

HERBERT H. DYKE.

Witnesses:

DYER SMITH,

JOHN M. CANFIELD.

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