

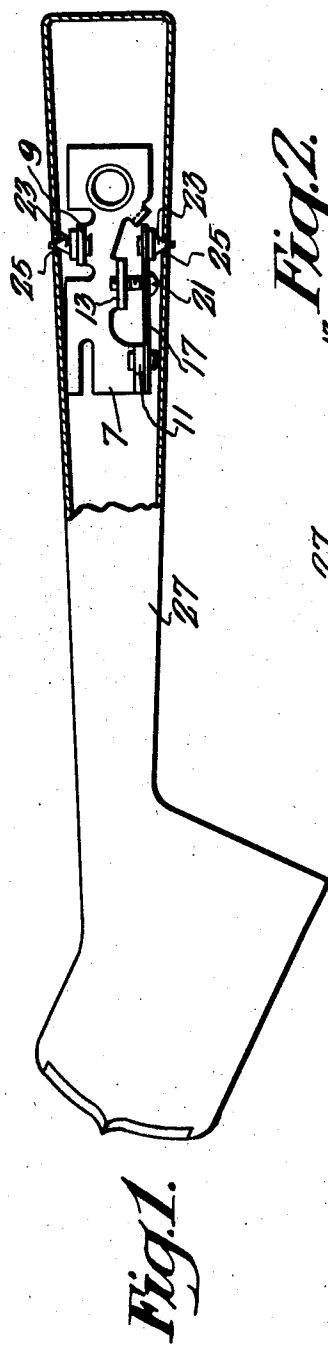
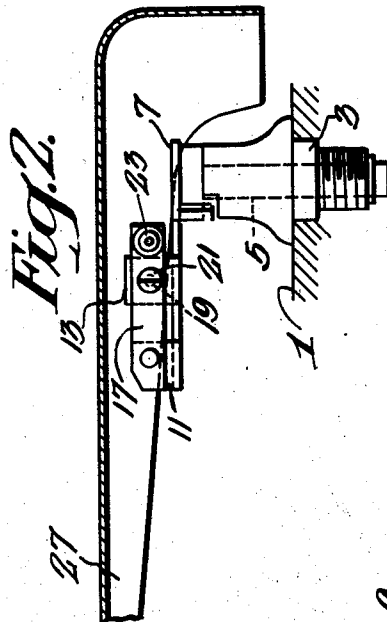
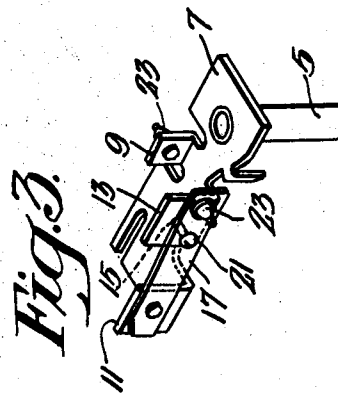
Jan. 6, 1942.

E. C. GUEDON

2,269,263

PHONOGRAPHIC APPARATUS

Filed Sept. 28, 1940



Inventor
Emile C. Guedon
28
J. J. Huff
Attorney

UNITED STATES PATENT OFFICE

2,269,263

PHONOGRAPHIC APPARATUS

Emile C. Guedon, Audubon, N. J., assignor to
Radio Corporation of America, a corporation of
Delaware

Application September 28, 1940, Serial No. 358,758

6 Claims. (Cl. 274—1)

This invention relates to phonographic apparatus, and more particularly to a pickup arm mounting, the present invention being an improvement upon that disclosed and claimed in Patent No. 2,176,669 granted to me on October 17, 1939.

In the aforesaid patent, there is disclosed a pickup arm mounting which is designed to be free from rattles when the pickup arm is mounted thereon. Essentially, the construction of this patent comprises a U-shaped spring member carrying oppositely disposed conical bearing elements which are received in corresponding openings in the pickup arm. This particular construction is designed to provide an adequate bearing structure for the pickup arm without the necessity of maintaining close tolerances. It has been found in practice that, in a construction of this sort, the pressure of the bearing elements against the pickup arm resulting from the tension in the spring occasionally produces friction to a degree which hampers the free movement of the pickup arm in a vertical direction relative to the record, and the primary object of my present invention is to provide an improved pickup arm mounting which will be free from this difficulty.

More particularly, it is an object of my present invention to provide an improved pickup arm mounting wherein the engagement between the bearing elements and the pickup arm can be readily adjusted until the desired free swinging movement of the pickup arm on its support is obtained.

Another object of my present invention is to provide an improved pickup arm mounting as aforesaid by means of which it is possible to provide adequate compensation for variations in production.

It is another object of my present invention to provide an improved pickup arm mounting as above set forth which is inexpensive of manufacture, which readily lends itself to rapid, economical quantity manufacture, on which the pickup arm can be mounted easily and quickly, and which can be readily adjusted to suit the requirements of any particular pickup arm.

In accordance with my present invention, I provide a base member with a pair of conically tipped bearing elements which are received in suitable openings in the pickup arm, one of the elements being mounted on a rigid member forming a part of the base, and the other of the bearing elements being mounted on an adjustable, resilient member, such as a spring blade, the

tension of which can be adjusted to effect the necessary pressure of the bearing elements against the pickup arm. Thus, it is obvious that any mounting formed in accordance with my present invention can be readily accommodated to any pickup arm.

The novel features that I consider characteristic of my invention are set forth with particularity in the appended claims. The invention itself, however, both as to its organization and method of operation, as well as additional objects and advantages thereof, will best be understood from the following description of one embodiment thereof when read in connection with the accompanying drawing in which

Figure 1 is a top plan view of a pickup arm and mounting therefor constructed according to my present invention, the pickup arm being partly broken away and shown in section for the sake of clearness.

Figure 2 is a side elevation thereof with the pickup arm shown in section, and

Figure 3 is a perspective view of the mounting member.

Referring more particularly to the drawing, wherein similar reference characters designate corresponding parts throughout, there is shown a motor board 1 in which is set a bushing 2 which receives a shaft or post 5 for rotation therein, the post 5 extending upwardly to a point above the bushing 3. Fixed to the upper end of the post 5 is a plate 7 constituting the base of the mounting, the base 7 being provided with an integral and rigid upstanding lug or projection 9 on one side thereof and in proximity to the post 5, and with two other similar lugs or projections 11 and 13 on the other side of the base 7, the projection 11 being most remote from the post 5 and the projection 13, which is provided with a threaded opening 15, being located intermediate the projections 9 and 11.

Secured to the projection 11 is a spring blade 17 which extends rearwardly toward the post 5 past the projection 13 and to a point such that it is free and is substantially opposite the projection 9. The spring blade 17 is provided with an opening 19 through which a screw 21 freely passes, the screw 21 being threaded in the opening 15 and its head bearing against the spring blade 17. The projection 9 and the free end of the spring blade 17 have secured thereto a pair of substantially axially aligned, outwardly directed conical bearing members 23 which are received in a pair of correspondingly aligned openings 25 adjacent one end of a suitable pickup

arm 27, the pickup arm 27 being of hollow construction similar to that disclosed in my above-noted patent and substantially concealing therein the mounting base 7 and the parts carried thereby when it is in operative position on the bearing elements 23.

It will be obvious, from the foregoing description, that the tension under which the spring blade 17 is placed determines the pressure that is applied by the bearing elements 23 against the pickup arm 27. By merely adjusting the screw 21 one way or the other, the spring blade 17 may be flexed, more or less, to vary its tension and hence the friction at the bearings. The pickup arm 27 may be readily mounted on the bearing 23 by merely pressing the blade 17 toward the projection 13 to enable the bearings 23 to clear the side walls of the pickup arm, after which the bearings may be snapped into the openings 25. The blade 17 is normally biased in an outward direction away from the projection 13. Thus, if it is found that the pickup arm is loose on the bearings 23 in a transverse direction, the screw 21 may be manipulated to permit the blade 17 to spring away somewhat more from the projection 13. On the other hand, if the pickup arm 27 is found to bind on the bearings, the screw 21 may be manipulated in the opposite direction to move the spring closer to the projection 13. In this way, the desired bearing pressure can be easily and quickly adjusted to the extent necessary.

Although I have shown and described but a single embodiment of my invention, it will be obvious to those skilled in the art that many other modifications thereof, as well as changes in the one described, are possible within the scope of my invention. I therefore desire that my invention shall not be limited except insofar as is made necessary by the prior art and by the spirit of the appended claims.

I claim as my invention:

1. In phonographic apparatus, a pickup arm, and a mounting therefor, said mounting including a base, a rigid member on said base, a bearing element carried by said rigid member, a resilient member carried by said base in spaced relation to said rigid member, and a second bearing element carried by said resilient member in substantially axial alignment with said first-named bearing element, at least one of said members being adjustable on said base relative to the other of said members for varying the spacing of the bearing elements carried thereby, and said arm being pivotally carried by said bearing elements.

2. In phonographic apparatus, a pickup arm, and a mounting therefor, said mounting including a base, a rigid member upstanding from said base in fixed relation thereto, a bearing element carried by said rigid member, a resilient member secured at one end to said base in spaced relation to said rigid member, a second bearing element carried by the free end of said resilient member in substantially axial alignment with

said first-named bearing element, said arm being pivotally carried by said bearing elements, means for varying the tension of said resilient member whereby to adjust said second bearing element relative to said first-named bearing element.

3. The invention set forth in claim 2 characterized in that said tension-varying means is constituted by a screw adjustably carried by said base, said screw passing through said resilient member and the head of said screw engaging said resilient member.

4. The invention set forth in claim 2 characterized in that said arm is provided with a pair of aligned openings adjacent one end thereof, characterized further in that said bearing elements are constituted by conical members fitted into said openings, and characterized still further in that said conical members are retained in said openings solely by the resilience of said resilient member, the tension of said resilient member being variable for adjustment of the fit of said conical members in said openings.

5. A support for a pickup arm comprising a post, a base secured to said post, an upstanding member on one side of said base, a bearing element secured to said member, a second upstanding member on the opposite side of said base and spaced from said first-named member longitudinally along said base, a third upstanding member on said base intermediate said first and second-named members, a spring blade secured to said second-named member and extending past said third member to a point opposite said first-named member, a second bearing member on the free end of said blade in substantially axial alignment with said first-named bearing element, and means adjustably carried on said third member cooperatively associated with said blade for varying the tension of said blade as said means is adjusted on said third member.

6. A support for a pickup arm comprising a post, a base secured to said post, an upstanding member on one side of said base in proximity to said post, a bearing element secured to said member, a second upstanding member on the opposite side of said base remote from said post, a third upstanding member on said last-named base side intermediate said first and second-named members, said third member having a threaded opening therein, a spring blade secured to said second-named member and extending toward said post past said third member and to a point opposite said first-named member, said blade having an opening therein aligned with said threaded opening, a second bearing member on the free end of said blade in substantially axial alignment with said first-named bearing element, and a screw passing through said second-named opening threadedly received in said threaded opening, the head of said screw being adapted to engage said blade and to vary the tension therein as said screw is adjusted in said threaded opening.

EMILE C. GUEDON.