J. & W. WORTHINGTON.

RECORD CLEANING ATTACHMENT FOR PHONOGRAPHS.

APPLICATION FILED JUNE 1, 1917.

1,242,751 **Patented Oct. 9, 1917.**

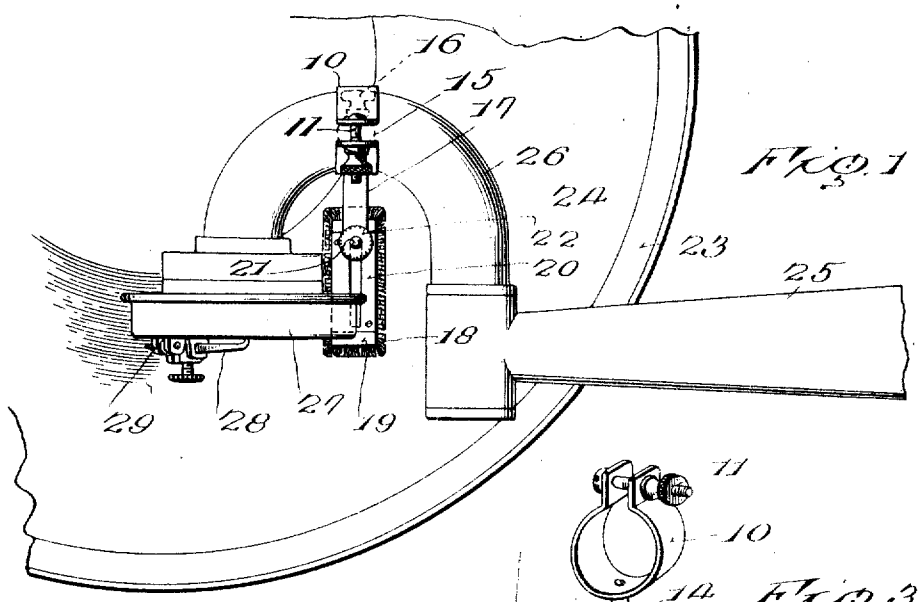


FIG. 1

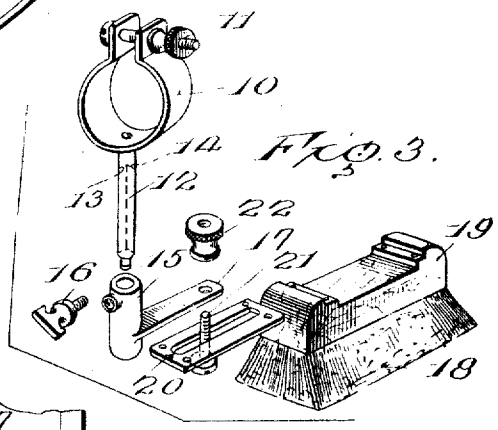


FIG. 3.

FIG. 2.

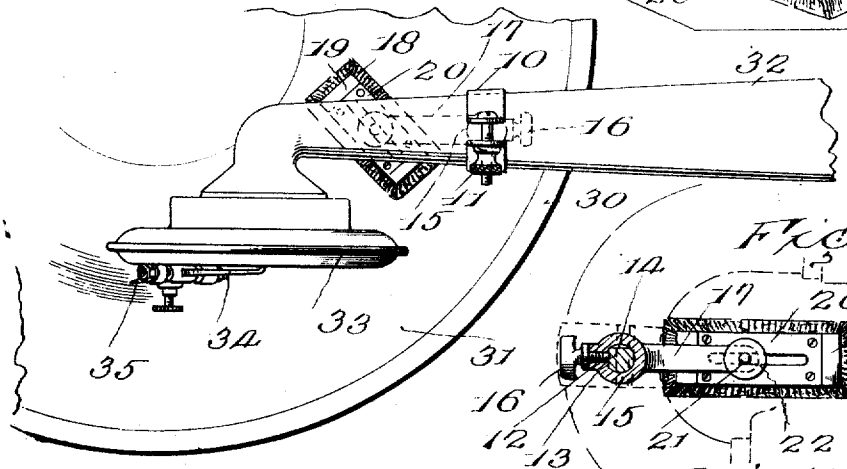


FIG. 4.

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RECORD-CLEANING ATTACHMENT FOR PHONOGRAPHS.

1,242,751. Specification of Letters Patent. Patented Oct. 9, 1917.

Application filed June 1, 1917. Serial No. 172,287.

To all whom it may concern:

Be it known that we, JAMES WORTHINGTON and WILLIAM WORTHINGTON, subjects of the King of Great Britain, residing at Pleasant City, in the county of Guernsey and State of Ohio, have invented certain new and useful Improvements in Record-Cleaning Attachments for Phonographs, of which the following is a specification.

This invention relates to an improved record cleaning attachment for phonographs and has as its primary object to provide a device of this character which may be connected with the tone arm of the phonograph for brushing the record as it revolves and freeing the record of dust or other foreign matter before coming in contact with the phonograph needle.

The invention has as a further object to provide a device of this character which may be connected to a phonograph employing a goose-neck or crook in the tone arm for supporting the phonograph sound box or may be connected to a phonograph having a straight tone arm.

And the invention has as a still further object to provide an attachment of the above described character wherein the brush will be both longitudinally and rotatably adjustable so that the said brush may with facility be properly positioned with respect to the needle of the phonograph.

Other and incidental objects will appear as the description proceeds and in the drawings wherein we have illustrated the preferred embodiment of the invention and wherein similar reference characters designate corresponding parts throughout the several views:

Figure 1 is a plan view showing our improved attachment applied to a conventional type of phonograph employing a goose-neck or crook for supporting the sound box of the phonograph,

Fig. 2 is a similar view showing our improved attachment applied to a conventional type of phonograph employing a straight tone arm,

Fig. 3 is a detail perspective view showing the parts of the device disconnected, and

Fig. 4 is a detail plan view of the device.

In carrying out our invention, we employ a split attaching member or clip 10, the free ends of which are adjustably connected by a clamp screw 11. Depending from the lower side of the clip is a cylindrical shank or stem 12. This stem is, as particularly shown in Fig. 4, formed with angularly disposed flat faces 13 and 14 respectively. Mounted upon the stem 12 is a supporting member for the brush employed. This supporting member includes a sleeve 15 loosely fitted upon the stem 12 and equipped with a binding screw 16 adjustable for engaging the stem to hold the sleeve at slidable and rotatable adjustment upon the stem. Extending laterally from the sleeve is an arm 17. Supported by this arm is a brush or cleaning element 18. The brush is formed with a body 19 of wood or other approved material and this body is recessed or cut away to receive a plate 20 secured to the brush body by screws or other suitable fastening devices. The plate 20 is longitudinally slotted to freely receive a headed screw 21 arranged with the head thereof engaged with the lower side of the plate and received within the recess in the brush body 19. This screw is loosely fitted through the outer extremity of the arm 17 and receives a thumb nut 22 adjustable for clamping the brush in position.

In Fig. 1 of the drawings, we have shown our improved attachment applied to a conventional type of phonograph employing a goose-neck or crook for supporting the phonograph sound box. The phonograph includes the usual rotatable table 23 upon which is mounted a record 24. Arranged to swing across the table is the tone arm 25 to the outer extremity of which is swingingly connected a goose-neck or crook 26. Mounted upon the outer end of the goose-neck is the sound box 27 carrying the stylus bar 28 which is equipped with a needle 29. The clip 10 is first clamped by the clamp screw 11 about the goose-neck 26 at a point substantially midway the ends thereof with the stem 12 projecting downwardly from the goose-neck. The sleeve 15 of the brush supporting member is then adjusted upon the stem to a position with the arm 17 thereof extending laterally from the goose-neck in the direction of the sound box 27. When the sleeve is thus swung upon the stem 12, the clamp screw 16 will be brought opposite the flat face 14 of the stem to engage therewith for securely holding the brush supporting member at adjustment. After the brush supporting member has thus been fixed, the brush 18 may then be adjusted upon the arm 17 by means of the screw 21 to occupy a position, when the needle 29 is

rested upon the record 24, arranged in the rear of the needle to contact with the record. The vertical adjustment of the brush is of course obtained by properly positioning the sleeve 15 of the brush supporting member longitudinally upon the stem 12 while the lateral adjustment of the brush is obtained by sliding the screw 21 longitudinally within the slot of the plate 20. The brush may thus be readily positioned in the rear of the needle 29 to sweep the record and clean it of all dust or other foreign matter as the record is revolved upon the table 23. The necessity for the manual cleaning of the record before use is thus overcome.

In Fig. 2 of the drawings, we have illustrated our improved device attached to a conventional type of phonograph having a straight tone arm. In this figure, the table of the phonograph is indicated at 30 and mounted upon this table is the record 31. Arranged to swing across the table is the tone arm 32 upon the outer end of which is mounted the sound box 33. Carried by the sound box is the stylus 34 to which is connected the needle 35 for engagement with the record. In mounting the attachment, the clip 10 is first connected to the tone arm 32 in the rear of the sound box 33 with the stem 12 projecting beneath the tone arm. The sleeve 15 of the brush supporting member is then rotated upon the stem to a position with the arm 17 of the said member extending forwardly beneath the tone arm toward the sound box. With the arm thus disposed, the binding screw 16 upon the sleeve will be arranged to confront the flat face 13 of the stem 12 to engage therewith for rigidly holding the sleeve at adjustment. After the brush supporting member has been thus arranged in position, the brush 18 is adjusted longitudinally with respect to the arm 17 of the said member to occupy a proper position in the rear of the needle 35 to contact with the record 31. If desired, the brush may be further rotatably adjusted upon the arm 17 into angular relation to the tone arm 32 to assume a position with the length of the brush disposed radially of the axis of rotation of the record 31. By thus positioning the brush, the bristles thereof will more readily follow the grooves in the record for cleaning the record of all foreign matter as the record is revolved upon the table 30.

It will, therefore, be seen that we provide a particularly simple and efficient construction for the purpose set forth and an attachment having various adjustments to meet the different requirements of substantially any conventional type of phonograph.

Having thus described the invention, what is claimed as new is:

1. A device of the character described including an attaching member, a rotatably adjustable cleaning element supporting member slidably adjustable vertically upon said first mentioned member, and a cleaning element carried by the said last mentioned member.

2. A device of the character described including an attaching member, a cleaning element supporting member carried thereby, and a cleaning element carried by the said last mentioned member and slidably adjustable laterally thereon.

3. A device of the character described including an attaching member provided with a shank, a cleaning element supporting member adjustable longitudinally upon the shank, a cleaning element, and means slidably and rotatably connecting the said element with the said last mentioned member.

4. A device of the character described including an attaching member, a shank carried thereby, a sleeve vertically and rotatably adjustable upon the said shank and provided with a lateral arm, and a cleaning element carried by the said arm.

5. A device of the character described including an attaching member, a shank carried thereby, a cleaning element supporting member mounted upon the said shank and including an arm, a cleaning element including a body, a slotted plate carried by the body, and means fitted through the slot in said plate and engaged with the arm for rotatably and slidably connecting the cleaning element with the said arm.

6. A record cleaning attachment for phonographs including an attaching member connected with the phonograph tone arm, a cleaning element supporting member carried by said first mentioned member and adjustable thereon in a plane at right angles to the said arm, and a cleaning element carried by said last mentioned member and adjustable thereon to engage a record upon the phonograph for cleaning the record.

In testimony whereof we affix our signatures.

JAMES WORTHINGTON. [L. S.]
WILLIAM WORTHINGTON. [L. S.]