

No. 832,249.

PATENTED OCT. 2, 1906.

F. E. FORSELL.
PHONOGRAPH RECORD CLEANER.
APPLICATION FILED APR. 11, 1905.

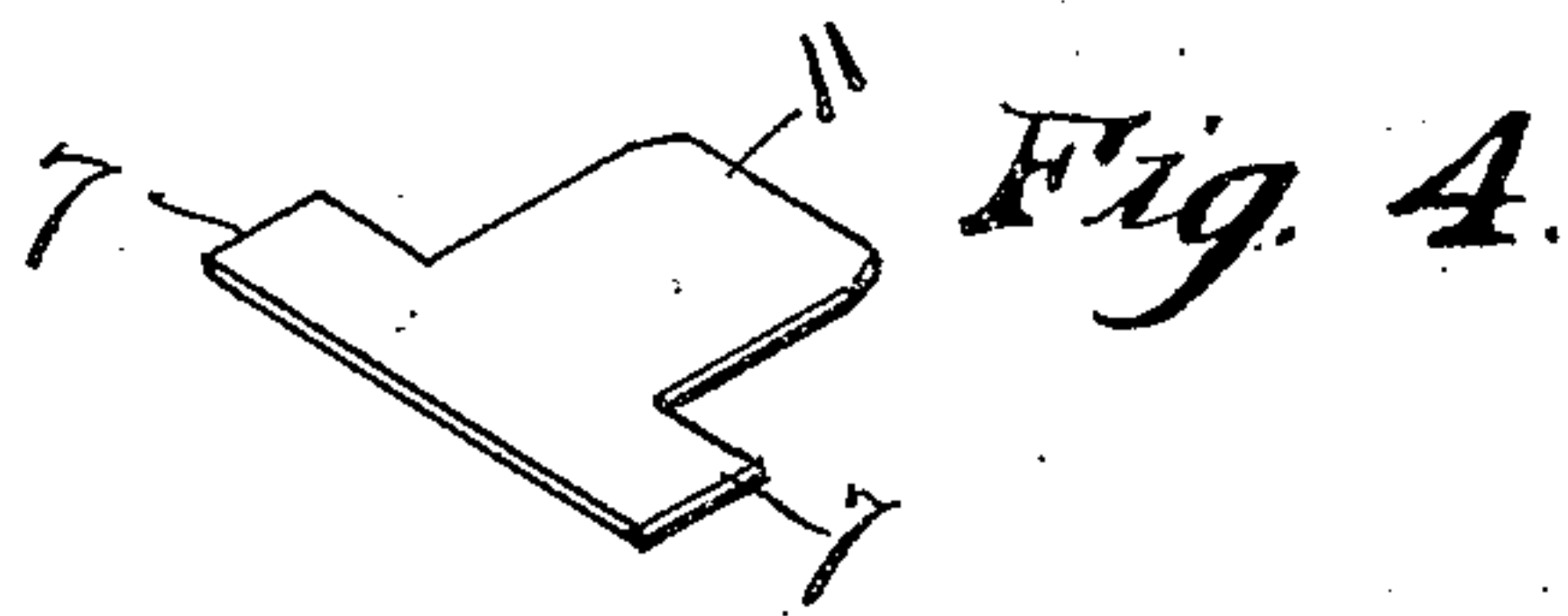
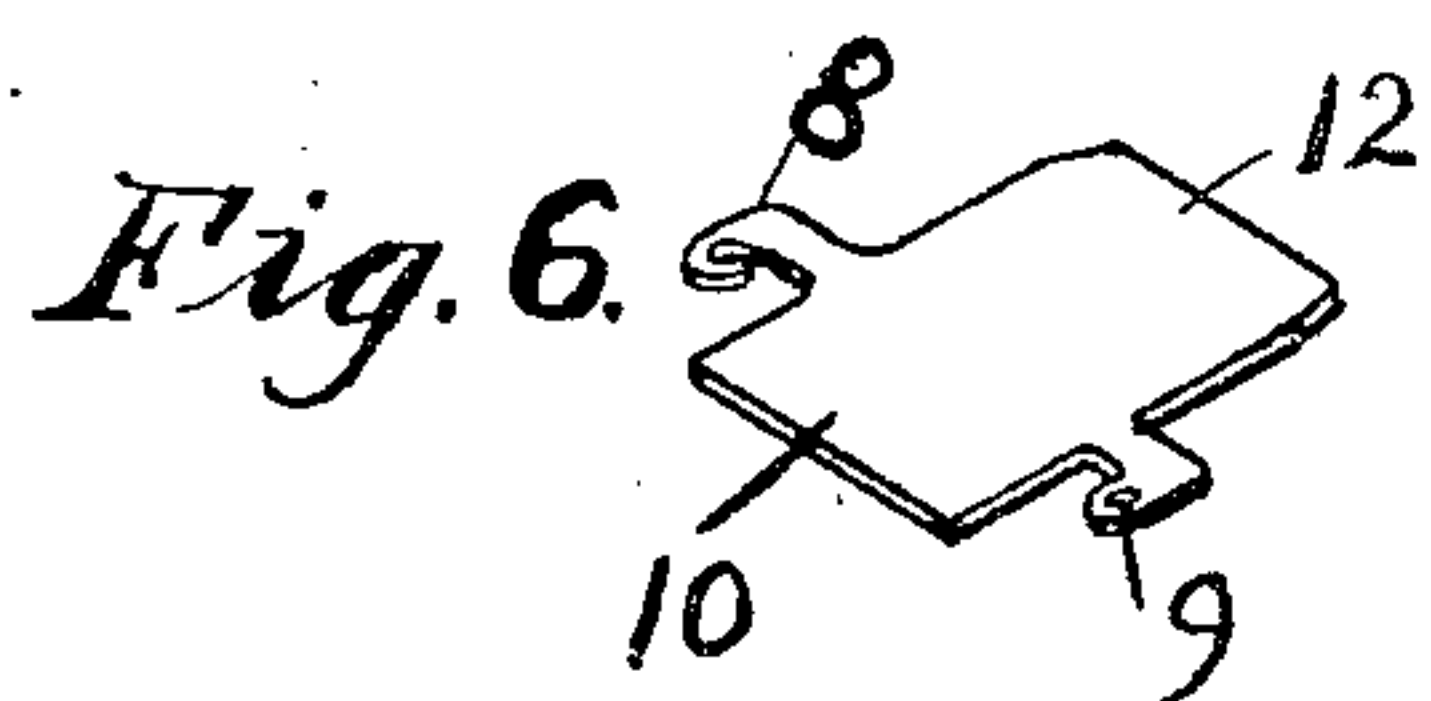
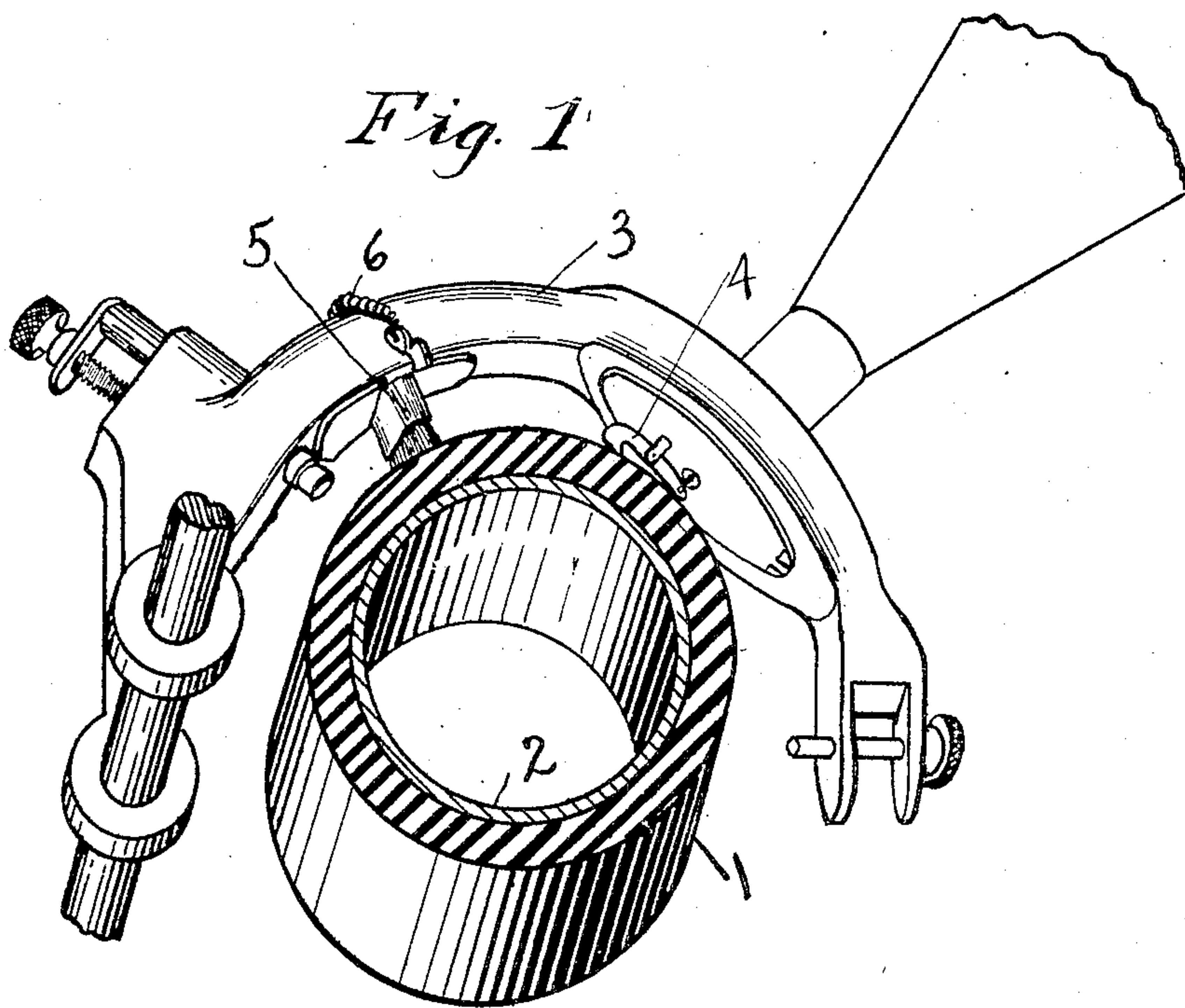


Fig. 3.

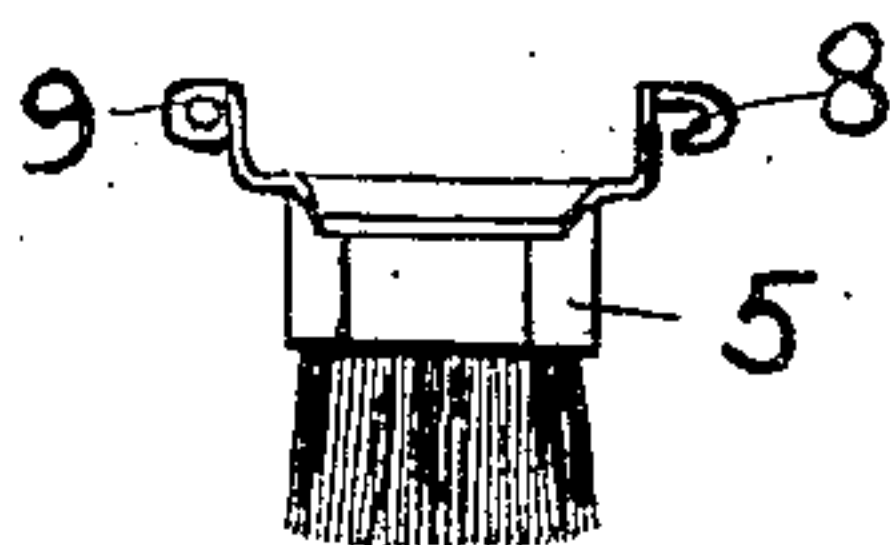


Fig. 8.

Fig. 2.

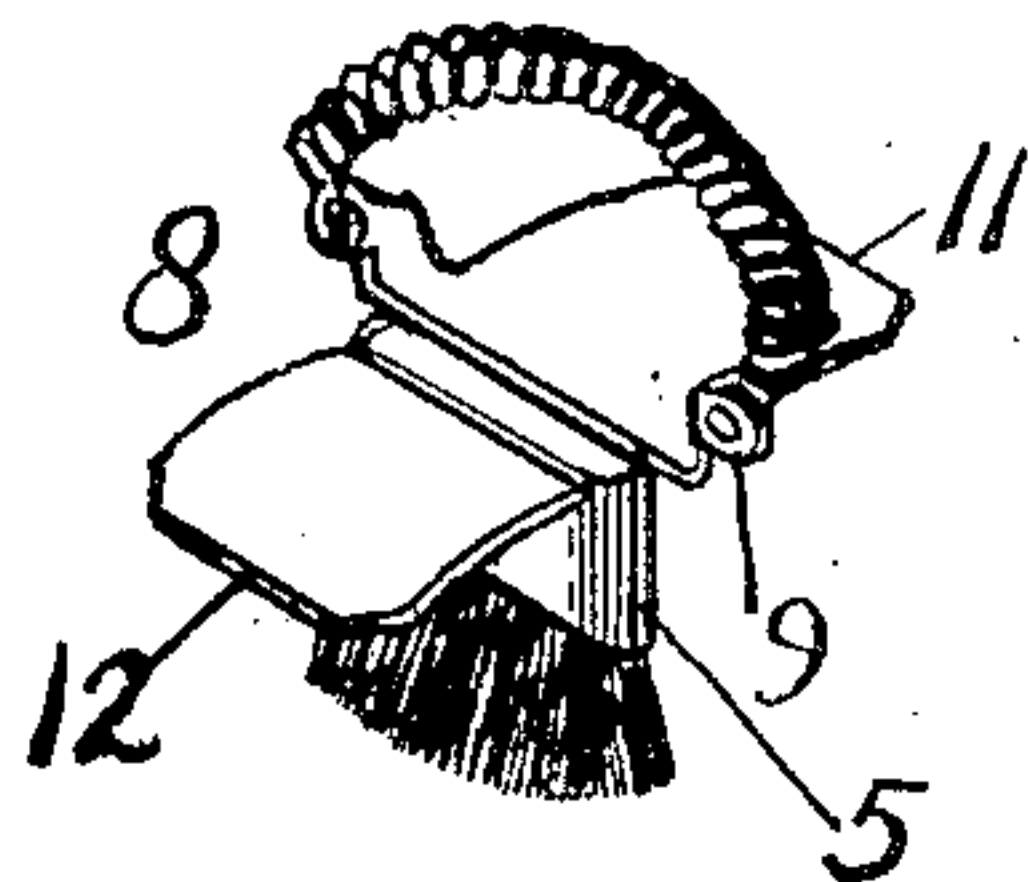


Fig. 5.

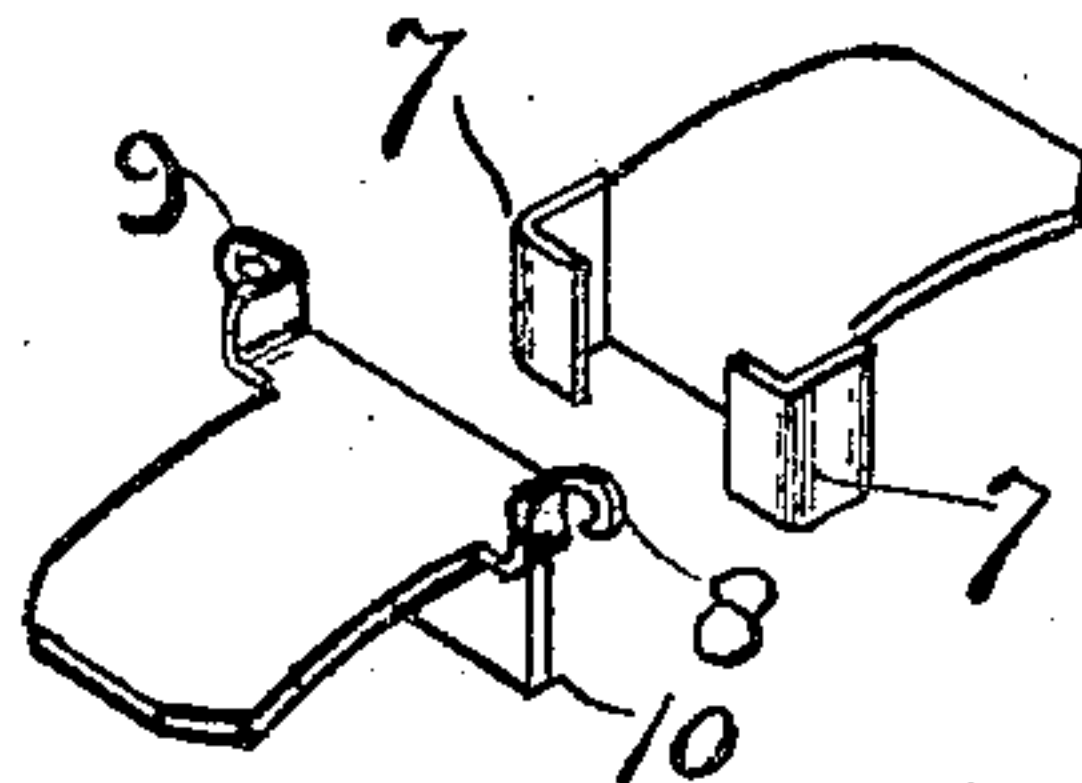


Fig. 7.

Witnesses

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PHONOGRAPH-RECORD CLEANER.

No. 832,246

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRANS E. FORSELL, a citizen of the United States, residing at 379 Weybosset street, Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Phonograph-Record Cleaners, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to an attachment for cleaning the record-roll on a phonograph, and has for its object to provide a brush or other suitable device to be preferably suspended from the traveling arm that carries the reproducing-point.

It is found in practice that when a record-roll collects dust said dust is apt to lodge in the little recording-grooves on the face of the roll, and if it is not thoroughly removed before the record is used this dust and grit comes in contact with the sharp point or edge of the reproducing-needle and wears the same off and quickly destroys it. To obviate this difficulty, I have provided a little brush which may be made of hair, felt, or other soft or suitable flexible material and suspend the same from the reproducer-arm. This brush is arranged to come in direct contact with the revolving roll, completely removing all of the dust and grit from the grooves before they come in contact with the point of the said reproducing-needle, thus enabling said needle to transmit a sharper and clearer reproduction, and at the same time the life and efficiency of the said reproducing-points are greatly increased.

The invention is fully set forth in this specification and more particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a perspective view showing a portion of the recording-roll, the reproducing-arm, and the cleaning-brush in position on said arm. Fig. 2 is an enlarged perspective view of the brush detached. Fig. 3 is the said brush in elevation. Fig. 4 is the shape of one of the pieces of the brush-frame as it is struck from the sheet stock. Fig. 5 represents the piece shown in Fig. 4 bent in position to receive the bristles or felt from which the brush may be made. Fig. 6 shows the shape of the blank of the second member of the brush-frame. Fig. 7 shows said second blank with the lip

bent down and the hook and eye bent up in position. Fig. 8 shows a detail of the little flexible coil-spring by which said brush is attached to the arm.

Referring to the drawings, at 1 is the record-roll, mounted in the usual way on the cylinder 2, and is caused to rotate by a spring, motor, or other suitable means. (Not shown.) At 3 is the usual arm that carries the reproducing-point 4, which point engages the cylinder in the usual way to reproduce the sound therefrom. This arm 3 traverses the face of the said cylinder and moves at a speed in proportion to the rotation of the same and is propelled by the usual means for moving said arm. (Not shown.)

At 5 is the brush, shown in Fig. 1 as being located on the under side of the arm 3 and attached thereto by a flexible connection 6. This brush may be constructed in any convenient manner and of any suitable material, such as soft hair, felt, or other soft or flexible material.

The ferrule for holding the hair or brush portion together in a bunch may be made in many ways; but I prefer to construct the same by cutting a blank from sheet stock, with ears 7 7, as shown in Fig. 4, and then bend these ears down and around, as shown in Fig. 5. A second blank is then struck from sheet stock, having a projection 8 on one side thereof terminating in a hook and a second projection 9 on the opposite side provided with an eye, as shown in Fig. 6. The lip 10 of this member is then turned down and the projecting members 8 and 9 turned up into the position shown in Fig. 7. The lip 10 is then placed between the ears 7 7, and the ferrule or band to receive and retain the brush material is completed. It then remains to place one end of this brush material into this ferrule and set the same firmly together in a press or by other means to bind the material, and the brush is completed. The ends 11 and 12 of the members form a saddle to engage the under side of the arm 3 and present a good broad bearing-surface to support the brush thereon, while the projections 8 and 9 embrace arm 3 to prevent lateral movement of the brush. In attaching this device to the said arm any means may be used; but I preferably employ the use of a fine flexible coil-spring 6, one end of which is fastened to the eye on projection 9, the oppo-

site end of said spring having a hook or eye that may be carried over the said arm and hooked into the hook on projection 8. If it is not convenient to use a spring for this purpose, a rubber band or other flexible means may be used.

This brush may also be attached to phonographs using the disk-records to clean the same in somewhat the same manner as it is applied to the cylinder-machines.

This practical device is very inexpensive. It may be readily attached to any phonograph and is very efficient in cleaning the record, and thus prolongs the life of the point of the reproducing-needle and increases the efficiency of the same.

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

1. A device of the character described comprising a clip or ferrule having a brush secured therein and provided with an angular extension formed in one piece with one wall of said clip or ferrule and forming a saddle-piece, said saddle-piece being provided with oppositely-disposed projections adapted to embrace a support.

2. A device of the character described comprising a clip or ferrule having a brush secured therein and provided with an angular extension formed in one piece with one wall of said clip or ferrule and forming a saddle-piece, said saddle-piece being provided with oppositely-disposed laterally-arranged upturned projections adapted to embrace a support.

3. A device of the character described comprising a clip or ferrule having a brush secured therein and provided with a plate having opposite laterally-arranged upturned projections adapted to embrace a support.

4. The combination with a movable member of a sound-reproducing instrument of a clip or ferrule having a brush secured therein and provided with oppositely-disposed projections for embracing said movable member.

5. The combination with a movable member of a sound-reproducing instrument, of a brush provided with a saddle, and a resilient member adapted to hold said saddle against the under side of said movable member.

6. The combination with a movable member of a sound-reproducing instrument, of a clip formed of two members each having extensions forming a saddle, a brush secured in said clip, and means for securing said clip to said movable member.

7. The combination with a movable member of a sound-reproducing instrument, of a clip formed of two members each having extensions forming a saddle, a brush secured to said clip, and a resilient member for securing said clip to said movable member.

8. In a cleaning device for phonograph-records, the combination of a phonograph-record roll, a reproducing-point, a traversing arm for carrying said point, a brush located in the path of said point to engage said roll and clean the same, said brush being located on the under side of said arm, a saddle on said brush for supporting it against said arm, a hook and an eye on said saddle, a flexible connector passed over said arm and engaging said hook and eye for holding said brush in position on said arm.

In testimony whereof I affix my signature in presence of two witnesses.

FRANS E. FORSELL.

Witnesses:

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