Jan. 16, 1923. 1,442,680.

J. F. BORST ET AL.

BRUSH FOR TALKING MACHINES.

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Fig. 1.

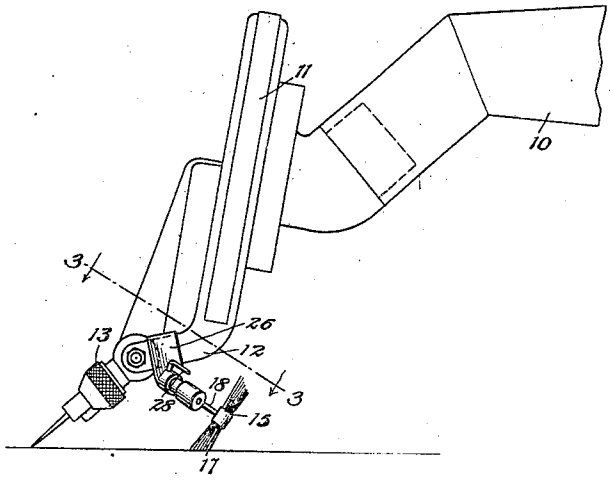


Fig. 2.

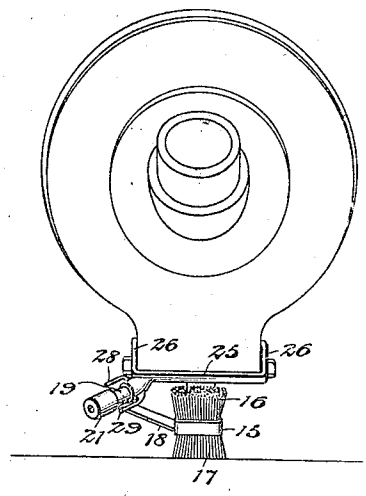


Fig. 4.

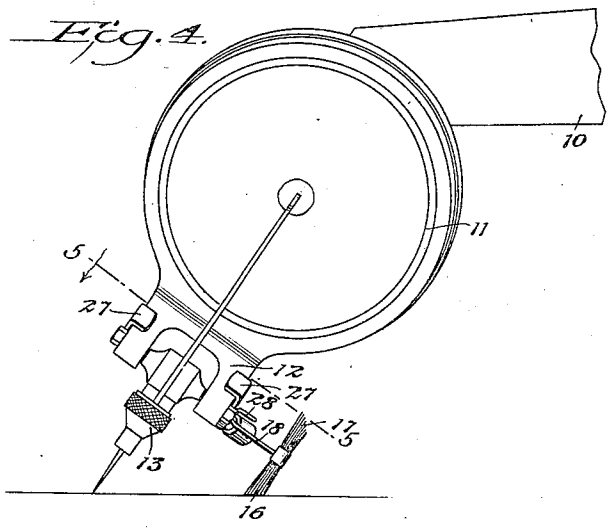


Fig. 3.

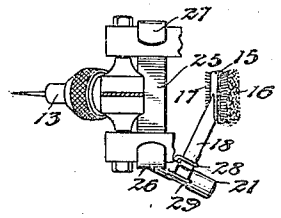


Fig. 6.

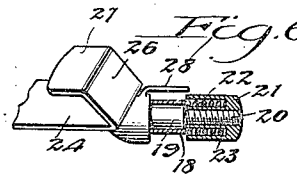
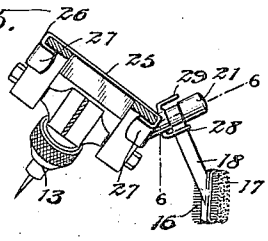


Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

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BRUSH FOR TALKING MACHINES.

Application filed February 9, 1922. Serial No. 535,254.

To all whom it may concern:

Be it known that we, JOSEPH F. BORST and WILLIAM BORST, both citizens of the United States, and residents of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Brush for Talking Machines, of which the following is a full, clear, and exact description.

The present invention relates to new and useful improvements in brushes for talking machines, and the same is an improvement over the device shown in our United States Letters Patent No. 1,399,714, dated December 6, 1921.

It is one of the primary objects of the present invention to provide a brush especially adapted for use in connection with talking machines in which the sound box is of the universal type, i. e., adapted to play records of both the hill-and-dale and lateral-cut types.

It is a further object of the invention to provide a brush which is capable of swinging movement relative to the sound box in order that it may move to a position in the path of the stylus of the sound box in either of its playing positions.

It is a further object of the invention to provide means by which tension may be obtained to control the swinging movement of the brush.

With the above and other objects in view, reference is had to the accompanying drawings, in which—

Figure 1 is a view in side elevation of a talking machine sound box equipped with a brush constructed in accordance with the present invention, the sound box being positioned to play a record of the hill-and-dale type;

Fig. 2 is a rear view thereof;

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 1;

Fig. 4 is a view in side elevation of the sound box positioned to reproduce records of the so-called lateral-cut type;

Fig. 5 is a sectional view taken on the line 5—5 of Fig. 4;

Fig. 6 is an enlarged detail sectional view taken on the line 6—6 of Fig. 5.

Referring more particularly to the drawings, the reference character 10 designates the tone arm of a talking machine, and 11 designates the sound box. The sound box in the present instance is shown with a forwardly extending projection 12, and said forwardly extending projection 12 carries the stylus holder 13 on the forward portion thereof.

The reference character 15 designates a brush, and said brush is of the double-ended type and provides two working members 16 and 17 oppositely disposed with respect to one another. This brush is mounted upon the free end of the resilient arm 18, and said resilient arm 18 is revolubly mounted upon a rigid arm 19 or the like, as more clearly shown in Fig. 6. This rigid arm 19 has a reduced screw-threaded extremity 20 with which a cap 21 has threaded engagement. The cap 21 is cut out as indicated by the reference character 22 to receive a spring 23. The inner end of the spring 23 engages that portion of the resilient arm 18 which is formed about the rigid arm 19 in such a manner that as the cap 21 is screwed down, the tension of the spring is exerted upon the resilient arm 18 and produces sufficient friction to permit free and easy rotary movement about the rigid arm 19.

The rigid arm 19 is carried by a resilient clasp 24 and said resilient clasp 24 comprises a base member 25 having parallel arms 26 terminating in clamps 27 which extend parallel to the body portion 25, as more clearly shown in Fig. 5. This clasp 24 is adapted to embrace the forwardly extending projection 12 of the sound box 11 in order to maintain the brush in position thereon. The rigid arm 19 is provided with two stops 28 and 29, which serve to limit the swinging movement of the resilient arm 18 in order that the brush will be properly positioned with respect to the sound box and its stylus.

The operation of the device is as follows:

When the sound box 11 is positioned as in Fig. 1 to reproduce a record of the hill-and-dale type, the swinging arm 18 is moved to the position where it engages the stop 29. When the arm 18 has been swung about its pivotal point into engagement with the stop 29, the brush element 17 will be positioned directly behind the stylus of the sound box and will travel the sound grooves of the record to thoroughly clean them prior to the engagement of the stylus therewith. When the sound box is turned to occupy the position shown in Fig. 4, in which position it serves to reproduce records of the lateral-cut type, the arm 18 is swung to a position where it engages the stop 28. In so swinging, the

brush is reversed and the element 16 thereof is caused to be brought into engagement with the record as shown in Fig. 4.

From the foregoing it is apparent that the present invention provides a cleaning brush for talking machine records which is capable of use in connection with sound boxes of the so-called universal type, and that the device differs from the construction disclosed in our prior patent above mentioned, in that a single brush having a plurality of cleaning elements is movable from one position to the other to assume a position in the line or path of travel of the stylus of the sound box in its various playing positions.

What is claimed is:

1. A cleaning element for talking machines comprising a double-ended brush, and means for permitting pivotal movement of said double-ended brush relative to the talking machine sound box to position either end of the brush in the path of the stylus of said sound box.

2. In combination with a talking machine sound box adapted for operation in more than one position, a double-ended brush, and means for securing said brush to the sound box in such a manner as to permit pivotal movement of the brush relative to the sound box to position either of its ends in the path of travel of the stylus of the sound box.

3. In combination with a talking machine sound box adapted for operation in two positions, a double-ended cleaning element, and means whereby one end of the cleaning element is positioned in the path of travel of the sound box in one of its playing positions and the other end of the cleaning element is positioned in the path of the stylus of the sound box in its other playing position.

4. In a device of the character described, a clasp, a rigid arm carried thereby, a second arm pivotally mounted on said first-mentioned arm, a double-ended cleaning element carried by said pivoted arm, and a plurality of stops adapted to limit the pivotal movement of said pivoted member relative to the rigid arm, said stops being arranged in such a manner that as the pivoted arm engages one of said stops one end of the double-ended cleaning element will be in operative position and as the pivoted arm engages the other stop the opposite end of the double-ended cleaning element will be in operative position.

JOSEPH FRANK BORST.
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