Nov. 16, 1948. C. M. CHORPENING 2,453,894

MEANS FOR MOUNTING STYLUS CARTRIDGE

Filed Jan. 29, 1946

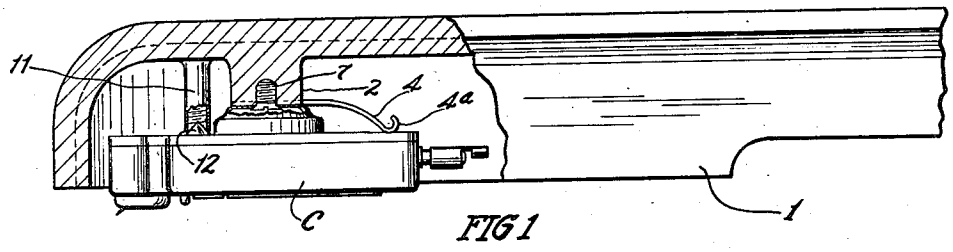


FIG 1

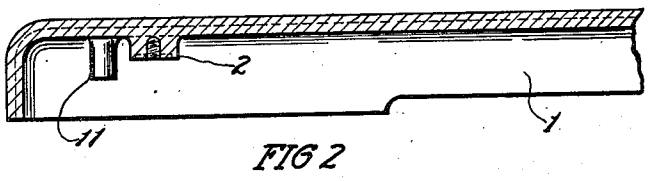


FIG 2

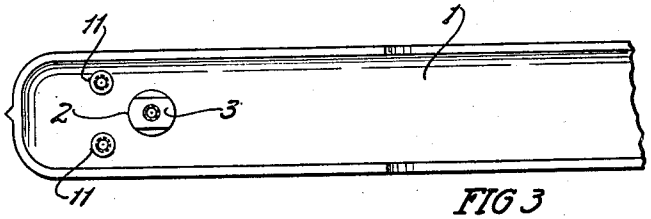


FIG 3

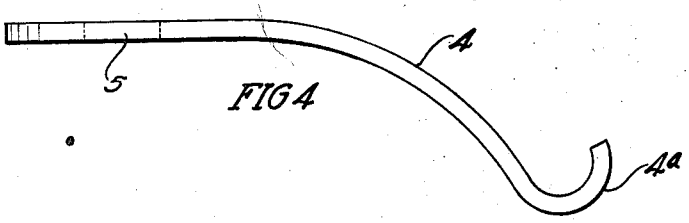


FIG 4

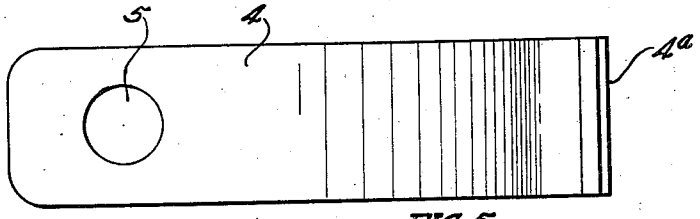


FIG 5

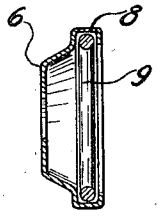


FIG 6

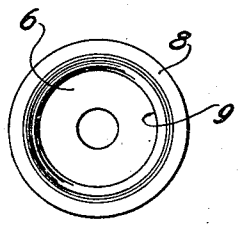


FIG 7

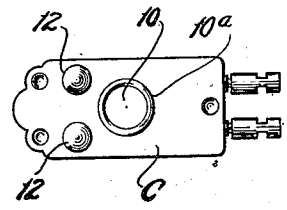


FIG 8

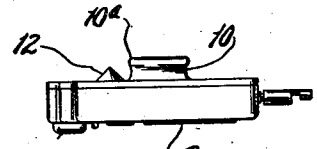


FIG 9

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MEANS FOR MOUNTING STYLUS CARTRIDGE

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5 Claims. (Cl. 274—24)

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This invention relates to the art of recording and reproducing sound and, more specifically, consists of an improved means for mounting a stylus cartridge upon the supporting arm therefor.

One object of our present invention is to devise a convenient and efficient means for effecting removable supporting engagement of the stylus cartridge upon the arm therefor.

Another object is to devise a means for preventing accidental lateral dislodgement of the cartridge from the position in which it is mounted upon its supporting arm.

Another object is to devise alternate means for attaching the stylus cartridge to the supporting arm whereby either of two means may be employed without the one interfering with the other.

Other objects will appear from the following description and claims when considered together with the accompanying drawing.

Fig. 1 shows an arm with my improvement attached thereto, the arm being partially broken away;

Fig. 2 is a longitudinal sectional view of the arm itself;

Fig. 3 is an inverted plan view thereof;

Fig. 4 is a side view of the spring element;

Fig. 5 is a plan view of the spring element;

Fig. 6 is a sectional view of the female attaching member;

Fig. 7 is an inverted plan view of the same female member;

Fig. 8 is a top plan view of the cartridge; and

Fig. 9 is an elevation of the cartridge.

The arm 1 is provided with the boss 2 which has a groove 3 in the end thereof to receive the straight end portion of a leaf spring 4 in such manner that it will extend in a direction corresponding to the length of the arm 1. The spring 4 has a hole 5 which registers with a recess in the boss 2 and with which there registers also a hole of the same size in the rear wall of the female part 6. A screw 7 extends through these registering holes and is anchored in the boss 2 so as to secure these parts thereto.

The female part 6 has an annular groove 8 within which there is located a spring ring member 9 for snap engagement by the projection 10 on the top side of the stylus cartridge C. The projection 10, which may be formed as an integral part of the top of the cartridge, has an enlarged shoulder 10a which is adapted for snap engagement in the spring ring 9.

When the male projection 10 has been snapped into engagement with the spring ring 9, the curved depending end 4a of the leaf spring 4 will

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have bearing engagement upon the top of the cartridge and will thereby take up any play between the parts of this snap engaging means.

The arm 1 is provided also with the two hollow bosses 11 which are located forwardly of the boss 2 and equidistantly upon opposite sides of the longitudinal axis of the cartridge. The ends of these bosses 11 are adapted to receive the conical projections 12 on the top of the cartridge and such engagement serves to prevent accidental lateral displacement of the forward end of the cartridge. In this way, the cartridge is maintained in proper axial alignment with respect to the arm 1.

The bosses 11 may be provided internally with screw threads for use when it is desired to mount the cartridge upon the arm by means of screws extending through the cartridge instead of the snap engagement above described. Thus, with my present structure, either of two types of cartridge, as far as the mounting means is concerned, may be attached to the same arm; either by means of the more familiar screws engaging in the threaded bosses 11 or by means of the snap engagement comprising the male and female members above described. When the cartridge is screwed to the bosses 11, the members 4, 6 and 10 are of course not present and there is sufficient clearance between the cartridge and the boss 2 so as not to interfere with the mounting of the cartridge in the manner intended. When the cartridge is mounted by means of the snap engagement, above described, the bosses 11 will be utilized as a means of engagement by the projections 12, as above explained.

It is to be understood that the present form of disclosure is merely for the purpose of illustration and that there might be devised various modifications thereof without departing from the spirit of the present invention as herein set forth and claimed.

What I claim is:

1. In combination, a phonograph arm having a boss, a female socket member attached to said boss, a stylus cartridge having a companion male member in removable snap engagement with said female socket member, and a leaf spring anchored at its one end between said boss and female socket member and having its other end in engagement with said cartridge so as to take up any slack in said engagement.

2. In combination, a phonograph arm having a plurality of bosses arranged triangularly thereupon, a female socket member attached to one of said bosses, a stylus cartridge having means of

engagement with two of said bosses for positioning and holding the same laterally and having a companion male member in removable snap engagement with said female socket member, and spring means anchored upon said boss that holds said female member and having engagement with said cartridge so as to take up any play in said snap engagement.

3. In combination, a phonograph arm having a plurality of bosses arranged triangularly thereupon, a female socket member attached to one of said bosses, a stylus cartridge having means of engagement with two of said bosses for positioning and holding the same laterally and having a companion male member in removable snap engagement with said female socket member, and a leaf spring having its one end anchored between said female member and its boss and having its other end in engagement with said cartridge so as to place the same under tension and thereby take up any play in said engagement.

4. In combination, a phonograph arm having a boss, a stylus cartridge, means of snap engagement between said cartridge and said boss, and a leaf spring anchored at its one end to said boss and having its other end in engagement with said

cartridge so as to take up any slack in said engagement.

5. In combination, a phonograph arm having a plurality of bosses thereupon, a stylus cartridge, means of snap engagement between said cartridge and one of said bosses, and a leaf spring anchored at its one end to said one boss and having its other end in engagement with said cartridge so as to take up any slack in said engagement.

CREED M. CHORPENING.

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