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G. B. KING

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BOX, CASE, OR HOLDER FOR GRAMOPHONE NEEDLES

Filed Oct. 16, 1929

FIG. 1.

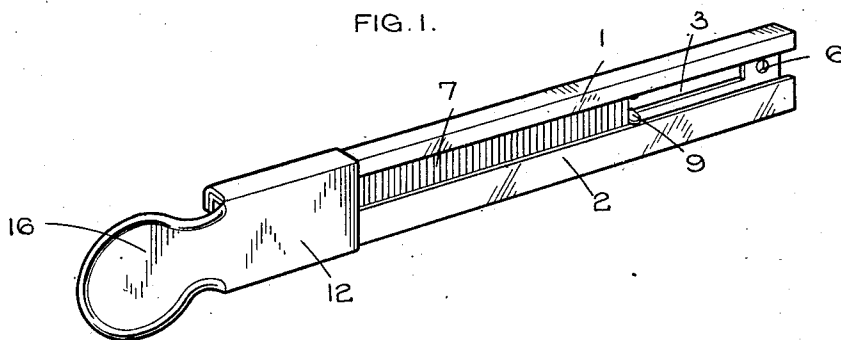


FIG. 2.

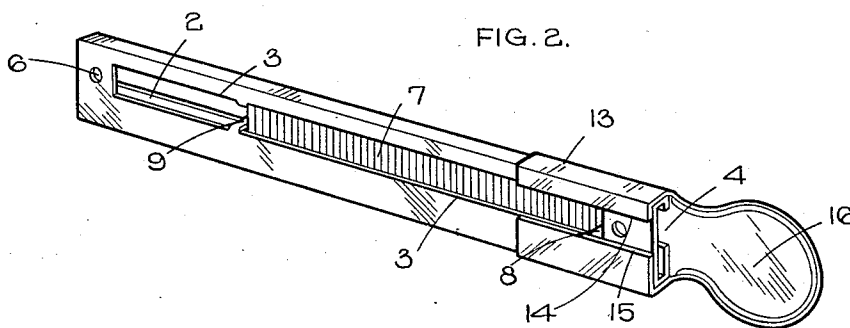
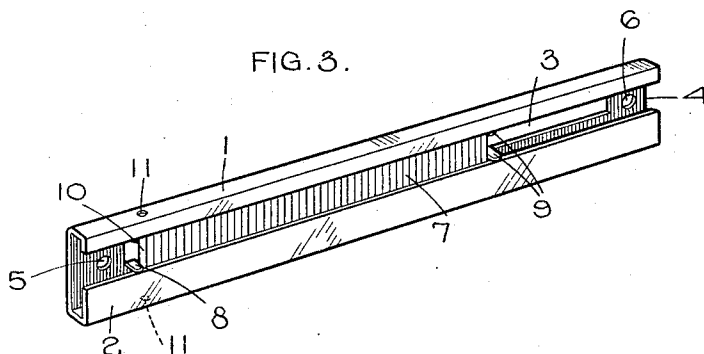


FIG. 3.



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BOX, CASE, OR HOLDER FOR GRAMOPHONE NEEDLES

Application filed October 16, 1929, Serial No. 400,030, and in Great Britain October 26, 1928.

This invention relates to the packing of gramophone needles, and has for its object to provide an improved form of packing which will be more convenient in use than those at present generally adopted.

A further object of the present invention is to provide a packing for gramophone needles which can be placed in a magazine for receiving gramophone needles, such as is described in the specifications of my prior British patent application Serial No. 30,887 of 1928 and U. S. A. application Serial No. 353,542.

Gramophone needles are at present usually packed by placing them loosely in boxes, the individual needles having to be picked out by hand.

According to the present invention I pack the needles in a row in a clip, the needles all lying parallel and with the points arranged in the same direction, the clip being provided with means for retaining the needles in the position in which they are packed.

The clip containing the needles may consist of a plate with bent-over edges, one edge being bent to engage over the butt ends of the needles and the other edge of the plate being bent into a channel to engage over the pointed ends.

Further, the clip may be constructed in such manner that it can be placed bodily into a magazine, as described in the prior specifications referred to, the clip being constructed so that the function of the ejecting plunger of the magazine is not to be interfered with, and so that the spring employed in the magazine for feeding the needles towards one end will be able to operate freely.

Referring to the drawings:—

Figure 1 is a perspective view showing one construction of needle holding clip in accordance with the present invention.

Figure 2 is a perspective front view.

Figure 3 is a perspective view of the clip with its outer member removed.

In the construction illustrated, the clip proper is shown clearly in Figure 3, and will be seen to consist of a length of sheet metal of channel section with its edges 1, 2 turned inwardly.

At the back of the channel is a longitudinal slot 3, while there is also a gap 4 between the inturned edges 1 and 2 which extends from end to end along the front.

Holes 5 and 6 are provided near the ends of the back portion, these holes being adapted to engage registering pins on a magazine which may be constructed in accordance with my British specification Serial No. 30,887 of 1928 and my U. S. A. specification Serial No. 353,542.

Needles are shown at 7 and are held in position against endwise movement by a pair of lugs 8 at one end, and a pair of lugs 9 at the other end of the row.

The lugs 8 and 9 may be integral with the clip, and may be formed by small pieces of metal projecting from the edges of the slot 3, these pieces of metal being bent forwardly as shown.

Opposite the ends of the end needle 10 of the row, holes 11 are provided in the upper and lower edges of the channel. These holes are provided to enable the needles to be ejected one by one, it being understood that after each needle has been ejected the row of needles is fed forwardly by means described in my British specification Serial No. 30,887 of 1928 and my U. S. A. specification Serial No. 353,542.

In order that the end needle of the row may not drop out before the needle clip is placed in the magazine, I may provide an outer member 12 having a portion 13 which is of channel section, and which is adapted to slide over that end of the needle holding clip where the holes 11 are situated.

The portion 13 is placed on the needle holding clip in the manner shown in Figures 1 and 2, i. e. with the gap between its edges 14 and 15 at the back of the needle holding clip. The outer member 13 may be provided with a handle 16 so that after the needle holding clip and outer member have been placed in the magazine, the outer member can be readily withdrawn.

Other means may be used to prevent the end needle of the row from dropping out before the needle clip is placed on the magazine. For instance, a paper envelope may

be secured on the needle package and may be slipped off before insertion in the magazine.

In another method a thin paper or foil covering may be secured on the needle package in a position to prevent the end needle of the row from coming out, and this paper or foil may be punctured by the needle ejecting plunger and by the needle point.

What I claim then is:—

10 1. A holder for gramophone needles comprising a clip having edges of channel form for engaging over opposite ends of the needles, said edges each being formed near one end to permit of the discharge of the
15 needles one by one, the back of said clip having a longitudinal slot and forwardly projecting lugs at the edges of said slot forming stops for the needles.

2. A holder for gramophone needles comprising a clip of channel section having its
20 edges inwardly turned, there being a longitudinal gap between said edges, and a longitudinal slot in the back of the clip and opposite to said gap, said edges each being
25 formed near one end to permit of the discharge of the needles one by one and forwardly projecting lugs at the edges of said slot forming stops for the needles.

In witness whereof I affix my signature.

30 GEORGE BASIL KING.

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