July 4, 1939. E. SCHWARTZ 2,165,073

TAPE PHONOGRAPH

Filed Jan. 18, 1938

Fig. 1.

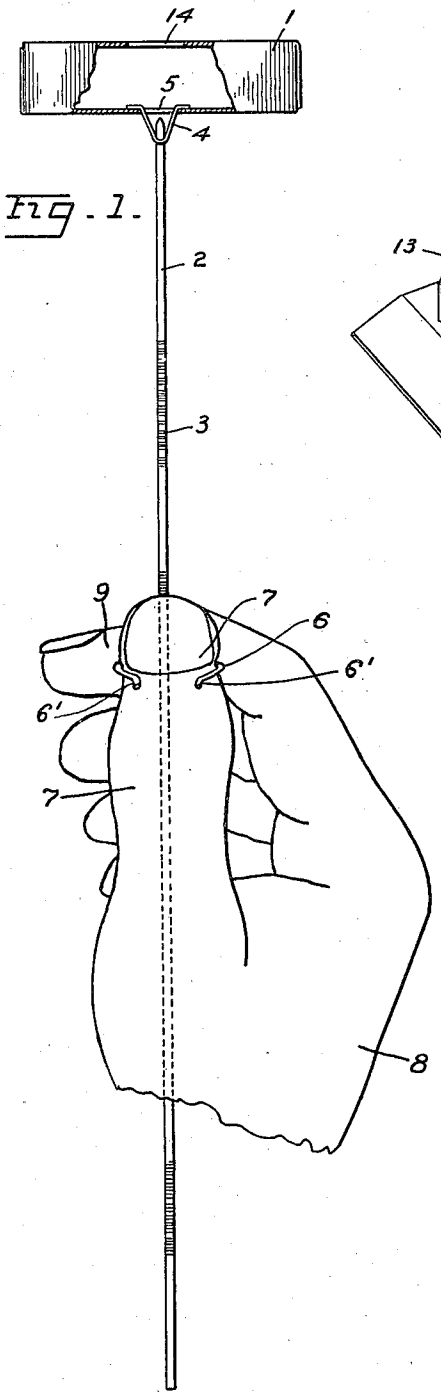


Fig. 2.

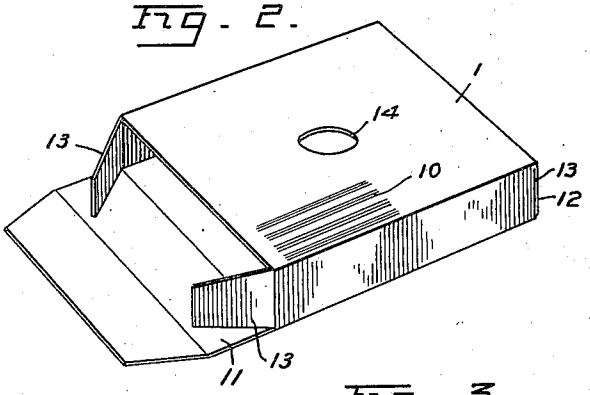


Fig. 3.

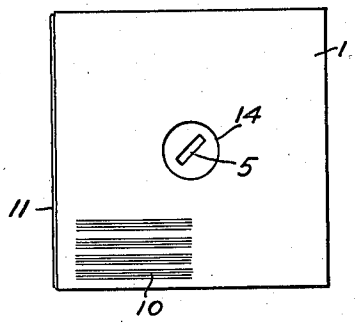


Fig. 4.

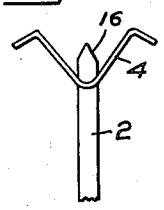
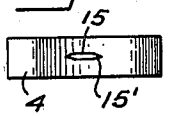


Fig. 5.



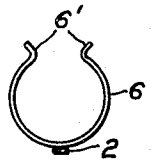


Fig. 6.

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Patented July 4, 1939 2,165,073

UNITED STATES PATENT OFFICE

2,165,073

TAPE PHONOGRAPH

Edward Schwartz, New York, N. Y., assignor to The Sound Publicity Corporation, New York, N. Y., a corporation of New York

Application January 18, 1938, Serial No. 185,500

2 Claims. (Cl. 24—265)

This invention relates to finger operated phonographs or talking devices of the type shown in my prior Patent No. 2,042,736 of June 2, 1936, and has for its objects improvements in the device there shown to make it more practical, efficient and durable.

Other advantages of the invention will appear in the following description and accompanying drawing.

In the drawing:

Figure 1 is an elevation of my improved talking device shown with sound-box broken away to reveal the fastening means for the upper end of the sound record tape.

Figure 2 is a perspective view of the sound box.

Figure 3 is a top plan view of the sound box.

Figure 4 is an enlarged side view of the tape securing or anchor clip.

Figure 5 is a plan view of the clip of Figure 4.

Figure 6 is a substantially full size view of the thumb clip shown in its relation to the sound record tape.

Briefly described, the device comprises a combined packing and sound box 1, a strip of flexible tape 2 bearing on one side as at 3 transversely extended ridges or depressions corresponding to the record sound waves, and constituting the record.

The upper end of the tape is secured by a metal clip 4 which grips the edges of the tape and projects downward out of a slot 5 in the bottom of the box 1. The sound ridges or undulations are impinged by the rounding contact of a spring wire split ring or yoke 6 which embraces the thumb 7 of the operating hand 8 while the index finger 9 supports the back or smooth side of the tape. In operation the sound box is held by its edges in one hand while the wire ring on the thumb of the other hand is drawn down across the sound ridges, and which causes the sound vibrations set up to resonate in the sound box and be emitted loudly to the air, the bottom wall of the box forming a tympan.

The sound record tape may be of any desired composition such as Celluloid, Bakelite, semi-hard rubber, or the various plastics now available, and is packed for shipment rolled up in the sound box 1 with its clips 4 and 6 in an envelope together with suitable instructions for setting up and operating, or the instructions may be printed on the box as at 10. The box, therefore, is of cardboard or other suitable material, and is preferably square in plan as shown in Figure 3, and relatively thin as indicated in Figure 2, and is of the common folding variety with end flaps 11, 12, 13, which fold into the box in the well known manner, indicated at the right hand end of the box as shown in Figure 2, and it should be so completely folded after removing its contents to form a proper resonating sound box.

The upper wall of the box is punched with a round hole 14 directly above slot 5 of a size to pass anchor clip 4 after the same is applied to the upper end of the tape, so that the tape may be threaded through the slot from above after the anchor clip is applied.

The anchor clip 4 is preferably a small rectangular piece of tin or sheet metal bent V shape and punched with a slot 15 pointed at both ends as shown at 15' in Figure 5 and of a length to snugly receive the tape 2 which has its upper end pointed or beveled off at the edges as at 16 and after inserting the tape and pulling the tapered end through to the position indicated in Figure 4, the outer legs of the V are bent upwardly and inwardly to cause the sharp ends of the slot to dig into the opposite edges of the tape, and which effect is further contributed to when the anchor clip is pushed into the slot 5 of the box to seat it in position shown in Figure 1, so that the anchor grips the opposite edges of the tape without danger of ever letting go, or of breaking off as it did below a knot which was formerly tied on the upper end.

The beveling or pointing of the upper end of the tape clearly indicates which end goes up, so that words and sounds will not be reversed, and the extreme ends of the V legs are bent to form laterally extending supports resting upon the upper side of the bottom of the box as clearly indicated in Figure 1.

The thumb clip 6 is of spring wire of a size adapted to spring snugly about the thumb as indicated in Figure 1, and has its two outer ends 6' bent outwardly to prevent injury to the finger. The circular body of the ring insures a good operating contact against the sound ridges of the tape as the latter being flat brings it in tangential contact with the ring at whatever position the thumb may be turned. The relation of the ring 6 to the tape 2 is clearly shown in Figure 6.

In considering the folding box or sound box 1 it should be noted that its upper and lower face do not open but are permanently held parallel to one another as by glue, but that only the narrow ends open, and in fact one of these may be permanently glued shut, as it is only necessary

to open one end to get the tape and clips out from packed position therein.

Having thus described my improvements in a talking device of this kind, what I claim is:

1. In a hand-operated phonograph of the character described provided with a tympan and a sound-wave impressed record in the form of a tape, means for anchoring the end of the tape to the tympan comprising a piece of sheet metal bent substantially to V form and formed with a slot in the apex of the V into which slot the tape is adapted to fit, said slot extending parallel to the plane of the V and being of a size so that its edges impinge against and engage the edges of the tape against withdrawal of the tape when the legs of the V are compressed toward one another.

2. In a hand-operated phonograph of the character described provided with a tympan and a sound-wave impressed record in the form of a tape, means for anchoring the end of the tape to the tympan comprising a piece of sheet metal bent substantially to V form and formed with a slot in the apex of the V formed with pointed ends, and into which slot the tape is adapted to fit, said slot extending parallel to the plane of the V and being of a size so that its ends impinge against and engage the edges of the tape against withdrawal of the tape when the legs of the V are compressed toward one another.

EDWARD SCHWARTZ.