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METHOD OF MAKING PHONOGRAPH BLANKS

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Fig. 1.

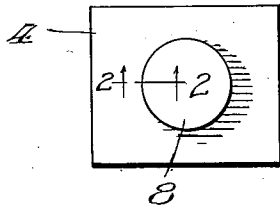


Fig. 2.

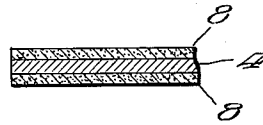


Fig. 3.

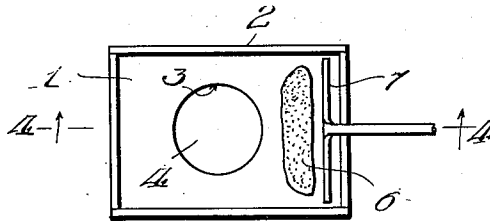
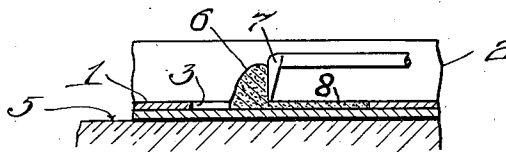


Fig. 4.



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METHOD OF MAKING PHONOGRAPH
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2 Claims. (Cl. 18—48.3)

There is at present a great demand for inexpensive phonograph record blanks, particularly for use in homes and places where it would be wasteful to employ the expensive blanks on which costly records are made for wide reproduction. The most common method of manufacturing such inexpensive blanks is to take a sheet of thick, stiff paper, or other material, and dip it repeatedly in a lacquer bath in order to obtain a lacquer coating thick enough to permit a recording to be made without having the needle or stylus cut through the coating. This is a tedious process because the rudimentary blank must be permitted to dry after each dipping. Even then, it is almost impossible to secure an adequate coating through any number of dip-
pings that can be made within the limits of the prices at which the product must be sold.

The object of the present invention is to make it possible to produce phonograph record blanks which can be sold at a very low price and which, at the same time, shall possess thick record-receiving coatings or facings.

It is very rarely that blanks made by the dipping process have coatings of uniform thicknesses; and another object of the present invention is to insure against the presence of thin spots in the coatings or any variations in thickness that will interfere with satisfactory recordings.

The various features of novelty whereby my invention is characterized will hereinafter be pointed out with particularity in the claims; but, for a full understanding of my invention and of its objects and advantages, reference may be had to the following detailed description taken in connection with the accompanying drawing, wherein:

Figure 1 is a face view of a blank made in accordance with the present invention before the same is trimmed; Fig. 2 is a section on an enlarged scale on line 2—2 of Fig. 1, showing the blank after trimming; Fig. 3 is a top plan view showing more or less diagrammatically the devices employed in carrying out the process constituting the present invention; Fig. 4 is a section, on a larger scale, taken on line 4—4 of Fig. 3, showing only a fragment of the apparatus and conditions as they exist after a coating or facing layer has been partially laid down on the body member of the blank.

Referring to Figs. 3 and 4 of the drawing, 1 represents a suitable stencil secured to a frame 2 in such a manner that the stencil forms the bottom of a pan-shaped device which, in the

present instance, is shown as being flat, although it may be of the curved or rocking type. The stencil is formed from any suitable solid sheet material and contains no openings, except a large central hole 3 whose dimensions are at least as great as the corresponding dimensions of a record-receiving coating or layer with which a blank is to be provided.

A sheet 4 which is preferably comparatively stiff and which may be composed of paper, cardboard, metal, plastic, or other suitable material, is disposed between a suitable table 5 or other support and the overlying stencil. This sheet, which serves as the body member of the record blank to be produced, lies directly underneath the hole 3 and forms a complete closure for the same.

In order to form the desired coating or facing layer on the sheet 4, a mass 6 of flowable coating material is deposited upon the stencil beyond one side of the hole in the latter, in the manner that is usually done in printing with silk stencils. A suitable blade, scraper or squeegee 7 is then employed to push the mass of coating material toward the left in Fig. 3 and into the hole in the stencil. There is more than enough of the coating material to fill the hole, so that the squeegee not only serves to push ahead so much of the coating material that projects above the lower edge of the squeegee, but it levels off the coating material that enters the hole so as to bring its upper face flush with the upper surface of the stencil. Thus, after the squeegee has travelled to the left clear across the hole, it leaves the hole filled with a layer 8 of coating material and carries the remainder of the mass somewhat to the left of the hole, as it appears in Fig. 3, from whence it may again be moved toward and into the hole upon a return stroke of the squeegee. Before such return stroke, however, the stencil is lifted from the sheet 4 and, because of the large area of contact between the coating layer 8 and the sheet 4, as compared with the small area of contact between the edge of this layer and the stencil, the coating layer remains on the sheet 4 and the stencil frees itself, leaving the hole therein empty and in condition to receive more of the coating material when a new carrier sheet is placed in position under the stencil.

The coating material 6 may be lacquer of the type used in the old dipping processes, although it should be more viscous and less fluid while, at the same time, retain the characteristic of

flowing sufficiently to provide the coating with a smooth even surface.

It will thus be seen that I am enabled to apply a coating or layer of any desired thickness and having a perfect flowed surface, to the body member or carrier, at a single operation, something which would be impossible if it were attempted to force the coating material through the meshes of an ordinary screen stencil; the lifting of the latter type of stencil from the work causing agitation and disturbance of the surface of the coating, due to the adhesion of the face of the coating to the stencil. Consequently, I am able to secure results not possible of attainment either by the dipping process or by the use of the usual meshed stencil.

After the coating on one side of the body member or carrier sheet has hardened sufficiently, the sheet may be turned over and be provided on the opposite side with a second coating or layer, thereby making it possible to have recordings on both sides of the blank.

After the body member has been coated on one or both sides, it may be trimmed to the desired size, preferably in such a manner as to trim off a slight rim-like marginal portion of the facing or facings in order to remove any roughness along the edge or edges of the facing or facings. In Fig. 2 there is shown in section a fragment of a double-faced blank that has been trimmed so that the three layers form a disk of uniform diameter throughout its thickness.

Although I have described my invention as applied to the manufacture of phonograph record

blanks, it will of course be understood that the same method may be employed in other fields where the same or similar problems are encountered.

I claim:

1. The method of making a phonograph record blank which consists in laying on a body member of sheet material a stencil sheet containing an unobstructed hole at least as large as the desired playing area of the blank to be made, depositing on the stencil sheet a mass of thick viscous lacquer, and moving a scraper over the surface of the stencil sheet and across said hole from behind said mass of lacquer to cause the lacquer to enter and fill said hole and be smoothed off approximately flush with the upper face of the stencil sheet.

2. The method of making a phonograph record blank which consists in laying on a body member of sheet material a stencil sheet containing an unobstructed hole at least as large as the desired playing area of the blank to be made, depositing on the stencil sheet a mass of thick viscous lacquer, moving a scraper over the surface of the stencil sheet and across said hole from behind said mass of lacquer to cause the lacquer to enter and fill said hole and be smoothed off approximately flush with the upper face of the stencil sheet, and then turning the said body member over and repeating the aforesaid steps to provide the said body member with a second record-receiving face.

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