Jan. 8, 1924. 1,479,847

E. A. WIDMANN

METHOD OF PRODUCING PHONOGRAPH RECORDS OF SPECIAL TYPES

Filed July 29, 1918 2 Sheets-Sheet 1

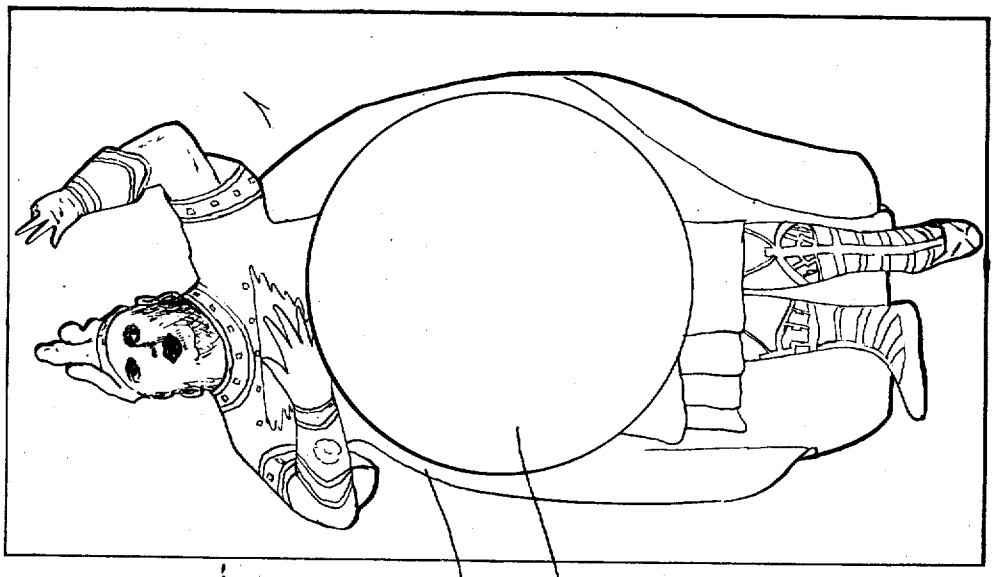
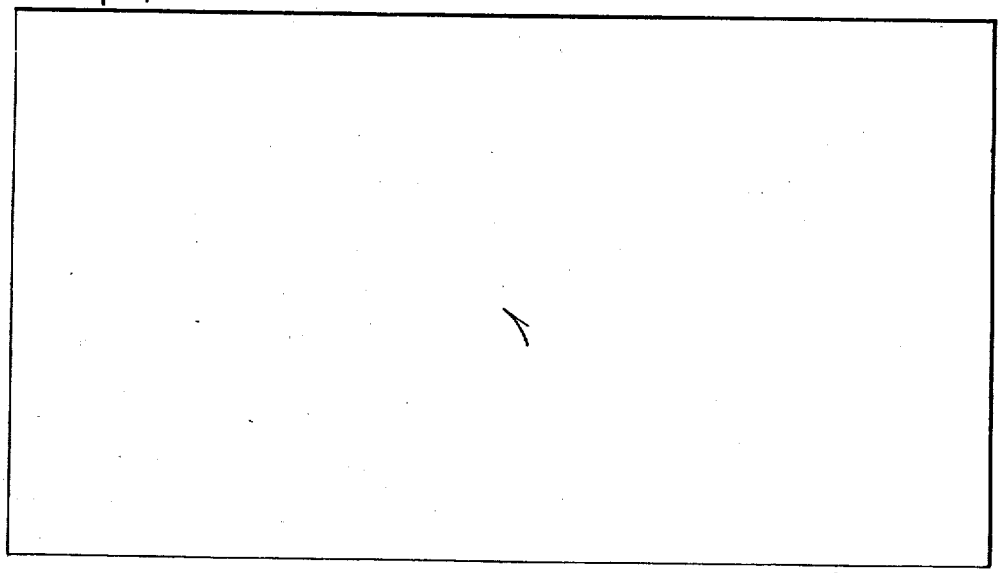


Fig. 1.

Fig. 2.



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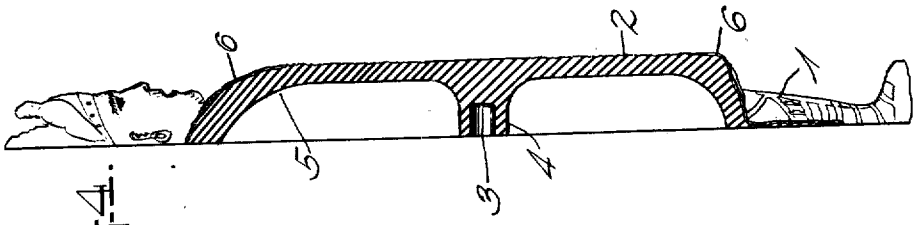


Fig. 4.

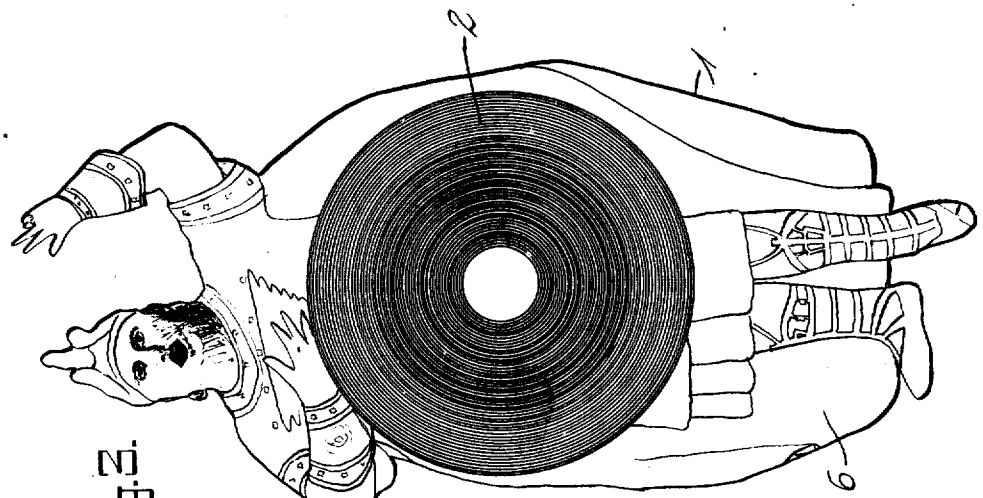


Fig. 5.

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UNITED STATES PATENT OFFICE.

EUGENE A. WIDMANN, OF BROOKLYN, NEW YORK, ASSIGNOR TO VOICE RECORDER COMPANY, INC., OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

METHOD OF PRODUCING PHONOGRAPH RECORDS OF SPECIAL TYPES.

Application filed July 29, 1918. Serial No. 247,185.

To all whom it may concern:

Be it known that I, EUGENE ALFRED WIDMANN, citizen of the United States, and resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Methods of Producing Phonograph Records of Special Types, of which the following is a specification.

I have invented an improved process or method for the manufacture of tablets for phonographic records; and my invention relates especially to a method according to which I am enabled to produce tablets resembling in shape and appearance any objects which I may desire to represent or imitate by means of such tablets.

The main purpose of my invention is to devise a method for making expeditiously and on a large scale tablets in imitation of almost any object, animate or inanimate, in which the general public or any part of the same may be interested; and simultaneously provide such a tablet with a phonographic record the theme of which concerns or in some suggestive way corresponds with the original object which the configuration and coloring of the tablet represents.

A further purpose of my invention is to provide a method by which the greatest possible degree of likeness between the tablet and the selected object may be readily attained; and by which the tablet in the making may be embossed or given relief effects and colored as required to secure and enhance such likeness.

The nature of my invention will be made clear in the following description, read in connection with the accompanying drawings forming a part of the same; and the novel features of my improved method will be precisely defined in the appended claims. I desire this specification, however, to be construed as explanatory only, and as setting forth but one mode in which my improved method can be practised; for other modes may be adapted and changes in the invention as herein outlined may be made, within the scope and spirit thereof, and as indicated by the general meanings of the terms in which the appended claims are expressed.

On the drawings:

Figure 1 shows a body of record-forming material used in the manufacture of tablets according to my improved method;

Figure 2 shows a piece of cloth or the like, marked and colored by printing or otherwise, and intended as a covering for the record-forming material to make the finished tablet resemble as much as possible the object to be imitated, showing a central circular opening therethrough of a predetermined diameter to equal that of the record to be stamped upon the finished product.

Figure 3 is a top plan of the tablet as it appears when completed; and

Figure 4 is a longitudinal section of the completed tablet.

The same numerals identify the same parts throughout.

In the practice of my method I take a body of record forming material which is here shown as a flat blank 1, but which may be in any shape or mass most convenient for pressing into the desired form. In pressing commercial disks of a certain record material in extensive use at the present time this material is presented to the press in the form of a heated mass, which flows from the centre outwardly in all directions as it is flattened in the process. I therefore for the purpose of convenience of description take the material in this flattened form as the theoretical starting point in the working of my process, it being understood that the blank material in any other form available for introduction into the stamping press would meet the requirements of such initial step.

In the next step or pressing stage I prefer to employ a die comprising at least two members, one to form one face of the body 1 and the other the opposite face. The body 1 will not only be worked so as to receive the desired configuration or outline, but one face or side will be made in relief; that is, parts of the face mentioned will present embossed effects instead of being merely flat, thus increasing the resemblance of the tablet to the object selected. As for the opposite face or side, this may be made concave so as to cause the tablet to be lighter and to save stock. I do not deem

it necessary to show the precise type of die which I need, for the reason that the principles of die-making are well known and dies for embossing articles of every imaginable shape can easily be obtained on order from those skilled in art. It is therefore deemed sufficient to state that the members of the die must be such as to give the results which are above set forth; also that the intaglio die member which gives the cameo effects to that face of the body 1 which is to serve as the upper face will be formed so that it not only makes that face appear in relief but also impresses the grooves 2 constituting the record on that face in the same operation.

In so far as the shape of the completed product is concerned, the tablet with the phonographic record thereon, as it is delivered by the die, will be as illustrated by Figures 3 and 4. I have chosen for the sake of example to make the tablet in imitation of a human being, the tablet including the body, the head and the remaining members, and having the grooves of the record shown at 2 located in the center. The phonographic record on the tablet in this instance will be capable of reproducing a song or some other subject-matter pertaining to the figure or associated with it; and the same correspondence between the object which the tablet represents and the subject-matter of the record will exist when I make such tablets to resemble other articles, animate or inanimate; as will be readily understood.

That portion of the die which contains the grooves of the record can be made in one piece with the rest of that portion; or it may be made as a separate piece, with the record cut or otherwise worked thereon and fastened to that part of the die in proper position and in any suitable way.

In the practice of my process the under die is preferably employed with raised portions to produce in its completed condition a tablet having a recess 3 in the face opposite that bearing the grooves 2. This recess may be made to extend entirely through the tablet if desired, but preferably that is not done, but merely to form the bore of a boss 4 which will be adapted to fit over the centering stud of the turntable of a talking machine and to enable the tablet to remain in place as the turn-table revolves. The face of the tablet 1 bearing the boss 4 will be made concave, as shown at 5.

As already stated, in the preferred method, the face or side of the tablet on which the record grooves 2 are impressed will be formed in relief so that the parts of the tablet which represent the parts of the object to be imitated will cause the tablet to bear a greater likeness to the original. In order to increase this likeness I color or otherwise mark the parts of the tablet according to the hues or tints of the object which the tablet is designed to resemble. I may do this in almost any suitable fashion, but I prefer to proceed by applying to the face of the tablet which presents the embossed effects a colored covering 6. This covering can be of cloth or paper or any convenient material, marked and colored by printing or in some other manner; so that the different parts of the same will be of the required shade or shades. The covering 6 is attached to the blank in the same operation by which the tablet is stamped out with the die; and while this covering may be applied in several pieces if desired, in many of the simpler designs the covering may be made in one piece, in which case it may be applied more easily than where several layers or partial layers are employed.

When the body of record-forming material is ready so as to receive its outline in the manner above disclosed, it is heated to some extent in order to soften it. The covering 6 is then laid over it and both the body 1 and covering 6 are subjected to the action of the die at the same time. The various parts of the covering are thus applied to and pressed upon the corresponding parts of the tablet; and as the body 1 is heated so as to make it more pliable, the covering 6 will adhere to the body and when the tablet is delivered the covering will be firmly attached thereto, and the various parts of the tablet will not only be in relief but in color also when the tablet attains its completed condition. If one piece is used for the covering 6 it preferably should have a central opening 7 so as to expose to the proper die member that part of the tablet in which the record grooves 2 are to be formed. Of course an adhesive may be used to secure the covering to the record-forming material if needed, but in most instances the material itself will supply the adhesive property required.

The die may be so made that it will not only give the tablet the proper shape and color and affix the covering thereto in the proper location, but will also trim the edges of the tablet and obviate any roughness in the outline of same.

The method herein set forth may be practised in various ways so as to make tablets in large numbers. The record forming material 1 may be in the shape of a long sheet or strip, as shown, or in other convenient forms as pointed out, and the material for the coverings may be of corresponding size and shape and marked and colored in different places to provide successive coverings 6 for each tablet as fast as the die can make same. For example, by employing cylindrical dies, the record material 1 if in the shape of a strip can be worked in conjunction with a strip of the same length or

width of cloth or paper and having successive figures of the object to be imitated thereon. The strip of record forming material with the strip of cloth or the like upon it can then be fed to the rotating die continously; or a like continuous strip may be fed into the usual reciprocating type of die press, and so timed with the die members that on each working stroke, the die members will register with the colored figures upon the strip of material for the coverings; thus providing the coverings for the tablets in succession as they are made. As each figure made in the manner indicated will have a central opening 7 as above mentioned, each tablet will thus not only be formed, embossed and colored, but will also receive its record from one of the die members in a single operation.

As pointed out, I may so design the dies that I can give the tablets not only the form of a human being, but the form of any living object or scene including animate or inanimate objects and the subject-matter of the record in every instance will be appropriate and pertain to the idea the tablet is intended to convey to the observer's mind.

By means of the method above explained I may produce tablets relating to a vast range of topics, the subject-matter of the record being intended for the ear and the appearance of the tablet being intended for the eye; and by this expedient the finished product is made to appeal more strongly to the observer. Practically every subject that is of any interest to the public can be presented in the manner described with a minimum of cost of production and a high degree of artistic effect obtained.

Having described my invention, what I believe to be new and desire to secure and protect by Letters Patent of the United States is:

1. The process of making a toy phonograph record which consists in first, the preparation of a mass of record material, then preparing a sheet of suitable material having stamped thereon a pictorial figure having an opening centrally disposed therein of a predetermined diameter, placing the figure with the opening over the record mass, inserting the same in a phonograph record pressing device having a matrix of the size of the said opening so that the matrix registers therewith, and imprinting the matrix through said opening into said record material, substantially as described.

2. The within described process consisting of preparing a mass of record material, placing over the same a pictorial cover having an opening of the required diameter therein, placing the same in a stamping press having a sound record matrix therein so that the matrix registers with the opening in said cover portion, and pressing therein a phonograph record, thereby causing the covering portion permanently to adhere to the record portion.

Signed at New York in the county of New York and State of New York this 16th day of February A. D. 1918.

EUGENE A. WIDMANN.