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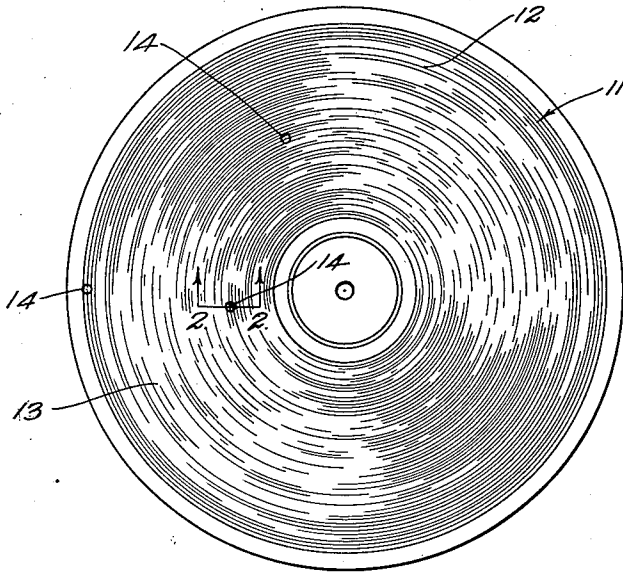
H. M. BARUCH

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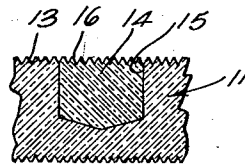
STARTING MARKER FOR PHONOGRAPH RECORDS

Filed Dec. 8, 1930

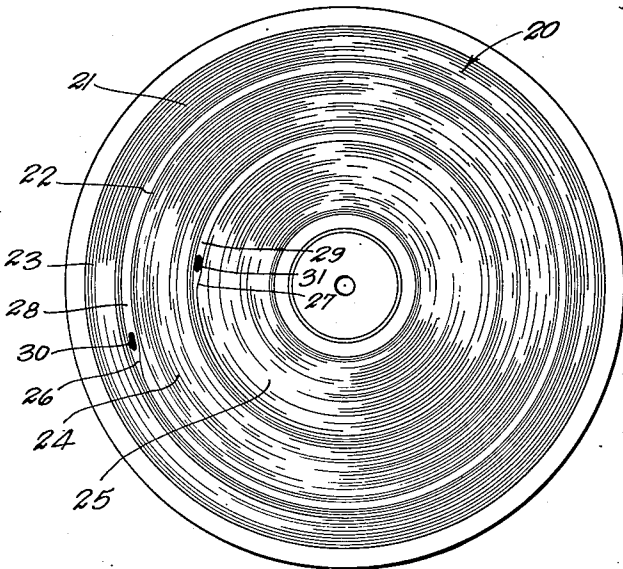
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



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## UNITED STATES PATENT OFFICE

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STARTING MARKER FOR PHONOGRAPH RECORDS

Application filed December 8, 1930. Serial No. 500,791.

My invention relates to sound reproducing devices and relates particularly to an improvement in phonograph disc records.

In the use of phonograph records of the present construction, considerable difficulty is experienced in properly placing the stylus in the sound reproducing groove, there being no visible indication of the point at which the sound recording begins. This is particularly disadvantageous in the use of ordinary records in broadcasting stations, for it is desirable that the sound reproduction start immediately upon placing the stylus on the record. It is common in the manufacture of phonograph records at present to record more than one selection on the same record, frequently as many as three or four. It is especially difficult to properly place the stylus on the record, if it is desired to play only one of a group of selections thus recorded, without either reproducing a part of a selection not wanted or failing to reproduce all of the desired selection.

To obviate these disadvantages it is an object of my invention to provide a phonograph record having visible means for guiding the operator in the placement of the stylus in order that the sound reproduction will start immediately upon contact between the needle and the record.

It is another object of my invention to provide means of this character that will be visible when the record is rotating.

It is another object of the invention to provide on the surface of a phonograph record visible means indicating the starting point of each of several selections recorded on the record.

It is a further object of the invention to provide means of this character which will cause no interruption in the continuity of the sound reproducing groove.

Another object of my invention is to provide on the surface of a phonograph record having several selections recorded thereon, variegated indicia identifying the various selections and indicating the starting points thereof.

These and other objects will be made evi-

dent in the following part of the specification and in the appended claims.

Referring to the drawing:

Fig. 1 is a plan view of a phonograph record embodying the features of my invention.

Fig. 2 is a fragmentary sectional view showing the manner in which the indicating means is inlaid in the surface of the record, this view being taken as indicated by the line 2—2 of Fig. 1.

Fig. 3 is a plan view of a phonograph record showing an alternative form of marker.

In Figs. 1 and 2 I show a phonograph record 11 having a sound recording surface 12 formed by a continuous spiral groove 13 provided in the face of the record in the usual manner. As is well known, the groove 13 is formed having sound reproducing indentations therein which impart vibrations through a stylus or needle to a diaphragm included in a sound reproducing mechanism.

This form of my invention includes an indicating marker in the form of an inlay 14 of a visibly contrasting material set in a depression 15 provided in the sound reproducing surface 12 of the record. The material of the inlay 14 is preferably of the same substance as that composing the record 11 but is of a contrasting color. In the manufacture the recess 15 is preferably formed and filled with the inlay 14 before a sound recording groove 13 is formed. The material composing the inlay 14, being substantially the same as that of the record, offers no obstacle to the forming of the groove 13 so that it traverses the inlay 14, as shown at 16, thus the continuity of the groove 13 is not interrupted throughout the length thereof.

When a plurality of selections are recorded on the same recording surface one of the inlays is provided at the starting point of each selection and the inlays are of various colors, thus furnishing to the operator both an identification of the selection he wishes to play and a visible indication as to the exact point at which the selection begins.

Although differently colored inlays are preferable, it should be clear that inlays of various shapes, or symbols, could be used

without departing from the scope of my invention.

For the sake of simplicity I will not describe details of manufacture other than to state that to those skilled in the art the positioning of the inlays 14 on the surface of the disc 11 before the sound is recorded thereon could be very easily accomplished, the exact location being estimated by a comparison of the disc and a matrix used in forming the sound record grooves 13.

In Fig. 3 I show a phonograph disc 20 having a sound recording surface 21 formed by a groove 22. The groove 22 is formed to provide a plurality of spaced apart groups of spiralled convolutions 23, 24, and 25. The intermediate group 24 is connected to the groups 23 and 25 by connecting channels 26 and 27 in substantially the manner shown, so that notwithstanding the blank spaces 28 and 29 between the groups 23 and 24, and 24 and 25, respectively, the groove 22 is continuous throughout the entire recording surface 21.

This form of record is primarily adapted for the recording of a plurality of selections, and identifying means, preferably in the form of variously colored pigment, indicated at 30 and 31, are applied to the blank spaces 28 and 29 adjacent the starting point of each selection.

In this form of the invention the matrix used in forming the sound reproducing surface would also be provided with blank spaces comparable to the spaces 28 and 29 and also with connecting channels comparable to the channels 26 and 27, these spaces and channels being formed consecutively as the matrix is recorded, by a mechanism including a groove cutting tool cooperating with a recording instrument in a well known manner.

Although I have shown and described two distinct forms of the invention it should be understood that I do not wish to limit the scope thereof to the constructional details herein disclosed, it being clear that various changes might be made and that numerous embodiments of the invention might be devised, all of which would come within the breadth of the following claims.

I claim as my invention:

1. A phonograph record of the character described including: a surface scored by an uninterrupted groove; a plurality of groups of sound reproducing sequential indentations provided in said groove; and an indicia disposed in said surface intermediate each of said groups to indicate the beginnings thereof.

2. A phonograph record of the character described including; a reproducing surface having a plurality of depressions provided therein, said depressions being inlaid with a material contrasting visibly with said surface; and a sound reproducing groove formed

in said surface and traversing said inlays so that the continuity of said groove is not interrupted by said inlays.

3. A phonograph record of the character described including: a sound reproducing surface; and a depression provided in said surface and being filled with a material contrasting visibly with said surface to indicate the beginning of a selection recorded thereon.

4. A phonograph record of the character described including: a surface having a depression provided therein, said depression being inlaid with a material contrasting visibly with said surface; and a sound reproducing groove formed in said surface and traversing said inlay so that the continuity of said groove is not interrupted by said inlay.

5. A phonograph record of the character described including: a surface having a sound reproducing groove formed therein subdivided into a plurality of starting zones; separately recorded playing zones divided by said starting zones; and depressions in said starting zones, said depressions being inlaid with a material contrasting visibly with said surface when said record is rotated to indicate the starting points of said playing zones recorded on said surface.

6. A phonograph record of the character described including: a surface having a sound reproducing groove therein subdivided into a plurality of separately recorded playing zones and spaced from each other by a starting zone; and a depression formed in each of said starting zones, said depressions being inlaid with a material contrasting visibly with said surface when said record is rotated to indicate the starting point of said playing zones recorded on said surface.

7. A phonograph record as claimed in claim 6 in which said sound reproducing groove traverses said inlays so that the continuity of said groove is not interrupted thereby.

8. A phonograph record of the character described including: a surface having a groove provided therein for reproducing a plurality of selections recorded on said surface; and depressions formed in said surface between said recorded selections, said depressions being filled with a material contrasting visibly with said surface when said record is rotated to indicate the starting point of said selections recorded on said surface.

9. As a new article of manufacture, a phonograph record having a plurality of playing zones, each being a different selection and separated by non-playing zones comprising elements inlaid in said record.

10. As a new article of manufacture, a phonograph record having a plurality of separate playing zones, each being capable of playing a different selection, and having means for indicating the start of each selec-

tion embedded in the surface of said record between each of said playing zones.

5 11. As a new article of manufacture, a phonograph record having a plurality of separate playing zones, each being capable of playing a different selection, and having an element for indicating the start of each selection embedded in the surface of said record between each of said playing zones.

10 12. A phonograph record as claimed in claim 10 in which the continuity of the selections is not interrupted by said means.

15 13. A phonograph record as claimed in claim 9 in which the continuity of said selections is not interrupted by said inlaid elements.

20 14. In a phonograph record having a sound reproducing surface, the combination of: a plurality of groups of sound reproducing indentations formed on said surface; and a plurality of indicia formed of a material contrasting visibly with said surface, each of said indicia being so inserted in the body of said record that the outer portion thereof  
25 forms a portion of said surface, each of said indicia being placed at the starting point of one of said groups of sound reproducing indentations.

30 15. In a phonograph record having a sound reproducing surface, the combination of: a plurality of groups of sound reproducing elements situated at said surface; and a plurality of indicia formed of a material contrasting visibly with the material forming the body of the record, said indicia forming a part of said surface, each of said in-  
35 dicia being situated at the beginning of one of said groups of sound reproducing elements.

40 In testimony whereof, I have hereunto set my hand at Los Angeles, California, this 3d day of Dec., 1930.

HERBERT M. BARUCH.

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