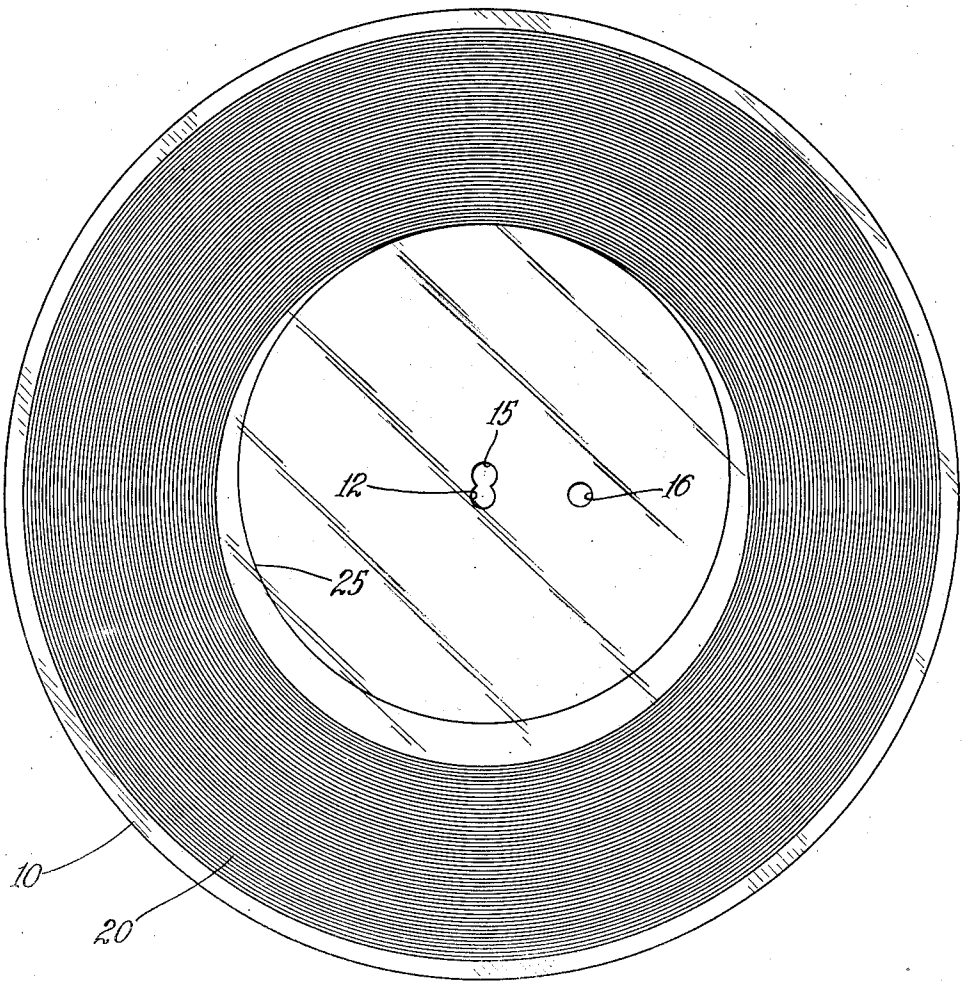
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SOUND RECORD

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SOUND RECORD

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5 Claims. (Cl. 274—42)

My invention relates to sound records of the disk type and it is more especially concerned with so-called "home recordings" as distinguished from commercially produced records.

When making instantaneous sound recordings in the home on the average non-professional type recording mechanisms, it is not possible to equip the recorded disk with the special eccentric end grooves which, on commercially pressed records, appear after the completion of the concentric spiral sound grooves.

The purpose of such eccentric end or control grooves on commercially pressed records is to provide a means by which the reproducing stylus is quickly brought to a point near the center of the record and then reversed in direction of movement; both of these actions occurring as quickly as the stylus leaves the last of the spiral sound grooves.

The particular motion imparted to the stylus by such eccentric control grooves is then utilized to actuate the cycle tripping linkage and/or the automatic stop tripping linkage, on both manual and automatic record changing mechanisms.

Some of such tripping and cycling devices require that the stylus be brought to a predetermined distance from the center of the record and others require a reversal of direction of the stylus or both.

I have provided a novel instantaneous sound recording disk and method of producing the same which may conveniently be employed by any unskilled person in the home on the ordinary home recording machine, whereby such a disk may be equipped with an eccentric control groove, thus permitting it to be used on automatic record changing and record stopping devices in the same manner as commercially pressed records.

I accomplish this result in the following manner. The blank record as sold to the consumer, instead of being provided only with the central hole to receive the turn table spindle and one or more other holes or depressions to receive a driving pin, is in addition provided with an off center hole of about the same size as the center spindle hole. The user, when ready to record, places the disk on the turn table in the usual manner with the spindle extending through the central hole and proceeds to make his recording in the usual way, producing a spiral groove beginning adjacent the periphery of the disk and extending to some point intermediate the center and the periphery. The user then removes the record from the spindle and replaces it thereon, this time inserting the spindle through the off center hole. The cutting stylus is then replaced on the record and seated at or near the inner end of the sound groove and the turn table again set in motion. The stylus will then cut a substantially circular groove in the record, but this groove will naturally be eccentric with respect to the center hole, since the rotation is on an off center axis. Obviously, when such a record is played in the usual manner, the reproducer, after traversing the sound groove, will then enter the eccentric groove and will immediately be swung sharply to a point nearer the center of the disk and will then be swung outwardly, i. e., in a reverse direction, as it continues to traverse the eccentric groove. Such a movement of the reproducer arm will operate either of the two types of stops commonly used. Thus, if a limit stop is employed, it will be actuated by the time the reproducer reaches the innermost point on the eccentric groove. On the other hand, if the reverse movement stop is in use, it will be tripped when the reproducer, after having reached the innermost point on the eccentric groove, is swung outwardly toward the sound groove.

The accompanying drawing illustrates a record made in accordance with my invention.

In the drawing, numeral 10 represents a disk which, as sold to the consumer, is provided with a central aperture 12 and an off center hole 15, and may also have one or more holes 16 or other deformation to cooperate with a drive pin or like element for preventing slippage between record and turn table. By placing the hole 15 as close as possible to the center hole 12, a sound groove of maximum length may be cut if desired. The numeral 20 represents the sound groove cut in the record by the consumer on his sound recording machine while the center hole 12 is engaged on the spindle of the turn table. After completion of the sound groove 20 the disk is removed from the spindle and replaced with the off center hole 15 engaging the spindle, and the control actuating groove 25 is then cut, as explained above, by again putting the turn table into rotation and so adjusting the cutter arm that the control groove 25 will join the innermost convolution of the sound spiral 20, and then will extend toward the center, so that, when the record is played, the reproducer is given an in and out movement by said groove 25.

The off center hole 15 and center hole 12 are preferably equidistant from the drive hole 16.

In an embodiment of my invention, the drive hole 16 may be employed as the spindle hole 15

for cutting the control groove 25, thus reducing the number of perforations in the disk.

The term "control groove" as used in the claims refers to a groove for actuating an automatic stop, record changer, or other automatic mechanism.

Various other changes and modifications coming within the spirit of my invention may suggest themselves to those skilled in the art, and, hence, I do not wish to be limited to the specific embodiment shown and described or uses mentioned except to the extent indicated in the appended claims.

I claim:

1. A disk especially adapted for home sound recording, having a center hole extending therethrough suitable to receive the spindle of a turntable, a second similar hole disposed relatively close to said center hole, and a circular control groove extending from the terminal sound groove position, radially of the record, to a point intermediate said position and said holes.

2. A disk especially suitable for home sound recording, said disk having a center hole extending therethrough, suitable to receive the spindle of a turn table, and a second similar hole disposed at a point intermediate the center and the innermost convolution of the sound groove to be cut thereon, said holes being relatively close together.

3. A sound record especially adapted to home recording comprising a disk having a center hole suitable to receive the spindle of a turn table, a spiral sound groove on said disk extending from a point adjacent the periphery to a point spaced inwardly from the center, a second spindle receiving hole intermediate the center and the innermost portion of the sound groove, and a control groove formed with the second hole as its axis of rotation and communicating with the innermost portion of the sound groove.

4. A disk especially suitable for home sound recording, said disk having a center hole extending therethrough, suitable to receive the spindle of a turn table, a second similar hole disposed at a point intermediate the center and the innermost convolution of the sound groove to be cut thereon, and a deformation in said disk to accommodate a driving element.

5. A disk especially suitable for home sound recording, said disk having a center hole extending therethrough, suitable to receive the spindle of a turn table, and a second similar hole disposed immediately adjacent said center hole.

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