March 27, 1934. E. BLACK 1,952,054

PHONOGRAPH RECORD

Filed Oct. 11, 1932

Fig. 1.

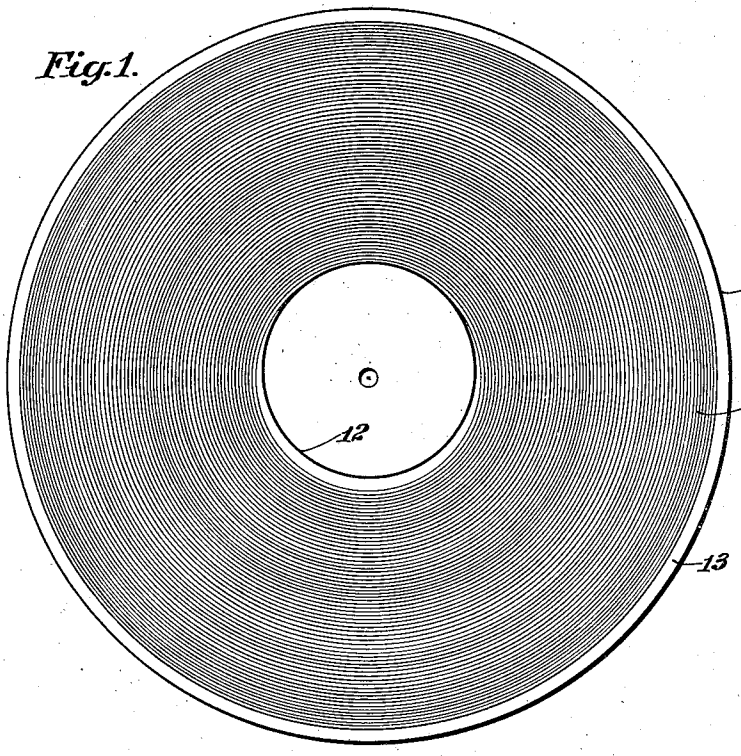
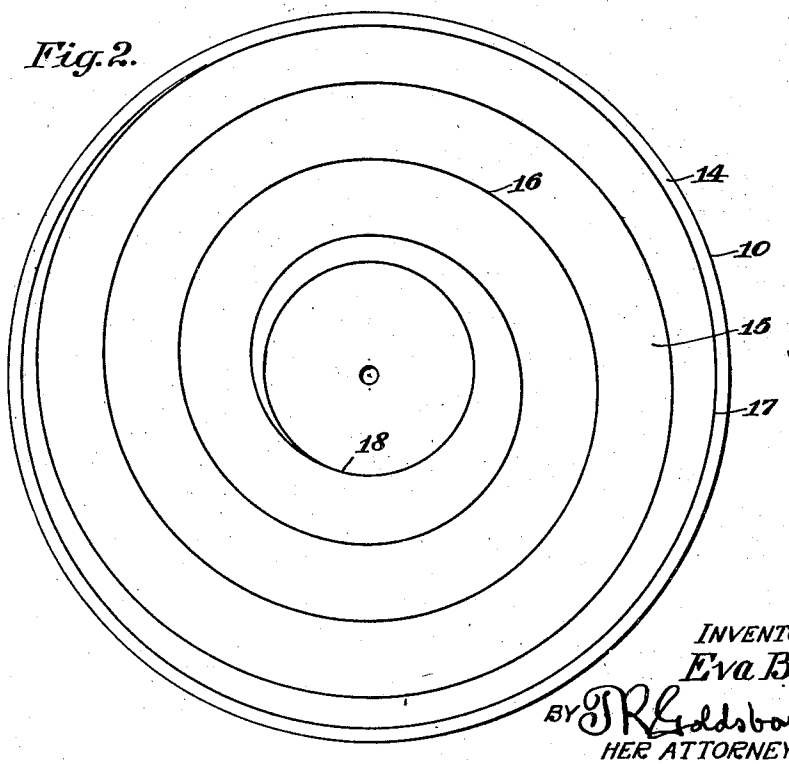


Fig. 2.



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PHONOGRAPH RECORD

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7 Claims. (Cl. 274—42)

My invention relates to sound records and, more particularly, to phonograph record tablets which are adapted to control various sound translating devices whereby repeating and stopping devices may be actuated, or a cycle of automatic operations initiated in an automatic record changing phonograph.

More specifically, my invention relates to the type of phonograph record tablets having a spiral sound groove which terminates in an eccentrically arranged control groove only on one side thereof, the other side of the tablet being blank.

In the operation of known types of automatic phonographs wherein a group of record tablets are arranged in a magazine or other receptacle, it is necessary that the record tablets employed therein should all be of the double faced type, since if a single faced record should be placed among a group of double faced records, and the said group of records reversed, after they have all been reproduced on one side thereof, it will be apparent that the blank side of the single face record would then be uppermost in said group.

In a case of this sort, when all of the double faced records above the single faced record have been reproduced, the said single faced record would then be brought to sound reproducing position with its blank side uppermost. Since the mechanism of automatic phonographs is usually controlled by the sound translating device immediately after a period of sound reproduction from each record by the usual control groove in which the spiral sound groove terminates, the blank side of the single faced record could not control the sound translating device due to the absence of stylus guiding means on the blank side of said single faced record.

It is known that the record collection of owners of automatic phonographs often includes single faced records having a favorite selection on one side thereof and that it is highly desirable that such records be also capable of being used in connection with automatic phonographs without interrupting the automatic functioning of the machine in handling the records.

It is, therefore, a primary object of my invention to provide a single faced record tablet, the blank side of which is adapted to control the record changing operations of an automatic phonograph.

Another object of my invention is to provide a single faced sound record tablet which is adapted to actuate the sound translating device of an automatic phonograph, whereby to control the mechanism thereof, regardless of which side of the record is uppermost on the turntable of said phonograph.

A further object of my invention is to provide a single faced record tablet in which the blank side thereof is adapted to initiate an automatic cycle of operations in an automatic record changing phonograph.

Another object of my invention is to provide a single faced sound record tablet which may be placed on the turntable of an ordinary phonograph or in the record magazine of an automatic phonograph with either side of the tablet uppermost whereby to control mechanism associated with either of said phonographs.

The novel features that I consider characteristic of my invention are set forth with particularity in the appended claims, the invention itself, however, both as to its organization and its method of operation, together with additional objects and advantages thereof, being best understood from the following description of a specific embodiment, when taken in connection with the accompanying drawing in which:

Fig. 1 is a plan view of that side of a single faced phonograph record which is provided with the usual spiral sound groove terminating in an eccentrically arranged control groove, and

Fig. 2 is a plan view of the reverse side of the record tablet shown in Fig. 1 formed in accordance with my invention.

Referring more particularly to the drawing, wherein similar reference characters indicate corresponding parts throughout, my improved phonograph record comprises a disc 10 having a spiral sound groove 11 terminating in a circular control groove 12 on one side 13 thereof, the control groove 12 being eccentrically disposed with respect to the axial center of the disc 10, in a manner well known in the art. The other side 14 of my improved record disc comprises a blank surface 15 in which a spiral guide groove 16 is formed of relatively greater pitch than the sound groove 11. The groove 16 commences adjacent the peripheral edge of the disc or tablet in an annular starting groove 17 from which it continues to spiral rapidly toward the center of the record into a circular control groove 18 in a path having a relatively wide pitch.

The starting groove 17 is located at approximately the same position on the record 10 as the usual starting groove for a sound groove is located. Also, the control groove 18 is, preferably, although not necessarily, eccentrically disposed with respect to the axial center of the record for

the purpose of imparting a reverse movement to a sound translating device. It is to be understood, however, that the control groove 18 may also be concentrically disposed with respect to the axial center of the record for the purpose of terminating radial movement of the sound translating device.

In operation, the spiral guide groove 16 formed in the blank side 14 of my improved record disc or tablet 10 functions to control the stop or repeat mechanism of an ordinary phonograph or the record changing operations of an automatic phonograph in the identical manner in which such devices are controlled by the sound groove bearing side of a single faced record or either of the sound groove bearing sides of a double faced record.

Although I have shown and described a certain specific embodiment of my invention, I am fully aware that many modifications thereof are possible. My invention, therefore, is not to be restricted except insofar as is necessitated by the prior art and by the spirit of the appended claims.

I claim as my invention

1. A phonograph record tablet having a blank face and an undulated spiral sound groove on the opposite face thereof, said blank face having a silent rapid lead-in stylus guiding groove in the surface thereof extending spirally from the peripheral margin of said blank face to the region of the center of said blank face.

2. A phonograph record tablet having an undulatory, spiral sound groove on one face thereof and a silent spiral, stylus guiding groove on the opposite face thereof, said guide groove starting adjacent to the periphery of the tablet and terminating adjacent to the center of said opposite face and having a relatively large pitch, an annular stylus starting groove connected with the peripheral end of said guide groove, and an eccentric control groove connected with the inner end of said guide groove.

3. A sound record tablet having an annular peripheral stylus starting groove and a centrally located eccentric control groove on each of the opposite faces thereof, means providing an undulatory spiral sound groove interconnecting said peripheral and centrally located grooves on one face of said tablet, and a silent rapid lead-in stylus conducting spiral groove interconnecting said first named grooves in the opposite face of said tablet.

4. In a single faced phonograph record, protective means for preventing interruption of the operation of an automatic phonograph apparatus by said blank face, said means comprising an operating surface in said blank face bounded by an inner stylus engaging eccentric control groove and an outer stylus engaging annular starting groove, said control groove and starting groove being interconnected by a spiral groove of relatively wide pitch.

5. In a single faced disc sound record, protective means for preventing interruption of the operation of an automatic phonograph record changing apparatus by said blank face, said means comprising an operating surface in said blank face bounded by an inner stylus engaging eccentric control groove and an outer stylus engaging annular starting groove, said control groove and starting groove being interconnected by a rapid lead-in spiral groove of at least one convolution.

6. A sound record tablet having a sound groove on one face thereof and a silent stylus guiding groove on the opposite face thereof, said last named groove extending from the region of and adjacent to the periphery of said disc to the region of the center of the disc and having a much greater pitch than the pitch of said sound groove.

7. A sound record tablet having a sound groove on one face thereof and a silent, spiral, stylus guiding groove on the opposite face thereof, said guide groove starting adjacent to the periphery of the tablet and terminating adjacent to the center of said opposite face and having a relatively large pitch, an annular stylus starting groove connected with the peripheral end of said guide groove substantially concentric with said tablet, and a circular control groove connected with the inner end of said guide groove, said control groove being disposed eccentrically with respect to the center of said opposite face.

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