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RECORD PLATE FOR GRAPHOPHONES AND LIKE MACHINES.

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946,563. Patented Jan. 18, 1910.

Fig. 1.

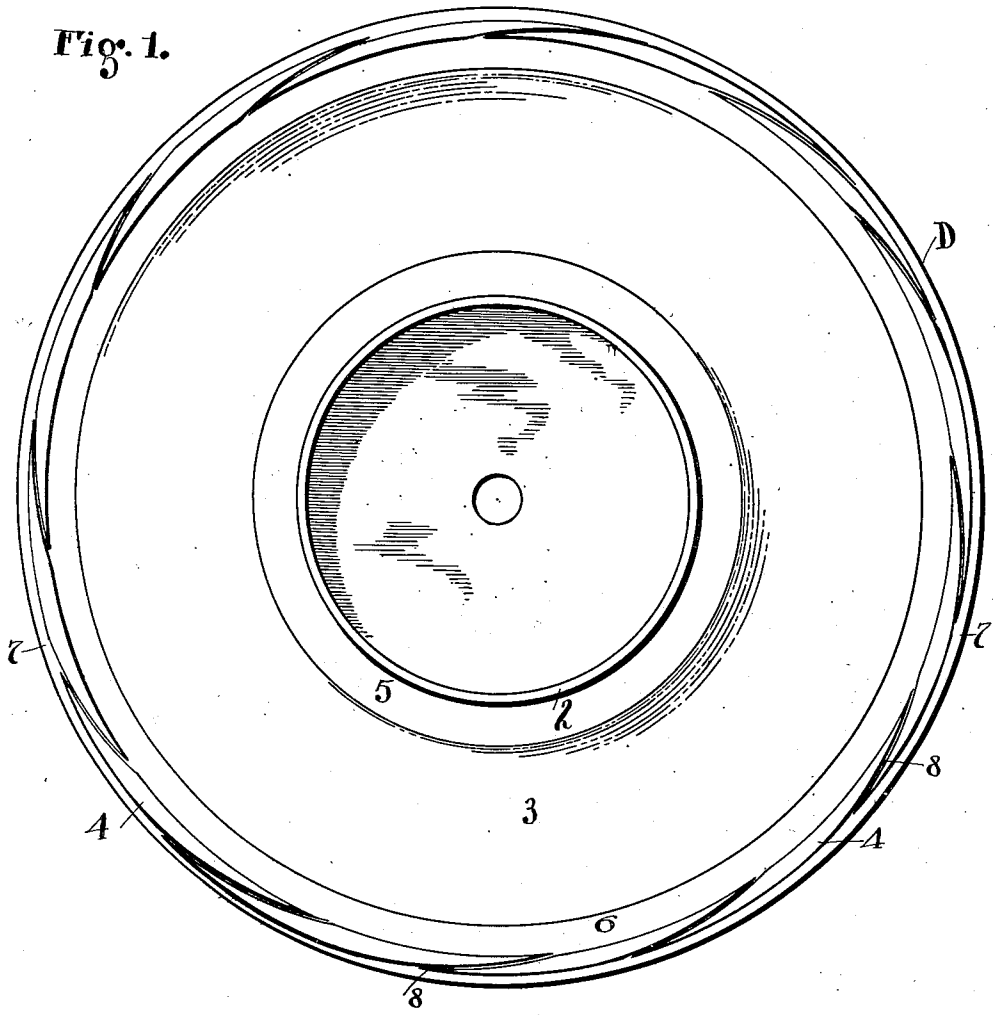

Fig. 2.

ATTEST

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RECORD-PLATE FOR GRAPHOPHONES AND LIKE MACHINES.

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Application filed January 27, 1909. Serial No. 474,363.

To all whom it may concern:

Be it known that I, WILLIAM C. RHODES, citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Record-Plates for Graphophones and Like Machines, of which the following is a specification.

My invention relates to record plates for graphophones and like machines, all substantially as shown and described and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of the plate or disk, and Fig. 2 is a central cross section thereof.

The plate or tablet D as thus shown is flat and of disk form, and has a rib or bead 2 upon its face side on a radius approximately one-third the width of the plate from its center, in this instance, and stands above the record surface about as shown in the drawings, so that said rib comes about the inner border 5 of record surface 3 and which border or surplus space is usually reserved for possible use in case the matter to be recorded is of exceptional length. The said rib or bead 2 comes about the inner limits of said space 5 while a corresponding border 6 is shown near the outside of the record or inscribed surface 3. The said corresponding border 6 consists of a succession of raised segments 4, which are relatively as high as rib 2 and run to points at their ends and are separated by fine or narrow correspondingly curved slots or spaces 8 leading in onto the plate from the outside and as deep as said segments. Now, as to the utility and advantages of these raised portions 2 and 4, it is noted, first, that said rib 2 affords an effectual check or stop to the travel or throw of the needle when it has run its course on the record surface and which would continue to travel or be thrown inward toward the center of the plate if there were nothing to stop it. Heretofore, in flat plates, the sole dependence of the machine to avoid this and consequent danger or injury to the diaphragm or sound box by contact with parts at the center of the plate has been the care or watchfulness of the operator, but this cannot always be relied upon, especially with inexperienced or forgetful persons, and, in fact, the operator should not and need not be taxed in this way. Hence the conception worked out by me in or through said rib or bead 2, which automatically stops the travel of the parts beyond said rib, or its equivalent, regardless of the operator. The machine might run indefinitely and not sustain injury with a precautionary stop of this kind in use. It also serves as a central support for superposed plates to protect the record surface. Finally, as to segments 4 near the edge of the plate, it will be noticed that they are separated by the said curved slots or channels 8 which begin at the outer side and run inward onto the surface of the plate the full depth of said segments. Said slots are designed to intercept the needle and lead it in upon the plate in case the operator by mistake or carelessness starts it outside on the edge 7. If this be done the needle can travel only a short distance before it will enter the first lead slot 8 and come into position inside to do its work.

The portion 2 is described as a rib or bead, and such is its preferable form, but if the inner portion of the plate indicated by 10 and extending for a distance about pivot hole 12 in the center of the disk were made relatively as much thicker as said rib indicates and thus produce a shoulder it would serve my purpose measurably as well as a rib so far as forming a stop for the needle is concerned and also for protecting the record surface 3, but it would add objectionably to the weight of the plate and hence is not as desirable as the rib alone. Again, the exact location of said rib or shoulder is not in itself material provided that it be between the central hole 12 and the inner border of record or engraved surface 3, but a position not far removed from said inner border is deemed best, say about as shown in the accompanying drawings.

What I claim is:

1. A plate for graphophones and the like having a succession of segments near the outer edge thereof standing uniformly above the record surface of the plate and open slots for the needle to run in between said segments the full depth thereof and adapted to land the needle directly upon said record surface from the outside, and a flat annular rim outside said segments even with the slots between the same and adapted to carry the needle up to said slots.

2. A graphophone plate provided with a flat record surface and a series of segments near the outer edge thereof standing higher

than said surface and curved slots between said segments the full depth thereof forming successive leads for the needle inward onto said record surface and a flat annular rim next outside said leads and segments, and an annular rise next within said record surface to limit the inward travel of the needle after it has traversed the record, thus automatically controlling the entrance of the needle upon said record surface and after it leaves the same.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM C. RHODES.

Witnesses:
F. C. MUSSUN,
E. M. FISHER.