S. D. MOTT.

PHONOGRAPH RECORD DISK.

APPLICATION FILED MAR. 4, 1919.

1,320,639. Patented Nov. 4, 1919.

Fig. 1.

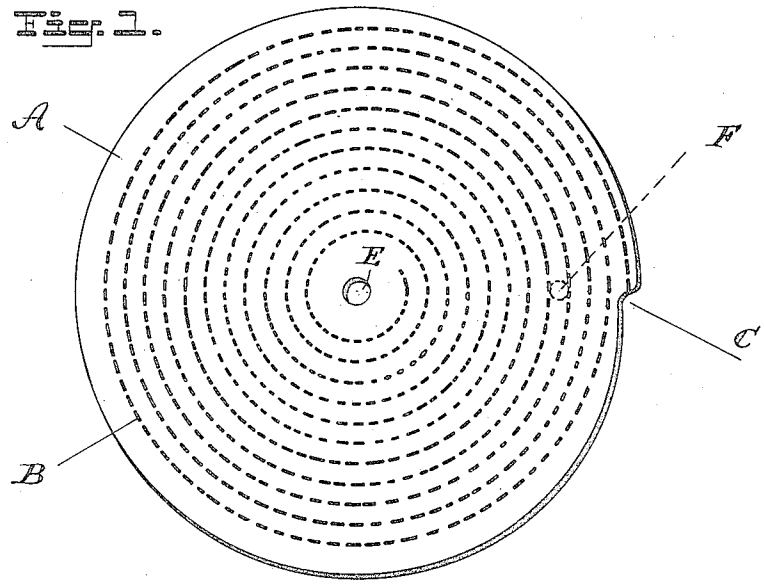
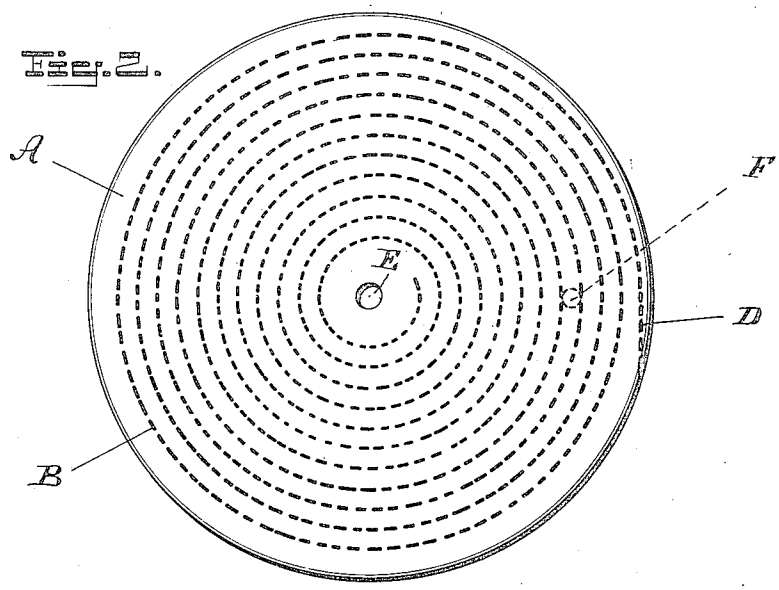


Fig. 2.



INVENTOR:
Samuel D. Mott
By his Attorneys,
Townsend & Seeker

UNITED STATES PATENT OFFICE.

SAMUEL D. MOTT, OF PASSAIC, NEW JERSEY, ASSIGNOR OF ONE-HALF TO ARTHUR B. SULLIVAN, OF ALLENDALE, NEW JERSEY.

PHONOGRAPH RECORD-DISK.

1,320,639. Specification of Letters Patent. Patented Nov. 4, 1919.

Original application filed February 7, 1916, Serial No. 76,641. Divided and this application filed March 4, 1919. Serial No. 280,548.

To all whom it may concern:

Be it known that I, SAMUEL D. MOTT, a citizen of the United States, and a resident of Passaic, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Phonograph Record-Disks, of which the following is a specification.

My present invention relates to record disks or tablets for sound reproducing apparatus and particularly to such record disks for use in multiple record phonographs.

This application is a division of my application for patent for sound reproducing apparatus filed February 7th 1916, Serial No. 76,641, and the present invention is designed primarily for use in connection with an apparatus of the general character described and claimed in my aforesaid application. It will be understood however that the record disk described and claimed herein is not limited to use with such apparatus but may be used with any type apparatus to which it is applicable.

The object of the invention is the production of a record disk for multiple record phonographs or gramophones of such character that the reproduced sound in passing from one record to the next will be practically continuous.

The invention consists in the record disk for sound reproducing apparatus hereinafter more particularly described and then specified in the claims.

In the accompanying drawings, Figure 1 illustrates a plan view of a record disk in accordance with this invention.

Fig. 2 illustrates a slight modification of the same.

The record disk is a flat plate A of any suitable material and is preferably of the usual type in that it is provided with sound grooves spirally arranged and by the rotation of the record disk the usual reproducing stylus is caused to travel with the record groove and across the face of the record disk. The record groove indicated at B starts at the center of the disk and runs off into space at the outer periphery so that the stylus traveling in said groove runs off the outer edge of the disk while traveling in the groove. In the case of multiple record machines as described in the aforesaid application the stylus runs off the outer edge during the sound reproduction and drops into a groove of the next succeeding record disk. The sound waves may be located on the side walls of the groove B or in the bottom of the groove.

The periphery of the disk A is preferably eccentric and provided with a notch or shoulder C where the record groove leaves the disk. In this way the reproduced sound from one disk to the next is practically continuous as the stylus reproduces the sound of one disk up to the time it leaves the periphery, as at the notch C, and it immediately takes up the sounds impressed on the next disk as it drops from the notch into the groove of the next record. If desired the record groove at the place of transference of the stylus from one disk to another, for instance the notch or shoulder C, may be so arranged that no sounds are reproduced at that point, that is it may come at a natural pause in the reproduction. Again, instead of the groove terminating at a notch or shoulder it might shoot directly off the disk at a tangent as indicated at D in Fig. 2.

In multiple disk machines it is necessary that the disks be in correct relative position in order to preserve proper continuity of the reproduced sound from one disk to the next. This is especially true when the disks all rotate at the same time as in the apparatus described in my aforesaid application. The disk A may be formed in a variety of ways or provided with a variety of devices for accomplishing this end, a preferable way being to provide the disk with a centering perforation E and a positioning hole F. The hole F is preferably only disposed on the underneath surface of the disk so as not to interfere with the sound grooves and is engaged by a suitable pin secured to the usual turn-table on which the disk seats. The perforation E takes the usual centering pin of the turn-table. In this way the disk is at all times maintained in proper cor relation to its neighboring disk and it is assured that the stylus when it leaves the

periphery of one disk will engage the proper place in the groove of the next disk to insure practical continuity.

What I claim as my invention is:

1. A record disk for sound reproducing apparatus provided with a spiral groove starting at the center and running off the outer edge.

2. A record disk for sound reproducing apparatus provided with a spiral groove starting at the center of the disk and running off into space at the periphery, the periphery of said disk being cut away at the point where the groove leaves the record disk.

Signed at New York in the county of New York and State of New York this 3d day of March A. D. 1919.

SAMUEL D. MOTT.

Witnesses:

F. B. TOWNSEND,

IRENE LEFKOWITZ.