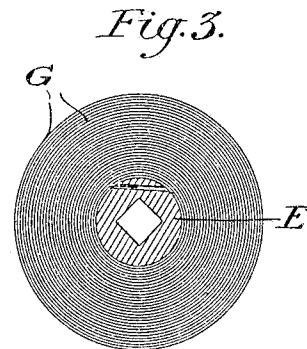
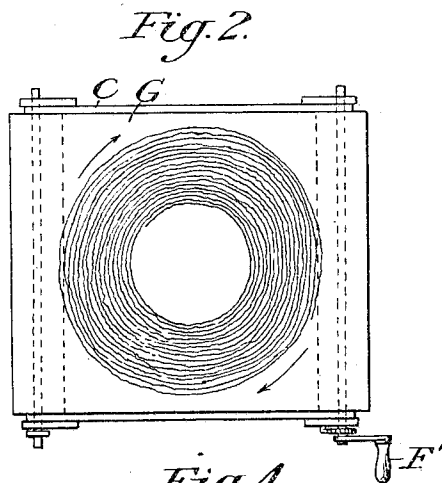
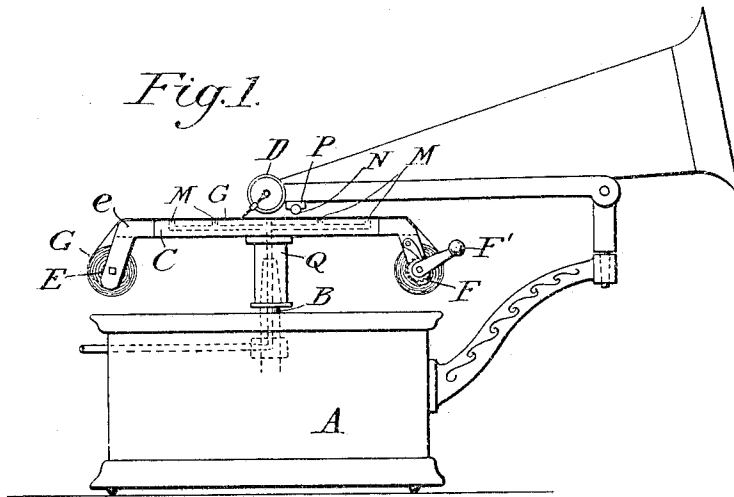


No. 793,140.

PATENTED JUNE 27, 1905.

G. A. MANWARING.  
TALKING MACHINE.

APPLICATION FILED JAN. 12, 1904.



Witnesses:

Gustave R. Thompson.

Wm. B. Verkam

Inventor:

George A. Manwaring,

by Mauro, Cameron, Lewis & Massie,  
attys.

# UNITED STATES PATENT OFFICE.

GEORGE ABBOTT MANWARING, OF BAYONNE, NEW JERSEY, ASSIGNOR  
TO AMERICAN GRAPHOPHONE COMPANY, OF WASHINGTON, DIS-  
TRICT OF COLUMBIA, A CORPORATION OF WEST VIRGINIA.

## TALKING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 793,140, dated June 27, 1905.

Application filed January 12, 1904. Serial No. 188,796.

*To all whom it may concern:*

Be it known that I, GEORGE ABBOTT MANWARING, of Bayonne, county of Hudson, State of New Jersey, have invented a new and useful Improvement in Talking-Machines, which invention is fully set forth in the following specification.

By my invention I provide for continuous sound-records and practically continuous reproductions of the same, the length of any record depending, of course, upon the amount that can be placed upon the available surface of the record-tablet. Heretofore, in practice at least, this has been limited to sounds that would occupy but about five minutes or generally less time. By my invention I am enabled in a convenient manner to make records practically continuous through hours.

The invention consists in providing a magazine carrying the record-receiving material, successive portions of which are presented to the action of the recorder intermittently as each previous portion has been filled with a record. The most convenient form consists of a record-receiving strip of flexible material wound upon a drum or roller, and preferably this drum is carried by a revolving support that passes under the recorder. The support in question may be either cylindrical or of other shape; but for clearness I will describe a flat turn-table.

In the drawings, Figure 1 is a side view of one form of my invention. Fig. 2 is a plan of the same, the sound-box being removed. Fig. 3 is a sectional view of the roller containing a strip of the record-receiving material; and Fig. 4 is a portion of such strip, on a reduced scale, showing a succession of spiral records.

A is a motor of any convenient form, such as now used for disk graphophones.

B is the vertical shaft rotated by the motor, and C is a turn-table carried thereby and shown in Fig. 2 as rectangular. This turn-table is rotated in operative relation with any suitable sound-box D that is fed radially across the table in any well-known manner.

E represents a drum, carried by depending

brackets *e* beneath one edge of the turn-table C, and F is a similar drum supported in the same manner beneath the opposite edge of the table. These drums may be provided with a pawl and ratchet to prevent their traveling backward. One of the drums, as F, is provided with a handle F'. Wrapped on the drum E is a roll of flexible recording material G, which is carried across the upper surface of the table C and connected to the drum F.

When the machine is operated, the turn-table revolves, carrying with it the magazine E and the exposed portion of the recording material G; the sound-box is gradually fed (radially) across the material G, preferably by means of a thread revolving shaft N and the half-nut P, and produces a sound-record thereon. When the recording-tool has reached its limit of effective movement inward to the center of the table C, it is lifted upward to disengage from the recording material G and (by means of the handle F' or otherwise) the record already made is rolled around the drum F, and the succeeding portion of the recording material G is exposed upon the top of the turn-table, whereupon the sound-box and its stylus are moved back to the outer edge of the table and a second spiral record is commenced. This procedure may be carried on as long as desired or until the entire roll of flexible recording material G has been exhausted.

It will sometimes happen from one cause or another that the recording-surface G will not lie perfectly flat or smooth upon the turn-table C. I may obviate this by the following device: M M represents a series of orifices in the upper face of the turn-table C, uniting with a common duct Q, which in turn is connected with some device (a fan or the like) for securing a partial vacuum. The result is a suction exerted at these orifices M M which holds the exposed portion of the flexible recording material G flat and smooth upon the turn-table.

In practice a practically continuous dictation may be recorded in successive spirals upon a strip of flexible recording material which may be as long as convenient. Again, when

a particular record has been completed the portion of the strip containing it may be torn off and applied to a reproducing-machine or filed away for future reference. In reproducing the strip is arranged on a similar machine, care being taken to center each spiral upon the turn-table and a reproducing sound-box being used in place of a recording device.

Modifications of my invention will at once suggest themselves, and parts of the invention may be used to the exclusion of other parts without in any way departing from the spirit of my invention.

Having thus described my invention, I claim—

1. The combination of a revolving support in operative relation with a recording or reproducing device, a magazine traveling therewith and carrying a flexible recording material continuous portions of which are successively and intermittently exposed upon said table to the action of said recording or reproducing device.

2. The combination of a revolving support in operative relation with a recording or reproducing device, a magazine traveling therewith carrying a flexible recording material continuous portions of which are successively and intermittently exposed upon said support to the action of said recording or reproducing device, and suitable means for holding said flexible recording material smoothly upon said support.

3. The combination of a revolving support, a magazine traveling in fixed relation thereto, a recording material carried by said magazine and having a portion thereof extending over said support, and means for successively presenting at intervals different continuous portions of said material upon said support.

4. The combination of a revolving support in operative relation with a recording or reproducing device, and a magazine traveling therewith carrying a continuous sound-recording material.

5. A turn-table carrying two oppositely-disposed rollers for presenting successive portions of a continuous sound-recording material.

6. A turn-table carrying two oppositely-disposed rollers for presenting successive portions of a continuous sound-recording material and means for intermittently substituting such successive portions.

7. The combination of a revolving support in operative relation with a recording or reproducing device, a magazine traveling therewith and carrying a flexible recording material in the form of a strip, and means for intermittently presenting successive continuous portions of said strip to the action of the recording or reproducing device, the revolution of said support serving to present the exposed surface of said recording material to the usual action of said device.

8. The combination of a revolving support in operative relation with a recording or reproducing device, a magazine traveling therewith and carrying a sound-recording material in the form of a continuous strip rolled up within said magazine, and means for intermittently presenting successive portions of said strip.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

GEORGE ABBOTT MANWARING:

Witnesses:

C. A. L. MASSIE,  
R. L. SCOTT.