

No. 713,477.

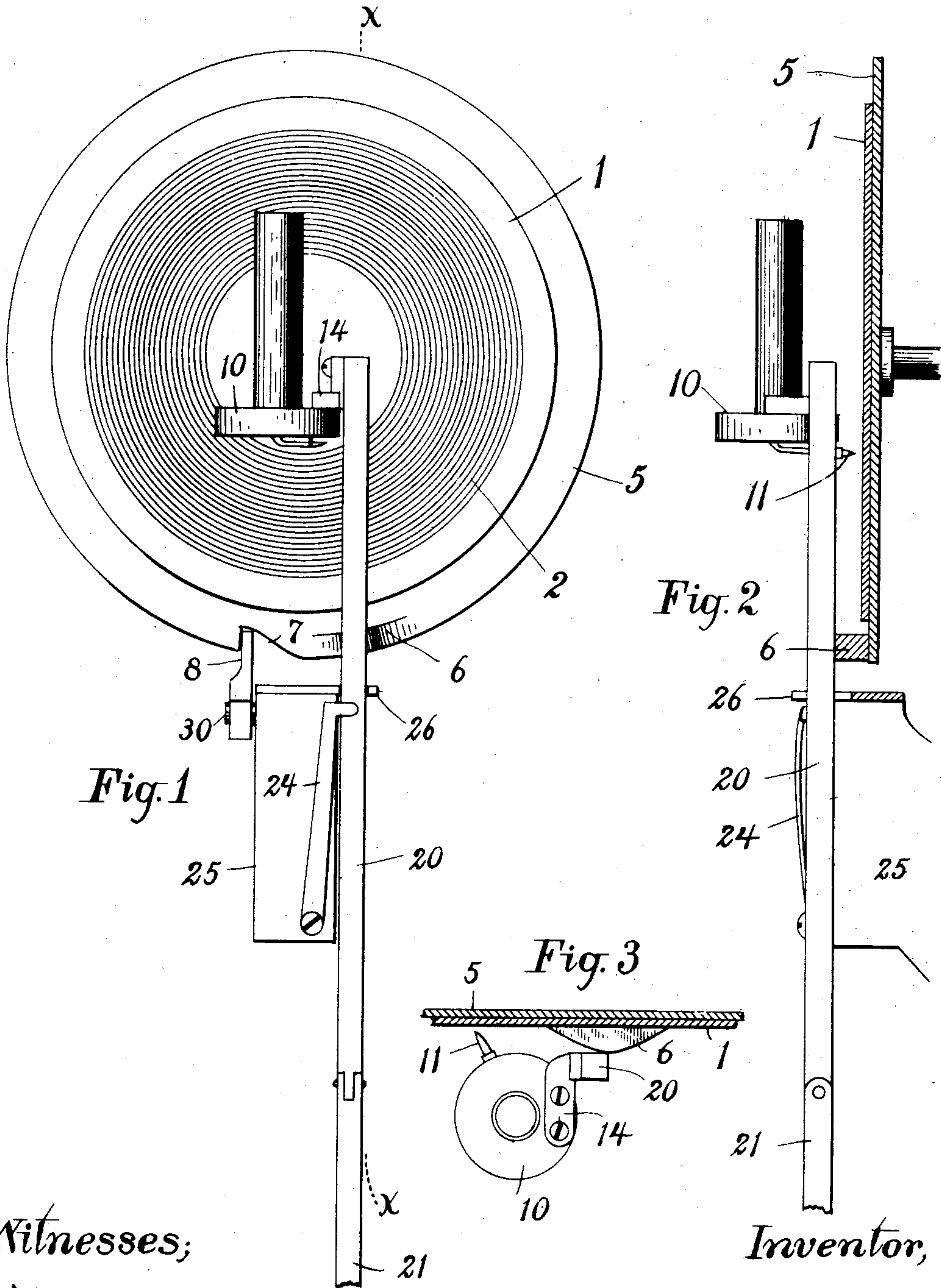
Patented Nov. 11, 1902.

G. A. MOORE.

PHONOGRAPH.

(Application filed Mar. 27, 1902.)

(No Model.)



Witnesses;

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# UNITED STATES PATENT OFFICE.

GEORGE A. MOORE, OF BROOKLINE, MASSACHUSETTS.

## PHONOGRAPH.

SPECIFICATION forming part of Letters Patent No. 713,477, dated November 11, 1902.

Application filed March 27, 1902. Serial No. 100,158. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE A. MOORE, a citizen of the United States, and a resident of Brookline, in the county of Norfolk, State of Massachusetts, have invented certain new and useful Improvements in Phonographs, of which the following is a full, clear, and exact description.

In companion applications of mine, Serial Nos. 97,281 and 97,283, I have set forth means whereby any one of a selected number of statements can be audibly announced, the particular means comprising a phonographic record containing such statements in order thereon and a phonographic sounder adjustable to present its stylus to the particular record-groove desired. In the construction referred to the sounder is movable in a fixed line parallel with the record-face and presents the stylus to any record-groove without dragging its point over the grooves. The record is formed with a channel cutting the grooves transversely and is normally held with such channel beneath the stylus.

The object of my present invention is the construction of means whereby the stylus can be similarly prevented from dragging across the record-grooves, but without requiring the record to be formed with a stylus-receiving channel. My construction for this purpose consists, essentially, in having the sounder, while movable parallel with the record-face, to be resiliently pressed toward said face and then in providing the record with means for temporarily pressing the sounder, with its stylus, out of contact with the record-grooves upon the completion of each rotation of the record.

Referring to the drawings forming part of this specification, Figure 1 is a face view of a record-disk and sounder arranged in accordance with my invention. Fig. 2 is a sectional elevation of the same on the line X X in Fig. 1. Fig. 3 is a horizontal section of the same, but with the larger part of the record broken off.

While my invention can be applied to cylindrical records, I illustrate it in connection with a disk record 1, fixed upon a revoluble carrier-plate 5. In the face of this disk are the record-grooves 2, arranged in concentric circles and preferably containing a series of

weight expressions, as set forth in my said companion applications. Each record-groove therefore contains a single statement audibly announced by a single turn of the record when in engagement with the stylus 11 of the sounder 10. To normally retain the record-disk, with its record-groove starting-points, close to the stylus, the record-carrier 5 is formed with a notch 7, engaged by a detent 8. By depressing said detent the record-disk is permitted to revolve until said notch comes around and again is brought to rest by the detent.

Thus far described the construction is substantially the same as that set forth in my said companion applications, my present improvements being as follows: The rod 21 is connected with the platform of the weighing-machine upon which my invention is used and has a pivoted extension 20 rising from the upper end thereof. Said rod extension 20 is held from lateral displacement by a slot in the plate 26, carried by the fixed block 25, and is resiliently pressed back toward the disk 1 by the leaf-spring 24. The sounder 10 is rigidly secured to this rod extension by a suitable arm 14. Hence as the rod 21 rises and falls with the depressions of the weighing-machine platform the sounder is similarly reciprocated over the face of the record, while by moving the rod extension against the pressure of the spring 24 the sounder is withdrawn from contact with the record; otherwise the sounder-stylus remains pressed against the record-disk. To thus automatically disengage the sounder-stylus from the record when the latter is at rest and to permit such engagement when the record is rotating, I provide the carrier-plate 5 with a projection or boss 6, adapted to come behind the rod extension 20 when the notch 7 is in conjunction with the detent 8 and to thereby press said extension just far enough to hold the sounder-stylus out of possible contact with the record. Said boss being of limited extent and formed with sloping ends in the direction of the disk's periphery, the instant the record is released from the detent and begins to revolve the rod extension settles gradually back and presents the sounder-stylus to the record-groove in line therewith. As the record-disk completes its revolution



said boss comes again beneath said extension and raises the stylus away from all contact, as shown in Fig. 3. In this manner the sounder is perfectly free to rise and fall as people step on and off the weighing-machine platform; but the instant the record starts to turn after the introduction of a designated coin, as set forth in my said companion application Serial No. 97,281, then the sounder-stylus contacts with the record, and the weight is audibly announced.

Although I have described the boss 6 as formed upon the carrier-plate 5, it is evident that the same can be constructed on or fastened to the record-disk 1 itself, or a projection performing the functions of said boss can be carried to revolve with the record-disk and the carrier-plate without being actually secured to either; but I prefer the construction illustrated on account of its superior simplicity and economy of manufacture.

What I claim as my invention, and for which I desire Letters Patent, is as follows, to wit:

1. The combination with a phonographic record, of a sounder resiliently pressed toward the face of said record but adjustable in a line parallel with the face of the latter, and means carried with said record constructed to press the sounder away therefrom at a designated point of each rotation of the record, substantially as described.

2. The combination with a phonographic record, of a sounder resiliently pressed toward the face of said record but adjustable in a line parallel with the face of the latter, and a boss carried with said record and pressing the sounder away from the record at a designated point of the latter's rotation, substantially as described.

3. The combination with a phonographic record, of a rod parallel with the face of the record and longitudinally movable, resilient means pressing the upper part of said rod to-

ward the face of the record, a sounder carried upon the upper part of said rod and constructed to have its stylus normally contact with the record, and means carried with said record constructed to engage said rod and press the sounder away from the record at a designated point of the latter's rotation, substantially as described.

4. The combination with a record-disk, of a revoluble carrier-plate therefor having a boss upon its face near its periphery, a rod parallel with the face of the record-disk and longitudinally movable, resilient means pressing the upper part of said rod toward the record-disk, and a sounder carried upon the upper part of said rod and constructed to have its stylus normally contact with the record; said boss acting to engage said rod and press the sounder away from the record at a designated point of its rotation, substantially as described.

5. The combination with a record-disk, of a revoluble carrier-plate therefor having the notch in its periphery and the boss near said notch, a detent engaging said notch, a longitudinally-movable rod having the pivoted rod extension parallel with the face of the record-disk, means resiliently pressing the upper part of said rod extension toward the record, and a sounder carried upon the upper part of said rod extension and having its stylus normally contacting with said record; said boss being constructed to engage said rod extension and press the sounder-stylus out of contact with the record-disk when said notch reaches said detent, substantially as described.

In testimony that I claim the foregoing invention I have hereunto set my hand this 25th day of March, 1902.

GEORGE A. MOORE.

Witnesses:

LOWELL M. MAXHAM,  
A. B. UPHAM.