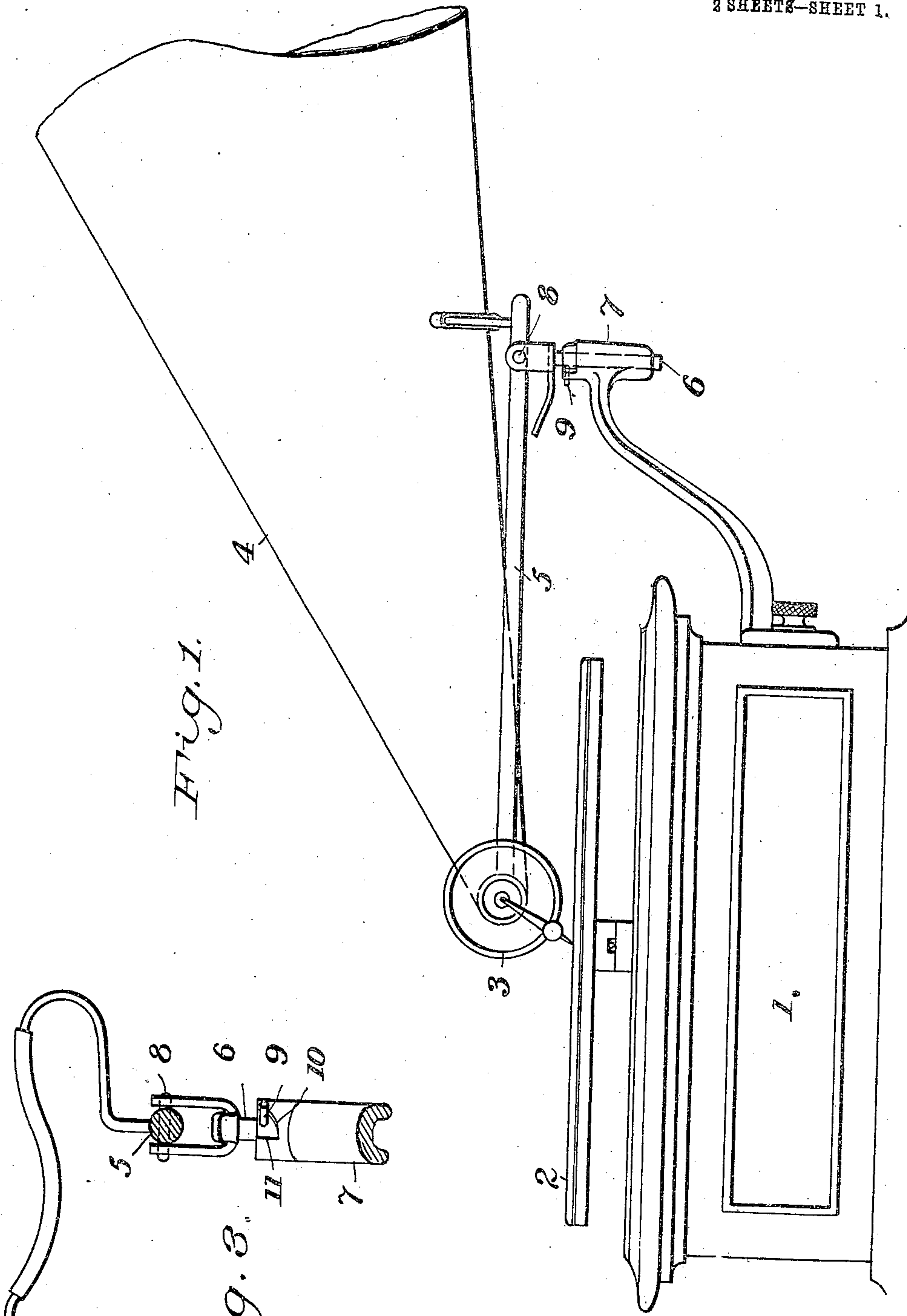


914,765.

Patented Mar. 9, 1909.
2 SHEETS—SHEET 1.



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914,765.

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TALKING MACHINE.
APPLICATION FILED FEB. 2, 1907.

Patented Mar. 9, 1909.
2 SHEETS—SHEET 2.

Fig. 2.

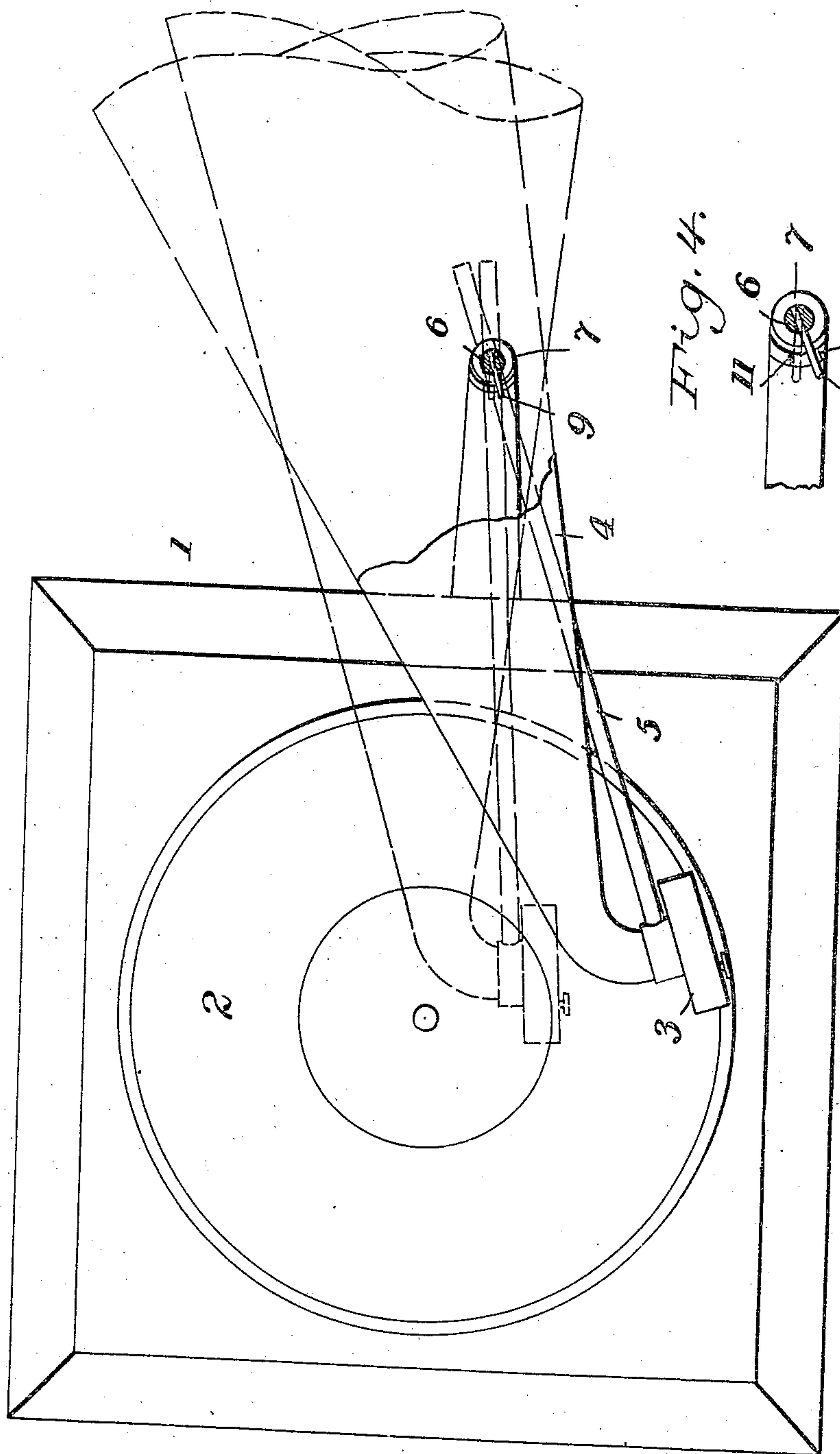
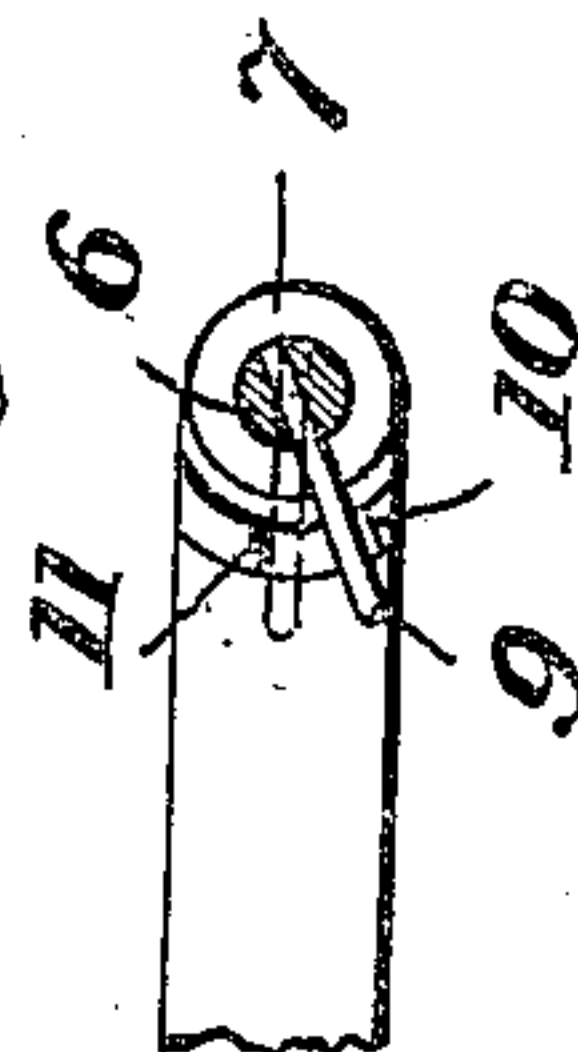


Fig. 4.



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UNITED STATES PATENT OFFICE.

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HAWTHORNE & SHEBLE MANUFACTURING COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

TALKING-MACHINE.

No. 914,765.

Specification of Letters Patent.

Patented March 9, 1909.

Application filed February 2, 1907. Serial No. 355,474.

To all whom it may concern:

Be it known that I, LOUIS P. VALIQUET, a citizen of the United States of America, and a resident of Newark, county of Essex, and State of New Jersey, have invented certain new and useful Improvements in Talking-Machines, of which the following is a specification.

My invention comprises a simple means for positively feeding the reproducer across the sound record in that type of machine known as the disk record talking machine.

The best form of apparatus embodying my invention at present known to me is shown in the accompanying two sheets of drawings in which,

Figure 1 is a side elevation of a talking machine with my invention applied thereto; Fig. 2 is a plan view of the same with parts broken away or shown in section; Fig. 3 is a detail view of the pivot pin and feed cam, the cam being shown in elevation, and Fig. 4 is a detail plan view of the cam, the pivot pin being shown in cross section.

Throughout the drawings like reference figures indicate like parts.

1 is the case containing the usual motor (not shown) for rotating the disk sound record 2. The sound box 3 and horn 4 constitute the usual reproducing mechanism mounted on the swinging arm 5. The arm 5 is supported at its outer end by a universal joint, one element of which is formed by the pivot pin 6 mounted in a vertical sleeve or journal bearing 7 which is rigidly supported from the case of the machine. This pin is hinged to the arm 5 at 8, thus forming the other element of the universal joint. The foregoing parts are all of present standard construction.

The pin 6, is according to my invention, provided with a projection 9 which engages the cam 10 formed in, or attached to, the sleeve or socket 7. This cam terminates preferably in a vertical portion or stop 11.

The operation of my invention is as follows: When the projection 9 is lifted out of engagement with the cam 10 and the reproducer is swung to one side, out of engagement with the record, no feeding action occurs. When, however, the reproducer is placed over or upon the record, the projection 9 rests on the inclined surface of the cam 10, and as the weight of the horn tends

to force the pivot pin 6 downward, the cam tends to twist the pin 6, and swing the arm 5 and positively feeds the reproducer across the sound record in a direction to reproduce the sounds recorded therein. When the reproducer has traveled across the record the projection 9 strikes stop 11 and farther travel is prevented. The pivot pin is then lifted out of the cam opening and the reproducer swung to one side so that the projection will ride on one of the horizontal surfaces to one side or the other of the cam opening, or the arm 5 may be simply swung back, which will cause the projection 9 to travel up over the cam and out of the cam opening to the left (looking at Fig. 3).

The advantages of my invention comprise its simplicity of construction and positiveness of action. It does not complicate or add to the present standard construction, nor require the user to be taught anything new. At the same time it is a positive feeding means which will force the reproducer across the record even if the machine is not set level, and by holding the reproducing needle always against one side of the sound record groove prevents the same from chattering.

It is evident that the particular location of the cam might be varied so long as it coöperates with the reproducer in the manner described.

Having described my invention what I claim is,

1. In a talking machine, the combination of a holder for a disk sound-record and means for rotating the same and the record thereon, a support, reproducing mechanism including a stylus pivotally mounted on said support and a cam mechanism for applying yielding-pressure to said reproducing mechanism to turn it about its pivotal support so that the stylus of the reproducing mechanism may track in and be restrained by the record-groove throughout the several convolutions thereof, substantially as set forth.

2. In a talking machine, the combination of a holder for a disk sound-record and means for rotating the same and the record thereon, a support, reproducing mechanism including a stylus pivotally mounted on said support and a cam mechanism for applying yielding-pressure to said reproducing

- ing mechanism to turn it about its pivotal support so that the stylus of the reproducing mechanism may track in and be restrained by the record-groove throughout the several convolutions thereof, said cam mechanism being so constructed that restoring said reproducing mechanism to its initial position restores the cam mechanism to potential position, substantially as set forth.
3. In a talking machine, the combination of a holder for a disk sound-record and means for rotating the same and the record thereon, a support, reproducing mechanism including a stylus carried thereby, and a cam mechanism for yieldingly propelling said reproducing mechanism in a plane substantially parallel with the surface of the sound-record so that the stylus thereof may track in the record-groove and the action of said cam-mechanism be restrained by the record-groove throughout the several convolutions thereof, substantially as set forth.
4. In a talking machine, the combination of a holder for a disk sound-record and means for rotating the same and the record thereon, a support, reproducing mechanism including a stylus carried thereby, a cam mechanism for yieldingly propelling said reproducing mechanism across the sound-record so that the stylus thereof may track in the record-groove and the action of said cam mechanism be restrained by the record-groove throughout the several convolutions thereof, said cam mechanism being so constructed that restoring said reproducing mechanism to its initial position restores the cam mechanism to potential position, substantially as set forth.
5. In a talking machine, the combination of a holder for a disk sound-record and means for rotating the same and the record thereon, a support, reproducing mechanism including a stylus mounted upon said support and vertically movable thereon, and means dependent upon the vertical movement of said reproducing mechanism upon said support under the influence of gravity for yieldingly propelling said reproducing mechanism in a plane substantially parallel with the surface of the sound-record so that the stylus thereof may track in and be restrained by the record-groove throughout the several convolutions thereof, substantially as set forth.
6. In a talking machine, the combination of a holder for a disk sound-record and means for rotating the same and the record thereon, a support, reproducing mechanism including a stylus mounted upon said support and vertically movable thereon, and means dependent upon the vertical movement of said reproducing mechanism upon said support under the influence of gravity for yieldingly propelling said reproducing mechanism in a plane substantially parallel with the surface of the sound-record so that the stylus thereof may track in and be restrained by the record-groove throughout the several convolutions thereof, said yieldingly propelling means being so constructed that restoring said reproducing mechanism to initial position causes it to move upward vertically upon said support, substantially as set forth.
7. In a talking machine, the combination of a holder for a disk sound-record and means for rotating the same and the record thereon, a support, movable reproducing mechanism including a stylus carried thereby and coacting parts one on said support and the other moving with said mechanism and one of which is provided with an inclined surface, the coaction of said parts during the reproduction of a sound-record causing said reproducing mechanism to be yieldingly propelled in a plane substantially parallel with the surface of the sound-record so that the stylus thereof may track in and be restrained by the record-groove throughout the several convolutions thereof, substantially as set forth.
8. In a talking machine, the combination of a holder for a disk sound-record and means for rotating the same and the record thereon, a support, reproducing mechanism including a sound-box and its stylus and a sound-conveying tube with which the sound-box is connected, a bracket pivotally connected to said support and said tube and adapted to turn relatively to the support on a vertical axis and relatively to the tube on a horizontal axis, and coacting parts, one on said bracket and the other on said support, and one of which is provided with an inclined surface, said coacting parts forming a cam mechanism for yieldingly propelling said reproducing mechanism in a plane substantially parallel with the surface of the sound-record so that the stylus thereof may track in and be restrained by the record-groove throughout the several convolutions thereof, substantially as set forth.
9. In a talking machine, the combination of a holder for a disk sound-record and means for rotating the same and the record thereon, a support, reproducing mechanism including a stylus carried thereby, means independent of the sound-record and its rotating means for exerting yielding pressure on said reproducing mechanism to move the same across said sound-record so that the stylus thereof may track in and be restrained by the record-groove, and a stationarily mounted device located in position for discontinuing the movement of the reproducing mechanism across the record after the stylus thereof has reached the end of the record-groove, substantially as set forth.
10. In a talking machine, the combination of a holder for a disk sound-record and

means for rotating the same and the record thereon, a support, reproducing mechanism including a stylus carried thereby, means independent of the sound-record and its rotating means for exerting yielding-pressure on said reproducing mechanism to move the same across said sound-record so that the stylus thereof may track in and be restrained by the record-grooves, and a stationarily mounted device located in position for discontinuing the movement of the reproducing mechanism across the record after the stylus thereof has reached the end of the record-groove, said yielding-pressure means being so arranged that it is restored to potential relation by restoring said mechanism to its initial position, substantially as set forth.

11. In a talking machine, the combination of a holder for a disk sound-record and means for rotating the same and the record thereon, a support, reproducing mechanism including a stylus carried thereby, a cam mechanism independent of the sound-record and its rotating means for exerting a yielding-pressure on said reproducing mechanism to move the same across said sound-record so that the stylus may track in and be restrained by the record-groove, and means for arresting movement of said reproducing mechanism across the record after the stylus thereof has reached the end of the record-groove, substantially as set forth.

12. In a talking machine, the combination of a holder for a disk sound-record and

means for rotating the same and the record thereon, a support, reproducing mechanism including a stylus carried thereby, a part having an inclined wall thereon and a wall at the end of said inclined wall forming a stop and a part movable relatively to said part and adapted to ride on said inclined wall and against said stop, said parts being arranged to exert a yielding-pressure on said reproducing mechanism to move the same across said sound-record and to arrest such movement after the stylus of the reproducer has reached the end of the record-groove, substantially as set forth.

13. In a talking machine, the combination of a support for a sound-record and means for rotating the same and the sound-record thereon, reproducing mechanism including a stylus, a sound-conveying tube carrying the same, a pin forming a pivotal support for said tube, a part having a surface substantially perpendicular to the axis of said pin and a notch having an inclined wall cut in said surface and a part adapted to ride on said inclined wall and to coact therewith to exert a yielding-pressure on said tube to move the same about its pivot, substantially as set forth.

Signed at New York, N. Y., this 28 day of January, 1907.

LOUIS P. VALIQUET.

Witnesses:

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M. G. CRAWFORD.