

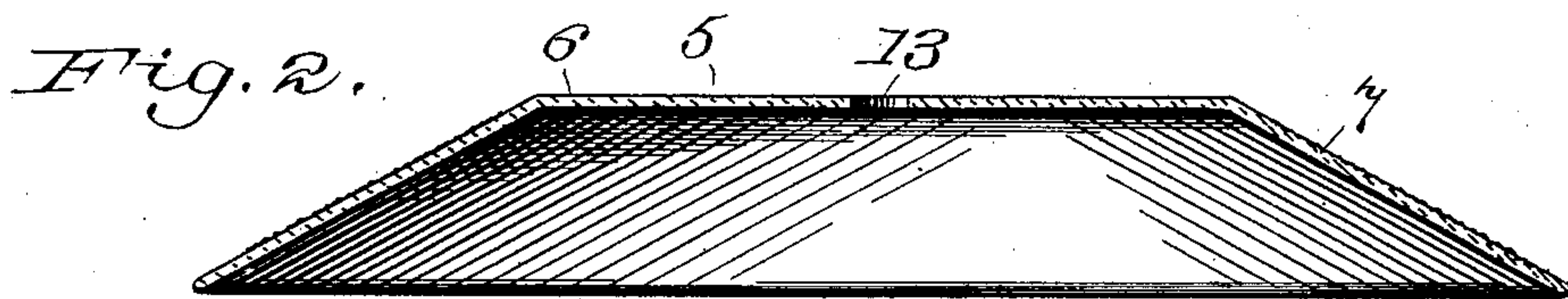
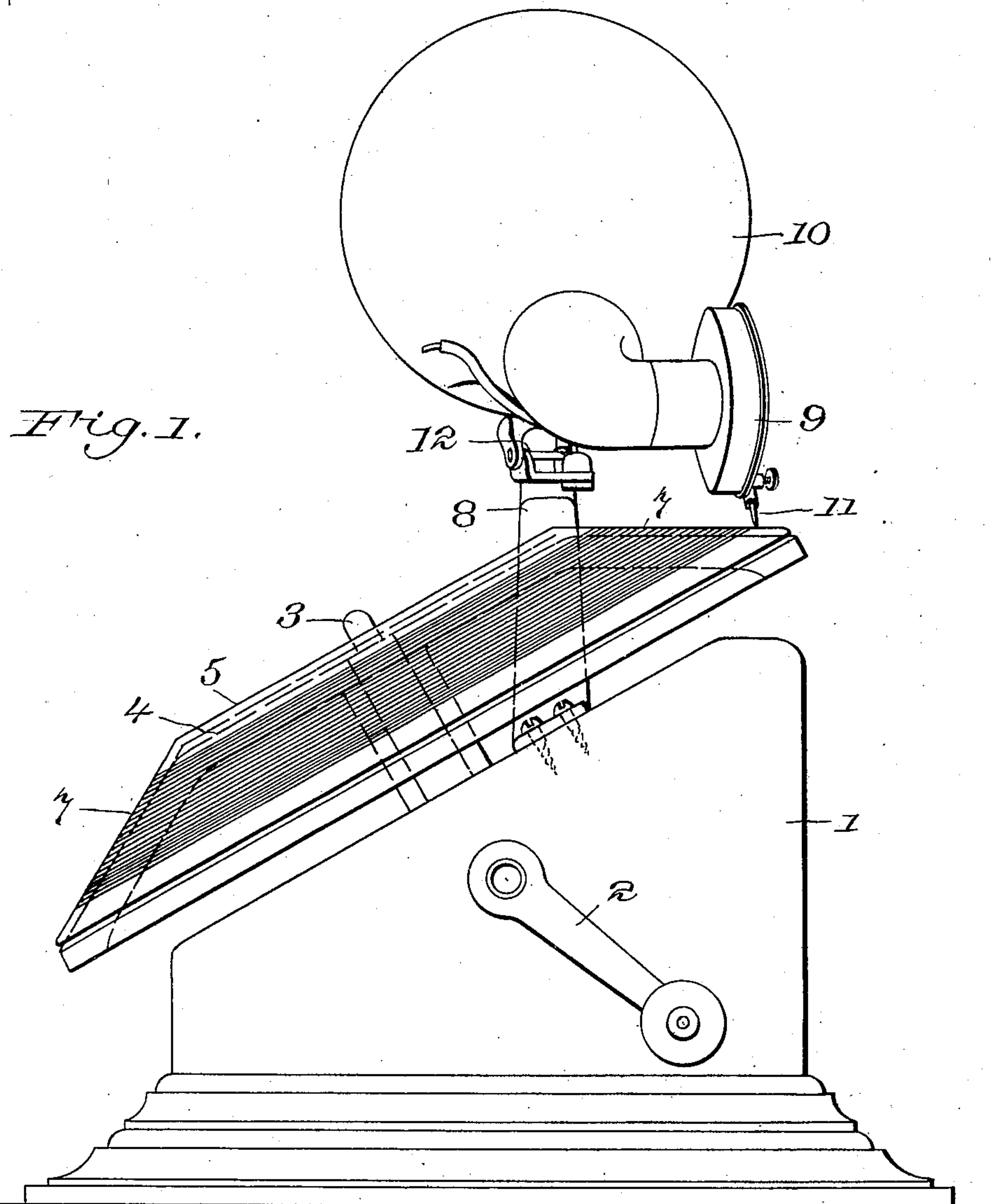
**No. 701,648.**

**Patented June 3, 1902.**

**L. P. VALIQUET.**  
**TALKING MACHINE.**

(Application filed June 8, 1899.)

(No Model.)



**WITNESSES:**

*Robert*

INVENTOR

INVENTOR  
Louis P. Valiquet

BY

ATTORNEY

Fig. 3.

W. H. Humphrey.



# UNITED STATES PATENT OFFICE.

LOUIS P. VALIQUET, OF NEW YORK, N. Y., ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE UNIVERSAL TALKING MACHINE MANUFACTURING COMPANY, A CORPORATION OF NEW YORK.

## TALKING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 701,648, dated June 3, 1902.

Application filed June 8, 1899. Serial No. 719,769. (No model.)

*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 New York city, county of New York, State of New York, have invented certain new and useful Improvements in Talking-Machines, of which the following is a specification.

My invention relates to talking-machines generally; and it consists more especially of a reproducing mechanism hereinafter claimed, the same being designed for use in connection with an improved form of sound-record plate, which latter forms the subject-matter of a divisional application filed November 16, 1901, serially numbered 82,604.

The preferred form of apparatus embodying my invention is illustrated in the accompanying sheet of drawings, in which—

Figure 1 is a side elevation of the sound-reproducing apparatus with my improved form of record on the same. Fig. 2 is a central section through the dish-shaped plate, and Fig. 3 is a similar view of a modification.

Throughout the drawings like reference-figures refer to like parts.

A motor of any convenient form, preferably a spring-motor, is inclosed in a casing 1 (the motor not being shown) and is adapted to be wound up by crank 2. This motor rotates the shaft 3, which is preferably inclined to the plane of the horizon and carries a dish-shaped table or other structure 4, on which the dish-shaped plate 5 may be fitted, the table or frame 4 fitting into the concave side of the dish-shaped plate 5. Said plate 5 has a flat central portion 6 and a curved portion 7. Said curved surface is in the shape of the curved surface of the frustum of a cone, the flat central portion 6 of the plate being in a plane at right angles to the axis of said cone, which coincides with the axis of the shaft 3.

On any suitable projection 8 from the casing 1 is mounted a reproducer 9, having the ordinary form of horn 10 and the reproducing-needle 11, adapted to engage the sound-grooves on the curved surface 7. This reproducer is hinged to the projection 8 in any suitable manner, preferably by the universal

joint 12. The record-plate has a central opening 13, large enough to fit loosely over the shaft 3.

The mode of operation of my invention is as follows: The record-grooves are stamped or cast or otherwise formed upon the curved surface 7 of the dish-shaped plate in the shape of a combined spiral and helical line having the shaft 3 as its axis. The record-plate is then placed upon the convex table 4 and immediately centers itself upon the same by reason of the conical shape of each. Preferably, of course, the reproducer 9 should move in a horizontal line; so that the power necessary to feed it across the record shall be as small as possible. Consequently the record-rotating apparatus is constructed so that the uppermost element of the conical surface 7 is parallel to the plane of the horizon—that is to say, the angle of the cone from which the frustum is cut or the angle which any element of its surface makes with its axis should equal the angle which the axis of the shaft 3 makes to the plane of the horizon. As shown, I have represented the record-plate in the shape of a frustum cut from a sixty-degree cone, and accordingly the inclination of the shaft 3 to the plane of the horizon or the base of the machine is sixty degrees also. When the record is rotated in the usual way, the needle 11 is placed in the sound-groove at the beginning of the record and is fed along by said record, although of course positive feeding apparatus could be employed, if desired. Accordingly the reproducing-needle 11 travels in a line substantially parallel to an element of the curved surface of the frustum of the cone to which the record-plate is shaped.

Some of the main advantages of my invention are as follows: The degree of frictional contact between the record-plate and the supporting-table is much greater than in the case of a flat record. Consequently no thumb-screw or other means for holding the record-plate against the table is necessary and the opening 13 might be enlarged until the flat portion 6 of the plate disappeared, as shown in Fig. 3.

It is evident, of course, that various changes



could be made in the details of construction of the apparatus illustrated without departing from the spirit and scope of my invention so long as the relative arrangement of parts or the principle of operation disclosed is preserved. Other forms of reproducer might be substituted and different arrangements of the driving-shaft and supporting-table might be employed, the angle of inclination might be varied, &c., but all such modified constructions I should still consider within the broad principle of my invention.

Having therefore described my invention, what I claim as new, and desire to protect by Letters Patent, is—

1. The combination of the record-rotating mechanism, a plate shaped like the frustum of a cone, with a web of material extending across the smaller end forming a flat central portion, and having a sound-record formed upon the curved surface thereof, and the reproducer adapted to move along a line parallel to an element of said curved surface.

2. The combination of a record-rotating mechanism having a rotating shaft inclined to the plane of the horizon, a plate shaped like

the frustum of a cone having a sound-record formed in a helical line upon the exterior curved surface thereof, the angle of the cone from which the frustum is cut being equal to the angle of inclination of the rotating shaft to the horizontal plane, said plate being carried and rotated by said shaft, and the reproducer adapted to move in a horizontal line substantially parallel to an element of the curved surface of said frustum.

3. A conically-shaped turn-table for talking-machines adapted to conically-shaped records, having that portion of the table over which the stylus travels on a substantially horizontal plane, and a rotating spindle disposed at an angle to the line of the recording-surface, and means for securing the conically-shaped record upon the turn-table, substantially as described.

Signed by me at New York city this 6th day of June, 1899.

LOUIS P. VALIQUET.

Witnesses:

LILLIAN FOSTER,  
W. H. PUMPHREY.