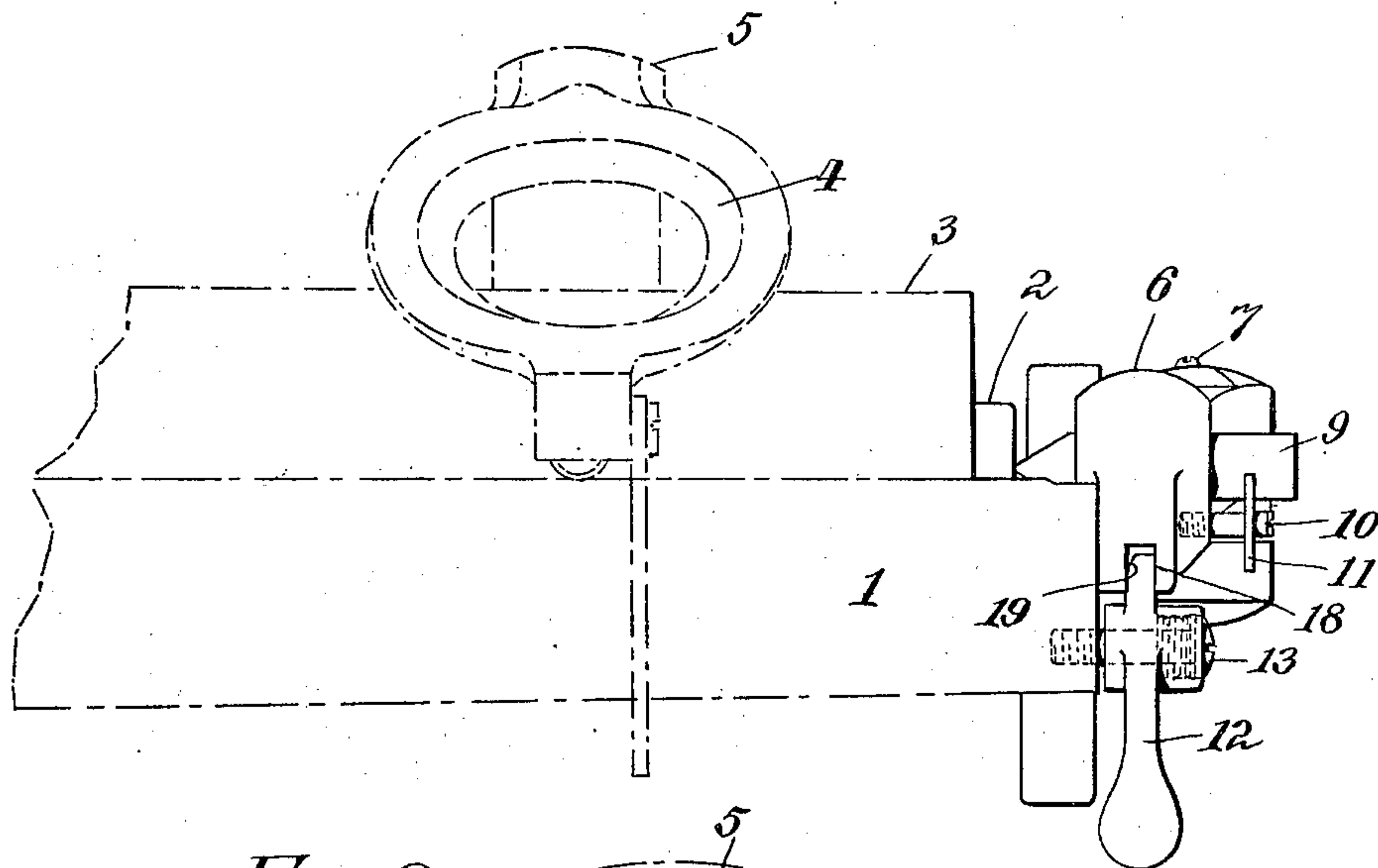


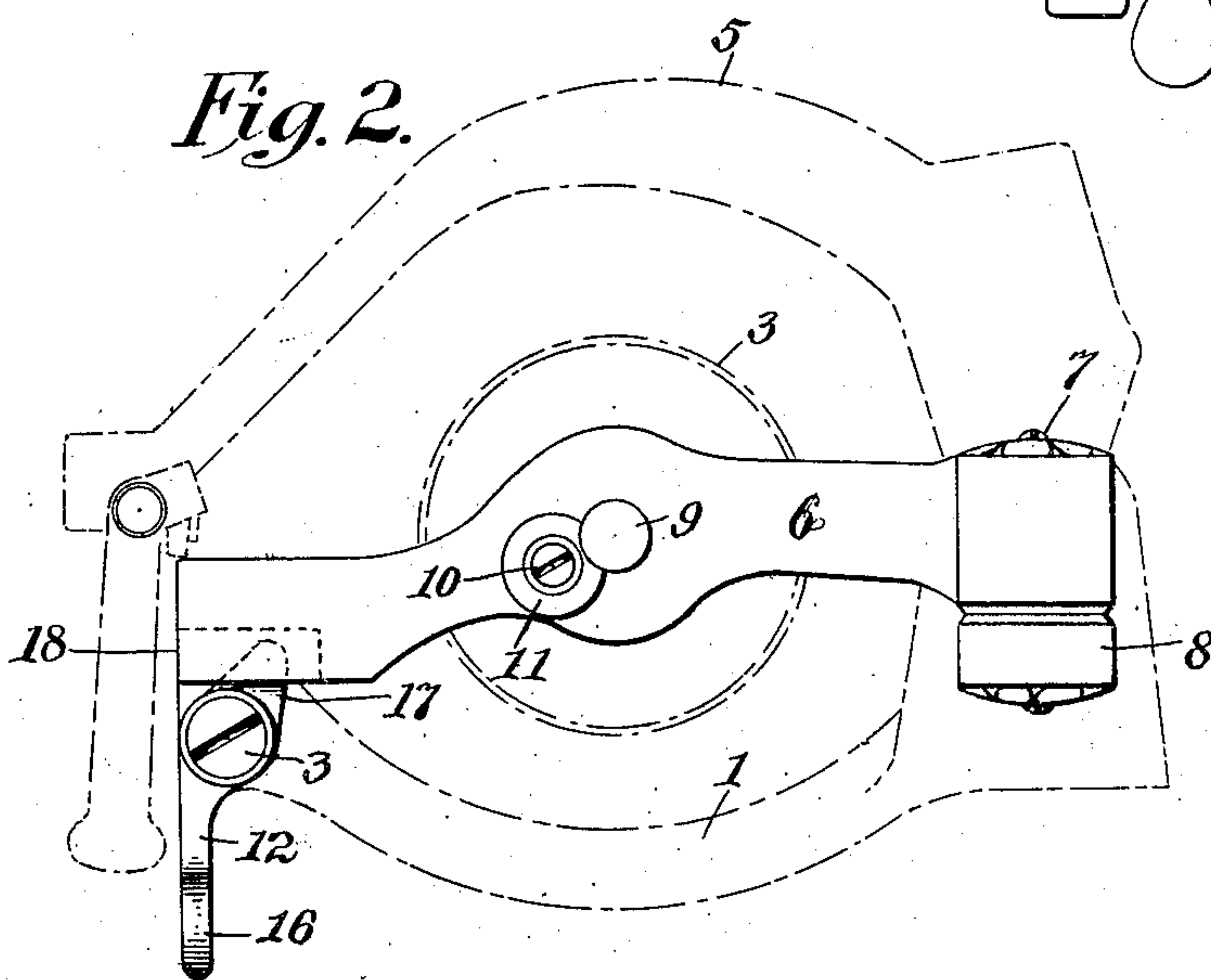
E. L. AIKEN.  
PHONOGRAPH.

APPLICATION FILED AUG. 3, 1905.

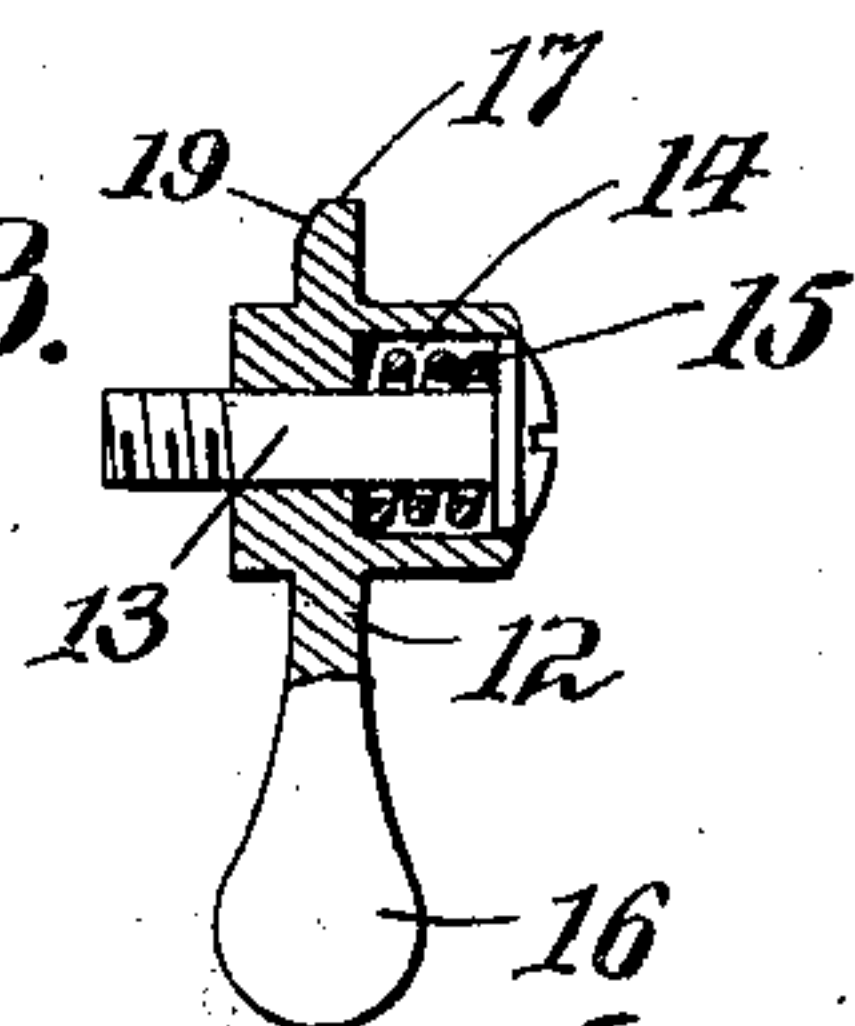
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Attest:

*Delos Holden*

*Miner C. Mac Arthur*

Inventor:

*Edward L. Aiken*

by *Frank L. Spencer* his Atty.



# UNITED STATES PATENT OFFICE.

EDWARD L. AIKEN, OF EAST ORANGE, NEW JERSEY, ASSIGNOR TO NEW JERSEY PATENT COMPANY, OF WEST ORANGE, NEW JERSEY, A CORPORATION OF NEW JERSEY.

## PHONOGRAPH.

No. 878,032.

Specification of Letters Patent.

Patented Feb. 4, 1908.

Application filed August 3, 1905. Serial No. 272,462.

*To all whom it may concern:*

Be it known that I, EDWARD L. AIKEN, a citizen of the United States, residing at East Orange, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Phonographs, of which the following is a description.

My invention relates to phonographs and more particularly to that type known as the Edison phonograph, wherein the sound record is carried on a tapering mandrel the outer end of which is supported during the operation of the instrument by a bearing, such as a pivot pin, carried by an end gate which is pivoted at one end so that when desired it may be turned on its pivot and expose the end of the mandrel so that the sound record may be applied to or removed therefrom.

My invention has for its object the provision of an improved form of locking latch for holding the end gate in its closed position and consists in the features hereinafter set forth and claimed.

Reference is hereby made to the accompanying drawings in which

Figure 1 is a front elevation showing my invention applied to a phonograph. Fig. 2 is an end elevation of the same, and Fig. 3 is a detail view partly in section of the locking latch.

The phonograph shown is of the usual type comprising a frame or body 1 which supports a rotating tapering mandrel 2 upon which a cylindrical sound record 3 may be carried, the reproducer (not shown) being carried in an eye 4 of a traveling carries arm 5, which is supported and driven in the usual manner. The end gate 6 is pivoted on a vertical pin 7 carried by the boss 8 projecting from the frame 1, so that it can be turned from the position shown in Fig. 1 through an arc of 90 degrees or more to completely expose the end of the mandrel 2 and permit the record 3 to be withdrawn therefrom. The end gate 6 is provided with a pivot pin 9 passing there-through, and held in place by a screw 10 having a collar 11 engaging a slot in the pin 9. The pin 9 is so placed as to engage the center of the head of the mandrel to form a pivot bearing therefor. All the parts which I have thus far described are of well known construction.

In order to hold the end gate firmly in its closed position, and at the same time to readily release the same whenever desired, I pro-

vide a locking latch 12 which turns freely about a screw 13 which is threaded into the frame 1, the axis of the screw being parallel to the axis of the mandrel. Within the body of the latch 12 is formed a cup 14 which surrounds the screw 13 and contains a coil spring 15 whose ends abut against the bottom of the cup and the head of the screw 13. One end of the latch 12 is enlarged into a finger piece 16 and the opposite end into a short arm 17 for engaging the end gate.

The end gate is provided with a recess 18 into which the arm 17 passes when the finger piece 12 is moved downward. When the finger piece is moved upward, the arm 17 passes out of engagement with the end gate and permits the same to be opened. The inner wall 19 of the arm 17 is formed with an inclined, rounded or cam surface as shown in Figs. 1 and 3, whereby as the arm 17 is brought into the position shown in Fig. 2, the latch 12 is forced outward on its pivot, thereby placing the spring 14 under compression and holding the end gate 6 against the frame of the instrument with a pressure due to the strength of the spring 15 and preventing any possible play of the end gate on its pivot. Obviously the cam surface may, if desired, be placed upon the end gate instead of the arm 17.

Having now described my invention, what I claim as new and desire to secure by Letters Patent is as follows:

1. In a phonograph, the combination with the frame or body, rotating mandrel and pivoted end gate carrying a bearing for the outer end of the mandrel and provided with a recess, of a locking latch, a pin carried by the frame upon which said latch is pivoted on an axis substantially parallel to the axis of the mandrel, a spring cooperating with said pin to press against said latch, and a projection extending from said latch in position to engage the recess of said end gate and hold it in its closed position, one of said engaging parts being provided with a sloping cam surface for causing the latch to compress the spring and thereby hold the end gate in position under pressure, substantially as set forth.

2. In a phonograph, the combination with the frame or body, rotating mandrel and pivoted end gate carrying a bearing for the outer end of the mandrel and provided with a recess in its lower surface, of a pin carried

by said body and substantially parallel to the axis of the mandrel, a locking latch pivoted on said pin, a spring cooperating with said pin to press against said latch, said  
5 latch having an upwardly extending projection adapted to engage the recess in the end gate so as to hold it in its closed position, and in a downwardly extending finger piece

for operating said latch, substantially as set forth.

This specification signed and witnessed this 1st day of August, 1905.

10

EDWARD L. AIKEN.

Witnesses:

DELOS HOLDEN,  
FRANK L. DYER.