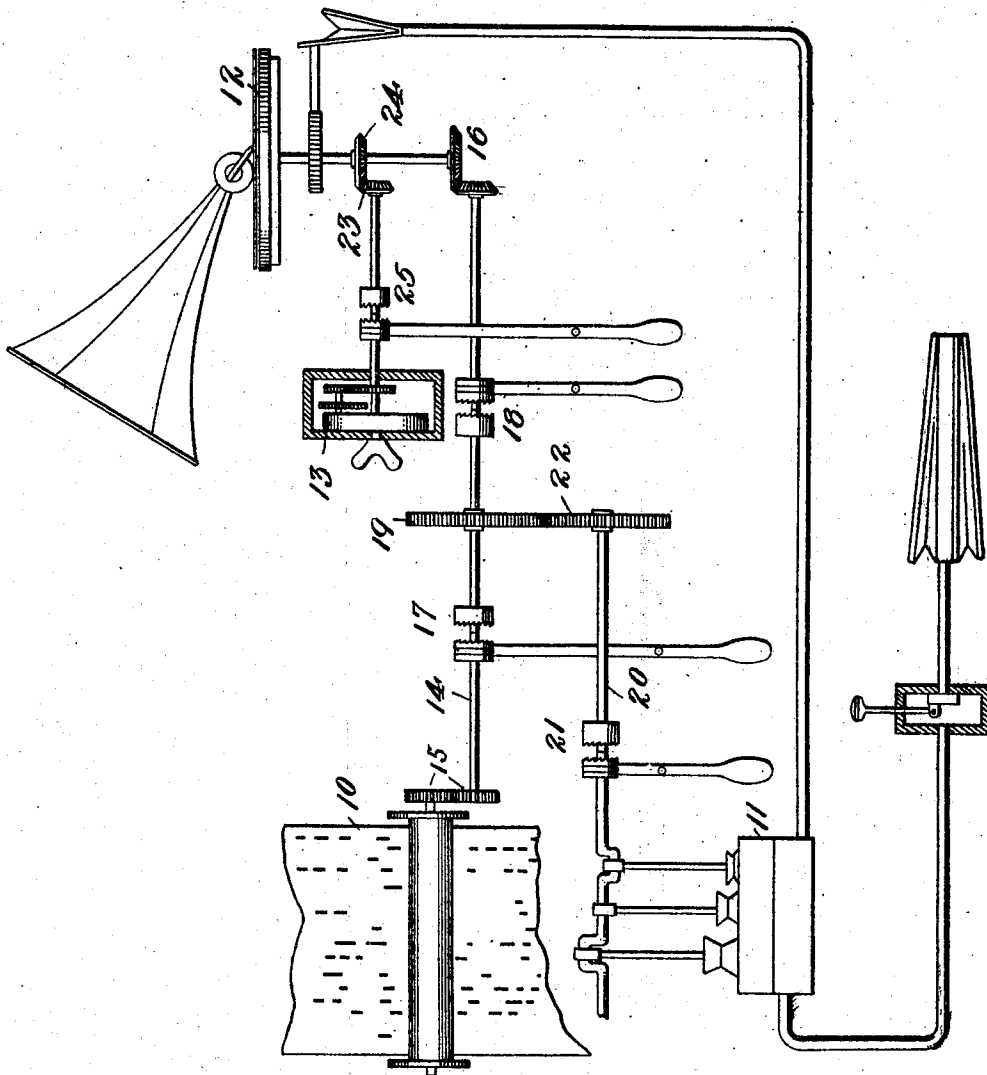


E. S. VOTEY.
COMBINATION PLAYER PIANO AND PHONOGRAPH.
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994,489.

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Inventor

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UNITED STATES PATENT OFFICE.

EDWIN S. VOTEY, OF SUMMIT, NEW JERSEY, ASSIGNOR TO THE AEOLIAN COMPANY,
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COMBINATION PLAYER-PIANO AND PHONOGRAPH.

994,489.

Specification of Letters Patent. Patented June 6, 1911.

Application filed October 7, 1910. Serial No. 585,787.

To all whom it may concern:

Be it known that I, EDWIN S. VOTEY, a citizen of the United States, residing at Summit, in the county of Union and State of New Jersey, have invented new and useful Improvements in Combination Player-Pianos and Phonographs, of which the following is a specification.

The object of this invention is to provide a new and improved combination player piano and phonograph in which the player piano and the phonograph are each provided with a separate and independent motor and which motors can be so coupled with or uncoupled from the piano player mechanism or the phonograph mechanism, as to operate both the piano player mechanism and the phonograph from the piano player motor or from the phonograph, both at the same time, or to operate the piano player alone by the piano player motor, or the phonograph alone by its motor or the piano player mechanism alone from the phonograph motor or at the same time to operate the piano player by its motor and the phonograph by its motor, all at the will of the operator.

In the drawings I have shown diagrammatically one embodiment of my invention in which I make use of a system of connections between the motors and instruments in which the connections are made disconnectible to the attainment of the above results by means of clutches.

The single figure of the drawings is a diagrammatic illustration of this embodiment.

10 designates the music roll which controls the playing of an automatic piano. 11 is the usual driving motor for the same. 12 indicates a phonograph, and 13 is a spring motor for driving the same. All of these parts may have their usual relation as far as position is concerned, the piano player music roll and the driving motor being located within the casing of the piano, and the spring motor for the phonograph being located within the casing of the phonograph as is usual with those mechanisms. On the other hand, they may be given any suitable position.

According to my invention, a connection in the form of a shaft 14 and gearing 15 and 16 is provided between the music roll driving gearing and the photograph. This con-

nection includes two clutches 17 and 18 on opposite sides of a gear 19. By means of the clutches, the two instruments may be disconnected. A connection 20 including a clutch 21 is provided between the piano player driving motor 11, which, it may be said is of the pneumatic type, and the connection 14 through gear 22 meshing with gear 19. By means of clutch 21 the pneumatic motor 11 may be disconnected from the shaft 14 at will. By means of bevel cog wheels 23 and 24, the phonograph is driven from its spring motor 13 and this connection can be opened or closed by means of a clutch 25.

The operations of the devices of my invention through the disconnectible connections provided are easy to follow.

First, the phonograph and piano player may be operated in synchronism by the pneumatic motor 11 independently of the spring motor 13 by the closing of clutches 21, 17 and 18 and the opening of clutch 25, the clutches being controlled by levers or in any other suitable manner. This operation is the normal operation.

Secondly, the phonograph may be operated independently of any other parts by its spring motor 13 to render prose or other selections at will, it being necessary only to open clutch 18 and close clutch 25. This independent operation of the phonograph is very desirable in a number of instances, and avoids the expense incident to a separate instrument for talking or rendering selections independently of the piano.

Third, both the phonograph and the piano player may be operated by the spring motor independently of the piano player motor 11. To secure this operation, the clutch 21 is opened while clutches 17, 18 and 25 are closed. On failure of power or on damage to the piano player motor or other cause, the instruments may thus be operated in synchronism from the spring motor of the phonograph.

Fourth, the piano alone may be operated by the spring motor, the same operating connections being made, but the phonograph record disk and reproducing apparatus being thrown out of operation by any of the usual devices, or the disk 12 being removed from the machine. The phonograph without the reproducing apparatus in operation forms an almost negligible load, and the

spring motor may readily drive the piano player.

Fifth, the phonograph may be driven by the pneumatic motor independently of the piano player mechanism. This operation is accomplished by opening clutches 17 and 25 and closing clutches 21 and 18.

Sixth, the piano player may be driven in the usual manner in which automatic pianos are driven by pneumatic motors without the operation of the phonograph. This operation is secured by closing clutches 21 and 17 and opening clutch 18. And, lastly, either or both the phonograph or the piano player may be operated by both of the motors together. Such an operation may be found very desirable in cases where the power motor is weak. In this operation, of course, all of the clutches are closed and the entire system of connections is operated.

What I claim is:—

1. In combination, two mechanical musical instruments, an independent motor for driving the mechanism of each instrument, and coupling and power transmitting devices for coupling the mechanism of either or both instruments to either or both motors.

2. In combination, a piano player mechanism, a motor for the same, a phonograph, a

motor for the same and power transmitting means, and coupling devices for coupling the piano player mechanism or the phonograph to either or both motors.

3. In combination, a piano player mechanism, a motor for the same, a phonograph, a spring motor for the same, and power transmitting means and coupling devices for coupling the piano player or the phonograph, either to the piano player motor or to the spring motor or both.

4. In combination, two mechanical musical instruments each controlled by its own record element, an independent motor for driving the record element of each instrument, and coupling and power transmitting devices for coupling the record element of either or both instruments to either or both motors.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

EDWIN S. VOTEY.

Witnesses:

E. W. NORTH,
GEORGE BALLA.