No. 636,258. Patented Nov. 7, 1899.

H. HAHN.

COIN CONTROLLED MECHANISM.

(Application filed Aug. 4, 1899.)

(No Model.) 2 Sheets—Sheet 1.

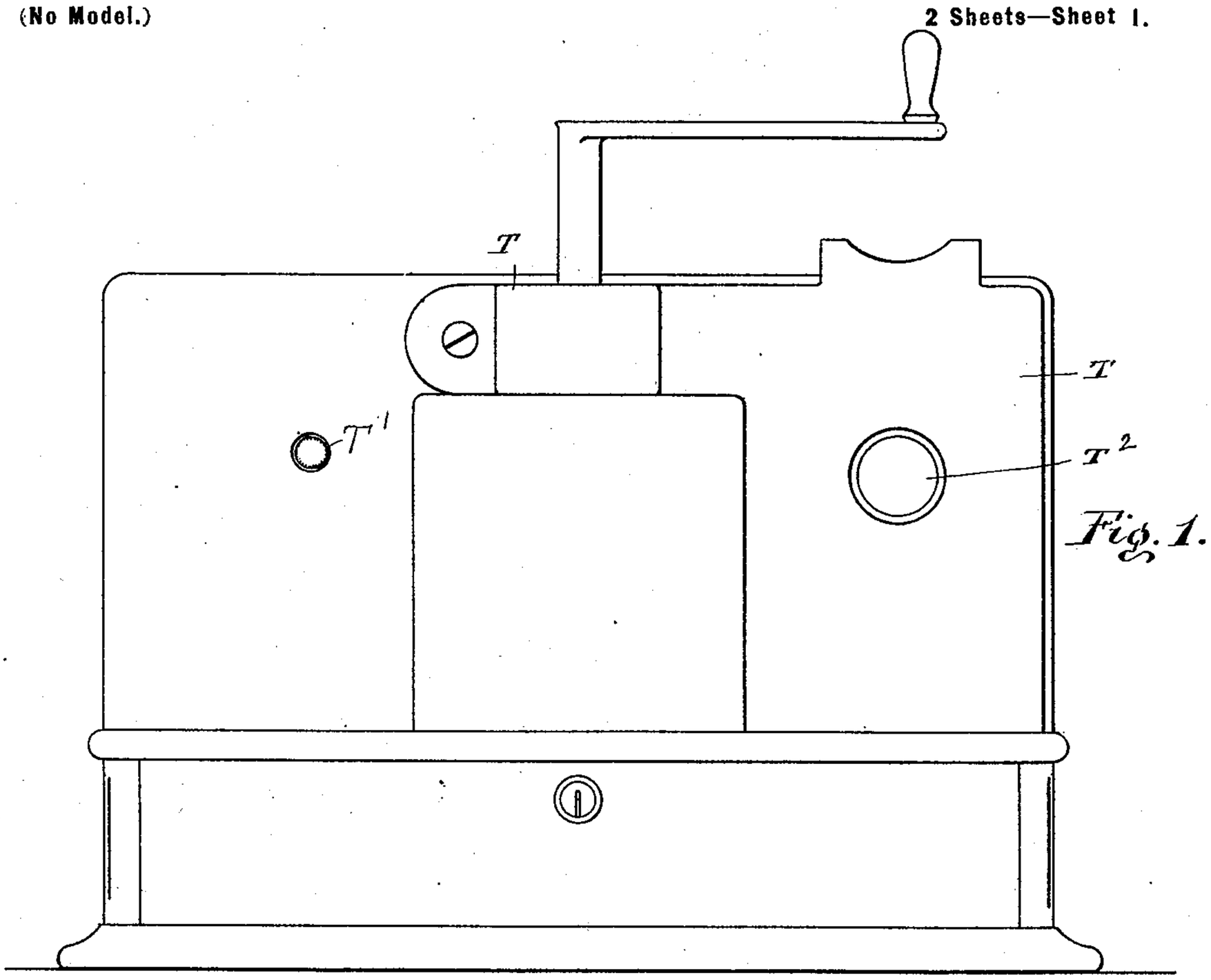

Fig. 1.

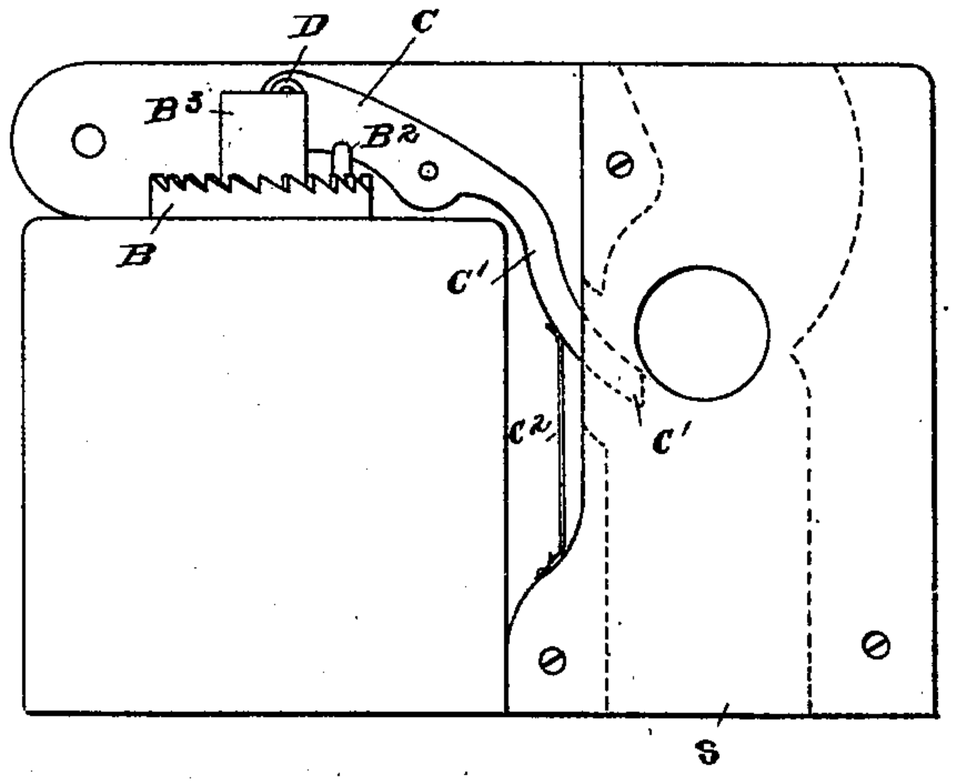

Fig. 2.

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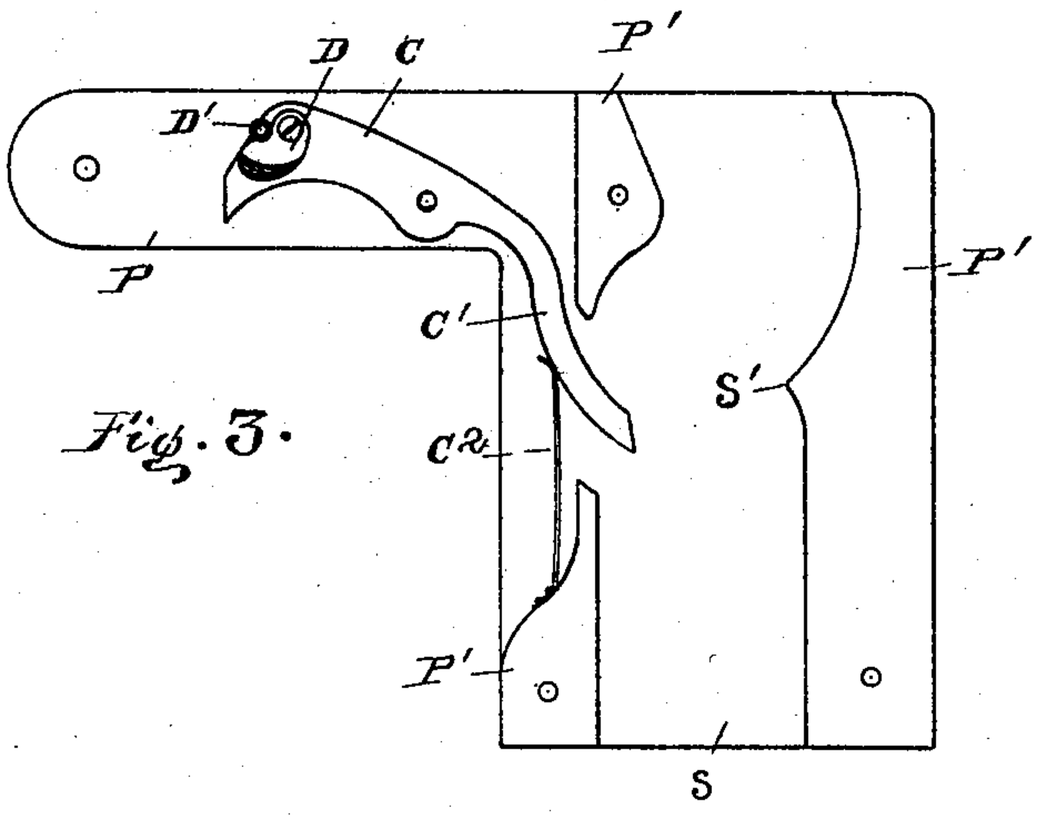

Fig. 3.

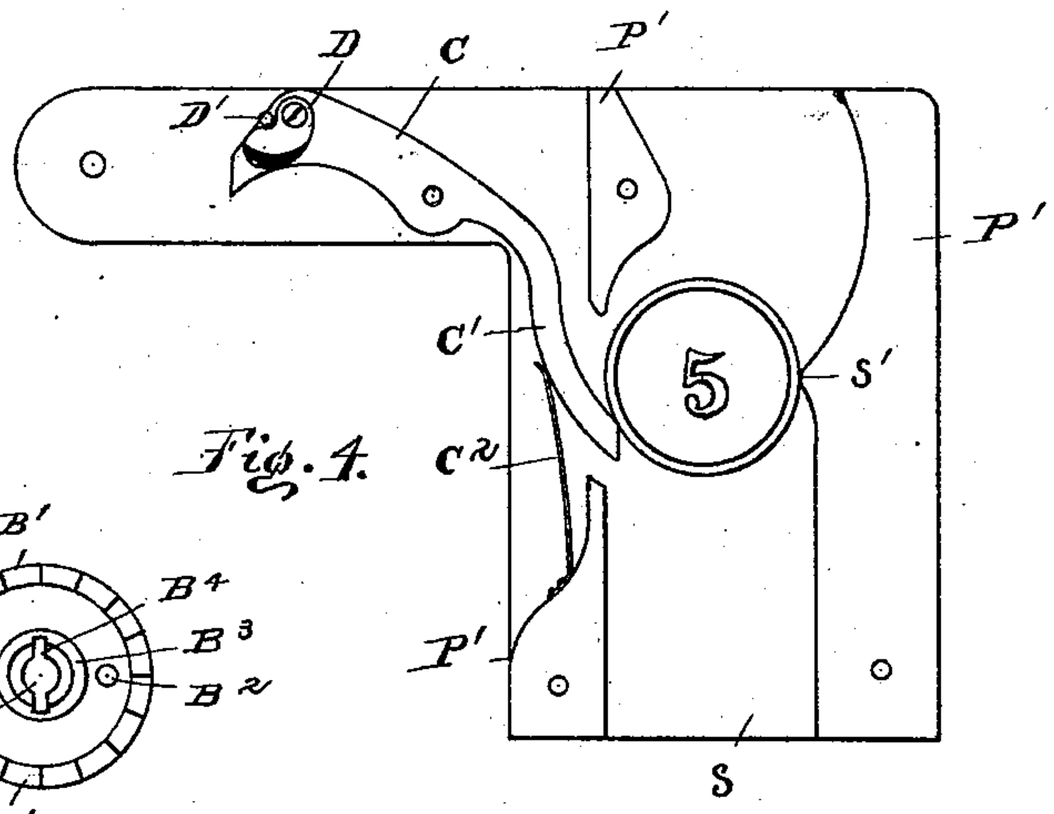

Fig. 4.

Fig. 5.

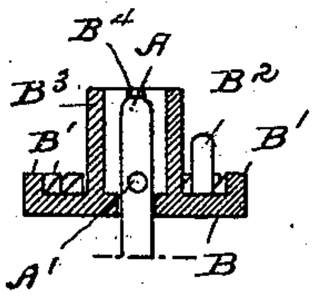

Fig. 6.

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COIN-CONTROLLED MECHANISM.

SPECIFICATION forming part of Letters Patent No. 636,258, dated November 7, 1899.

Application filed August 4, 1899. Serial No. 726,183. (No model.)

To all whom it may concern:

Be it known that I, HERMAN HAHN, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Coin-Controlled Mechanisms; and I do hereby declare the following to be a full, clear, and exact description of said invention, such as will enable others skilled in the art to which it most nearly appertains to make, use, and practice the same.

This invention relates to coin-controlled mechanisms.

The objects which the present invention has in view are to provide a coin-controlled mechanism to release a driving mechanism that is wound up for each successive operation; to provide such coin-controlled mechanism in the form of an attachment that may be applied to such driving mechanism without altering the construction thereof; to provide suitable means for insuring but one operation of the said driving mechanism by one coin; to simplify and cheapen the construction of the said mechanism operated by the coin, and to produce a coin-controlled mechanism which may be applied to a gramophone.

In the drawings, Figure 1 is a side elevation of this invention as applied to the ordinary gramophone. Fig. 2 is a similar view with the outer casing removed. Fig. 3 is a side elevation of the coin-operated mechanism, the front plate of the coin-slot being removed. Fig. 4 is a similar view showing the coin in the slot and the parts affected thereby in their operative positions. Fig 5 is a plan view of the attachable ratchet-controlling wheel. Fig. 6 is a vertical section of the same, showing it in connection with the winding-arbor of the driving mechanism of a gramophone.

The driving mechanism to which the invention is herein shown as being applied is that of the gramophone of usual construction. This driving mechanism includes a spring-motor, which is wound by a detachable key or crank that fits over the end of the arbor A and engages the pin A′ on the said arbor. The purpose of the present described and illustrated mechanism is to prevent the winding of this driving mechanism until an ascertained coin is placed in the slot constituting part of the controlling mechanism. Over the arbor A is placed the ratchet-toothed wheel B, which rests on the upper surface of the casing for containing the spring of the driving mechanism. This wheel is provided with the teeth B′, inclined to the winding direction, the coin-releasing pin B^2, the barrel B^3, having the side grooves B^4 to receive the ends of the pin A′, and the perforation B^5 to fit snugly over the arbor A. As stated, the key or crank engages the pin A′ to turn the arbor; also, the wheel B engages the said pin A′. Therefore when the wheel B is in place the arbor cannot be rotated without also rotating the wheel B.

When the desired coin is not in the slot, the wheel B is engaged by the toothed end of the lever C to prevent the wheel turning in the direction to which the teeth B′ are inclined—the winding direction. The lever C is pivotally mounted on the back plate P and is provided with an extension C′, the end of which protrudes into the coin-slot S and into the path of the coin. The slot is constructed to the shape shown in the drawings and is provided with the projection S′, upon which the coin rests and is supported, in conjunction with the extension C′ of the lever C, and after the same has been dislodged by the coin falling on the extension to raise the tooth of the lever out of engagement with the teeth B′ of the wheel B. The coin is prevented from passing the end of the extension C′ by the spring C^2, which yields to the stroke of the coin's first impact on the extension C′, but immediately forces the extension forward to catch the coin between the end of the extension and the projection S′, where it is maintained until the extension is further depressed to allow the coin to pass. When the parts are in this position, it will be observed that the wheel B and the winding-arbor A may be rotated in the winding direction, and the parts remain in this position during the full time of winding or until the driving mechanism begins to run. During the first revolution of the driving mechanism (or in the present construction the winding-arbor) in the running direction the extension C′ is depressed to permit the coin to pass, and thus allow the toothed end of the lever C to fall on the teeth B′ to

prevent the rotation of the wheel B in the winding direction.

The release of the coin is accomplished by the pin B^2 striking under the swinging pendant D and raising it and the lever C, on which it is mounted. The raise of the lever C at the toothed end is sufficient to depress the extension C′ to allow the coin to pass. The pin B^2 is set rigidly on the wheel B and to pass beside the toothed end of the lever C and in the path of the pendant D. The pendant D is loosely and pivotally mounted on the side of the lever to swing freely in the winding direction of the wheel B, and thus be readily displaced by the pin B^2 in each winding rotation of the wheel B. In the reverse direction of the wheel, however, the pin B^2 strikes the pendant from the opposite side and would move it in the opposite direction, but is prevented by the pin D′, which is set in the lever C and stops the movement of the pendant in that direction. This causes the pin to lift the pendant and lever sufficiently to pass the pin B^2, which is calculated to a length sufficient to depress the extension C′ to pass the coin.

While I have herein described this invention as applied to the winding-arbor to prevent the winding of the motor, and with the locking and coin-releasing mechanisms as applied thereto, it will be understood that the locking mechanism may be applied to the spring-barrel or other operative part of the motor, and the coin-releasing mechanism may be operated by the winding attachment when moved in a winding direction without avoiding the spirit of this invention, which is the providing of a lever to prevent the turning of a wheel attached to the motor in one direction adapted to be released and so maintained by a coin while moving in that direction and in providing a device adapted to release the coin when the said motor is moved in the opposite direction.

The slot S is formed by the back plate P, the filling-pieces P′, and a front plate. The entrance to the slot is formed in the casing T, which is provided with the perforation T′ to receive the winding-key in line with the arbor A and also the peep-hole T^2, by which the coin may be seen.

The back plate P and the casing T are shaped to rest beside and against the casing for the winding attachment of the gramophone, as shown.

The ordinary box or case of the gramophone is provided with a locked drawer, into which the coins pass after leaving the slot S.

Having thus described this invention, what is claimed is—

1. In combination with a motor provided with a winding shaft or arbor; of a ratchet-toothed wheel mounted on the said motor; a lever pivotally mounted and having a tooth adapted to engage said ratchet-wheel on the one side of the pivot and having an extension on the other side of the pivot; a coin-slot having an opening to receive the end of the said extension in position to support the coin; and a tripping device to depress the said extension when moving in the running direction of the said motor substantially as described.

2. In combination with a spring-winding motor provided with a winding shaft, or arbor; with a ratchet-wheel mounted on said shaft, the teeth being turned toward the winding direction of the shaft; a lever pivotally mounted on the stationary portion of the frame and having a tooth adapted to engage the said ratchet-teeth on the one side of the pivot, and an extension on the other side of the pivot; a coin-slot having an opening to receive the end of the said extension in position to support the coin; and a tripping device to depress the said extension and operated by the running movement of the motor, substantially as described.

In testimony whereof I have hereunto set my hand this 26th day of July, 1899.

HERMAN HAHN.

Witnesses:
E. F. MURDOCK,
CHAS. S. GIRVAN.