(No Model.) 2 Sheets—Sheet 1.

G. T. WALDRON.

COIN RELEASED ACTUATING MECHANISM FOR PHONOGRAPHS.

No. 524,921. Patented Aug. 21, 1894.

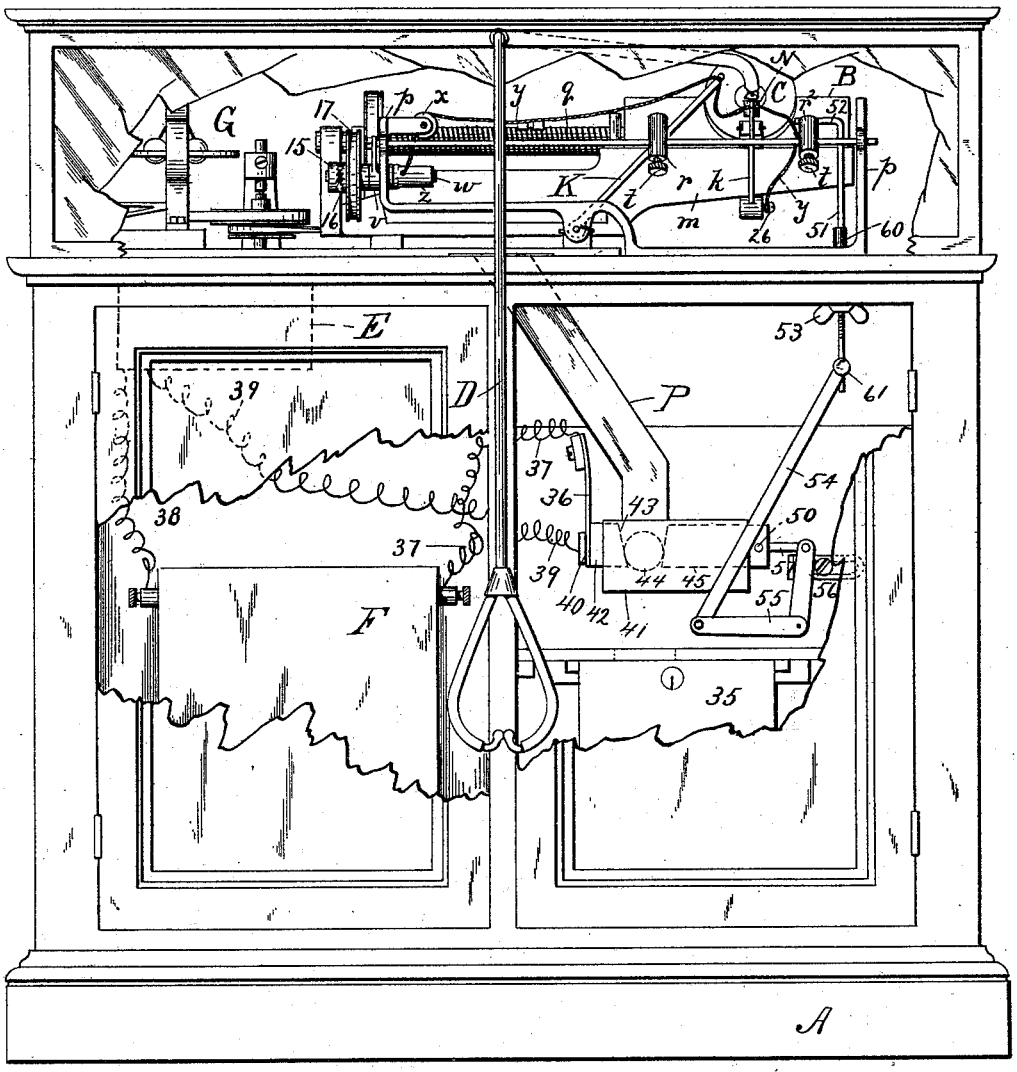

Fig. 1.

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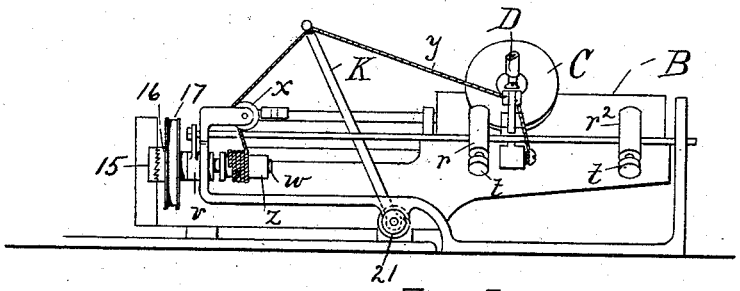

Fig. 2.

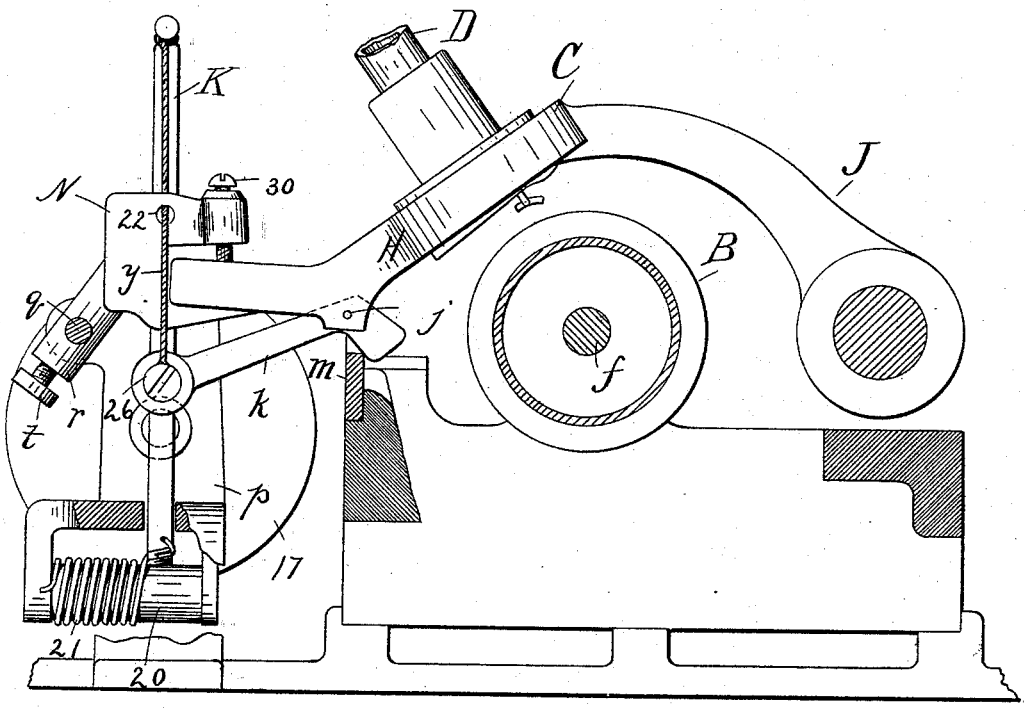

Fig. 3.

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GEORGE T. WALDRON, OF QUINCY, MASSACHUSETTS.

COIN-RELEASED ACTUATING MECHANISM FOR PHONOGRAPHS.

SPECIFICATION forming part of Letters Patent No. 524,921, dated August 21, 1894.

Application filed January 6, 1894. Serial No. 496,944. (No model.)

To all whom it may concern:

Be it known that I, GEORGE T. WALDRON, of Quincy, in the county of Norfolk, State of Massachusetts, have invented certain new and useful Improvements in Coin-Released Actuating Mechanisms for Phonographs, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front elevation of a phonograph showing my improved actuating mechanism, the case being represented as broken away; Fig. 2 a front elevation showing the position assumed by the parts in returning the spectacle; and Fig. 3 an enlarged vertical transverse section.

Like letters and figures of reference indicate corresponding parts in the different figures of the drawings.

My invention relates to a coin-released mechanism for actuating a phonograph; and it consists in certain novel features hereinafter fully set forth and claimed, the object being to produce a simple, cheap and effective device of this character.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation:

In the drawings, A represents the case which may be of any suitable form or construction, B the drum or cylinder, C the spectacle to which the flexible receiving tube, D, is attached in the usual manner.

The main parts of the phonograph and its operative mechanism are of the ordinary form. An electric-motor, E, is driven by a current from the battery, F, and the shaft, *f*, of the drum is rotated by the usual intervening mechanism, which as it is of well known construction it is not deemed essential to herein specifically describe.

The spectacle, C, is mounted on a pivoted arm, J, and is adjustable by a projection, H, on the arm, J. A bell-crank lever, *k*, is mounted on the pivot of the projection, H, its short arm engaging a horizontal plate, *m*, on the supporting frame of the drum. In two standards, *p*, forming part of said frame a longitudinally sliding horizontally arranged rod, *q*, is mounted. On said sliding-rod stops, *r*, r^2, are adjustably secured and held by set-screws, *t*. From one end of the rod outside the inner standard, *p*, a bearing, *v*, is pendent and in said bearing in the standard a winding stub-shaft, *w*, is mounted to rotate and slide. On the standard a pulley, *x*, is journaled and a cord, *y*, passing over said pulley is fast to a collar, *z*, on the shaft, *w*. One member of a clutch, 15, is mounted on the outer end of said shaft, the companion member being formed by the hub, 16 of a pulley, 17, loose on said shaft. The pulley, 17, is belted to the drive-pulley of the drum shaft, *f*.

A finger, K, is pivoted at, 20, in the frame to swing vertically. A coiled-spring, 21, around the pivot of said finger acts torsionally to throw it from left to right as viewed in Figs. 1 and 2 its normal position being that shown in Fig. 1. The cord, *y*, is secured to the upper end of said finger and passes through an opening, 22, in the pivot support, N, of the levers, H, *k*, the end of said cord being secured at, 26, to the long arm of the lever, *k*. There is an adjustable stop-screw, 30, in the support, N, for the lever, H, to limit the fall of said lever.

The ordinary coin-chute, P, opens through the top of the case in front of the phonograph mechanism in the usual manner, its lower end registering with the slot in the cash box, 35, in the body of the case.

A spring contact, 36, (see Fig. 1) is connected by a wire, 37, with one pole of the battery, F, the opposite pole of said battery being connected by a wire, 38, with one of the motor-brushes. A wire, 39, connects the opposite brush with a contact-point, 40, in the path of the free end of the spring-contact, 36. Between plates, 41, a block, 42, is fitted to slide, said block being fast to the free end of the spring-arm, 36, and having a beveled inner edge, 43, which will project into the path of a coin, 44, from the chute, P. In alignment with the block, 42, a plate or block, 45, is fitted to slide and is pivoted at, 50. Two levers, 55, and, 56, are fast on the same pivot 90 in the case. A link, 57, pivotally connects the plate, 45, with the lever, 56. A link, 54, diagonally arranged connects the

arm, 55, with a sliding rod, 51, fitted to move vertically through the case top and having an angle-arm, 52, at its upper end projecting into the path of the short arm of the spectacle lever, H. The vertical movement of the rod is adjusted by means of a thumb-screw, 53, a collar, 60, on said rod limiting its downward movement. By adjusting the connection, 61, of the link, 54, with the rod, 51, the movement of the plate, 45, inward across the mouth of the chute may be regulated.

The parts are arranged so that when a coin passes into the chute, P, it will engage the adjacent ends of the blocks, 42, and, 45, forcing the block, 42, outward and driving the spring-contact, 36, into engagement with the contact, 40, closing the circuit of the battery and charging the motor. When the rod, 51, is drawn upward the block, 45, will be drawn out releasing a coin, 44, which will fall into the box, 35, and the spring-arm, 36, will drive the block, 42, inward and break the circuit.

The parts being in the position shown in Fig. 1 and the circuit closed by the coin, the ordinary phonograph mechanism is in action driving the worm shaft and drum or mandrel in the usual manner, the spectacle traveling from left to right, as viewed in said figure. When the support end engages the stop, r^2, the rod, q, is thrown from left to right drawing with it the shaft, w, and engaging the clutch member, 15, fast on said shaft with its companion member, 16, on the hub of the pulley, 17, which is continuously rotated as above described. This causes the shaft, w, to rotate and winds the cord, y, on the drum or sleeve, z, of said shaft drawing the finger, K, from right to left against the tension of its spring, 21, as shown in Fig. 2. The cord being connected to the lever, k, by the screw, 26, carries the support, N, with it and moves the spectacle from right to left until said support engages the stop, r, by which the rod, q, will be carried in like direction moving the shaft, w, and engage the clutch-members, 15 and 16. This frees the pulley, 17, which runs loose and the coin having been released by the contact of the spectacle lever, H, with the arm, 52, of the rod, 51, whereby said rod was elevated and the plate, 45, withdrawn breaking the circuit the parts stop with the spectacle in position to operate again on the phonograph cylinder when another coin shall be dropped into the chute. Nor do I confine myself to the particular device shown for returning the spectacle as any means operated by the drive mechanism of a phonograph and tripped positively by the spectacle at the end of its movement in one direction may be employed. The arrangement of the coin-releasing mechanism may also be varied without departing from the spirit of my invention.

Having thus explained my invention, what I claim is—

1. The combination of the spring-tensioned finger, the rotary stub-shaft and a cord connecting the shaft and finger with the phonograph spectacle; a loose pulley on the shaft driven by the phonograph-actuating mechanism and mechanism operated positively by the spectacle for locking said pulley.

2. The spectacle and its driving mechanism in combination with the sliding-shaft, w; loose pulley thereon and clutch mechanism the sliding rod, q, for moving said shaft longitudinally; the spring arm, K, and a cord connecting said arm with the shaft and spectacle and projections on the rod in the path of the spectacle.

3. In a phonograph in combination with the coin-chute two laterally sliding-plates projecting into the path of the coin, one of said plates being arranged to close the circuit of the phonograph motor when engaged by a coin, and mechanism connecting with the companion plate and operated by the phonograph-spectacle whereby the coin may be released from said plates.

4. In a phonograph, the combination with the adjustable sliding-rod, 51, disposed in the path of the phonograph-spectacle, of a coin-chute, a sliding-plate disposed in the path of the coin; levers connecting plate and rod whereby the plate may be withdrawn as the rod is elevated substantially as described.

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Witnesses:
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