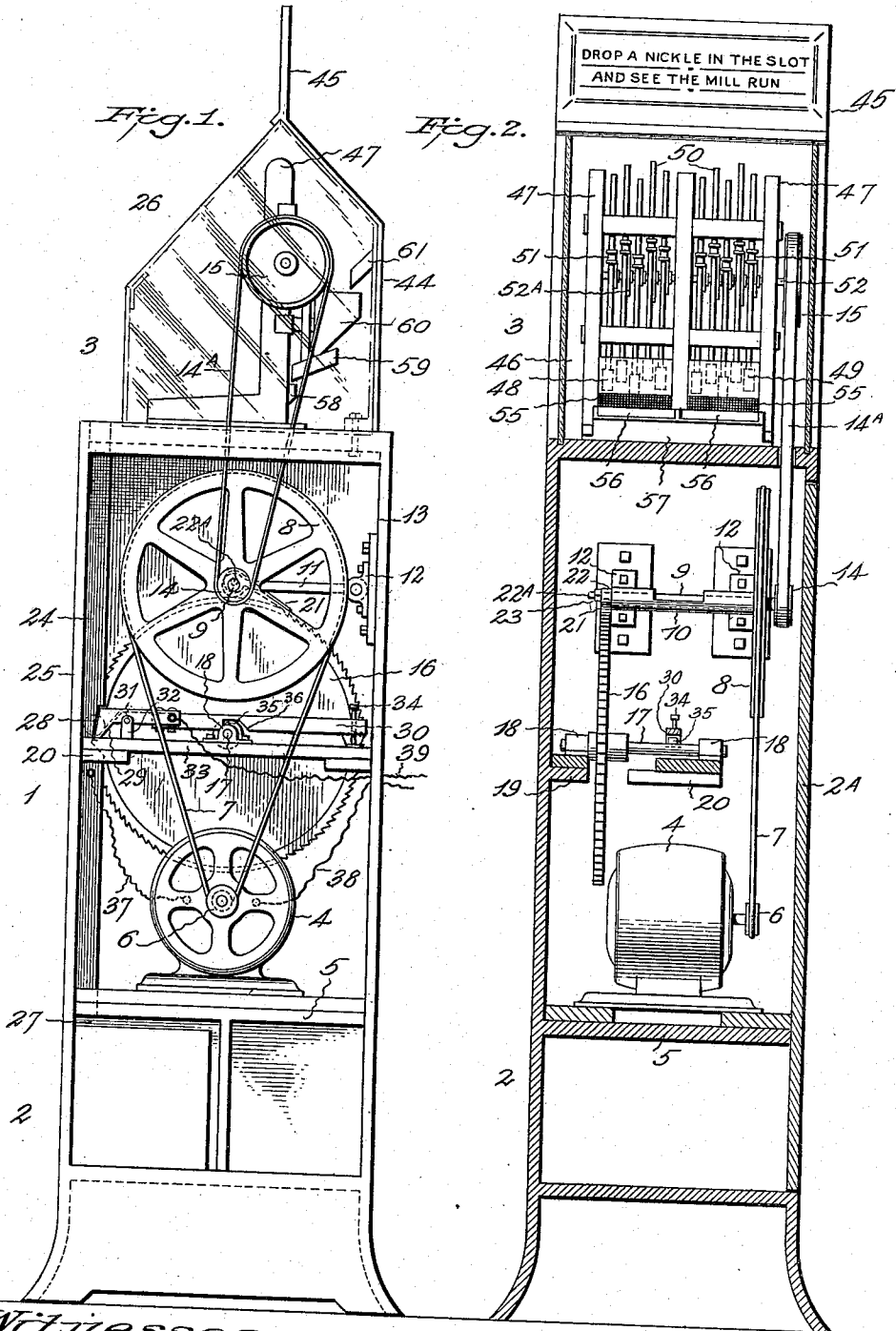


J. H. MONTGOMERY.
 COIN CONTROLLED ADVERTISING DEVICE.
 APPLICATION FILED NOV. 23, 1908.

937,318.

Patented Oct. 19, 1909.



Witnesses:

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UNITED STATES PATENT OFFICE.

JAMES H. MONTGOMERY, OF DENVER, COLORADO.

COIN-CONTROLLED ADVERTISING DEVICE.

937,318.

Specification of Letters Patent.

Patented Oct. 19, 1909.

Application filed November 23, 1908. Serial No. 464,069.

To all whom it may concern:

Be it known that I, JAMES H. MONTGOMERY, a citizen of the United States of America, residing in the city and county of Denver and State of Colorado, have invented a new and useful Coin-Controlled Advertising Device, of which the following is a specification.

My invention relates to improvements in coin controlled advertising devices, and the objects of my invention are: First, to provide a coin controlled stamp mill machinery starting advertising device. And second, to provide a display and machinery containing case, in which a miniature operative ore stamping mill can be started to running by a coin controlled mechanism, and will run for a predetermined period of time. I attain these objects by the mechanism illustrated in the accompanying drawings, in which:

Figure 1, is a side elevation of the improved advertising device and supporting casing, the door being removed to afford a view of the mechanism for operating the device. And Fig. 2, is a vertical sectional view through the device, affording a front view of the stamp mill and operating mechanism.

Similar numerals of reference refer to similar parts throughout the several views.

Referring to the drawings, the numeral 1, represents a case of wood or metal, which is preferably square in cross section, but may be made of any desired form of cross section. This case 1, is preferably divided into two parts, the base portion 2, and the cap portion 3. The base portion 2, is provided with an entrance door 2^A, which is provided with a lock and key. The bottom portion of the base is provided with an electric motor 4, which rests on and is secured to a floor portion 5, formed across the bottom portion of the base of the case. This motor 4, is provided with a driving pulley 6, which is connected by a rubber belt 7 to a pulley 8, which is mounted on a shaft 9, which is positioned above the motor in the central portion of the base, and is journaled in bearings 10, formed on the end of an arm 11, which is pivotally mounted at its other end in bearings 12, which are secured to one of the adjacent inside walls 13, of the base of the case. A small pulley 14 is also mounted on this shaft 9, which is

connected by a belt 14^A to a pulley 15, that is mounted on the end of the cam shaft of the stamp mill, which is located within the cap of the case, as will be fully explained hereinafter.

Between the motor and the driving pulley 8, of the shaft 9, a ratchet toothed wheel 16, is mounted, on a shaft 17, which is journaled in boxes 18, that are secured to shelves 19 and 20, which are placed across the base above the motor to receive them. The peripheral surface of this ratchet wheel is provided with a continuous circumferential row of ratchet teeth of short circular pitch, which are engaged by a pawl 21, the pivotal end 22 of which is pivotally mounted on an eccentrically arranged pin 22^A, on the end of the shaft 9, and held thereon by a nut 23, which is threaded to the end of the pin. The pawl rests by its weight in engagement with the teeth, and the eccentric is arranged with throw enough to move the pawl one tooth on the periphery of the ratchet wheel.

A coin receiving tube 24, is placed vertically in the base against the front end 25 of the base, and extends from its top cover 26 to the lower end of the base, and enters the top of a box-shaped recess 27, formed in the base. This tube registers with a coin receiving slot adapted to receive a nickel denomination of coin easily, and the tube 24 is provided with an aperture that is wide enough to receive the nickel sidewise and allow it to drop in a sidewise position through it into the apartment at its lower end.

An angled recess 28, is cut into the inside edge of the coin tube, which is deep enough to allow the edge of the coin to be exposed, and project beyond the surface of the slot, as it drops through the tube, and a coin stopper plate 29 is pivotally supported to stand normally in this recessed notch and stop the coin as it falls. This coin stopper device also comprises the motor starting device, and it comprises a lever 30 pivotally mounted at its end adjacent to the coin tube, on a pin 31, which is journaled in bearings 32, which are secured to a shelf 33, that extends across the base to receive them. The opposite end of this motor starting lever extends over the shaft 17 of the ratchet wheel, and is provided with an adjustable pin 34, at its end, which is preferably threaded to it and which is arranged to ex-

tend through it and bear on the shelf 33. This adjustable pin is adapted to adjust the lever in a horizontal plane relative to the engagement of the coin with its coin engaging end, and to a cam 35, which is mounted on the shaft 17, and that is arranged to engage the lever at each revolution of the ratchet wheel and its shaft, and raise the lever high to move its coin engaging end out of the path of the coin and release it, and stop the motor, as will be explained more fully hereinafter.

The lever 30 is provided with a recess 36, into which the cam moves and releases the lever after it has raised the lever high enough to release the coin. The coin tube is connected by an electric wire 37, to one terminal binding post of one side of the motor, and another circuit wire 38 is connected at one end to the opposite binding post of the same side of the motor and extends out of the base to a source of supply. A circuit wire 39 is also connected at one end to the coin engaging plate, and is extended out of the base to a source of supply. The supply of electric current may be taken from a terminal socket of an electric wire that leads to a dynamo, or from an ordinary lamp socket, and the two circuit wires may be connected to a plug adapted to fit the socket. By this means an electric circuit is between the coin tube and the coin stopper plate by the coin, which starts the motor, and this circuit is broken by the release of the coin from the stopper lever by the cam on the shaft 17, as will be fully explained hereinafter.

The cap 26 of the case, rests on top of and is secured to the base portion 2 of the case. This cap is in the form of a casing, comprising a front side 40, ends 41 and 42, and an inclined top portion 43, which are all of glass, while its rear or back portion 44 is preferably made of metal. The lower edges of the glass rest in grooves formed in the top of the base 2, and the sides and front and inclined top are connected preferably by small angle plates, and the sides are connected to the back plate 44. A plate 45, projects vertically upward from the upper end of the back plate, on which an inscription which reads as follows, is placed: "Drop a nickel in the slot and see the stamp mill run." This glass cap is set over the stamp mill 46, which consists of two batteries of five stamps each. These batteries comprise the battery frames 47, the mortars 48 and 49, and the stems 50. The stems 50 are provided with tappets 51 and a cam shaft 52 extends transversely along the back of the stems of both batteries, and is journaled in boxes which are secured to the back of the frames, and upon one end of this cam shaft the pulley 15 is mounted, which is connected by the belt 14^A to the small pulley 14 of the

shaft 9, as above described. The cam shaft is provided with a cam for each stamp tappet, which is keyed to the shaft in engagement with its respective tappet, to drop intermittently and in random order. The mortar of each battery is provided with a screen 55, and two amalgamating plates 56, and their supporting troughs 57, are placed against the front of the mortars at the lower edge of the screens. The rear sides of the mortars are provided with feed chutes 58, and a feed spout 59 is placed to receive ore from a hopper 60 placed above it, and a feed chute 61 extends from the outside of the rear side of the cap into the hopper. A complete miniature ore crushing stamp mill is thus exhibited to the view of the dropper of the coin in the slot, through the glass front of the cap, which will run in an operative manner when a coin is dropped in the slot.

The operation is as follows: When a nickel of coin money is dropped in the slot, it drops down into the coin tube until it strikes the coin stopper lever, where it stops, resting against the coin stopper lever, which closes the electric current circuit between the source of electric current supply through the wires 37, 38, and 39, and the coin tube and coin stopper plate, and the current flows into the motor and starts it to running, and the motor drives the shaft 9 through the medium of the belt 7, and the pulley 14 of the shaft drives the pulley 15 on the cam shaft through the medium of the belt 14^A; the cams 52^A are thus rotated and each cam bears against its stamp stem tappet and raises it as the cam rotates, and allows it to drop against the bottom of the mortar.

All of the ten stamps are raised and dropped in the operative order of a full sized practically operating ore stamping mill.

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

1. In a coin-controlled display device, a base, operating mechanism in said base, a shaft adapted to be rotated by said mechanism, a pawl carried by said shaft, a wheel arranged to be intermittently rotated by said pawl, a shaft for the wheel, a cam on the wheel shaft, a coin-stopping lever adapted to be moved by said cam to release the coin and open the circuit of said electrical mechanism after a complete revolution of said wheel.

2. In a coin-controlled device, a driven shaft and means for operating it, adapted to operate a moving display device, a ratchet-wheel secured upon its shaft, and arranged to be intermittently rotated by the movement of said driven shaft, a cam on the shaft of said ratchet-wheel, a coin-stopping lever adapted to be operated by said cam to release the coin, and means whereby the re-

lease of the coin stops the display-operating mechanism.

5 3. In a coin-controlled device, a base, an electric motor in the base, a shaft driven by said motor, a pawl on said shaft adapted to rotate a ratchet-wheel, and means controlled by the revolution of said ratchet-wheel for stopping the motor, after a pre-determined time.

10 4. In a coin-controlled device, a base, electrical operating mechanism in said base, a shaft driven by said mechanism, adapted to operate a moving display device, a cam on said shaft, a pawl adapted to be intermittently thrust by said cam, a ratchet-wheel
15 secured upon its shaft, arranged to be rotated intermittently by said pawl, a cam on the ratchet-wheel shaft, a coin-stopping lever adapted to be operated by the cam of the
20 ratchet-wheel shaft after a complete rotation of the same, to release the coin, and means whereby the releasing of the coin

opens the circuit and stops the operating mechanism.

5 5. In a coin-controlled device, an electric motor, a shaft driven by said motor and adapted to operate a moving display device, a wheel arranged to be intermittently rotated by said shaft, a coin-stopping lever adapted to be moved to release the coin, after a complete rotation of said wheel, a
10 coin-tube, electrical connections between the motor, coin-stopping lever, and coin-tube, whereby when coin is engaged the circuit is closed and the motor started, and when
15 the coin is released the circuit is broken and the motor stopped. 35

In testimony whereof I affix my signature in presence of two witnesses.

JAMES H. MONTGOMERY.

Witnesses:

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