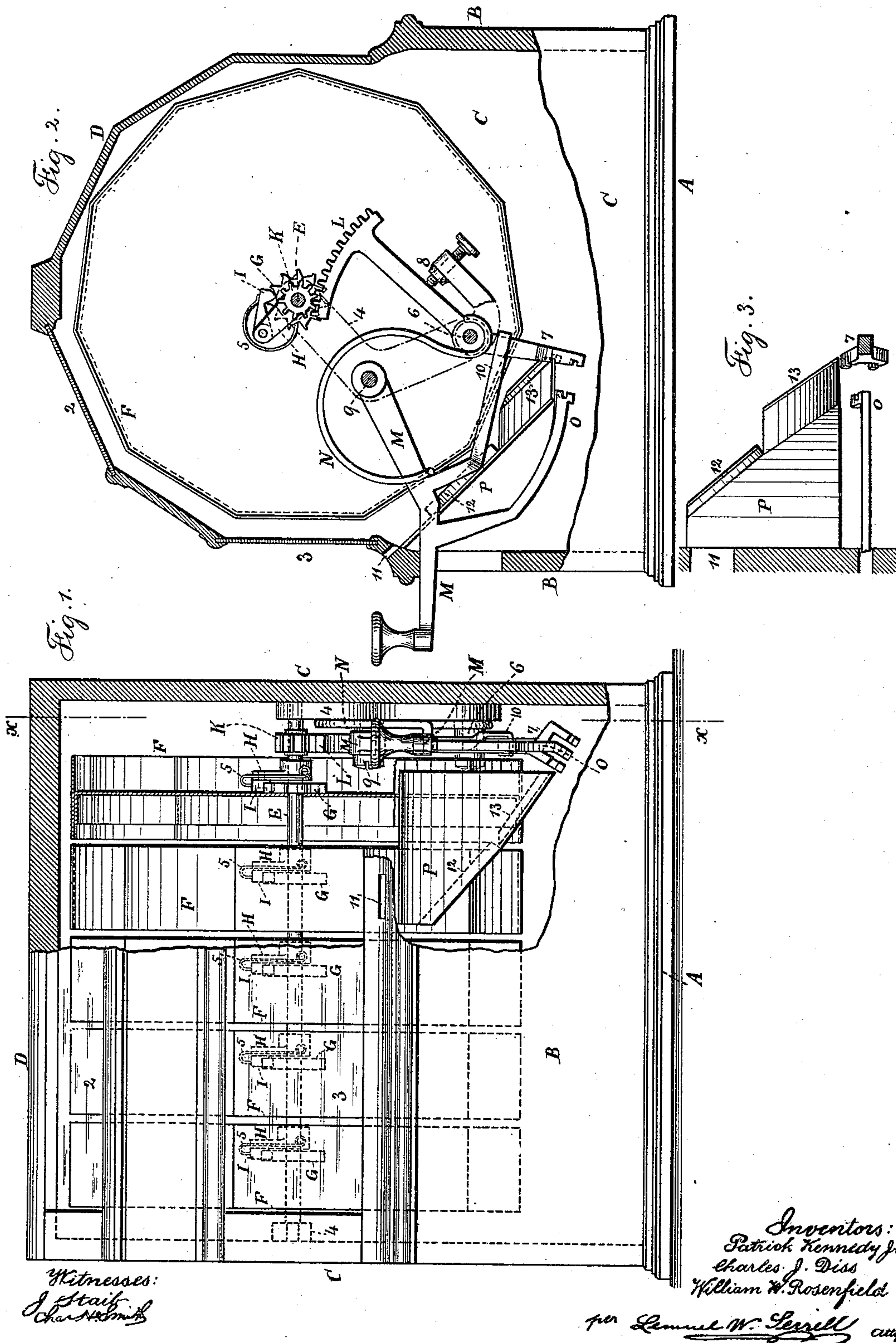


(No Model.)

P. KENNEDY, Jr., C. J. DISS & W. W. ROSENFELD.
ROTATING TOY.

No. 442,683.

Patented Dec. 16, 1890.



UNITED STATES PATENT OFFICE.

PATRICK KENNEDY, JR., AND CHARLES J. DISS, OF BROOKLYN, AND WILLIAM W. ROSENFELD, OF NEW YORK, N. Y., ASSIGNORS TO THE AMUSEMENT MACHINE COMPANY, OF NEW JERSEY.

ROTATING TOY.

SPECIFICATION forming part of Letters Patent No. 442,683, dated December 16, 1890.

Application filed April 23, 1890. Serial No. 349,071. (No model.)

To all whom it may concern:

Be it known that we, PATRICK KENNEDY, Jr., and CHARLES J. DISS, of Brooklyn, in the county of Kings and State of New York, and WILLIAM W. ROSENFELD, of the city and State of New York, all citizens of the United States, have invented an Improvement in Rotating Toys, of which the following is a specification.

10 The object of this invention is to communicate to a range of wheels having numbers, designs, or characters upon their peripheries a rotating movement, preferably by means of a lever, after a coin has been inserted in a slot, and the rotating wheels are within a case having one or more openings, through which the peripheries of such wheels can be observed, and the rotating device is so constructed that the numbers or other characters will be arrested in line with the respective openings, or nearly so.

This toy can be used as a means of amusement by guessing the designs, numbers, or characters at which the respective wheels will be stopped by the friction as they are rotated.

25 In the drawings, Figure 1 is an elevation, partially in section, of this toy; and Fig. 2 is an endwise section at the line $x x$. Fig. 3 is a plan of the coin-slide.

30 The case is of any suitable size and shape. I have represented a base A, side pieces B, ends C, and an arching or semi-polygonal top D, in which there are lines of openings at 2 and 3, and there is a central shaft E running longitudinally within the case and supported at its ends in suitable bearings 4. Upon this shaft E are placed two or more wheels F each of which is loose and free to revolve upon such shaft E, and so, also, are the ratchet-wheels G, that are connected with the respective wheels F. Adjacent to each ratchet-wheel G is an arm H, clamped fast to the shaft E and provided with a pawl I, engaging the ratchet-wheel G, and it is preferable to provide a spring 5 for each pawl I, and the teeth of the ratchet-wheel G have inclined faces in opposite directions, and so, also, has the end of each pawl I, the object of this construction being that when the shaft E is stopped at a particular place after each move-

ment the inclined end of the pawl I, as actuated by its spring 5, will allow the wheel F and its ratchet-wheel G to continue to revolve until arrested by the frictional contact of the end of the pawl, and the spring forcing the end of the pawl in between two of the ratchet-teeth, causes the wheel F to turn either one way or the other way as it stops, so that the numbers or characters upon the periphery of the wheel may come centrally, or nearly so, with the openings 2 and 3, it being understood that there are as many teeth upon each ratchet-wheel G as there are numbers or characters around the periphery of the wheel F. Hence by this construction the wheel cannot stop with two numbers or characters partially exposed at each of the openings 2 and 3.

In order to give motion to the central shaft E, we make use of the pinion K on such shaft and a toothed sector L, gearing into the same, such sector being pivoted at 6 and having a downward projection 7, preferably in the form of a fork, as seen in Fig. 1, and there is a stop 8, located in any convenient position, for arresting the movement of the toothed sector, pinion, and the shaft in such a position that the numbers or characters upon the edges of the wheels F will be in line with the openings 2 and 3, or nearly so.

The lever-handle M is pivoted at 9, and it is raised to a normal position by the spring N, and there is upon the arm extending from this lever-handle a finger 10 acting behind the downward projection 7 of the toothed sector L to draw such toothed sector and turn the parts until arrested by the stop 8; but upon the downward movement of the lever-handle M this finger 10 passes away from the projection 7, and this projection 7 is acted upon by a coin that is dropped in through a slot and passes between the projection 7 and the arm O of the lever-handle M.

The slot through which the coin is introduced is represented at 11, and inside the case is an incline P, upon which the coin passes, and there are flanges 12 and 13 that prevent the coin slipping off the inclination as such coin passes down the said incline; and these flanges 12 and 13 are also inclined. Hence the edge of the coin will roll against

these flanges as it passes on down the incline; and the end of this incline P is between the end of the arm O and the downward projection 7, and it is so located that the coin as it passes down goes in between these two parts, and it is preferable to groove the end of the arm O and the faces of the downward projection 7, so that the edges of the coin will be received into these grooves, and when there is a coin in position and pressure is applied to the lever-handle M the coin that intervenes between O and 7 causes the movement given to the lever N to be communicated through the arm O, coin, downwardly-projecting fork 7, toothed sector L, and pinion K to the central shaft E, and by the ratchet-wheels and pawls to the number or character wheels F, and according to the rapidity of movement given to the lever-handle M, so all of the wheels E will be rotated with greater or less rapidity, and will continue to rotate until stopped by friction and by the action of the pawls upon the ratchet-teeth, as before mentioned. It is preferable to allow the lever-handle M to return immediately to a normal position while the wheels F are rotated, and as soon as the pressure upon the lever-handle M is released, the arm O draws back from the coin sufficiently to allow such coin to drop away from between the respective parts, and should an effort be made to rotate the wheels F when there is no coin between 7 and O the same will not succeed, because the arm O will pass in between the parts of the fork 7 without giving motion to the same or to the toothed sector L.

We have represented five of the wheels F, and each of these wheels is adapted to the reception of eleven numbers or characters; but we do not limit ourselves in this particular.

The machine may be placed so that the shaft E stands either horizontally or vertical, and any suitable connections may be made between the sector-lever L and the shaft E in place of gear-teeth.

The wheels F are represented as adapted to eleven characters, designs, or numbers, and there are two lines of openings 2 and 3. There may only be one opening or there may be more than two, and the spring-pawls I, that act to bring the wheels so that the characters are in line, or nearly so, with the opening, may be applied in any convenient manner.

The revolving wheels upon the shaft receive their motion from the rotation of the shaft and stop in regular positions in consequence of the action of the pawls. Hence the apparatus may be used when the shaft is rotated by any suitable means, and it is not necessarily limited to the coin-actuated devices.

We claim as our invention—

1. The combination, with an inclosing-case, of a central shaft E, wheels F upon such central shaft, a ratchet-wheel G, connected with each of said wheels F, an arm and pawl permanently connected to the central shaft and acting with the ratchet-wheels, the pinion

upon the central shaft, a toothed sector, and a lever-handle adapted to give motion to the toothed sector when a coin is introduced between the respective parts, substantially as set forth.

2. The combination, with the actuating-lever handle M, of the incline P, having flanges 12 and 13 and adapted to receive the coin that is passed in through the slot in the case, the toothed sector L, pinion K, and central shaft E, and the number or character wheels F upon such shaft E, and pawl-and-ratchet connections to the same, whereby the wheels are revolved when a coin intervenes between the lever-handle and the lever of the toothed sector, substantially as set forth.

3. The inclosing-case having two lines of openings 2 and 3, in combination with the central shaft E, the wheels F upon such shaft, ratchet-and-pawl connections between the wheels and the shaft, coin-actuated mechanism for rotating the shaft and giving motion to the number or character wheels, and a stop acting in connection with the ratchet-wheels and pawls to insure the proper positions of the numbers or characters upon the wheels in relation to the openings in the case, substantially as set forth.

4. The combination, with an inclosing-case having an opening, of a shaft and number or character wheels free to revolve upon such shaft, and ratchet-wheels and pawls, and a hand-lever, and coin-actuated mechanism between the hand-lever and the shaft for rotating such shaft, substantially as specified.

5. The combination, with the hand-lever, of an arm having a notch at the end, a shaft to be rotated, and a lever for rotating such shaft, having a fork with notched surfaces for receiving the coin edgewise in giving the movement to the coin-actuated mechanism, substantially as specified.

6. The combination, with the shaft and means for rotating the same, of a range of cylinders loose upon such shaft and having numbers, characters, or designs on their peripheries, and ratchets and pawls connecting the cylinders with the shaft, and means for causing such cylinders to stop at regular positions, substantially as set forth.

7. The combination, with the shaft and means for rotating the same, of a range of cylinders loose upon such shaft and having numbers, characters, or designs on their peripheries, and ratchets and pawls connecting the cylinders with the shaft, and means for causing such cylinders to stop at regular positions, and a case surrounding the cylinders and having a longitudinal opening in the same, substantially as specified.

Signed by us this 21st day of April, 1890.

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Witnesses:

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WILLIAM G. MOTT.