(No Model.)

H. LANGFELDER.

COIN CONTROLLED MUSIC BOX.

No. 521,620. Patented June 19, 1894.

Fig: 1.

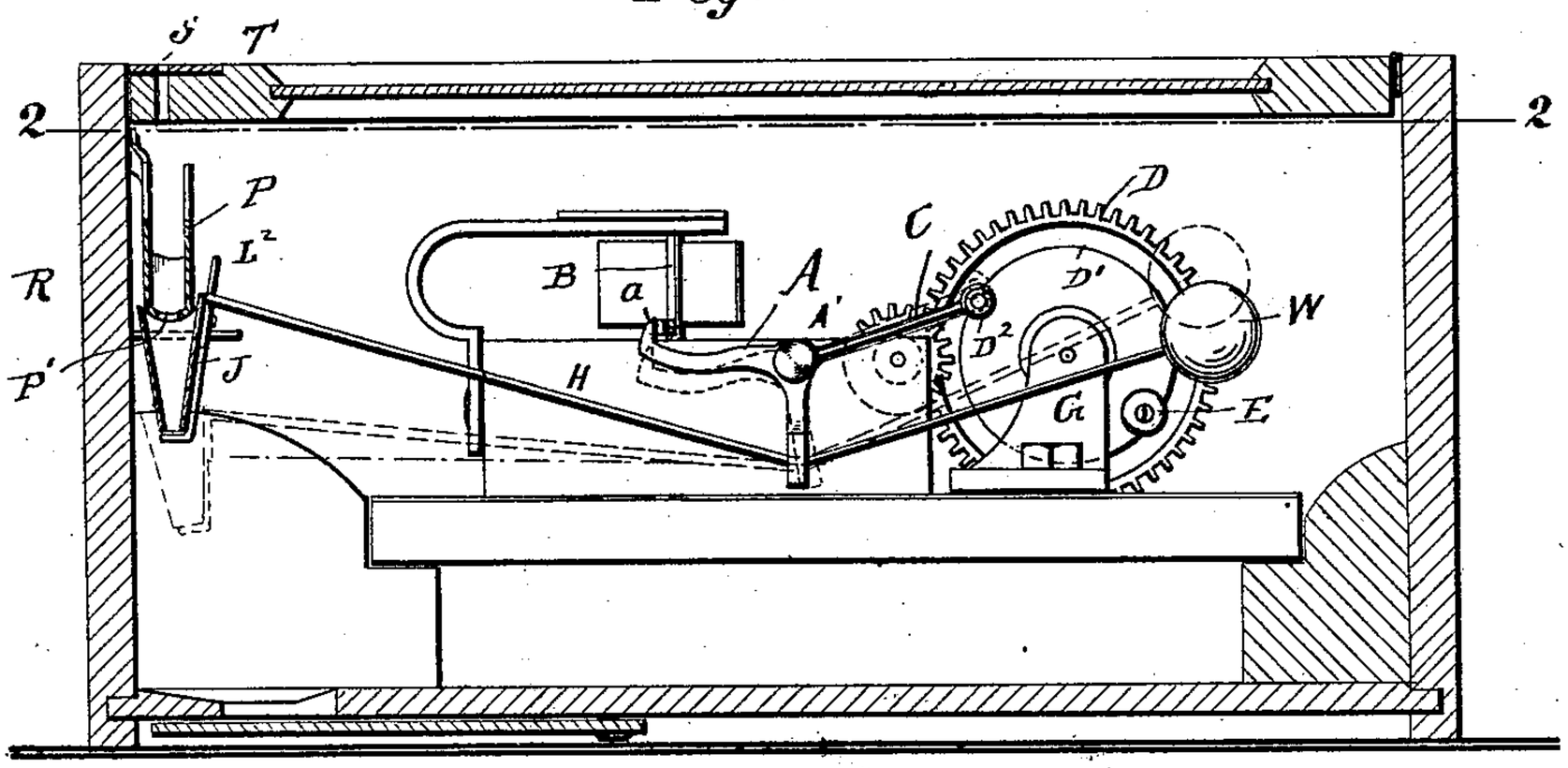

Fig: 2.

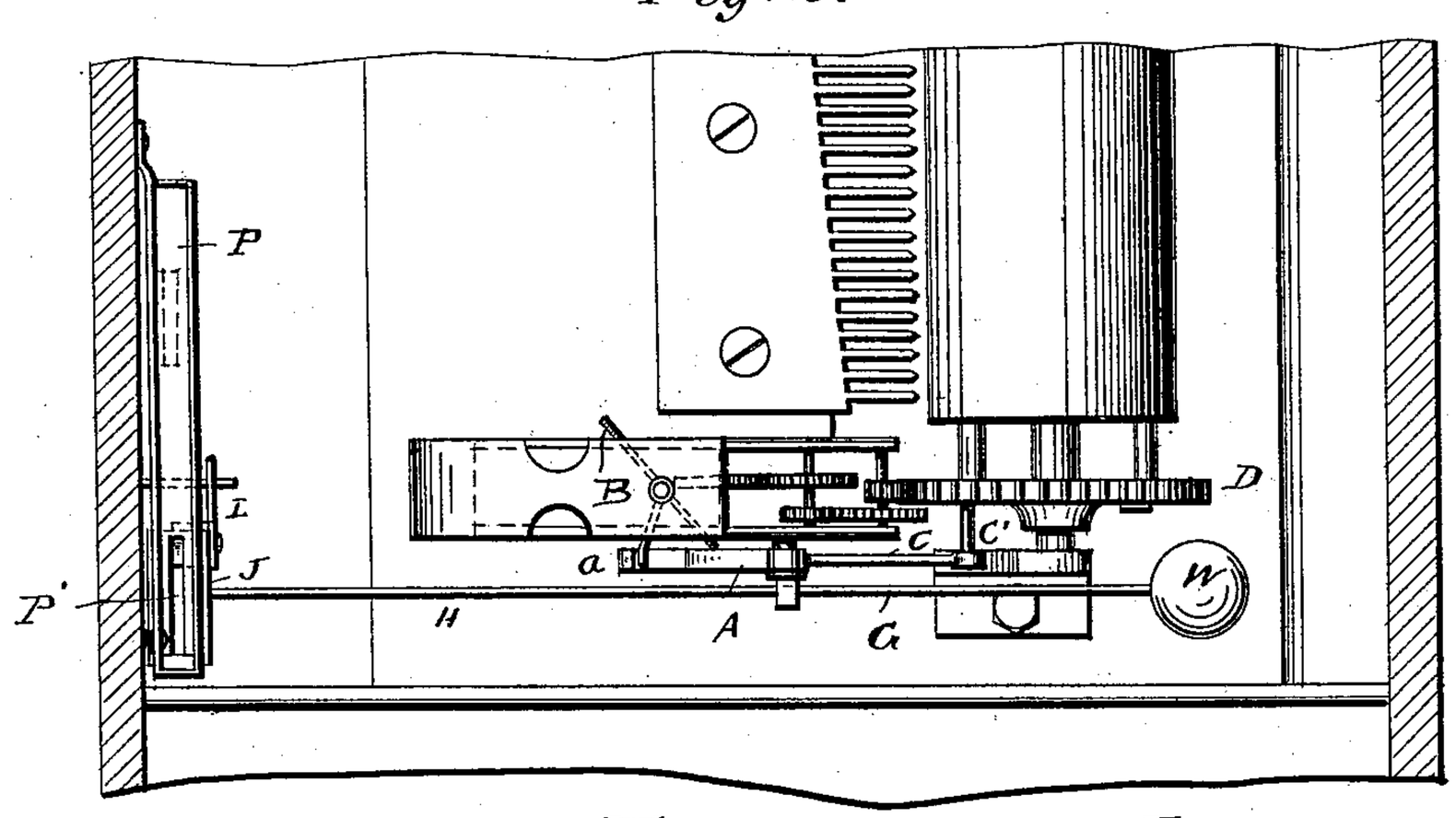

Fig: 3.

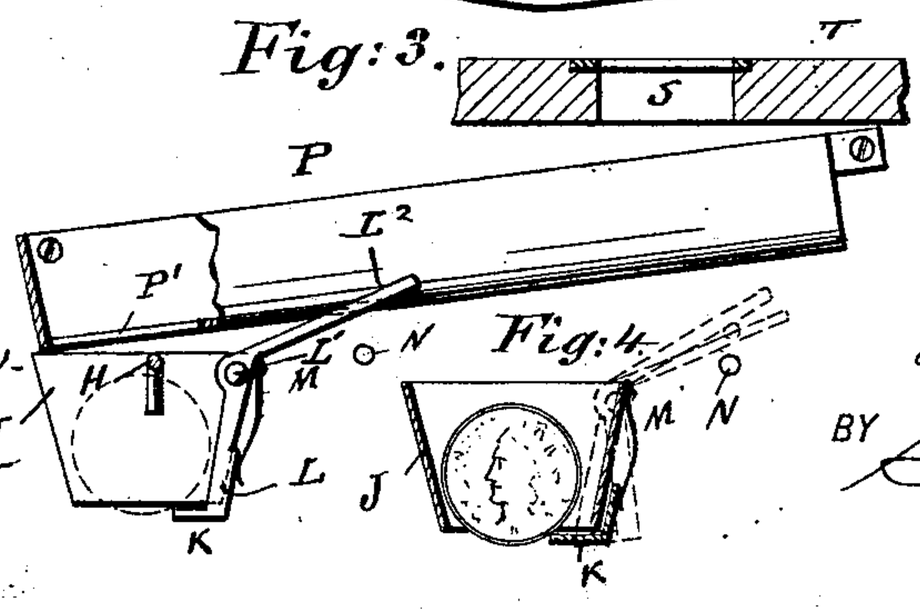

Fig: 4.

WITNESSES:

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HENRY LANGFELDER, OF BROOKLYN, ASSIGNOR TO M. J. PAILLARD & CO., OF NEW YORK, N. Y.

COIN-CONTROLLED MUSIC-BOX.

SPECIFICATION forming part of Letters Patent No. 521,620, dated June 19, 1894.

Application filed November 18, 1893. Serial No. 491,315. (No model.)

To all whom it may concern:

Be it known that I, HENRY LANGFELDER, a subject of the Emperor of Austria-Hungary, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Coin-Controlled Music-Boxes, of which the following is a specification.

The object of my invention is to provide a new and improved starting mechanism for music-boxes, which mechanism is so constructed that it starts the music-box when a coin is deposited and releases the coin to permit the starting device to resume its initial position.

The invention consists in the construction and combination of parts and details which will be fully described hereinafter and finally pointed out in the claim.

In the accompanying drawings, Figure 1 is a vertical transverse sectional view of my improved starting mechanism applied on the music box. Fig. 2 is a horizontal sectional view of the parts shown in Fig. 1, on the line 2 2, Fig. 1. Fig. 3 is an elevation of the inner side of the front of the box, showing the coin pocket and the gutter, parts being broken out, and others in section, and Fig. 4 is a vertical longitudinal sectional view, through the coin pocket.

Similar letters of reference indicate corresponding parts.

The stopping and starting lever A, which is approximately L-shaped, is pivoted at A', one end of said lever having a prong *a* for engaging the flier B such as is usually applied on a music box mechanism. Said lever A is provided with an arm C, the end of which carries a pin C' that travels on a circular track D' formed in the side of a wheel D forming part of the music box mechanism, said track having a notch D^2 into which the pin C' can pass and also having a projection E preferably rounded, which projects beyond said track. From the downwardly projecting part of the L-shaped lever A, two arms G H project, the former toward the rear and the latter toward the front. On the front end of the arm H a flat tapering coin pocket J is fastened, which is open at the top and bottom, the width of which pocket at the bottom is slightly greater than the diameter of the coin that is used in the device, so that the coin can readily drop through the pocket. A plate K covering about one-third of the bottom of the pocket projects from the lower end of an angle-lever L pivoted at L' to the top of the pocket, on which angle-lever a spring M acts that is fastened to the pocket so as to keep the plate K in position below the bottom of the pocket. When said plate is in normal position, the bottom opening of the pocket is less than the diameter of the coin. A pin N is fastened on a fixed object a short distance below the upper arm L^2 of the angle-lever L, so that when the pocket descends a certain distance the arm L^2 of the angle-lever L strikes against the pin N, whereby the parts are brought into the position shown in dotted lines in Fig. 4, and the plate K is swung from the bottom of the coin pocket, making an opening of sufficient size for a coin to drop through the bottom of the pocket.

An inclined chute P, preferably made U-shaped or V-shaped in cross-section, is fastened to the side of the box R containing the music mechanism or other device, the lower end of said chute being above the coin pocket and provided with a bottom slot P' through which the coin can drop. The other end of the chute P is below the slot S in the top-plate T of the casing or box R, so that a coin dropped through the slot S can drop into the chute P, roll down the same and pass through the slot P' into the coin pocket.

On the end of the arm G of the angle lever A a ball or weight W is fastened, which is greater than the weight of the coin pocket, so as to hold said coin pocket raised and against the bottom of the chute P, as shown in Figs. 1 and 3. As long as the coin pocket is in raised position, as shown in Figs. 1 and 3, the hook *a* on the end of the angle-lever A engages the flier B and thus keeps the mechanism at rest.

When a coin is dropped through the slot S it passes into the coin pocket, as stated, and the combined weight of the coin pocket and the coin is greater than the weight of the ball W, causing the coin pocket to descend. Thereby the angle-lever A is moved into the posi-

tion shown in dotted lines in Fig. 1, and the hook *a* is disengaged from the flier, which is now released, and at the same time the pin C′ passes out of the notch D^2 into the track D′. The mechanism is now started and the music begins to play. By the time that the rotary track D′ has made about half a revolution the projection E extending beyond the same, acts on the pin C′ and throws the same up still farther, whereby the pocket J is moved down farther than it was moved by the weight of the coin and the arm L^2 of the angle-lever L strikes against the pin N, whereby the bottom plate K of the coin pocket is swung outward, permitting the coin to drop into a suitable receptacle in the bottom of the box. Under the action of the weight W the coin pocket immediately swings upward, and at the end of the tune, when the notch D^2 in the track D′ arrives at the pin C′, said pin passes into said notch and the angle-lever A is raised sufficiently to cause the hook *a* to engage the flier, so that the mechanism is thus stopped and it remains in this position of rest until another coin is deposited. The mechanism can thus be started by simply depositing a coin; no further manipulation being required, the coin is automatically released after having performed its function of starting the music box mechanism, and the starting mechanism immediately resumes its original position. This starting mechanism can be applied on music boxes driven by spring, electric or other motors, and can also be applied on motors of all kinds for driving mechanical exhibitors, electrical exhibitors, toys, &c.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination, with a music-box cylinder and driving mechanism, of a wheel rotated with the cylinder and provided in its side with a groove having a notch and a projection extending into the groove, a pivoted starting and stopping lever having a pin traveling in said groove, and having one arm projecting up into the flier of the driving-mechanism of the music-box, a rod projecting from a downwardly-projecting arm of said starting and stopping lever, a coin-pocket on the free end of said arm, a pivoted bottom for said coin-pocket, a spring acting on said pivoted bottom, an arm projecting from said pivoted bottom above the pivot, a fixed pin for tripping said arm, a coin-chute leading to the pocket, a rod projecting from the downwardly-extending arm of the starting and stopping lever, and a counterbalancing weight for the coin-pocket secured to the end of said rod, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

HENRY LANGFELDER.

Witnesses:
W. H. HOSCLIKE,
ALBERT LANCELOT.