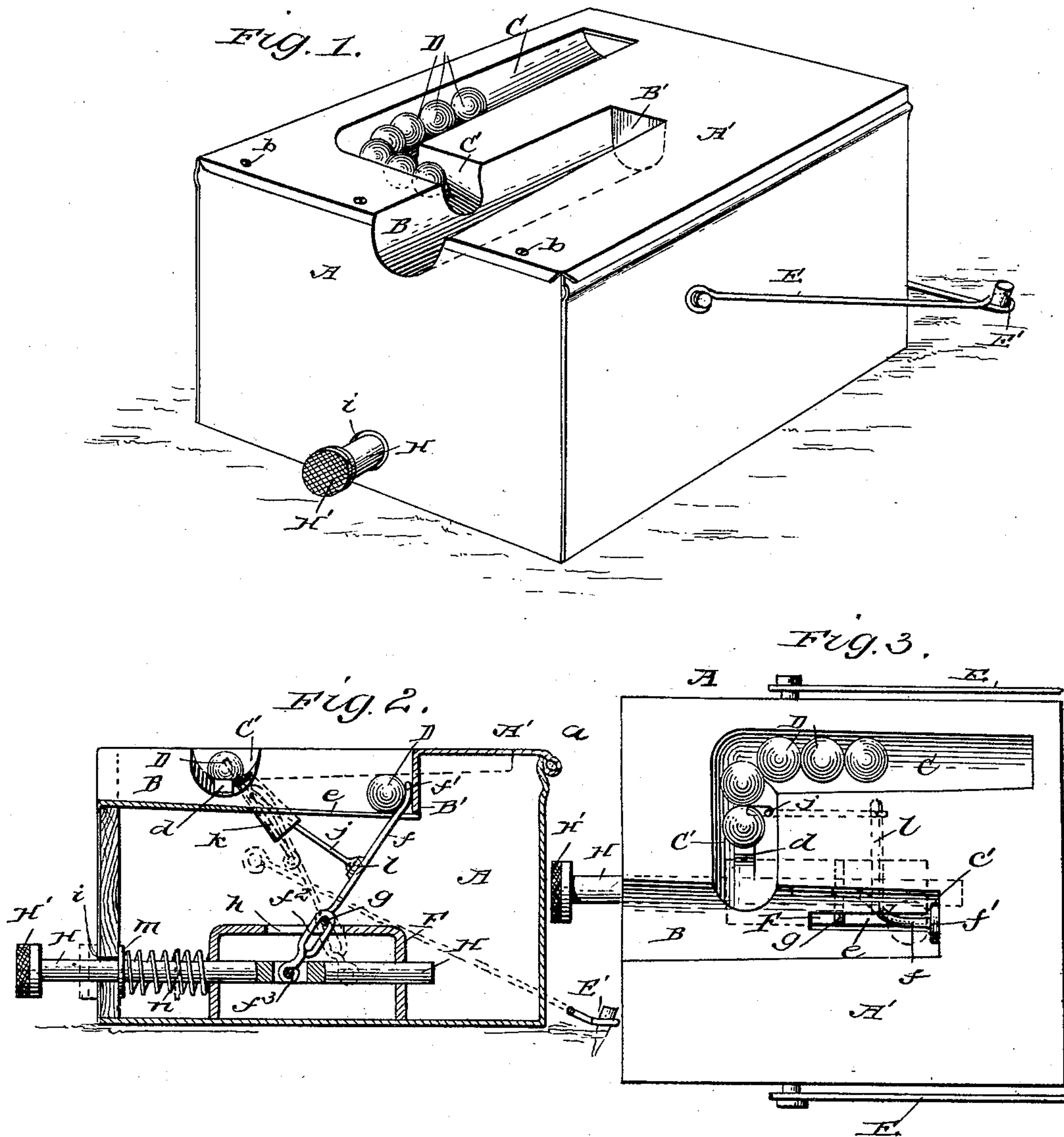


(No Model.)

C. W. FISHEL.
TOY.

No. 432,392.

Patented July 15, 1890.



WITNESSES:

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CHARLES W. FISHEL, OF CARBONDALE, COLORADO.

TOY.

SPECIFICATION forming part of Letters Patent No. 432,392, dated July 15, 1890.

Application filed March 4, 1890. Serial No. 342,577. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. FISHEL, of Carbondale, in the county of Garfield and State of Colorado, have invented a new and Improved Toy, of which the following is a full, clear, and exact description.

My invention relates to improvements in toys; and the object of my invention is to provide a simple, inexpensive, and harmless toy that will afford amusement for young and old.

To this end my invention consists in certain features of construction and combinations of parts that will be hereinafter fully described, and specifically pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of the device; Fig. 2, a longitudinal vertical section of the same, and Fig. 3 a plan of the same.

A case or box A, which may be made of wood, metal, or of any suitable material, is provided with a cover A', which is attached thereto at one end by the hinges *a* and at the other by the screws *b*, so that by removing the screws the cover may be lifted and will swing upon its hinges. The cover is provided with a longitudinal groove B, which is open at the end of the box and slants slightly downward toward the center of the same, where it terminates in a vertical partition B', and with a groove C, which runs parallel with the groove B and terminates in a groove C', which opens into the groove B, the grooves C and C' slanting toward the groove B, so that a marble D placed in the groove C will roll toward the groove B.

The box or case A is provided with a bail E, by which it may be carried, said bail being suitably attached thereto and having eyes E' formed at its corners, by means of which it may be pinned to the floor, thus holding the box A in a stationary position.

Fixed in the bottom of the groove C' near the groove B is a projection *d*, which prevents the marbles D in the grooves C C' from rolling into the groove B of their own gravity, the marbles being severally forced over the projection in the manner hereinafter described.

In the bottom of the groove B is a longitudinal slot *e*, having an enlarged portion *e'*, through which projects the enlarged end *f'* of the lever *f*. The lever *f* is formed of wire. It extends downwardly through the slot *e*, is formed into an eye *f*², through which passes a pin *g*, thus pivoting the lever to the frame F, and with a terminal eye *f*³, by means of which it is pivoted to the rod H.

The frame F is of an inverted-U shape, is fixed to the bottom of the box A, and has a longitudinal slot *h* in the top, through which the lever *f* passes, and which affords room for the movement of the lever.

Loosely mounted in the frame F, so as to slide therein, is a rod H, which projects through an opening *i* in the front of the box A, and to the end of which is attached a button H'.

The marbles D are forced one at a time over the projection *d* by the rod *j*, which projects through the guide-chute *k*, which is attached to the under side of the groove C' and opens into the same. The lower end of the rod *j* is attached to an arm *l* of the lever *f*, so that the movement of the rod *j* will be regulated by the movement of the lever *f*. This construction is shown in Fig. 2 and indicated by dotted lines in Fig. 3. Coiled around the rod H, so that one end will press against the frame F and the other against the collar *m*, which is fixed to the rod H, is a spiral spring *n*, which holds the rod H in a forward position, as shown in Fig. 2.

A marble or marbles being placed in the groove C, the device is operated as follows: The marbles D will roll along the grooves C and C' till the forward marble strikes the projection *d*, when they will stop. The operator then pushes upon the button H', which will force the rod H inwardly and cause the upper portion of the lever *f* to move forwardly, and as the lever moves it will move the arm *l* and push the rod *j* through the chute *k*, which will push a marble over the projection *d*. Upon removing the pressure from the button H' the spring *n* will force it and the rod H and lever *f* back into their former position, and the marble which has been forced over the projection *j* will roll into the groove B and back against the enlarged portion *f'* of the lever *f* in the rear end of the groove. The

operator then strikes sharply upon the button *H'*, which will cause the rod *H* to slide quickly in the frame *F*, and will throw the upper end of the lever *f* violently forward, thus expelling
 5 the marble from the groove *B* with great velocity. At the same time the rod *j* will push a marble over the projection *d* and the device will be ready for another operation.

It is obvious that the marble may be placed
 10 in the groove *B* in the first instance and then expelled, as described.

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

15 1. A toy comprising a box having a slotted groove in the top, a branch groove adjacent to the slotted groove and communicating with the same, a sliding rod projecting from the box beneath the slotted groove, and a lever
 20 pivoted to a frame above the rod and having its lower end pivoted to the rod and its upper end projecting through the slot in the groove, that it may expel an object therefrom, substantially as described.

25 2. The combination, with the box *A*, having the cover *A'* hinged thereto, said cover having the grooves *B*, *C*, and *C'* therein, of the frame *F*, mounted upon the bottom of the box, the rod *H*, adapted to slide in said frame and
 30 having an end projecting through the front of the box, the collar *m* and spring *n* for holding the rod in position, and the lever *f*, piv-

oted to the frame *F* and having its lower end attached to the rod *H* and its upper end projecting through the slot *e* of the groove *B*, so
 35 as to expel an object from said groove, substantially as described.

3. The combination, with the box *A* and slotted groove *B*, having the lever *f* longitudinally movable therein, the grooves *C C'*, open-
 40 ing into the groove *B*, and the projection *d* in the bottom of the groove *C'*, of the guide-chute *g*, opening into the groove *C'*, the rod *j*, projecting into the chute *g*, and means, as arm *l*, lever *f*, and rod *H*, for actuating the rod *j* and
 45 forcing an object over the projection *d*, substantially as described.

4. A toy comprising a box having a slotted groove in the top and a branch groove communicating therewith, said branch groove
 50 having an obstruction therein, as shown, a sliding rod projecting from the box and extending beneath the slotted groove, a lever pivoted to a frame above the rod, having one
 55 end pivoted to the rod and the other projecting through the slot in the groove, and a rod pivoted to the lever and projecting through a slot in the branch groove adjacent to the obstruction therein, substantially as described, and for the purpose set forth.

CHARLES W. FISHEL.

Witnesses:

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