

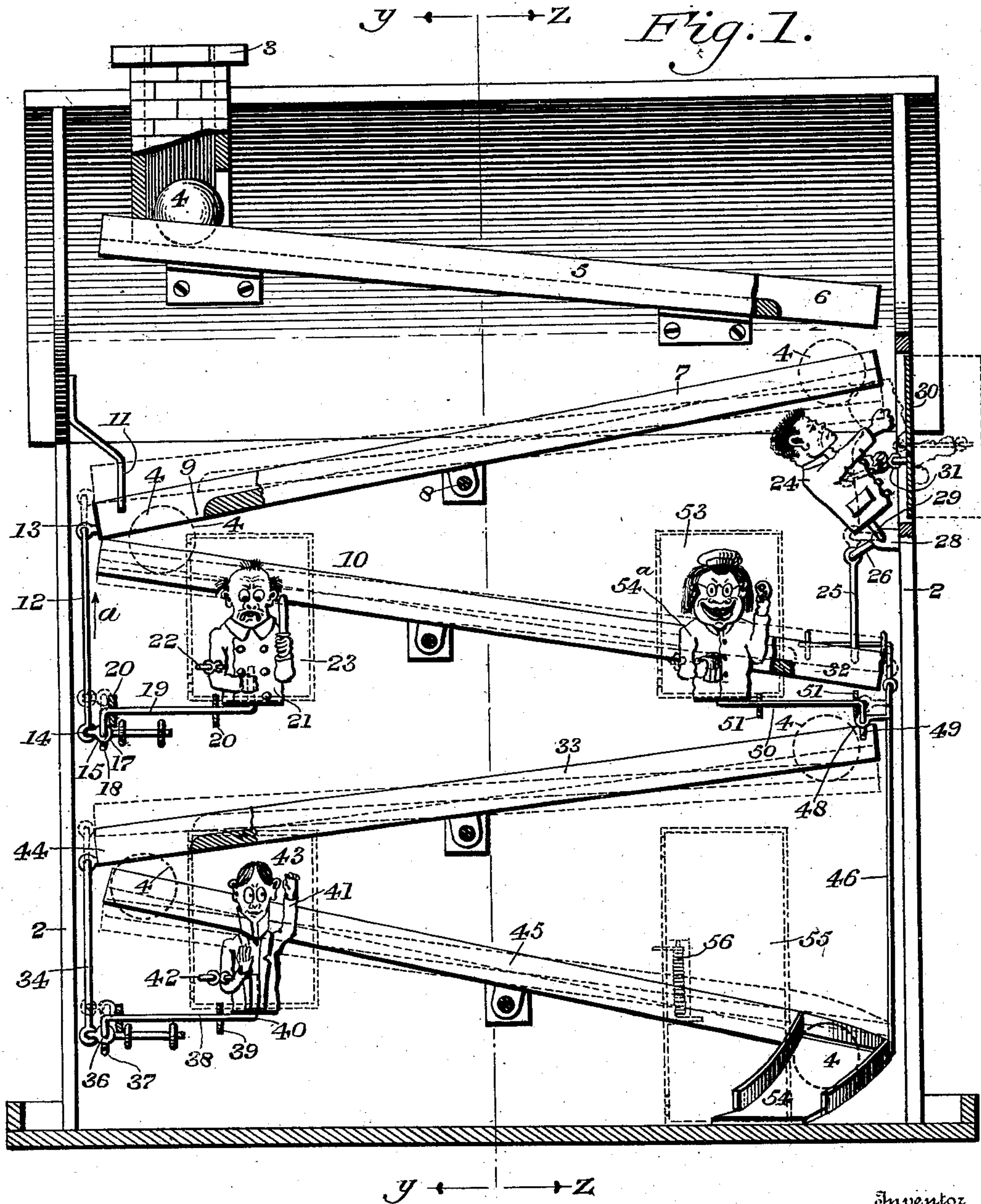
C. W. RITTER.

TOY.

(Application filed Jan. 13, 1902.)

2 Sheets—Sheet 1.

(No Model.)



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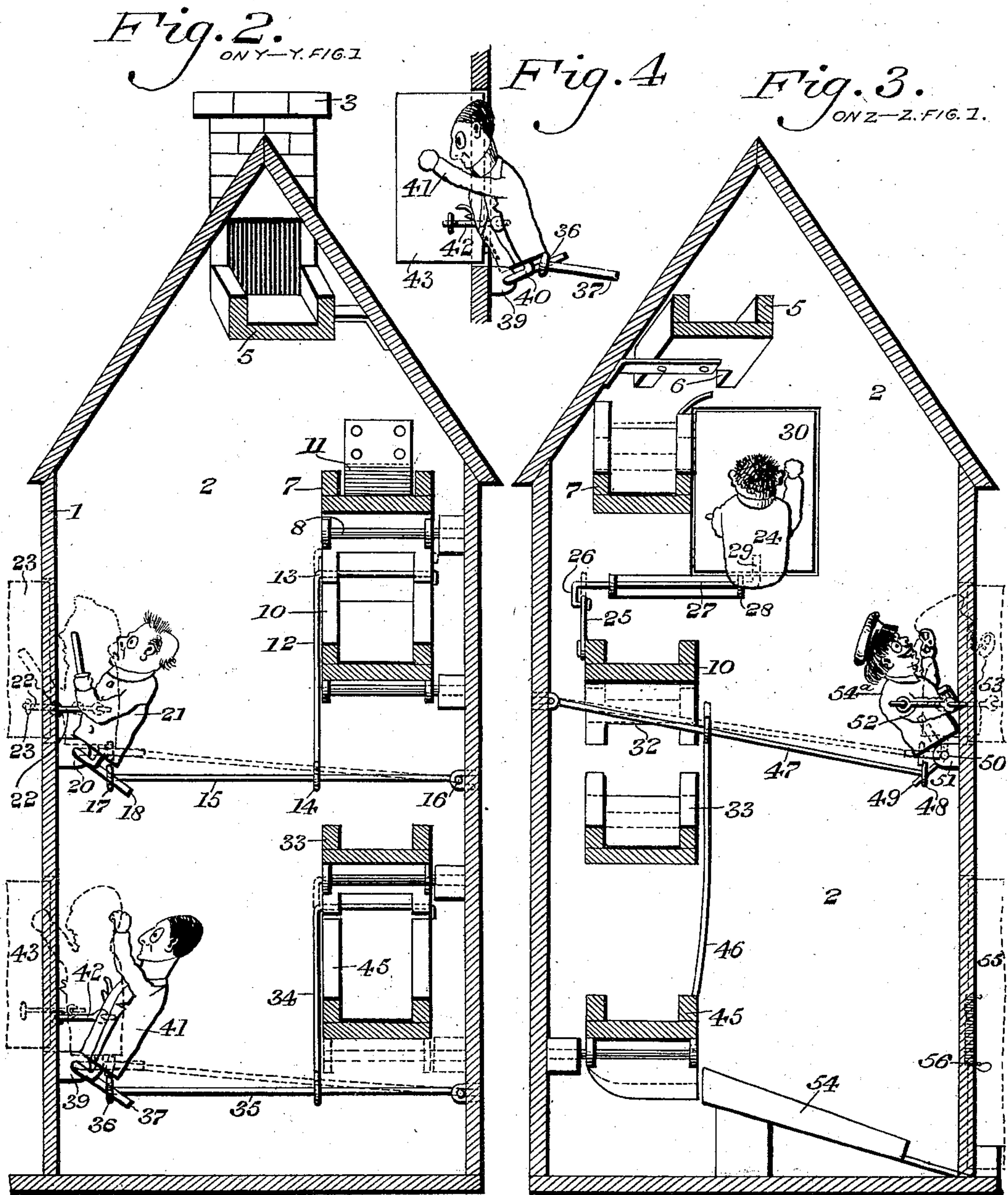
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(No Model.)

2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

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TOY.

SPECIFICATION forming part of Letters Patent No. 695,700, dated March 18, 1902.

Application filed January 13, 1902. Serial No. 89,408. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. RITTER, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Toys, of which the following is a specification.

My invention consists of a novel construction of a toy wherein a casing, which may be made to simulate a house, dwelling, or other structure, is provided with one or more openings corresponding, for instance, to window-openings, for which suitable movable closures, such as blinds, are provided, while adjacent said openings are movable figures, devices being also provided for opening a closure and causing a figure to appear at the opening and then for withdrawing said figure and closing said closure, such devices being actuated, for instance, by a ball or marble, forming a part thereof, and which is inserted in the casing and by reason of its descent therethrough actuates said devices and figures and closures.

It further consists of novel details of construction, all as will be hereinafter fully set forth, and particularly pointed out in the claims.

Figure 1 represents a vertical sectional view of a toy embodying my invention. Fig. 2 represents a section on line *y y*, Fig. 1. Fig. 3 represents a section on line *z z*, Fig. 1. Fig. 4 represents a view similar to the lower left-hand portion of Fig. 2, but showing the blind open and the figure tilted from the position seen in Fig. 2.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings, 1 designates a side of the casing, and 2 designates an end thereof, said casing being preferably constructed to simulate a house, dwelling, or other structure, having the chimney 3, forming an opening at the top thereof. The said casing is provided with, as will be hereinafter specifically pointed out, a plurality of openings simulating window-openings, movable closures therefor simulating blinds, and movable figures at said openings. In operation these blinds are opened and at the same time the figures are made to appear at the window

and then withdrawn and the blind closed by suitable actuating means or devices, which in accordance with my invention can be variously arranged, and as one embodiment for carrying out this operation I have shown certain devices which will now be described, although it will be understood that except in the claims for the specific construction my invention is not confined to such devices, but rather to means for actuating the closures or blinds and the figures in the manner described. The said opening 3 is the aperture through which the ball or marble 4 is adapted to be inserted, said ball being received upon a stationary chute or way 5, said balls after rolling through the opening 6 dropping upon a movable chute 7, which is pivotally supported at 8 and provided with an opening 9, through which the ball 4 is adapted to descend upon the pivoted chute 10.

11 designates an abutment which is adapted to deflect the ball 4 through the opening 9.

12 designates a connection having its upper extremity suitably secured at 13 to the chute 7, while the lower extremity 14 of said connection is adapted to engage the lever 15, which has one end supported from the fixed point 16, while its other end is provided with an eye or loop 17, through which freely passes the arm 18 of an elbow-lever, which has the member 19 rotatably mounted in the bearings 20, said arm 19 having mounted thereon the figure 21, simulating a human being, from a suitable portion of which the link 22 extends, which is suitably connected to an eye carried by the door 23, so that it will be seen that when the ball 4 strikes the upper extremity of the pivoted chute 7 the latter will be depressed and assume the position seen in dotted lines, whereupon the connection 12 will be raised in the direction of the arrow *a*, so that the wire 15 will assume the position seen in dotted lines in Fig. 2, and the figure 21 will move to the left, or into the position seen in dotted lines in Fig. 2, simultaneously with the opening of the closure or blind 23. As soon as the marble leaves the chute 7 and drops upon the chute 10 said chute 7 will assume the position seen in full lines again, as will also the figure 21 and the connections common to said figure and chute 7, it being noted

that the pivot 8 in connection with the figure 21 is such as to return the chute and said figure to the position noted.

The chute 10 is normally in the position shown in Fig. 1 and is connected with the figure 24 by means of a link 25, connected with the crank end 26 of the rock-shaft 27, mounted in the bearings 28, the other or angular end 29 of said rock-shaft carrying the figure 24, and said figure 24 is connected with the closure or blind 30 by means of a link 31, connected by eyes with said figure and with said blind 30. This figure is normally in the position shown in Fig. 1; but when the marble drops upon the upper end of the chute 10 it depresses this end of the chute, thereby throwing the figure forward and opening the blind, the parts being returned to their normal position when the marble rolls upon the lower end of the chute 10 and through the opening 32 in the lower end thereof. The chute 33, upon which the marble now rolls, is also pivoted and is connected, by means of a link 34, with the lever 35, pivoted to the rear side of the casing, and whose forward end is provided with an eye 36, that receives the angular end 37 of the rock-shaft 38, said rock-shaft being supported by the bearings 39. The other end of the rock-shaft 38 is provided with an angular end piece 40, upon which the figure 41 is mounted, this figure 41 being connected, by means of a link 42, with the blind 43, said link 42 being provided with eyes at its ends engaging eyes upon the figure and upon the blind. It will therefore be seen that when the marble falls upon the upper end of the chute 33 this chute tilts upon its pivots and throws the figure 41 forward from the position shown in Fig. 2 to that shown in Fig. 4, the same being withdrawn as the marble reaches the lower end of the chute 33 and falls through the opening 44 onto the next chute 45. This latter chute 45 is connected, by means of a link 46, with the lever 47, that is pivoted to the rear side of the casing and is provided with an eye 48 at its free end, receiving the angular end 49 of the rock-shaft 50, the latter being supported in bearings 51, and having its other end provided with an angular end piece upon which the figure 51 is carried. This figure 51 is connected, by means of the link 52, with the blind 53, said link having eyes at its end connected with eyes upon the figure and upon said blind. Thus when the marble strikes the upper end of the chute 45 this figure is thrown forward and the blind is opened, as shown in dotted lines in said Fig. 3.

From the lower end of the chute 45 extends a stationary chute 54, that leads to the door 55 in the lower floor of the house, said door being provided with a spring 56, that serves to close the door after the marble rolls out.

In this way it is seen that I provide a novel toy which affords amusement and enjoyment, for as soon as the marble is dropped in through the opening formed by the chimney it rolls quickly from one chute to another and suc-

cessively opens the different closures or blinds at which a figure appears and quickly returns, and the blind is immediately closed, and by arranging the successive blinds in different parts of the house or casing the effect produced is unexpected and comical.

It will be understood, of course, that I can change the number of figures and blinds—that is to say, the number may be increased or diminished—or their location can be varied, as well as the particular mechanism and the connections between the figures and the chutes by which the former are operated by the movement of the latter, and I do not, therefore, limit my invention to the particular connections between said parts I have illustrated and described except in the claims for this specific construction.

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

1. In a device of the kind specified, a frame, a plurality of movable chutes mounted thereon, a plurality of figures connected with said chutes and adapted to be actuated by the movement of the chutes, the receiving end of each successive chute being situated adjacent the delivery end of the preceding chute.

2. In a device of the kind specified, a casing provided with apertures, movable closures for said apertures, movable figures mounted adjacent said apertures and connected with said closures, and a plurality of movable chutes connected with said figures.

3. In a device of the kind specified, a casing having apertures, a plurality of successively-arranged chutes mounted therein, the receiving end of each successive chute being situated adjacent the delivery end of the preceding chute, a stationary chute situated above the upper movable chute, an inlet-opening being formed in the casing adjacent the upper end of said stationary chute, and a plurality of movable figures situated adjacent said apertures and connected with said movable chutes and adapted to be actuated by the movement thereof.

4. In a device of the kind specified, a casing having apertures, a plurality of inclined chutes pivotally mounted therein, a plurality of movable figures situated adjacent the apertures in the casing and connected with said chutes to be actuated thereby, and closures for said apertures connected with said figures.

5. In a device of the kind specified, a casing having apertures, movable chutes adapted to be operated by the passage of a ball or weight, movable figures pivotally mounted adjacent said apertures, closures for said apertures connected with said figures, and a connection between said figures and said chutes whereby the latter serve to actuate the former.

6. In a device of the kind specified, a casing having an inlet at the upper end and apertures, a stationary chute situated below said inlet, a plurality of pivoted inclined chutes situated below said stationary chute, said

chutes being arranged to successively deliver a traveling object from one to the other, a plurality of figures situated adjacent said apertures, and connected with the movable chutes to be operated thereby, a stationary chute leading from the delivery end of the lower movable chute, and a self-closing door in the lower side of the casing situated at the end of said lower stationary chute.

10 7. In a device of the kind specified, a casing having apertures, a plurality of movable chutes, a plurality of movable figures, situated adjacent said apertures and carried by rock-shafts mounted upon said casing, and
15 connections between said rock-shafts and said movable chutes for actuating said figures:

20 8. In a device of the kind specified, a casing having apertures, a plurality of movable figures carried by rock-shafts mounted upon bearings adjacent said apertures, said rock-shafts having angular end portions, a lever mounted upon the casing and engaging said angular end portions of the rock-shafts, and
25 connections between said chutes and said levers.

30 9. In a device of the kind specified, a casing having an opening therein, a movable closure for said opening, a movable figure situated within the casing adjacent said opening, devices for opening and closing said closure,

and for moving said figure toward and withdrawing the same from said opening and an independent movable weight adapted in its passage to contact with said devices to automatically operate the same. 35

10. In a device of the kind specified, a casing having a plurality of openings, movable closures for said openings, movable figures situated within the casing adjacent openings, devices for successively opening and closing the different closures, and for moving the corresponding figures toward and away from said openings as the closure is opened and closed and an independent weight adapted in its passage to contact successively with said devices to automatically operate the same. 40 45

11. In a device of the kind specified, a casing provided with openings, movable closures for said openings, an independent weight, movable figures mounted adjacent said openings, and means actuated by the passage of the independent weight for operating said figures and closures, whereby said closures are opened and closed, and said figures caused to appear at said openings when said closures are opened. 50 55

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