Oct. 5, 1926. 1,602,358

I. M. GETSKAY

DISPENSING DEVICE

Filed Sept. 22, 1925

Fig. 1,

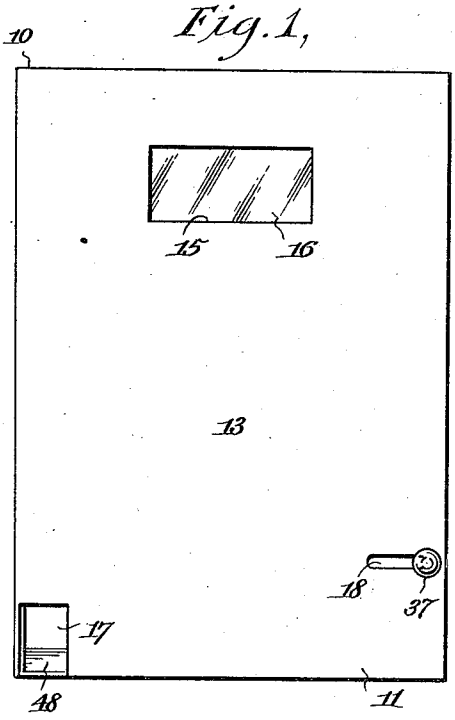


Fig. 2,

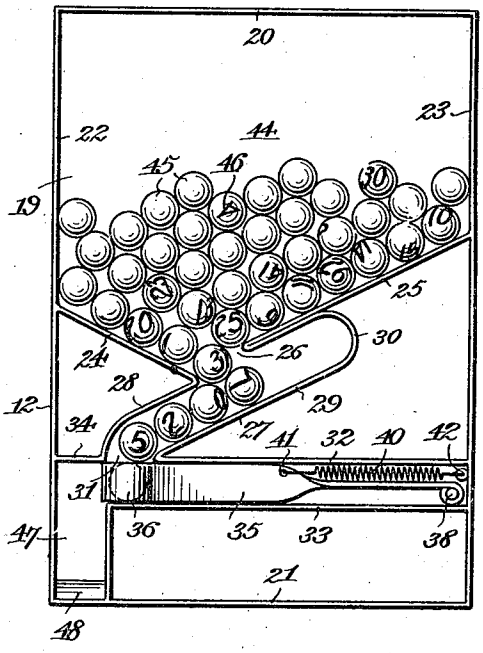


Fig. 3,

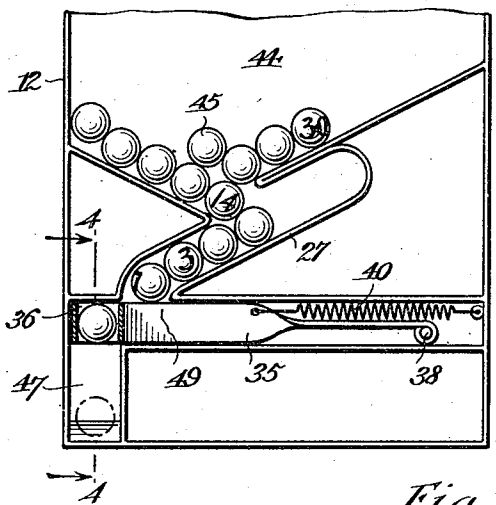


Fig. 4,

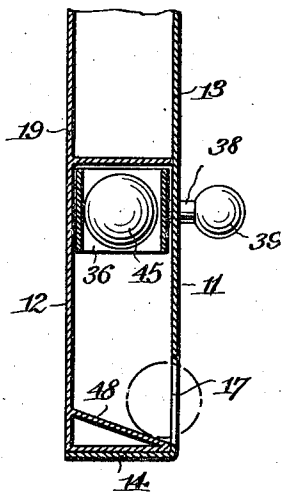


Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

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DISPENSING DEVICE.

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This invention relates to dispensing devices, and has a special reference to devices for containing a multiplicity of numbered balls which are discharged from the device one at a time, the idea being to discharge the balls at random.

An object of the present invention is a device of the character mentioned which includes a casing of separable sections, one of which embodies the main operating parts of the device for controlling the movement of the balls for the delivery operations, therefore making it possible to produce devices at a minimum cost and with a minimum amount of labor.

Another object of the invention is to provide means for preventing the balls from being jammed so as to insure the proper feeding of the balls to the discharging means of the device.

With the foregoing and other objects in view, the invention resides in the practical provision, relative disposition, and functions of the parts hereinafter described.

The distinguishing features and advantages of the device of the present invention will appear when the following specification is read in conjunction with the accompanying drawing, in which—

Figure 1 is a front elevation of the device embodying the present invention.

Fig. 2 is an elevation of the back casing section with its associated parts and showing a multiplicity of numbered balls some of which are in the magazine and some of which are in the delivery chute which communicates with the magazine, the discharge slide also being shown in its normal position with the ball receiving member thereof in registration with the open end of the chute for the reception of one of the balls which is shown in dotted lines.

Fig. 3 is a view similar to that shown in Fig. 2, the lower portion of the back section of the casing being shown and illustrating the manner in which one of the balls is discharged while the balls in the delivery chute are held from passing out of the chute.

Fig. 4 is a detail sectional view on an enlarged scale taken on the line 4—4 of Fig. 3.

Fig. 5 is a plan view of the discharge slide.

Referring now more particularly to the views of the drawing, it will be apparent that the device of the present invention includes a casing 10 which is made up of sections 11 and 12. The sections in the present instance are of rectangular construction, the section 12 fitting within the section 11. The section 11 is in the nature of a cover section and has a front wall 13 and a flange 14 which provides upper and lower end walls and side walls. The front wall is provided with a sight opening 15 closed by a transparent panel 16, a discharge opening 17, and a slot 18. The rear section 12 has a rear wall 19 with a flange providing an end wall 20, an end wall 21, a side wall 22, and a side wall 23. Members 24 and 25 are employed which are arranged in a downwardly diverging relationship; the member 24 extending inwardly from the wall 22 and the member 25 extending inwardly from the wall 23. The inner ends of the member 24 are spaced to provide a passage 26 which communicates with a delivery chute 27 formed by members 28 and 29 joined respectively to the members 24 and 25. The members 28 and 29 are inclined downwardly and in the same direction and are substantially parallel with respect to each other and are so incorporated as to provide a closed end 30 and an open discharge end 31. Guide members 32 and 33 are employed, the member 32 extending from the lower end of the member 29 to the side wall 23, and the member 33 which is substantially L-shaped extends from the side wall 23 to the end wall 21. A member 34 is also employed between the lower end of the member 28 and the side wall 22. A discharge slide 35 is arranged for sliding movement in opposite directions between the members 32 and 33. The discharge slide 35 is provided with a ball receiving member 36 at one end and a manipulator 37 is arranged at the opposite end. The manipulator is provided by virtue of a threaded stud 38 to which is detachably connected a knob 39. A spring 40 is employed and one end of the spring is attached as at 41 to the slide 35 and the opposite end of the spring is attached as at 42 to the wall 23. The spring 40 serves for effecting the return movement of the slide to a normal position in which the ball receiving member 36 registers with the open end of the chute 27, as shown in Fig. 2. When the sections 11 and 12 are brought together portions respectively of the front wall 13, rear wall 19, end wall 20, and portions of the side walls 22 and 23 combine with the mem-

bers 24 and 25 to provide a magazine 44 for containing a multiplicity of balls 45 each of which bears a number 46. In the association of the sections 11 and 12 portions respectively of the front wall 13 and rear wall 19 combine with the members 28 and 29 to complete the chute 27, and also combine with the members 32 and 33 to complete the guide for the slide 35. The section 11 receives the section 12 and this may be done after the knob 39 is removed from the stud 38. The stud 38 extends in the slot 18. The knob 39 is then screwed onto the stud 38. The portions of the front wall 13 respectively at the opposite ends of the slot 18 limit the movement of the slide in opposite directions; the movement of the slide being effected by taking hold of the knob 39. By moving the slide 35 to the left from its normal position, as shown in Fig. 2, one ball will be dropped into the discharge passage 47. The discharge passage is formed by the portions respectively of the front wall 13, side wall 22, member 33, and the inclined member 48 extending from the rear wall 19 to the opening 17, as shown most clearly in Fig. 4. It is to be noted that when the slide is moved to the discharging position, as shown in Fig. 3, a portion 49 of the slide 35 extends across the open end of the chute 27 and prevents any of the balls therein from dropping out. The spring 40 returns the slide 35 to its normal position and immediately the slide returns to the normal position another ball drops into the member 36. By extending the closed end of the chute 27 some distance to one side of the passage 26 provision is made for accommodating one or more balls in addition to those already in the chute by shaking the device, and in that way jamming or clogging at the passage 26 is overcome and proper feeding of the balls is thus insured.

What I claim is—

1. A device of the class described comprising a magazine for containing a multiplicity of balls, a hopper at the bottom of said magazine, an inclined chute to which balls are delivered by said hopper at an intermediate point, a discharge pocket, and means operable to deliver one ball at a time from said chute to said discharge pocket.

2. A device of the class described comprising a magazine for containing a multiplicity of balls, a hopper at the bottom of said magazine, an inclined chute to which balls are delivered by said hopper at an intermediate point, a discharge pocket, and means operable to deliver one ball at a time from said chute to said discharge pocket, said means including a slide having a ball receiving member, said slide being arranged to be moved to bring the ball receiving member into registration with the discharge end of the chute to receive the ball, and to be moved to bring the ball receiving member with the ball over the discharge pocket to deliver the ball to the discharge pocket.

3. A device of the class described comprising a magazine for containing a multiplicity of balls, a hopper at the bottom of said magazine, a chute to which balls are delivered by said hopper at an intermediate point, said chute being closed at one end and the opposite end being a discharge end; a discharge pocket, and means operable to deliver one ball at a time from said chute to said discharge pocket, said means including a slide having a ball receiving member, said slide being arranged to be moved to bring the ball receiving member into registration with the discharge end of the chute to receive the ball, and to be moved to bring the ball receiving member with the ball over the discharge pocket to deliver the ball to the discharge pocket, said slide having a portion which obstructs the discharge end of the chute to prevent the balls therein from passing out of the same until the ball receiving member registers with the discharge end of the chute.

4. A device of the class described comprising a magazine for containing a multiplicity of balls, a hopper at the bottom of said magazine, an inclined chute to which balls are delivered by said hopper at a point intermediate the ends of the chute, said chute being closed at one end and the opposite end being a discharge end, a discharge pocket, means operable to deliver one ball at a time from said chute to said discharge pocket, said means including a slide having a ball receiving member, said slide being arranged to be moved to bring the ball receiving member into registration with the discharge end of the chute to receive the ball, and to be moved to bring the ball receiving member with the ball over the discharge pocket to deliver the ball to the discharge pocket, said slide having a portion which obstructs the discharge end of the chute to prevent the balls therein from passing out of the same until the ball receiving member registers with the descharge end of the chute, means for effecting the movement of the slide for the delivery of the balls from the ball receiving member, and means for effecting the return movement of the slide for the reception of the balls by the ball receiving member.

5. A device of the class described comprising a casing of separable sections, diverging members whose lower ends are spaced, directing members extending from said diverging members respectively, said directing members being disposed relatively in parallelism and inclined downwardly, horizontal members, a slide arranged for sliding movement in opposite directions between

said horizontal members, said slide having a ball receiving member, the diverging members, directing members and horizontal members being carried by one of said sections, portions of the walls of said sections combining with the diverging members to provide a magazine and hopper at the bottom of the magazine, portions of the walls of said sections combining with said directing members to provide a chute communicating with said hopper, portions of the walls of said sections combining with the horizontal members to provide a guide for the slide, a discharge passage formed by portions of the walls of said sections and one of said members, said ball receiving member being registrable with the open end of said chute and said discharge passage in the movement of said slide in opposite directions, and means for effecting the movement of the slide in opposite directions.

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