A. S. E. SANDERS.

DISPENSING RECEPTACLE.

APPLICATION FILED MAY 7, 1908.

907,291.

Patented Dec. 22, 1908.

2 SHEETS—SHEET 1.

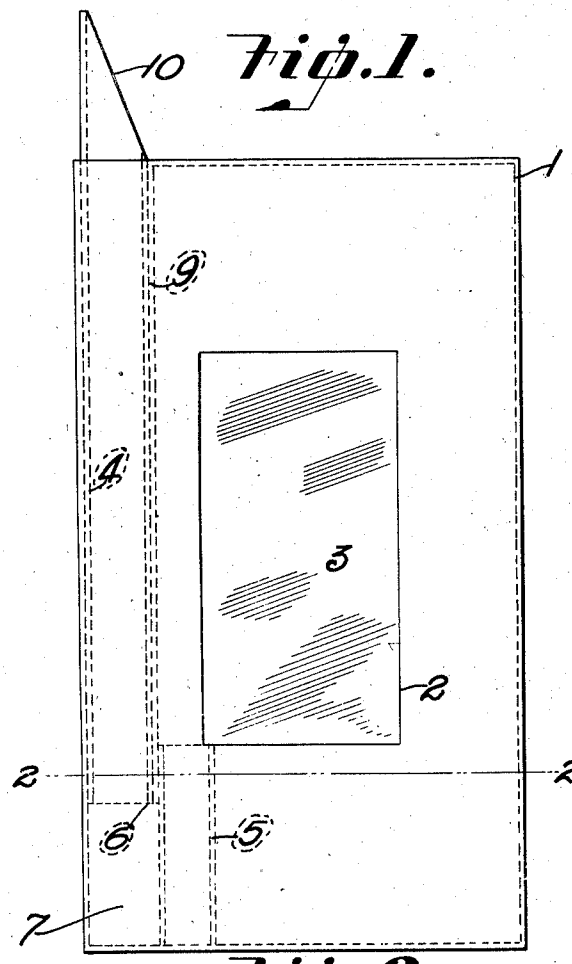


Fig. 1.

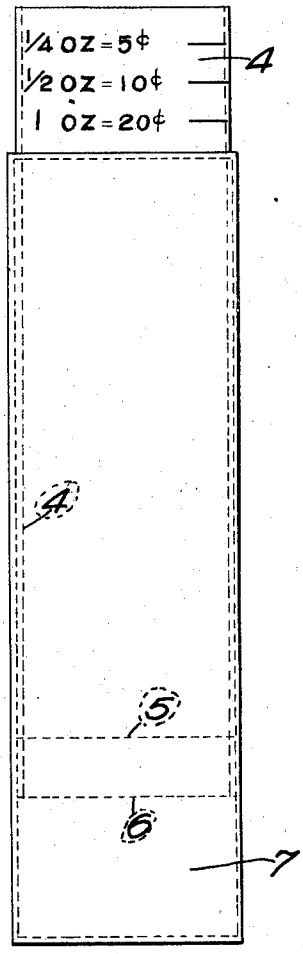
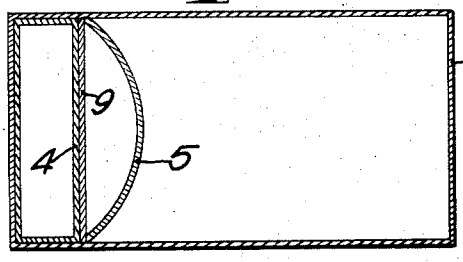


Fig. 3.

Fig. 2.



Witnesses:

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2 SHEETS—SHEET 2.

Fig. 4.

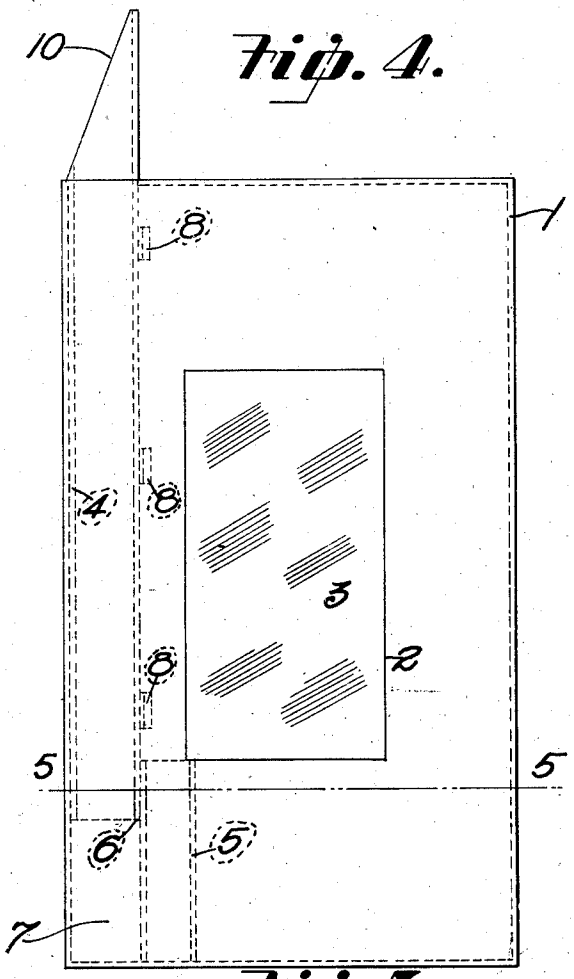
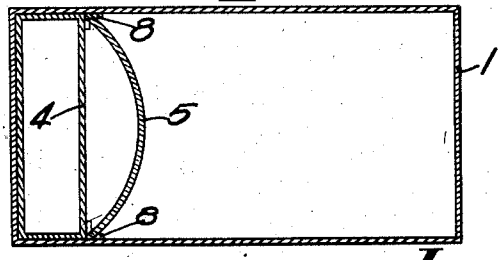


Fig. 5.



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UNITED STATES PATENT OFFICE.

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DISPENSING-RECEPTACLE.

No. 907,291. Specification of Letters Patent. Patented Dec. 22, 1908.

Application filed May 7, 1908. Serial No. 431,536.

To all whom it may concern:

Be it known that I, ALFRED S. E. SANDERS, a citizen of the United States, residing at the city of Springfield, in the county of Greene and State of Missouri, have invented certain new and useful Improvements in Dispensing-Receptacles, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to dispensing-receptacles, and has for its object to provide an article of this kind by which a predetermined quantity of the contents of the receptacle can be dispensed at each operation.

The invention is particularly well adapted for use by merchants who retail a certain article in very small quantities, and who wish to measure accurately the amount of goods delivered to each customer without having to weigh each lot sold. As one example of the uses to which the invention may be applied, the same is hereinafter referred to as a device for dispensing seeds, though the receptacle may contain and dispense any other substance of a granular nature.

In the drawings forming part of this specification, in which like numbers of reference denote like parts wherever they occur, Figure 1 is a front elevation of one of the receptacles; Fig. 2 is a section on the line 2—2, Fig. 1; Fig. 3 is a side elevation; Fig. 4 is a front elevation of another form of receptacle; and Fig. 5 is a section on the line 5—5, Fig. 4.

The walls 1 of the receptacle may be made of any sheet-material, such as metal, card, straw, or paste-board or the like, paper, wood, or other material, and may be provided with an aperture 2 in which a transparent member 3 is held, through which member any one can see what the receptacle contains and to what extent it is filled. Within the receptacle is a slidable chute 4, which projects outwardly through an aperture in the top of the receptacle, and which can be moved toward or away from the bottom of the receptacle so as to alter, from time to time, the distance between the bottom edge 6 of the chute and the bottom of the receptacle. A guard 5 is placed within the receptacle, which guard extends from the bottom of the receptacle to a point higher than the highest point to which the bottom edge 6 of the chute 4 is adapted to be moved. Said guard may be curved, as shown in the drawings, or of any other desired shape, and is secured to the bottom, front, and back of the receptacle, but is spaced away a short distance from the inner wall of the chute; leaving a space between said chute-wall and guard 5 through which space the contents of the receptacle can pass. The guard 5 forms one wall of a chamber 7, the other walls of said chamber being the back, the front, and one of the sides of the receptacle and the bottom of the chamber 7 being the bottom of the receptacle. The guard 5 is secured to the walls and bottom of the receptacle by solder-points or similar fastening means. Owing to the fact that the top-edge of guard 5 is always higher than the bottom-edge 6 of chute 4, the chute projects into the chamber 7 and constitutes a means of exit therefrom. To guide the movements of the chute and keep the chute in place, studs 8 are fastened to the back and front of the receptacle, or, in lieu of said studs, a partition 9, extending from front to back of the receptacle, and from its top to a point below the upper edge of guard 5 may be provided. The chute, accordingly, can slide up or down within the space bounded by the studs 8 or partition 9 on one side, a side-wall of the receptacle on the opposite side, and the front and back of the receptacle on the remaining sides.

As stated hereinabove, the chute 4 is moved toward or away from the bottom of the receptacle, according to the quantity of seeds which the operator desires to deliver, the lower edge 6 of the chute serving as a gate to regulate the quantity of seeds which can pass from the chamber 7 into said chute. In order to show the merchant exactly at what point the chute must be set in order to dispense the amount of seeds required, a suitable scale is marked on one wall of the chute, the lines of which scale, by registering with the top edge of the side-wall of the receptacle, indicate either the weight or the monetary value of the seeds which will pass out of the receptacle at any one operation.

From the foregoing detailed description of parts it will be seen that only those seeds which are in the chamber 7 can pass out of the receptacle and even then only when allowed access to the chute 4, and that the seeds can enter the chute 4 only by passing under the lower edge 6 thereof; hence, the distance between said edge and the bottom of the receptacle regulates the quantity of seeds which can pass into the chute at any

one operation. Thus, it is ascertained how great a space there must be between the bottom of the receptacle and the lower edge 6 of the chute 4 in order that a given amount of seeds may enter the chamber 7, and the parts are constructed and arranged accordingly. The scale, mentioned above, is marked to indicate how great an amount of seeds will pass into the chamber 7 when a certain line on the scale registers with the top edge of the side wall of the receptacle. When the merchant is about to make a sale, therefore, he ascertains the amount of seeds desired by his customer, adjusts the position of the chute accordingly by the scale, and then turns the receptacle to horizontal position, the side on which the chute is placed being downwards. If there are any seeds in the chamber 7 the proper quantity will pass between the bottom of the receptacle and the edge 6 of the chute, and, if the receptacle then be turned bottom side up, those seeds which have passed into the chute will pass therethrough and out at its mouth 10.

At such times as the receptacle contains so many seeds that the seeds stand higher than the top line of the guard 5, enough seeds will fall into the chamber 7 by gravity to keep the chamber 7 approximately filled at all times, but when there are fewer seeds than that in the receptacle, the chamber 7 must be filled by act of the operator. This is accomplished by turning the receptacle first to the position where the receptacle is horizontally disposed, so that the seeds rest either upon the inner wall of the chute 4 or upon the partition 9, and then turning the receptacle back to vertical position. Because of this second movement the seeds resting upon said partition or said chute will slide thereoff, through the space between chute 4 or partition 9 and guard 5, and into the chamber 7. Obviously, every time that the receptacle is turned to horizontal position, some of the seeds in chamber 7 will pass into the chute 4, and some of the seeds in the main body of the receptacle will rest upon the chute 4 or partition 9, which seeds will drop into chamber 7 when the receptacle is turned back to vertical position. Hence, the chamber 7 will ordinarily be kept approximately filled with seeds because of the movements necessarily given to the receptacle each time a sale is made, and, therefore, it will practically never be necessary to perform a separate operation to fill the chamber 7. It follows, also, that since the step of turning the receptacle to permit the seeds to pass into the chute and the turning of the receptacle bottom side up are performed in quick and practically continuous succession, the merchant makes a sale—*i. e.*, removes the seeds from the receptacle—and fills the chamber 7 in practically one operation.

The receptacle is filled with seeds before the bottom is secured to the walls; for after said parts are all secured together it is very difficult, and almost impossible, to introduce more seeds into the receptacle unless the walls be cut or broken. The receptacles, accordingly, can hardly be refilled. If the chute 4 be pushed so far down that its bottom edge 6 engages the bottom of the receptacle, ordinarily no seeds whatsoever can make their exit from the receptacle. Before shipping the receptacle, therefore, the seedsman with whose seeds it is filled pushes the chute clear to the bottom, after which he places a frangible seal over the perforation in the top through which the chute-mouth 10 projects, which seal will prevent accidental displacement of the chute 4. If the merchant to whom the goods are shipped receives the package with the seal intact, he will know that the contents of the receptacle have not been tampered with and that none of the contents have been lost, for, even though the package be so roughly handled that some of the seeds do work their way into the chute 4, the seal will hold such seeds in the chute and prevent their loss.

Having thus described my said invention, what I claim and desire to secure by Letters-Patent is:

1. In a device of the character described, the combination of a receptacle, a partition therein, one edge of which partition is spaced away from the end of the receptacle adjacent thereto, there being a space between said partition and one of the walls of the receptacle, through which space the contents of the receptacle are adapted to pass, the end of said receptacle opposite said first-mentioned end having a perforation in registration with said space, and a guard within said receptacle extending from said first-mentioned end to a point beyond said edge of said partition.

2. In a device of the character described, the combination of a receptacle, a partition therein, one edge of which partition is spaced away from the end of the receptacle adjacent thereto, there being a space between said partition and one of the walls of the receptacle, through which space the contents of the receptacle are adapted to pass, the end of said receptacle opposite said first-mentioned end having a perforation in registration with said space, and a guard within said receptacle extending from said first-mentioned end to a point beyond said edge of said partition, there being a space between said partition and said guard through which space the contents of the receptacle are adapted to pass.

3. In a device of the character described, the combination of a receptacle, a partition therein, one edge of which partition is spaced

cle, through which space the contents of the receptacle are adapted to pass, the end of said receptacle opposite said first-mentioned end having a perforation in registration with said space and a guard within said receptacle extending from said first-mentioned end to a point beyond said edge of said partition, there being a space between said partition and said guard through which space the contents of the receptacle are adapted to pass, and a slidable member retained within said first-mentioned space.

4. In a device of the character described, the combination of a receptacle having a perforated end, a partition within said receptacle one edge of which partition is spaced away from the adjacent end of said receptacle, said partition and the walls of the receptacle forming a passageway registering with said perforation, through which passageway the contents of the receptacle are adapted to pass, and a guard extending from said second-mentioned end to a point beyond the nearest edge of said partition, there being a space between said guard and said partition.

5. In a device of the character described, the combination of a receptacle having a perforated end, a partition within said receptacle one edge of which partition is spaced away from the adjacent end of said receptacle, said partition and the walls of the receptacle forming a passageway registering with said perforation, through which passageway the contents of the receptacle are adapted to pass, a movable gate to determine the size of the entrance to said passageway, and a guard extending from said second-mentioned end to a point where it covers over the entrance to said passageway, there being a space between said guard and said partition.

6. In a device of the character described, the combination of a receptacle, a movable gate therewithin, between the edge of which gate and the bottom of the receptacle the seeds must pass to reach the exit from the receptacle, and a guard before the passageway between said gate and said bottom.

7. In a device of the character described, the combination of a receptacle provided with an exit through which the contents of the receptacle pass, said exit being in such position that said contents enter thereinto when the receptacle is horizontally disposed and pass therethrough when the receptacle is inverted, and a movable graduated member controlling the size of the passageway through which said contents pass into said exit.

8. In a device of the character described, the combination of a receptacle, a partition therein, one end of which partition is spaced away from one of the walls of the receptacle leaving a passageway between said partition-end and said wall, there being a space between said partition and one of the walls of said receptacle which intersects said first-mentioned wall, and a slidable member provided with a passageway and retained within said space.

9. In a device of the character described, the combination of a receptacle, a partition therein, one end of which partition is spaced away from one of the walls of the receptacle, leaving a passageway between said partition-end and said wall, there being a space between said partition and one of the walls of said receptacle which intersects said first-mentioned wall, one of the walls of the receptacle being apertured, said aperture allowing communication from the exterior to said space, and a slidable member provided with a passageway and retained within said space.

In testimony whereof I have affixed my signature in presence of two witnesses.

ALFRED S. E. SANDERS.

Witnesses:

RICHARD R. RICKETS,

THEODOR HERMAN SANDERS.