Oct. 17, 1933. A. RICE 1,931,270

DISPENSING RECEPTACLE

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Fig. 1.

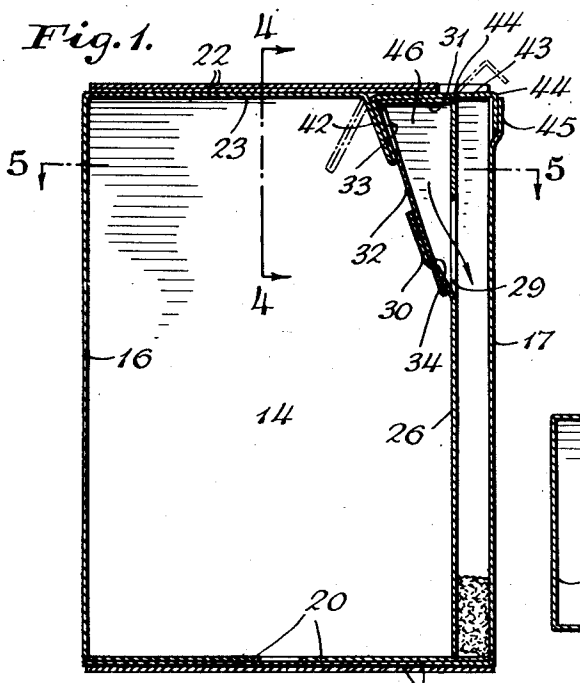



Fig. 4.

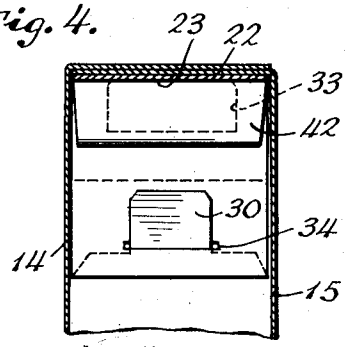



Fig. 5.

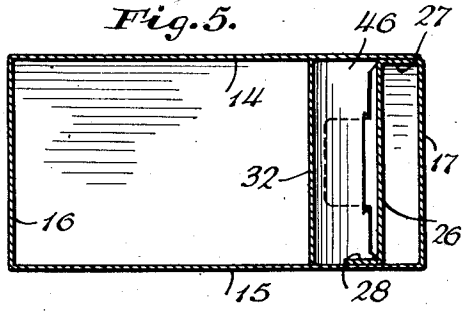



Fig. 2.

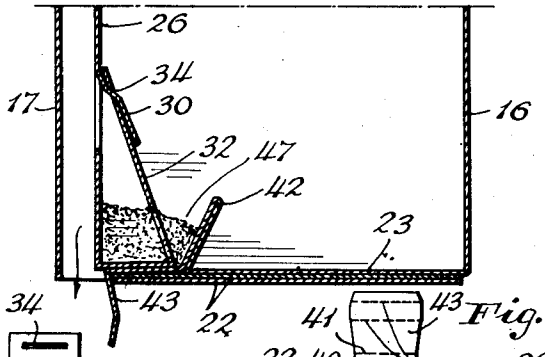



Fig. 6.

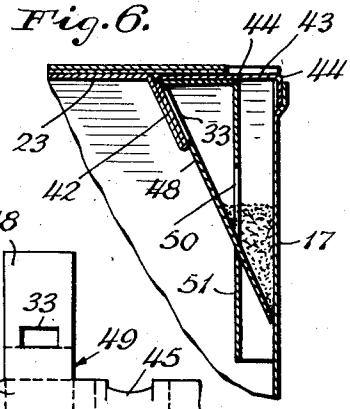



Fig. 3.

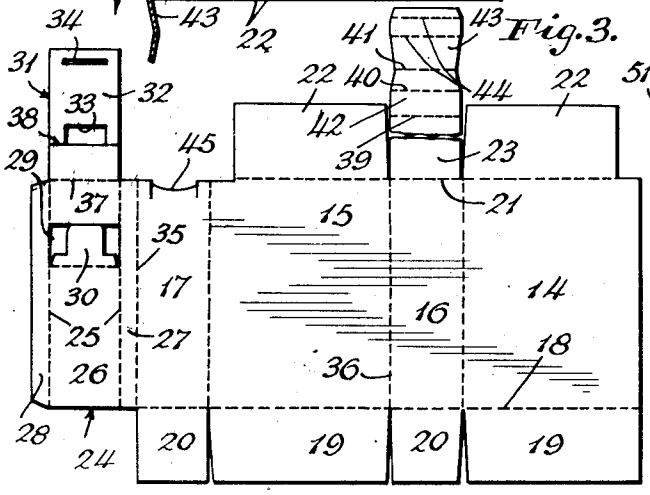
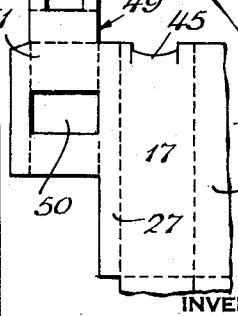



Fig. 7.




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Fig. 8.

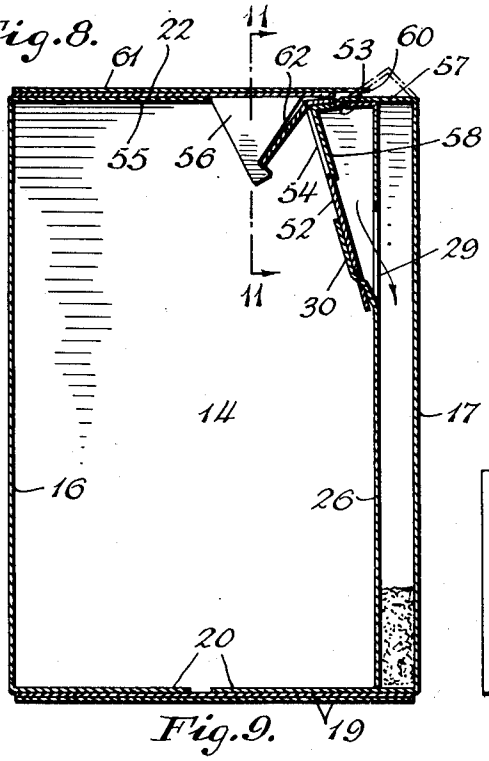



Fig. 11.

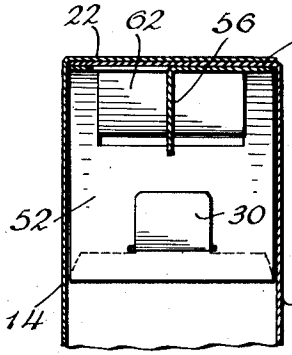



Fig. 12.

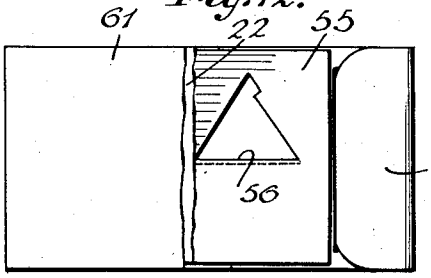



Fig. 9.

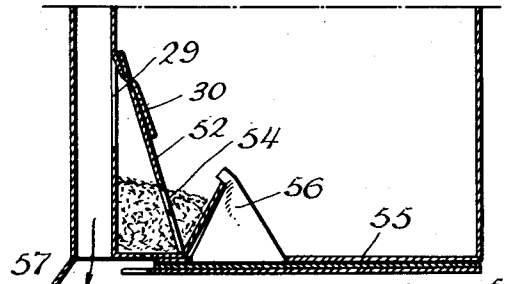
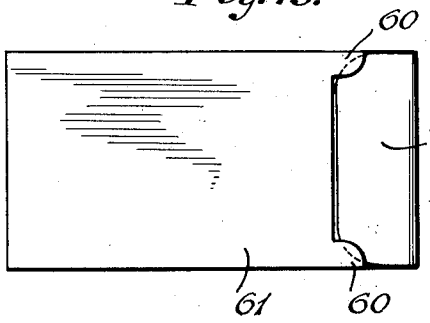



Fig. 13.



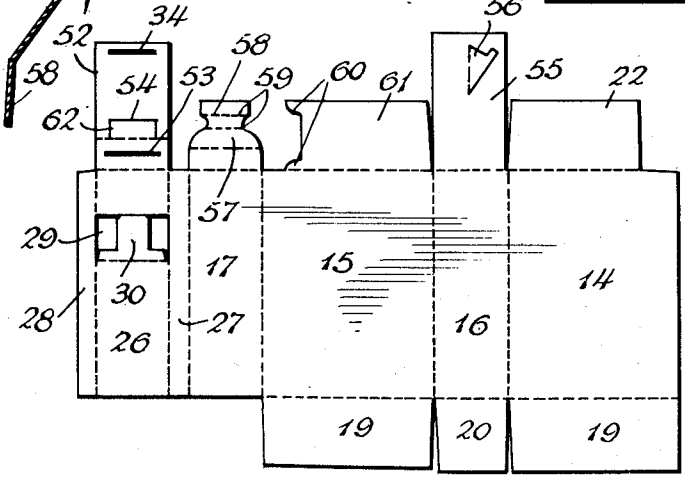




Fig. 10.

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# UNITED STATES PATENT OFFICE

1,931,270

## DISPENSING RECEPTACLE

Alexander Rice, Brooklyn, N. Y.

Application June 24, 1932. Serial No. 619,067

11 Claims. (Cl. 221—98)

This invention relates to improvements in dispensing receptacles and has particular reference to the type of receptacle from which granular material may be discharged by a tilting operation of the receptacle.

An object of the invention is to provide an improved receptacle of simple and practical construction, each tilting or inversion of which is utilized to effect the discharge from the receptacle of a predetermined or uniform quantity of material contained therein.

Another object is to provide an improved collapsible type of receptacle which can be formed from a single blank of material to provide a discharge chute with which is combined a measuring compartment constituted by a baffle member and a partition, the latter being a continuation of a wall of said chute.

The above and other objects will appear more clearly from the following detailed description when taken in connection with the accompanying drawings which show preferred embodiments of the inventive idea.

In the drawings:

Figure 1 is a vertical longitudinal section through a receptacle showing one form of the invention and illustrating the parts in normal position.

Figure 2 is a fragmentary view similar to Figure 1, showing the receptacle inverted, in which position a measured quantity of material contained in the receptacle is discharged and another similar quantity is measured preparatory to the next discharge operation.

Figure 3 is a plan view of the blank from which the receptacle, Figure 1, is formed.

Figure 4 is a section on the line 4—4 of Figure 1.

Figure 5 is a section on the line 5—5 of Figure 1.

Figure 6 is a fragmentary view similar to Figure 1 showing a slightly different form of the invention.

Figure 7 is a fragmentary view of the blank from which the section of Figure 6 is formed.

Figure 8 is a view similar to Figure 1 showing still another form of the invention.

Figure 9 is a sectional view showing the receptacle of Figure 8 inverted.

Figure 10 is a plan view of the blank from which the last named receptacle is formed.

Figure 11 is a section on the line 11—11 of Figure 8.

Figure 12 is a top plan view of a receptacle, partly broken away, and

Figure 13 is a top plan view of the receptacle showing the manner in which the closure flap for the outlet is held in closing position.

Referring to the form of the invention shown in Figures 1 to 5 inclusive, it will be seen from Figure 3 that the receptacle is made from a single blank of suitable material which is scored to provide two side walls 14 and 15 and the end walls 16 and 17. The bottom of the receptacle is constituted by scoring the blank longitudinally along the line 18 and cutting the material transversely to form the wide flaps 19 and the narrow flaps 20 which are foldable in the usual manner and secured by an adhesive to form the bottom. The blank is scored again along the line 21 and cut transversely to provide the longitudinally elongated top closure flaps 22 and the transversely elongated flap 23 which is located beneath the flaps 22 when the receptacle is in its set-up position and which will later be described in more detail.

At the end of the blank contiguous to the end wall 17, the same is provided with an extension generally indicated by the number 24 which, when the receptacle is in its operative position, constitutes a discharge chute in the interior of the body of the receptacle and at the forward end thereof into which a measured quantity of material is passed from said body upon tilting of the receptacle and from which said measured quantity is discharged during a subsequent tilting operation. The extension 24 is formed into a chute by scoring the same transversely along the lines 25 to constitute an inner wall 26, an end wall 27 and a flange 28, the other end wall of the chute being formed by the forward end portion of the side wall 15 and the outer wall opposed to said inner wall 26 being formed by the end wall 17 of the receptacle. The inner wall 26 is cut to provide an opening 29 and a tongue 30, the purposes of which will appear in the course of the description. At the upper end of the wall 26, which is slightly less in height than the side walls 14 and 15, the same is provided with an extension generally indicated by the numeral 31, a portion of which constitutes a partition 32 forming a part of the measuring device by which a predetermined quantity of the material in the body portion of the receptacle is fed into the discharge chute. The partition 32 is provided with an opening 33 and a slot 34, the functions of which will presently appear. When the blank is thus formed it is first folded on the transverse line 35 forming one edge of the wall 27 and the flange 28 is secured, by adhesive, to the inner surface of the side wall 15.

The blank is then again folded on the transverse scored line 36 so that the free extremity of the wall 14 will overlap the wall 27, said walls being secured together by an adhesive. The blank then forms the receptacle in its collapsed condition in which it may be transported or stored preparatory for use.

When setting up the receptacle, the bottom flaps 19 and 20 may be first adjusted to proper positions and secured together after which the elements constituting the top are assembled. In doing this, the extension 31 which forms a continuation of the inner wall 26 of the discharge chute is folded on the scoring line 37 and then on the line 38, the latter line constituting the upper edge of the partition 32. The portion of the extension 31 between the two scoring lines mentioned extends rearwardly from the discharge chute in a suitably horizontal position and the partition 32 extends diagonally downward in a forward direction and toward the wall 26. The tongue 30 which is cut from the latter wall to form the opening 29 is then extended through the slot 34 in the partition, thus holding the latter in its operative position and forming a chamber for receiving a quantity of the material within the receptacle, which material is now placed in the body of said receptacle preparatory to sealing the top thereof. If desired, the filling operation may be reversed by first sealing the top, depositing the material in the receptacle, and finally sealing the bottom flaps.

The extension 23, from the folding line 21 to the scored line 39 extends from the rear end wall 16 to a point adjacent the discharge chute. At said point the extension is bent on the line 39 and again on the lines 40 and 41 so as to double on themselves the portions of the material between said lines and thus form a reinforced baffle member 42. The distance between the lines 40 and 41 is slightly less than that between the lines 39 and 40 so that the upper edge of the portion of the baffle member formed by the material between the lines 40 and 41 will be slightly lower (see Figure 1) than the plane of the part of the extension 23 which extends rearwardly from the baffle member, this being for a purpose which will presently appear. The remainder of the extension 23 projecting outwardly beyond the folding line 41 constitutes a closure 43 for the upper or outlet end of the discharge chute and said closure is scored on two transverse lines 44 to permit the closure to be bent as indicated in dotted lines in Figure 1 and allow its extremity to be engaged with tongue 45 formed on the upper end of the end wall 17. Finally the top flaps 22 are folded over upon the extension 23 and sealed. When the receptacle is in the closed position shown in Figure 1 the baffle member 42 depends from the top thereof and diagonally forward in substantially parallel relation with the partition 32 so as to close the opening 33 therein and thus prevent the entrance of material in the body of the box into the chamber 46 formed by the wall 26 and said partition.

In order to effect the initial discharge of a predetermined quantity of the material from the receptacle the closure 43 is first lifted slightly to disengage its extremity from the tongue 45, said closure then bending on the innermost folding line 44. An inward pressure in the direction of the rear of the receptacle is then exerted upon the closure and due to the fact that the edge of the baffle member 42 formed by the folding line 41 is slightly below the adjacent line 39, said inward pressure will result in a swinging movement being imparted to the baffle member 42 which will adjust the same to the dotted line position shown in Figure 2, thereby forming, in combination with the partition 32, another chamber 47 which cooperates with the chamber 46 to provide a compartment into which a predetermined quantity of the material in the body of the receptacle will flow when the latter is inverted, as shown in Figure 2. The opening 33 in the partition 32 permits the material to flow into the chamber 46 and then, after the receptacle is restored to an upright position, said material will flow downwardly along the inclined partition 32, through the opening 29 in the wall 26 and thence to the bottom of the discharge chute. If desired, the closure 43 may now be drawn outwardly to again close the discharge outlet, whereupon the baffle will also close the opening 33. When the receptacle is next tilted, following a reopening of the closure 43 as previously described, the measured quantity in the discharge chute flows through the outlet thereof and again the compartment formed by the chambers 46 and 47 is filled by the material in the body of the receptacle. It will be noted from Figure 1 that the horizontal portion of the extension 31 is located rearwardly of the discharge chute outlet slightly below the upper edge of the side walls 14 and 15, so that the upper extremity of said side walls adjacent the outlet of the discharge chute will act as a spout for the material which is being poured through said outlet. In the form of the invention shown in Figures 6 and 7 the partition 48 which is a part of the extension 49, similar to the extension 31, is inclined the same as the partition 32 but instead of being held in position by a tongue struck from the wall of the chute, said partition extends through and rests upon the bottom edge of the opening 50 formed in the inner wall 51 of the discharge chute. The lower extremity of the partition engages the front wall 17 of the chute so that the portion of said partition within the confines of the chute constitutes a bottom for the latter, thus eliminating the necessity of extending said wall 51 to the bottom of the receptacle and thereby effecting a saving in material. In all other respects the form of the invention shown in Figures 6 and 7 is the same as the first embodiment described.

The blank (Figure 10) from which the receptacle illustrated in Figure 8 is formed is substantially similar to the blank shown in Figure 3, differing therefrom in the construction of certain of the elements constituting the top of the receptacle. Thus the extension 52, corresponding to the extension 31, is the same as the latter with the exception that a slot 53 is provided adjacent the inner end of the extension 52 and adjacent the opening 54 which is similar to the opening 33. The extension 23 of the blank of Figure 3 is replaced by the extension 55 of shorter length and from this extension 55 there is struck a retaining lug 56, the purpose of which will presently appear. In the first form of the invention described the closure 43 formed a part of the extension 23 whereas in the present embodiment the closure 57 is a continuation of the front wall 17 of the discharge chute. The closure 57 is in the nature of a tongue which overlies a portion of the extension 52 and is insertable through the slot 53. The free extremity 58 of this tongue extends downwardly along the inner surface of the extension or partition 52 and forms a clo-

sure for the opening 54 therein. The extremity 58 is scored as indicated at 59 so that in initially opening the receptacle the same may be made to assume the dotted line position shown in Figure 8 after which the extremity 58 may be entirely withdrawn through the slot 53. It may then be severed along the inner scored line 59 so that it will not be necessary, in subsequently using the receptacle, to reinsert the tongue 58. To the contrary the closure 57 may then be engaged, as best shown in Figure 13, under the small projections 60 formed at the adjacent extremity of the top closure flap 61. In contradistinction to the movable baffle 42 on the extension 23 in the first modification of the invention described, a baffle 62 is provided in the present instance and this member is struck from the extension 52 at the point where the opening 54 is formed therein. The baffle 62 is extended at an angle to the partition 52 and is held in such position by the depending lug 56, said baffle and partition coordinating to form a compartment for receiving a predetermined quantity of the material in the receptacle when the latter is inverted, which material will flow downwardly along the partition and into the discharge chute when the receptacle is again placed in upright position.

What is claimed is:—

1. A dispensing receptacle comprising a body portion having an outlet, a discharge chute within said body portion and communicating with said outlet, said chute having an opening in one of its walls through which the contents of said body portion pass into said chute, a partition forming an extension of said wall and combining therewith to form a chamber, and a baffle cooperating with said partition to form another chamber having communication with the first named chamber to form a compartment for receiving a predetermined amount of material to be discharged through said chute.

2. A dispensing receptacle comprising a body portion having an outlet, a discharge chute within said body portion and communicating with said outlet, said chute having an opening in one of its walls through which the contents of said body portion pass into said chute, a partition depending from the top of said body portion diagonally toward said chute so as to combine with a wall thereof to form a chamber, and a baffle also depending from said top adjacent said partition and cooperating therewith to provide another chamber communicating with the first named chamber to form a compartment for receiving a quantity of material to be discharged through said opening into said chute.

3. A dispensing receptacle comprising a body portion having an outlet, a discharge chute within said body portion and communicating with said outlet, said chute having an opening in one of its walls through which the contents of said body portion pass into said chute, a baffle member depending from the top of said body portion adjacent said wall, and a partition forming an extension of said wall and combining therewith and with said baffle member to form communicating chambers constituting a compartment for receiving a predetermined quantity of material to be discharged into said chute.

4. A dispensing receptacle comprising a body portion having an outlet, a discharge chute within said body portion and communicating with said outlet, said chute having an opening in one of its walls through which the contents of said body portion pass into said chute, a baffle member depending from the top of said body portion adjacent said wall, a partition forming an extension of said wall and combining therewith and with said baffle member to form communicating chambers constituting a compartment for receiving a predetermined quantity of material to be discharged into said chute, and means also forming a part of said wall for maintaining said partition in definite relation thereto.

5. A dispensing receptacle comprising a body portion having an outlet, a discharge chute within said body portion and communicating with said outlet, said chute having an opening in one of its walls through which the contents of said body portion pass into said chute, a baffle member depending from the top of said body portion adjacent said wall, and a partition forming an extension of said wall and combining therewith and with said baffle member to form communicating chambers constituting a compartment for receiving a predetermined quantity of material to be discharged into said chute, said partition having an opening therein establishing communication between said chambers.

6. A dispensing receptacle comprising a body portion having an outlet, a discharge chute within said body portion and communicating with said outlet, said chute having an opening in one of its walls through which the contents of said body portion pass into said chute, a baffle member depending diagonally from the top of said body portion, and a partition forming an extension of said wall and also depending from said top diagonally to said baffle, said partition and baffle combining to form a compartment communicating with the opening in said wall.

7. A dispensing receptacle comprising a body portion having an outlet, a discharge chute within said body portion and communicating with said outlet, said chute having an opening in one of its walls through which the contents of said body portion pass into said chute, a baffle member depending diagonally from the top of said body portion, and a partition forming an extension of said wall and having a portion thereof projecting through the opening therein, said partition combining with said baffle to form a compartment for receiving material to be discharged into said chute through said opening.

8. A dispensing receptacle comprising a body portion having an outlet in the top thereof, a discharge chute extending along one wall of said body portion and communicating with said outlet, said chute having an opening in one of its walls through which the contents of said body portion pass into said chute, a baffle member depending from said top, means engaging said baffle member to retain the same in fixed position relative to said top and latter wall, and a partition forming an extension of said latter wall and combining therewith and with said baffle member to form communicating chambers constituting a compartment for receiving a predetermined quantity of material to be discharged into said chute.

9. A dispensing receptacle comprising a body portion having an outlet in the top thereof, a discharge chute extending along one wall of said body portion and communicating with said outlet, said chute having an opening in one of its walls through which the contents of said body portion pass into said chute, a baffle member depending from said top adjacent the latter wall, and a partition forming an extension of said

latter wall and combining therewith and with said baffle member to form communicating chambers constituting a compartment for receiving a predetermined quantity of material to be discharged into said chute, an extension of said baffle member forming a closure for said outlet.

10. A dispensing receptacle formed from a single sheet of material scored to provide a body portion having an outlet, a discharge chute communicating with said outlet, a partition connected to and forming an extension of a wall of said chute and combining therewith to form a chamber, and a baffle forming a part of a wall of said body portion and cooperating with said partition to form a second chamber in communication with the first named chamber, said chambers combining to provide a compartment for receiving a predetermined quantity of material to be discharged through said chute.

11. A dispensing receptacle formed from a single sheet of material scored to provide a body portion having an outlet, a discharge chute in communication with said outlet, a partition forming an extension of a wall of said chute and combining therewith to form a chamber communicating with said chute, and a baffle formed from a part of said body portion and cooperating with said partition to form a second chamber, said part being extended from said baffle to constitute a closure for said outlet.

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