

A. EDWARDS.
SELF CLOSING RECEPTACLE.

APPLICATION FILED FEB. 8, 1917. RENEWED JAN. 31, 1919.

1,300,710.

Patented Apr. 15, 1919.

2 SHEETS—SHEET 1.

Fig-1

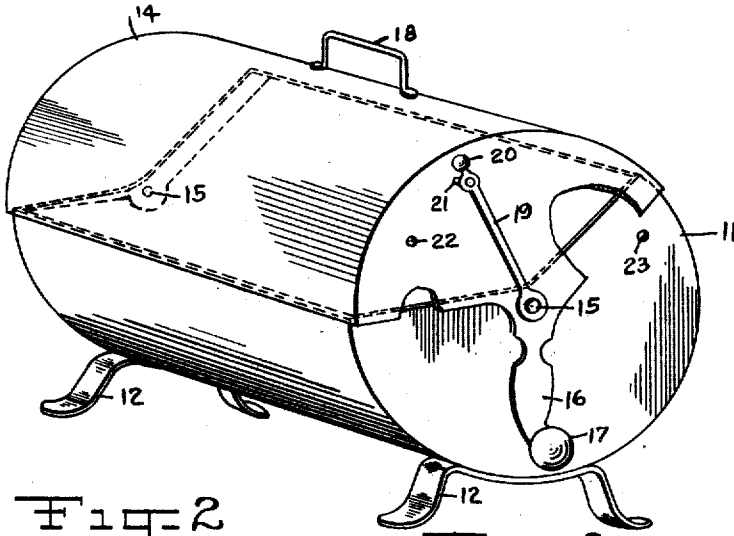


Fig-2

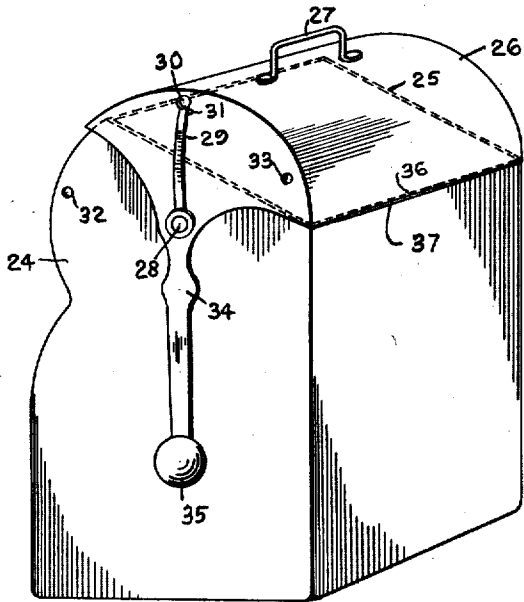
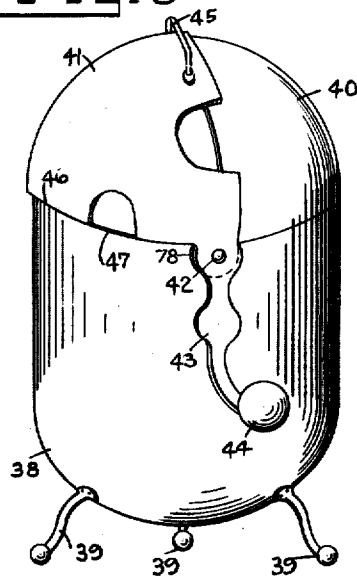


Fig-3



Inventor:

Albert Edwards
By his Attorney
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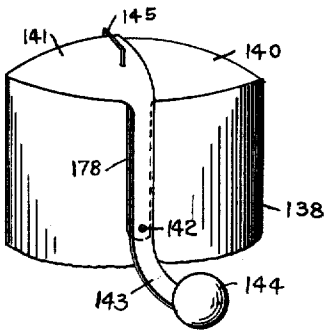
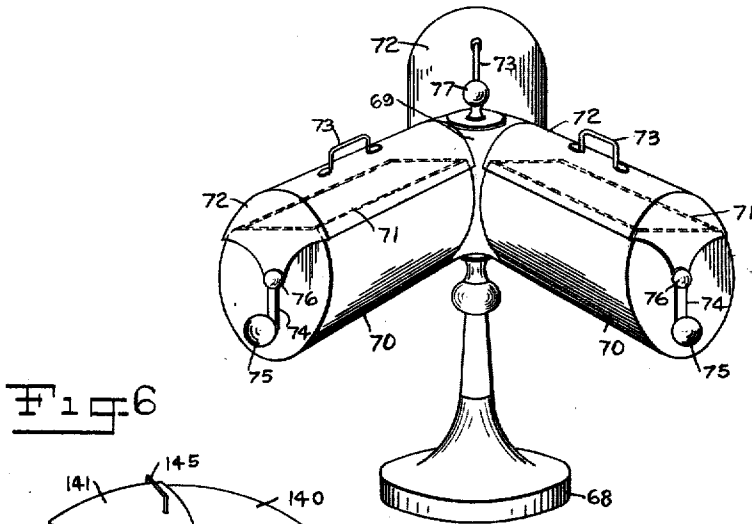
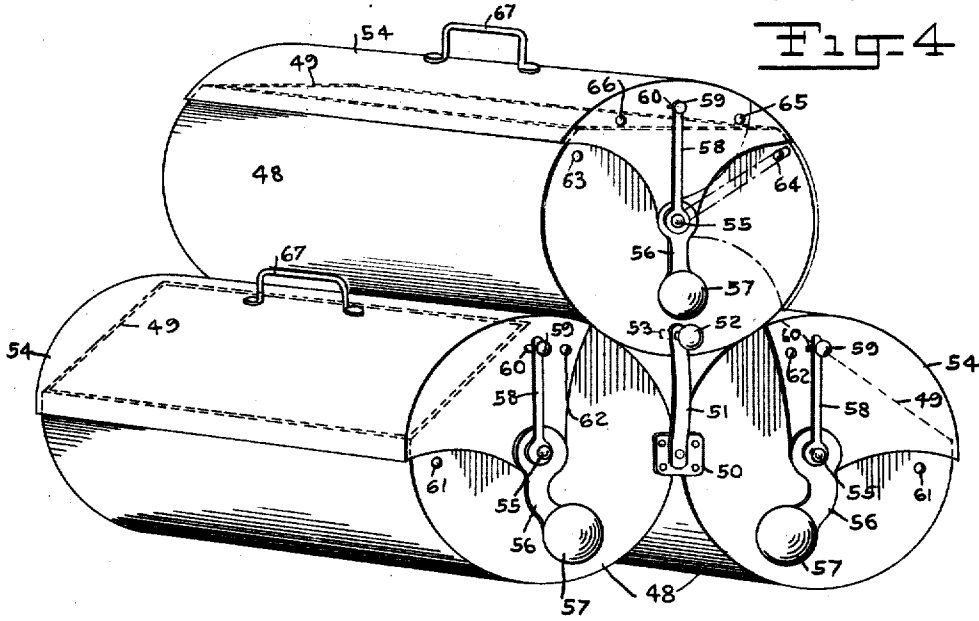
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2 SHEETS—SHEET 2.



Inventor:
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Edmond Guger Brown

UNITED STATES PATENT OFFICE.

ALBERT EDWARDS, OF BROOKLYN, NEW YORK, ASSIGNOR TO SOLAR METAL PRODUCTS CO., INC., A CORPORATION OF NEW YORK.

SELF-CLOSING RECEPTACLE.

1,300,710.

Specification of Letters Patent.

Patented Apr. 15, 1919.

Application filed February 8, 1917, Serial No. 147,408. Renewed January 31, 1919. Serial No. 274,328.

To all whom it may concern:

Be it known that I, ALBERT EDWARDS, a citizen of the United States, and a resident of the borough of Brooklyn, in the city and State of New York, have invented certain new and useful Improvements in Self-Closing Receptacles, of which the following is a specification.

The invention relates to self closing receptacles, and has for one of its principal objects to provide such a receptacle adapted for various uses, which shall be simple in construction and efficient in operation, and which may if desired, while normally self closing, be provided with means adapted to prevent such closing.

The invention consists in the novel construction, arrangement and combination of various devices, elements and parts, as shown in the accompanying drawings and fully described in this specification.

In the said drawings, Figure 1 is a perspective view of one embodiment of my invention, certain portions of the cover being broken away for clearness; Fig. 2 is a perspective view of another embodiment; Fig. 3 is a view of another embodiment, showing a receptacle the main or body portion of which is adapted to be constructed of glass or similar material, and showing a portion of the cover broken away; Figs. 4 and 5 are perspective views of embodiments of the invention in which a plurality of receptacles constructed according thereto may be secured together; and Fig. 6 is a view of a portion of an embodiment somewhat similar to that shown in Fig. 3.

In carrying my invention into effect in the embodiment thereof shown in Fig. 1, I provide a body portion 11, of approximately cylindrical form, which may be supported in a horizontal position by means of legs or supports 12 secured thereto. A portion of the upper side of the cylinder is cut away, as shown by the dotted lines, leaving an opening through which the contents may pass into the receptacle or be removed therefrom. I also provide a cover 14 formed of a segment of a cylinder of slightly larger length and diameter than the cylinder forming the body 11, the segment being of sufficient size to cover the opening in the body portion 11.

Near the center of each end of the cylinder forming the body 11 I provide a pivot 15, by means of which the cylinder segment 14 is pivoted to the said body 11. The location of the pivot 15 must be such that the closure 14 may freely swing over toward the right so as to open the receptacle, but be stopped from swinging toward the left farther than is necessary to close the same. Extending downwardly from either or both ends of the cover 14, and integral therewith, is a portion 16 bearing at its lower end a counterweight 17, adapted to normally hold the cover 14 in its closed position. It will be observed that the opening in the body 11 is not exactly at the top of the said body, but somewhat to one side of the top, and it is therefore required that the cover or closure 14 shall also normally occupy a position somewhat to one side of the top of the said body 11. To accomplish this the counterweight 17 is offset toward the other side of the said pivot 15 from the said cover 14, as will be apparent from an inspection of the drawing (Fig. 1).

Pivoted to either or both of the pivots 15, independently of the closure 14, is a spring finger 19 bearing at its outer end an inwardly extending pin 21, and a handle 20 by means of which it may be operated. I provide a perforation 22 in said cover 14, which perforation is adapted to receive the pin 21; and a socket 23, also adapted to receive said pin 21, in the body 11. The perforations 22 and 23 coincide with each other when the receptacle is in its open position. At the top of the closure 14 I may provide a handle 18, by means of which the same is adapted to be operated.

In the operation of this embodiment of my invention, when it is desired to place any object in the receptacle, the handle 18 is operated, moving the closure 14 and uncovering the opening in the body 11. As soon as the handle 18 is released the cover 14, under the influence of the counterweight 17, will resume its normal position. If for any reason it is desired to lock the closure 14 in an open position, the handle 18 is moved toward the right of Fig. 1 until the opening 22 in the said closure 14 coincides with the socket 23 in the body 11, and the handle 20 is then manipulated so as to bring the pin

21 opposite these openings. Upon the release of the handle 20 the pin 21 will pass through the opening 22 and into the socket 23, under the influence of the spring finger 19, and the closure 14 will be held in its open position, in a manner which will be obvious. When it is desired to empty the receptacle, it is only necessary to turn the same over, upon which the receptacle will automatically open, the opening in the upper part of the body 11 thereof being moved out from under the closure 14.

In the embodiment shown in Fig. 2 I provide a body 24 provided with an opening at 25 and a socket 32; a closure 26 pivoted to the body 24 at 28, and provided with a handle 27, a downwardly extending portion 34, a counter-weight 35, and a perforation 33; and a spring finger 29 pivoted at 28 and provided with a handle 30 and an inwardly extending pin 31; all analogous to the corresponding parts of the embodiment shown in Fig. 1 and hereinabove described.

This embodiment shown in Fig. 2 differs from the embodiment shown in Fig. 1 in that the body portion is of a different form, although it will be observed that the upper portion with which the closure engages still forms a portion of a cylinder. It will also be observed that the opening at the top of the body 24 is differently shaped from the corresponding opening shown in Fig. 1, although the exact shape of the opening is unessential, and either shape might be used with either embodiment.

The closure 26 is not pivoted exactly concentrically with the upper partly cylindrical portion of the body 24, but is pivoted so that its lower edge 37 will strike against the top of the front of the body portion, which is provided with a strip 36 of lead or any suitable material, which is adapted to deaden the noise and shock caused by the closing of the cover 26. (The strip 36 may instead be located on the closure 26, if desired).

The devices shown in Figs. 1 and 2 are embodiments of my invention particularly adapted to be made in the larger sizes, and to be used as receptacles for refuse, and for similar purposes. The embodiment shown in Fig. 3 is a form adapted to be used upon the table, as a receptacle for sugar or the like, or for similar purposes. It comprises a lower body portion 38, of glass or similar material, provided with legs or supports 39, and having cemented or otherwise suitably secured thereto an upper portion 40, of metal or the like, in the form of a quarter globe.

A closure 41, of approximately quarter-globular form, is swingingly secured, by means of pivots 42, to lugs 78 integral with the portion 40 and extending downwardly therefrom over the portion 38, so that when

it is in its closed position its lower edge 46 rests upon the upper edge 47 of the body portion 38, and when it is in its open position it covers or partially covers the portion 40. A handle 45 is provided, and also a downwardly extending portion 43 integral with the cover 41, and provided at its lower end with a counterweight 44. This counterweight 44 is somewhat offset, but not as much as would be necessary if it were not desired to have its lower edge 46 rest with appreciable weight upon the upper edge 47 of the body 38. No means for holding the closure in its open position is shown in this embodiment, although suitable means therefor might be included if desired.

In the embodiment shown in Fig. 4 I provide two cylindrical body portions 48, adapted to lie side by side and to be secured to each other at their ends by means of members 50 (only one of which is shown), to which members 50 each body portion 48 is riveted. Extending upwardly from each member 50 is a spring finger 51, bearing at its upper end a handle 52 and an inwardly extending pin 53. A third body portion 48 is removably secured above and between the two first mentioned body portions, being provided at each end with a socket adapted to receive one of said pins 53.

Each body portion 48 is provided with an opening, as shown by the dotted lines and indicated at 49, each of which openings is closed by means of a closure 54 analogous to the closure 14 of Fig. 1, and suitably pivoted to the body portion 48 at 55. Each closure 54 is provided with a downwardly extending portion 56, bearing at its lower end a counterweight 57. It will be observed that the counterweight of the upper receptacle, in which the opening is situated at the top, is not offset, while the counterweights of the two lower receptacles, in which the openings are situated at one side of the top, are each offset toward the other of said lower receptacles.

Each receptacle 48 is provided with a spring finger 58 pivoted at the point 55, and provided at its upper end with a handle 59 and an inwardly extending pin 60, all analogous to corresponding parts in previously described embodiments. Each lower receptacle 48 is provided with a socket 61, with which a perforation 62 in the closure 54 is adapted to coincide when the closure is in its open position. The upper receptacle 48 is provided with two sockets, 63 and 64, and its closure 54 is provided with a perforation 65 adapted to coincide with the socket 63, and a perforation 66 adapted to coincide with the socket 64, whereby the said closure 54 may be locked in an open position on either side of the opening in the top of the body portion 48. Each closure 54 is provided with a handle

67. It will be observed that in the upper of these three receptacles 48 the pivot 55 is located concentrically of the receptacle and the closure thus permitting the same to be opened by swinging the closure either way.

in closing. Other advantages will readily be seen from an inspection of the drawings and the specification.

I do not limit myself to the exact forms or embodiments described, as it will be obvious that the same may be varied in many respects without departing from the spirit and scope of my invention.

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

1. In a self closing receptacle, the combination with a body portion, a portion of said body portion being curved in cross-section, said last named portion being provided with an opening; of a closure, a portion of said closure being curved in cross-section, said closure being pivotally connected to said body portion at a point coinciding with the center of one of said curves and slightly off the center of the other of said curves.

2. In a self closing receptacle, the combination with a body portion, a portion of said body portion being curved in cross-section, said last named portion being provided with an opening; of a closure, a portion of said closure being curved in cross-section, said closure being pivotally secured to said body portion, and provided with a counterweight located below said pivotal point, and outside of said body portion, and offset with relation to the vertical line passing through said pivotal point, in the direction of the motion of said closure.

3. In a self closing receptacle, the combination with a body portion, a portion of said body portion being curved in cross-section, said last named portion being provided with an opening; of a closure, a portion of said closure being curved in cross-section, said closure being pivotally connected to said body portion, and provided with a counterweight located below said pivotal point and outside of said body portion, and offset with relation to the vertical line passing through said pivotal point, in the direction of the motion of said closure, and means adapted to hold said closure in its open position.

4. In a self closing receptacle, the combination with a body portion, a portion of said body portion being curved in cross-section, said last named portion being provided with an opening; of a closure, a portion of said closure being curved in cross-section, said closure being pivotally secured to said body portion, and provided with a counterweight located below said pivotal point and outside of said body portion, and offset with relation to the vertical line passing through said pivotal point, in the direction of the motion of said closure, and means adapted to hold said closure in its open position; said means comprising a socket in said body

In the embodiment shown in Fig. 5 I provide a standard or support 68, to which is revolubly secured a member 69 provided with a plurality of laterally extending cylindrical receptacles 70, each of which is provided with an opening 71, and to each of which is concentrically pivoted at 76 a closure 72 provided with a handle 73, a downwardly extending portion 74, and a counterweight 75. These counterweights are not offset, as the openings 71 are located in the tops of the receptacles 70.

No means for locking the closures 72 in their open positions are shown in this embodiment, although it will be obvious that such means might be provided if desired. The entire device may be provided with a handle 77, which may be integral with the upper portion of the standard 68.

In the embodiment shown in Fig. 6, I provide a body portion 138 analogous to the portion 38 of Fig. 3, (only the upper part of this body portion 138 being shown). Secured thereto is a part 140, analogous to the part 40, provided with a downwardly extending lug 178 analogous to the lug 78. A closure 141 is provided with a downwardly extending portion 143 and is pivoted at 142 to the bottom of the lug 178. A counterweight 144 is carried at the lower end of the downwardly extending portion 143; and the closure 144 is provided at the top with a handle 145. The principal difference between this receptacle and the one shown in Fig. 3 is that the top of the receptacle shown in Fig. 6 is flatter, and the part 140 and closure 141 are segments smaller than one quarter of spheres larger than those of which the part 40 and closure 41 form segments. Either this embodiment or the one shown in Fig. 3 may be provided, if desired, with means analogous to the strip 36.

The operation of these last described embodiments of my invention will be obvious from what has been set forth regarding their construction and from what has been said concerning the operation of the first described embodiment, shown in Fig. 1.

The advantages of my invention will be obvious. I may particularly enumerate that the receptacle is simple and efficient in protecting the contents of the receptacle from exposure in a perfectly sanitary manner, can be constructed with comparative ease, that the maximum capacity of the interior of the body portion is utilized, that it is self opening when it is desired to empty the contents, that the closure may be secured in an open position when desired, and that it is noiseless

portion, a perforation in said closure adapted to coincide with said socket when said closure is in its open position, and means adapted to engage with said perforation and said socket.

5 5. In a self closing receptacle, the combination with a body portion, a portion of said body portion being curved in cross-section, said last named portion being provided
10 with an opening; of a closure, a portion of said closure being curved in cross-section, said closure being pivotally connected to said body portion, and provided with a counterweight located below said pivotal point and
15 outside of said body portion, and offset with relation to the vertical line passing through said pivotal point, in the direction of the motion of said closure, and means adapted to hold said closure in its open position;
20 said means comprising a socket in said body portion, a perforation in said closure adapted to coincide with said socket when said closure is in its open position, and means adapted to engage with said perforation and said socket; said means comprising
25 a spring finger pivotally mounted on said body portion, and a pin located on the free end of said finger.

30 6. In a self closing receptacle, the combination with a body portion; a portion of said body portion forming part of a cylinder, and said body portion being provided with an opening; of a closure, said closure
35 being in form a portion of a cylinder, and said closure being pivotally connected to said body portion, and provided with a counterweight located below said pivotal

point and outside of said body portion and offset with relation to the vertical line passing through said pivotal point, in the direction of the motion of said closure. 40

7. In a self closing receptacle, the combination with a body portion; a portion of said body portion forming part of a cylinder, and said body portion being provided
45 with an opening; of a closure, said closure being in form a portion of a cylinder, and said closure being pivoted to said body portion at a point coinciding with the center of one of said cylinders, and at a point
50 slightly off the center of the other of said cylinders.

8. In a self closing receptacle, the combination with a body portion, a portion of said body portion being curved in cross section
55 said last named portion being provided with an opening; of a closure, a portion of said closure being curved in cross-section, said closure being pivotally connected to said body portion, and provided with a
60 counterweight located below said pivotal point and outside of said body portion, and offset with relation to the vertical line passing through said pivotal point, in the direction of the motion of said closure, and means
65 adapted to hold said closure in its open position; said means comprising a spring finger secured to said closure, and means on said body portion adapted to engage with said
70 finger.

In witness whereof I have hereunto signed my name this 7th day of February 1917.

ALBERT EDWARDS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."