W. T. HOOFNAGLE.

GARBAGE RECEPTACLE AND STAND THEREFOR.

APPLICATION FILED JUNE 11, 1912.

1,133,438.

Patented Mar. 30, 1915.

2 SHEETS—SHEET 1.

Fig. 1,

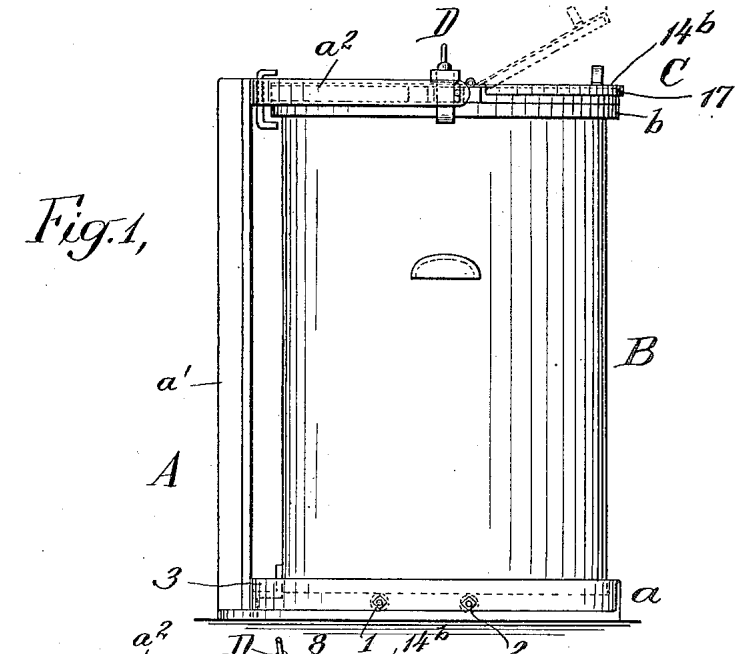

Fig. 2,

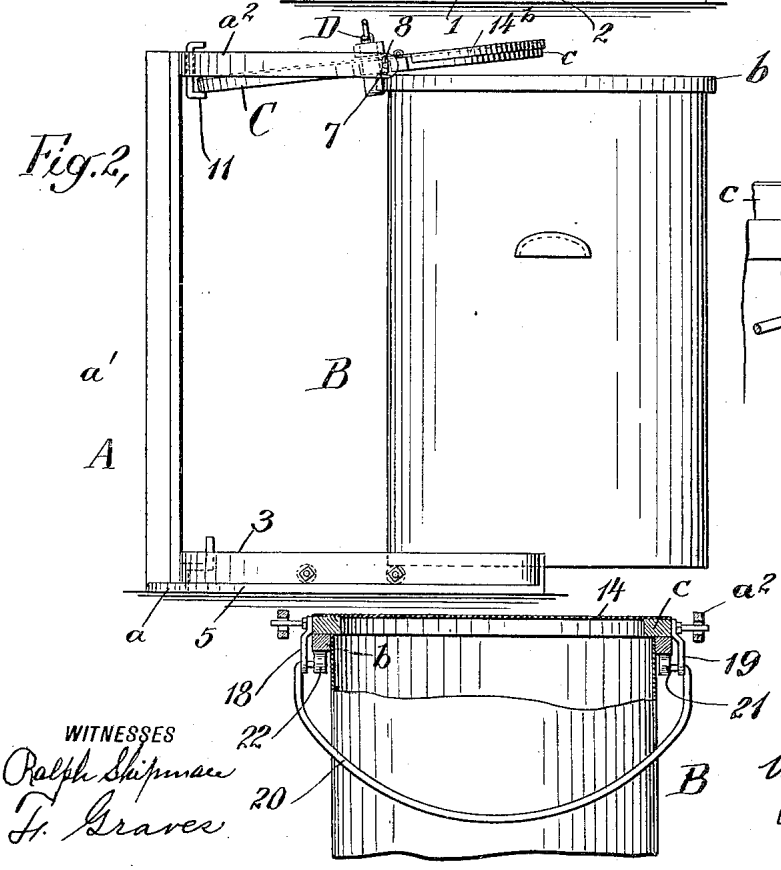

Fig. 5,

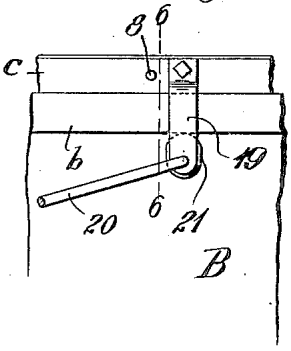

Fig. 6

WITNESSES

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2 SHEETS—SHEET 2.

Fig. 3,

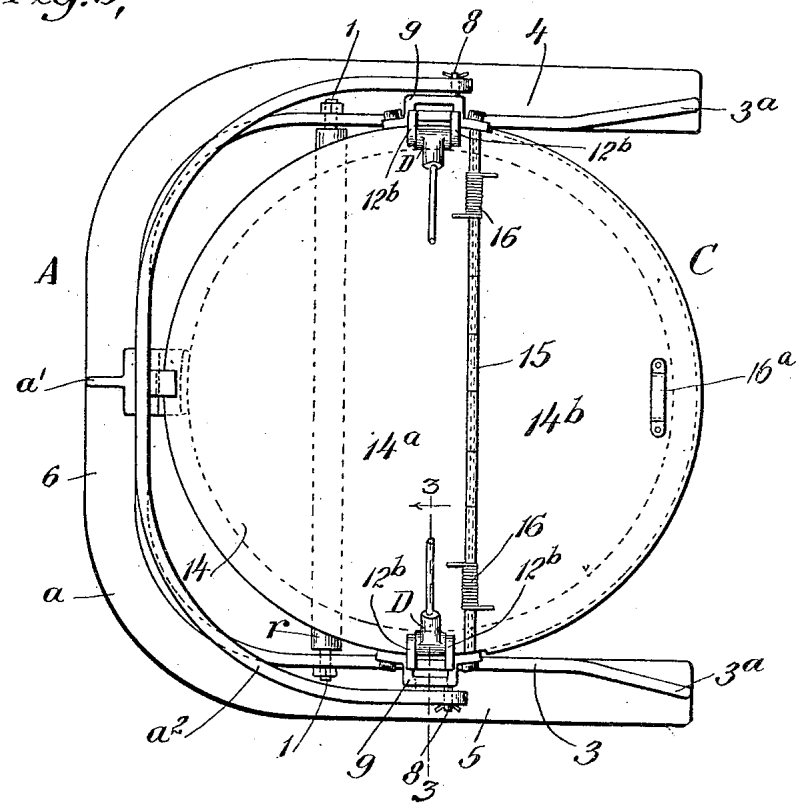
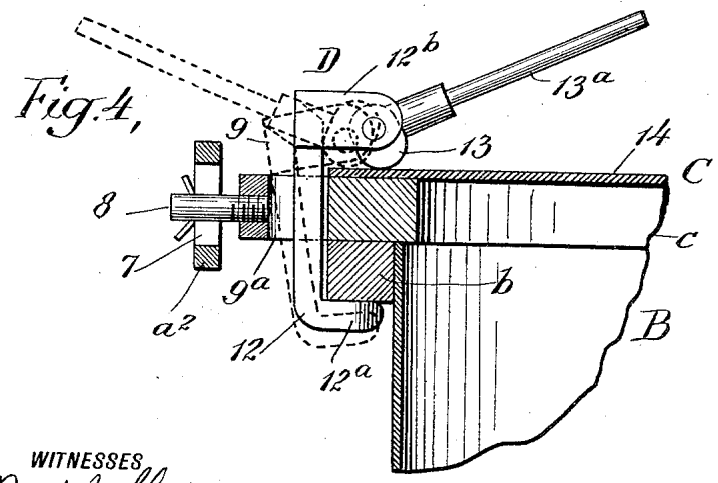


Fig. 4,



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UNITED STATES PATENT OFFICE.

WILLIAM T. HOOFNAGLE, OF GLEN RIDGE, NEW JERSEY, ASSIGNOR TO CLIMAX REFUSE CONTAINER CORPORATION, OF STATE OF NEW YORK.

GARBAGE-RECEPTACLE AND STAND THEREFOR.

1,133,438. Specification of Letters Patent. Patented Mar. 30, 1915.

Application filed June 11, 1912. Serial No. 703,087.

To all whom it may concern:

Be it known that I, WILLIAM T. HOOFNAGLE, a citizen of the United States, residing at Glen Ridge, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Garbage-Receptacles and Stands Therefor, of which the following is a specification.

The purpose of this invention is to provide a garbage can, and stand therefor, which will obviate some of the troubles found to exist in the use of the devices of this kind.

The ordinary garbage can, with the closely fitting flanged cover is a source of annoyance because, if the cover fits tight enough to prevent odors from escaping it is more or less difficult to remove or replace, and for this reason the covers are often left off or only partially placed upon the cans by domestics and other users, and when the top of the can or the flange on the cover becomes dented or distorted, the parts do not fit accurately, and for that reason the cover is often placed loosely upon the can instead of being securely fitted thereon. Trouble is also experienced in many localities from the overturning of the cans and the spilling of the contents by dogs in search of food.

In my invention, illustrated by the accompanying drawing, I have provided a can and stand which overcomes these difficulties, the can top being permanently connected to the stand and being provided with a wide ring which makes a butt joint with a similar ring at the upper edge of the can, so that a close fitting joint is made when the can is slid under the top, and clamping devices are provided for securing the can to the top to make a more perfect joint, and to prevent the can from being overturned by dogs, the stand having a large base which makes it difficult for a dog to overturn both the can and the stand to which the can becomes locked. The cover also is provided with a hinged lid or door through which the garbage may be inserted in the can, and this door is provided with a spring which closes the door automatically when released from the hand of the operator. Thus, whenever the can is placed upon the stand the cover is thereby fitted to it, and when it is desired to empty garbage into the can the spring door is lifted, and the latter returns automatically to its closed position, as soon as released. Hence the can, as long as it is in its position in the stand, can never be left uncovered through carelessness; also when the can and cover are clamped together, the stand becomes secured to the can and it is difficult or impossible for a dog to overturn the combined stand and can.

In the accompanying drawing, which illustrates my invention, Figure 1 is a side elevation of the stand and the can in position thereon; Fig. 2 is a similar view, showing the can removed from the stand; Fig. 3 is a top plan view of Fig. 1, on a larger scale; Fig. 4 is a sectional view on the line 3—3 of Fig. 3; Fig. 5 is a detail, showing in side view a modified form of clamping device and Fig. 6 is a section on the line 6—6 of Fig. 5.

Referring to the drawing, A indicates the stand, B the can or receptacle and C the cover for the receptacle. The stand comprises a base a, preferably of angle iron, bent into U-form, adapted to rest upon the ground or pavement, an upright support a' secured to the rear of the base, and a yoke a^2, projecting horizontally from said support, and in which is hung the top or cover C for the receptacle. Rods 1 and 2 extend through the upright flange 3 on the base, from the side 4 to the side 5, and upon these rods are mounted rollers r which serve as supports for the can, and this upright flange flares outwardly at its ends, as shown at 3^a, so as to form guides for the can when the latter is being pushed into position upon the rollers. When the can is in position upon the rollers, its bottom portion is inclosed on three sides by the sides 4, 5 and the back 6 of the base.

The upright support a' is secured to the flange 3 at the center of the back part of the base, and the yoke a^2 is secured to the upper end of said support and its arms extend forwardly over the sides of the base, as shown. In the end of each arm of the yoke is a vertical slot 7, and through these slots project pins or trunnions 8 which are secured to guides 9 attached to diametrically opposite points of a strong metal ring c, which forms a part of the can top C. The trunnions are set slightly forward of the diametrical line passing through the ring, in order that the top will be slightly overbalanced at the rear, so that it will assume a slightly inclined position when the can is

removed, and the ring *c* will rest against a stop 11 on the upright, as shown in Fig. 2. This tilted position of the cover facilitates the insertion of the can from the front of the stand.

The ring *c* on the top or cover, is flat on its lower side and preferably rectangular in cross section, and the can B has at its upper end a similar ring *b* secured to its outer side and forming a strong annular flange, having a flat upper surface adapted to abut against the flat lower surface of the ring *c* and form a butt joint therewith when the rings are clamped together by the two clamping devices D, which are alike in construction and arranged at diametrically opposite points on the top. Each clamping device comprises a catch consisting of a short bar 12 which extends through the opening 9^a in the guide and has an overturned end 12^a adapted to engage the under side of the ring *b* and a pair of ears 12^b at its upper end between which is pivoted a cam 13, provided with a lever or handle 13^a.

It will be evident from an inspection of Fig. 4, that if the can is in position and the handles or levers 13^a are pressed downward, the cams will bear upon the sheet metal cover 14 directly over the substantial iron ring *c*, and that the rings *b* and *c* will be pressed forcibly together and form a tight joint; also that when the levers are raised to the vertical position, the catches 12 will drop downward for a sufficient distance to permit the can to be readily removed or inserted by sliding it upon the rollers which support it.

The purpose of the vertical slots 7 in the arms of the yoke is to permit the top to adjust itself to the height of the can and this vertical play of the top, together with its freedom to tilt about the trunnions, and the wide abutting surfaces of the rings, insures that whenever the can is inserted in its rearmost position on the rollers, a close fit will be made between the top and the can which will prevent odors from escaping.

The clamping devices might be dispensed with, but they are desirable for insuring a perfect fit between the rings and for preventing the can from being displaced, or the contents from being spilled, in case the stand is overturned by any means.

The sheet metal covering 14 is a disk made in two parts, 14^a and 14^b, the former part being secured by any suitable means, in a practically air-tight manner, to the top of the ring *c* and the latter part 14^b being secured by a hinged joint 15 to the part 14^a and forming a lid or door which is normally held closed by springs 16. The lid or door is provided with a suitable handle 16^a, and it preferably has a flange 17 which fits closely around the ring *c*.

In practice, the can being in the stand, and clamped in position, to insert garbage or refuse into the can, the lid 14^b is raised, as shown in dotted lines in Fig. 1, and when the material has been thrown into the can and the lid released, the spring automatically closes the lid. The householder or servant can therefore, never leave the can uncovered. The removal of the garbage is usually attended to by the garbage collector, who releases the clamps, slides the can forward on the rollers to remove it from the stand and the can is carried to the garbage wagon, leaving the top suspended in the yoke of the stand by the trunnions, which rest at the bottoms of the vertical slots in the arms of the yoke when the can is removed. After the can has been emptied, the garbage collector slides it back into position on the rollers and the top is thereby raised and its ring *c* then rests upon the ring on the can. The can is then clamped to the top. Owing to the fact that the rings have wide abutting surfaces it is not necessary to set the can in an exact position to make a closed joint between the rings. The ring *c* is made wide enough to receive the thrust of the cams, so that the pressure of the latter will not indent the sheet metal covering.

Instead of providing separately operated clamping devices, as in Figs. 1 to 4, a pair of clamping devices, operated by a bail, may be used, as in Figs. 5 and 6, the clamping devices being secured to the top so as to remain with it, when the can is removed, as in the previously described figures. In Figs. 5 and 6, ears 18 and 19 are secured to and depend from the ring *c* of the top, and in these is pivoted a bail 20 having inwardly turned ends on which are secured cams 21 and 22, which, when the can is in position, and the bail pushed down, will engage the under side of the ring *b;* but when the bail is swung upward will move out of engagement with the ring *b* and thereby release the can from the top.

The garbage collecting wagons may be provided with similar stands and covers, so that the cans, instead of being dumped into the wagons, may be placed in stands thereon, and the covers will prevent the odors from escaping. For the stands on the wagons, it would be unnecessary to have doors in the can covers.

What I claim is:

1. The combination with a base adapted to support a refuse can in sliding engagement therewith and cover supporting means, of a cover connected to the supporting means so as to extend over the base with its lower side downward when the can is removed from the base, the connections between said cover and supporting means constructed to permit the cover to be moved bodily upward with respect to said means, the lower side of

said cover being adapted to make a butt joint with the rim of a can, and a can slidably mounted on the base and adapted, when on the base, to support the cover.

2. The combination with a base adapted to support a refuse can in sliding engagement therewith and cover supporting means, of a cover connected to the supporting means so as to extend over the base with its lower side downward when the can is removed from the base, the connections between said cover and supporting means constructed to permit the cover to be moved bodily upward with respect to said means, the lower side of said cover being adapted to make a butt joint with the rim of a can, and said cover having a door, and a can slidably mounted on the base and adapted, when on the base, to support the cover.

3. The combination with a base adapted to support a refuse can in sliding engagement therewith, and a can slidably mounted on the base, of a cover adapted to make a butt joint with the can, supporting means for the cover adapted to support the latter, when the can is removed from the base, at a distance from the base less than the height of the can, said cover being movable bodily upward with respect to the base and to its points of support on said supporting means.

4. The combination with a refuse can and a base adapted to support the can and to permit the latter to slide onto and off of the base, of a cover adapted to make a butt joint with the can, supporting means for the cover adapted to support the latter at its opposite edges and with its lower side downward, when the can is removed from the base, at a distance from the base less than the height of the can, said cover being movable bodily upward with respect to the base and to its points of support on said supporting means.

5. The combination with a base adapted to support a refuse can, and cover-supporting means, of a cover pivotally connected at opposite edges to said means and movable bodily upward with respect to the base, and to its points of support on said supporting means, the lower side of said cover adapted to make a butt joint with the rim of a can and a can adapted, when on the base, to support the cover above the aforesaid points of support.

6. The combination with a base adapted to support a refuse can, and cover-supporting means, of a cover pivotally connected at opposite edges to said means and movable bodily upward with respect to the base and to its points of support on said supporting means, the lower side of said cover adapted to make a butt joint with the rim of a can, said cover having a door normally urged toward its closed position, and a can adapted, when on the base, to support the cover above the aforesaid points of support.

7. The combination with a base adapted to support a refuse can and having guides at its sides for guiding a can from front to rear thereof, of cover-supporting means and a cover diametrically supported thereby over the base upon an axis transverse to the direction of the guides, said cover being movable bodily upward with respect to the base and having its lower side adapted to make a butt joint with the rim of a can.

8. The combination with a base adapted to support a refuse can and having guides at its sides for guiding a can from front to rear thereof, of cover-supporting means and a cover diametrically supported thereby over the base upon an axis transverse to the direction of the guides, said cover being movable bodily upward with respect to the base and having its lower side adapted to make a butt joint with the rim of a can, said cover having a door, and a can adapted to fit on the base and to support said cover when on the base.

9. The combination with a base adapted to support a refuse can, and cover-supporting means, of a cover connected at opposite edges to said means and movable vertically with respect to the base, said cover comprising a relatively heavy ring having a flat lower surface adapted to make a butt joint with the rim of a can and a top on said ring, said top having a door.

10. The combination with a base adapted to support a refuse can, and cover-supporting means extending above and at opposite sides of the base and having vertical slots, of a cover comprising a relatively heavy ring having trunnions engaging said slots and a top on said ring, said top having a door and said ring having a flat face adapted to make a butt joint with the rim of a can.

11. The combination with a base adapted to support a refuse can, and cover-supporting means, of a cover pivotally connected at opposite edges to said means and movable bodily upward with respect to the base, said cover having a door normally urged toward its closed position, and a can adapted, when on the base, to support the cover, said can having a laterally projecting flat ring at its upper end adapted to make a butt joint with the cover.

12. The combination with a base adapted to support a refuse can, and cover-supporting means, of a cover pivotally supported at opposite edges by said means, the pivotal connections being constructed to permit vertical movement of the cover at its points of support, and a stop at the rear of the pivotal connections adapted to be engaged by the cover.

13. The combination with a base and cover-supporting arms carried thereby, of a can cover comprising a relatively heavy flat ring connected to said arms and a top

connected to said ring, a can adapted to rest on said base and having a laterally projecting ring adapted to abut against the ring on the cover, catches depending from the cover and adapted to extend beneath the ring on the can, and cams adapted to bear on the cover ring, for moving said catches into engagement with the ring on the can.

14. The combination with a suitable support of a can-cover carried thereby, said cover comprising a ring and a top, of a can body having a laterally projecting ring at its upper edge, a pair of guides secured at opposite edges of the cover, catches extending loosely through said guides and adapted to engage the ring on the can, and cams connected to said catches and adapted to bear against the cover

In testimony whereof I hereby affix my signature, in presence of two witnesses.

WILLIAM T. HOOFNAGLE.

Witnesses:

ROBERT WATSON,

RALPH SHIPMAN.