

June 26, 1934.

S. HAMMER

1,964,513

WASTE RECEPTACLE

Filed June 17, 1932

2 Sheets-Sheet 1

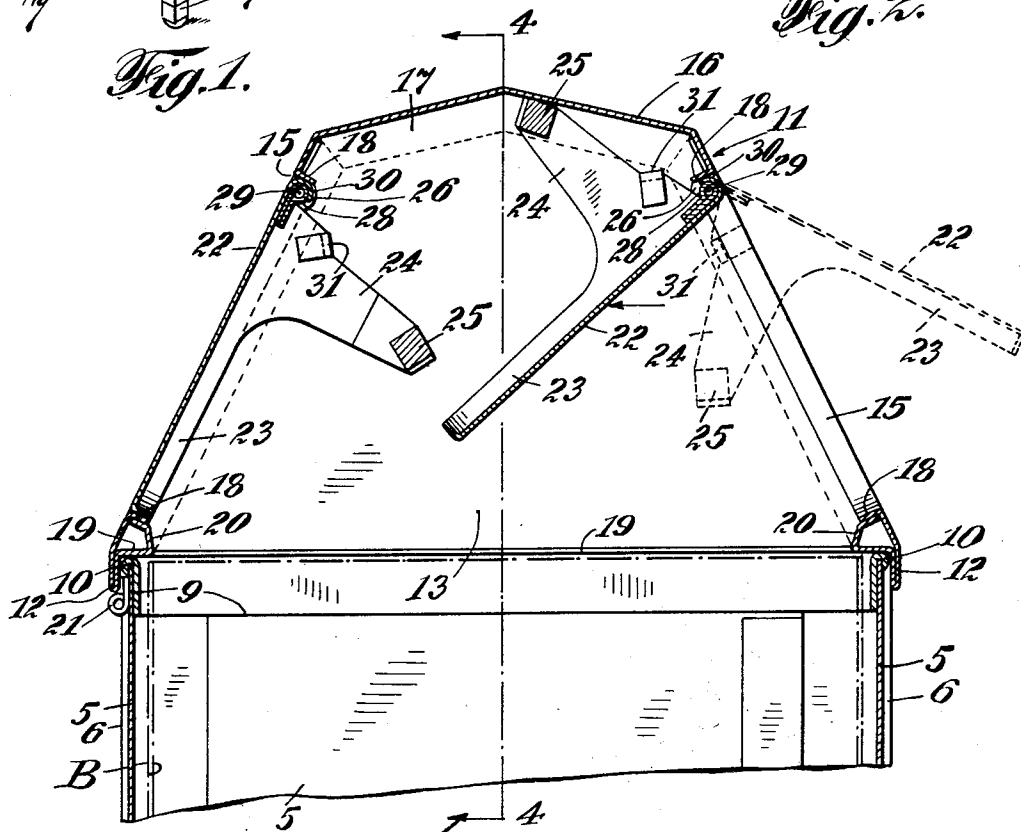
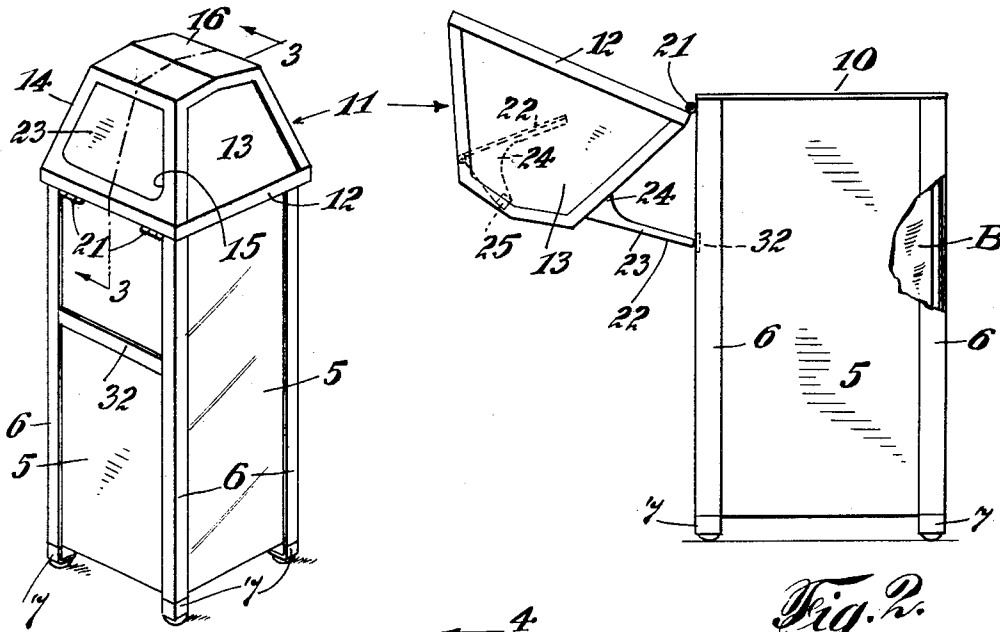


Fig. 3.

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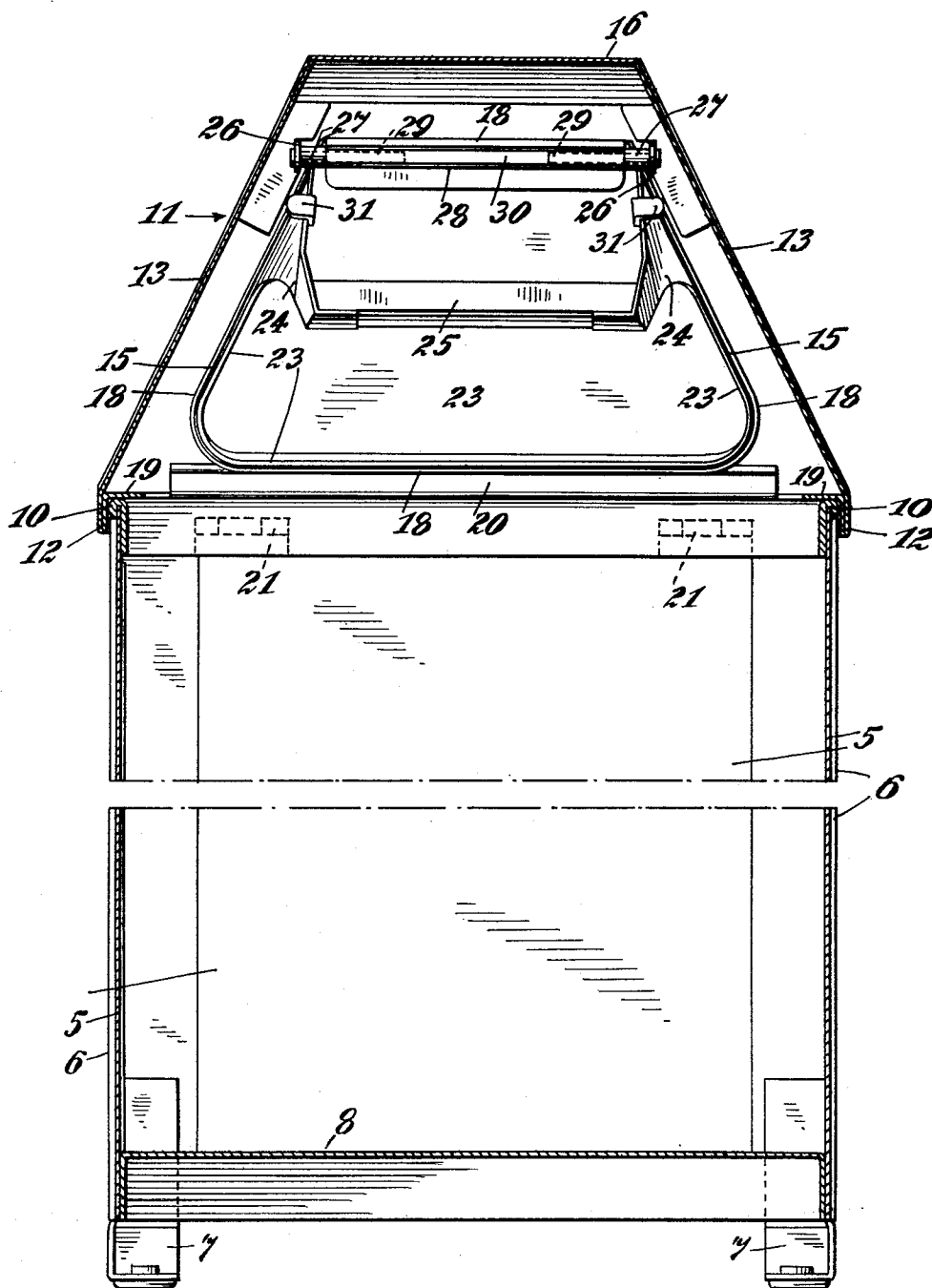


Fig. 4.

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UNITED STATES PATENT OFFICE

1,964,513

WASTE RECEPTACLE

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Application June 17, 1932, Serial No. 617,767

13 Claims. (Cl. 220—32)

This invention relates to waste receptacles, and more particularly to receptacles of that type which are now commonly seen on the streets of municipalities and in public buildings for the collection of paper and other waste materials. Heretofore, such receptacles have usually been provided with a hinged cover for the receptacle body having opposite upwardly sloping or converging side walls and swinging doors or closures for openings in said walls hung or suspended from a common pivot hinge at the center of the cover for swinging movement as a single unit. Thus in such receptacles, when one of the doors is pressed inwardly for the insertion of waste into the receptacle, the other of the doors is simultaneously swung outwardly beyond the side wall of the cover. This has been found objectionable, since when the receptacle is positioned close to the side wall of a building, said outwardly swinging door would strike the wall and mar or disfigure the face thereof, as well as possibly distort or damage the door which is usually made of relatively light sheet metal. Another objection to this prior art construction is that when the cover is swung to its open position to permit removal of the waste-receiving bag or sack from the receptacle body, the free edge of the outwardly swinging door has a sliding scraping movement against one side wall of the receptacle body, thereby scraping the paint or other finish therefrom and rendering the receptacle unsightly in appearance.

It is the primary object and purpose of my present invention to provide a waste receptacle of this type which is of such construction that the above noted objections are eliminated, and which also results in a receptacle of unique and attractive appearance and which will be of maximum durability and of high utility for the purpose in view.

It is a more particular object of my invention to provide such a receptacle in which the hinged top or cover for the receptacle body is provided in the opposite sloping side walls thereof with independently swinging doors or closures accurately counter-balanced to a normally closed position, together with stop means limiting the outward swinging movement of the individual doors, so that when the cover is moved to open position, one of said doors will constitute an effective brace and support for the cover by contact with a suitable strike plate affixed to one side wall of the receptacle body.

It is another detail object of the invention to provide certain structural features of the recep-

tacle cover which reinforces the cover walls at the lower edges of the door openings and provides a smooth surface obviating possible injury to the fingers of the hand in inserting the waste material into the receptacle.

With the above and other objects in view, the invention consists in the improved waste receptacle, and in the form, construction and relative arrangement of its several parts as will be hereinafter more fully described, illustrated in the accompanying drawings and subsequently incorporated in the subjoined claims.

In the drawings wherein I have disclosed one simple and practical embodiment of my present invention, and in which similar reference characters designate corresponding parts throughout the several views,—

Figure 1 is a perspective view of a waste receptacle illustrating one form of my invention;

Fig. 2 is a side elevation partly in section, the cover of the receptacle being shown in open position;

Fig. 3 is an enlarged vertical section taken on the line 3—3 of Fig. 1; and

Fig. 4 is a vertical sectional view taken on the line 4—4 of Fig. 3.

Referring in detail to the drawings, the receptacle body generally indicated at 5 is produced from sheet steel of requisite gauge or thickness, and is preferably of general rectangular form. The metal sheet from which this body is formed may be die pressed so as to produce at the juncture of the angularly related walls of the receptacle body the outwardly pressed or embossed parts 6 representing vertical corner posts. At the lower ends of these embossed corners, the metallic supporting members or feet indicated at 7 are welded or otherwise suitably fixed to the receptacle walls. The bottom 8 of the receptacle, preferably as a separate part, is arranged between and welded or otherwise fixed of its marginal edges to the side walls of the receptacle. To the upper edges of these side walls, a reinforcing band indicated at 9 is welded or otherwise secured, said band being disposed upon the inner surfaces of said walls and having its upper edges turned outwardly over the edges of the receptacle walls to provide the rounded or convex bead indicated at 10.

The receptacle cover 11 is in the general shape or form of a truncated pyramid having opposed side walls thereof converging upwardly from a lower marginal rim 12. The side walls 13 are imperforate, while the other side walls 14 are provided with the door openings 15. At their

upper ends, these side walls of the cover are connected by the inwardly and upwardly sloping sections of the top wall 16 which provide the additional space above the door openings 15, as indicated at 17 for a purpose which will hereinafter become apparent.

The walls 14 of the cover along the edges of the openings 15 are provided with inwardly projecting flanges 18 and the metal sheet from which this cover is formed, is bent inwardly and upwardly upon itself from the lower edge of the rim 12 to reinforce said rim and then flanged inwardly as at 19. These flanges beneath the door openings 15 have parts 20 extended upwardly from their inner edges and in contact with the flanges 18 along the lower edges of the door openings 15 to thus provide supporting and reinforcing ribs for the flanges 18, and also a comparatively smooth surface at the lower edge of each door opening.

The receptacle cover as above described, is hingedly attached in any preferred manner, as indicated at 21, to one side wall of the receptacle body so that it may be swung relative thereto to the position indicated in Fig. 2 of the drawings to permit removal of the paper or cloth bag or sack indicated at B, from the body of the receptacle.

The openings 15 of the receptacle cover are normally closed by the doors 22. Each of these doors is of heavy gauge sheet metal and in contour and dimensions conforms to the opening 15, so that in its closed position, the door substantially completely closes said opening. Since these doors, as to their construction and mounting, are identical, a detail description of one will suffice for both. Along opposite side edges and its lower edge, the door plate is formed with the inwardly projecting flanges 23, the side flanges being provided at their upper ends and in the plane of said flanges with the arms or extensions 24. These arms at their inner ends, are connected by a counter-balancing bar 25 which operates to normally retain the door in closed position with the door body disposed substantially in the plane of the side wall 14 of the receptacle cover.

To the inner side of the wall 14, at the upper end of the opening 15 and adjacent each side edge thereof, the pivot-receiving lugs or brackets 26 are suitably secured, each of said brackets having an inwardly extending sleeve 27. The door 22 on the inner side thereof and at its upper edge is provided with the sleeve 28 positioned between the sleeves 27 to receive the pivot or hinge pins 29 fixed in the brackets 26. The flange 18 at the upper edge of the door opening 15 closely overlies the inwardly turned upper edge of the door plate indicated at 30, which in turn closely embraces the hinge sleeve 28. This construction provides an exceedingly strong and durable hinge mounting for the door.

Each of the arms 24 of the door 22 is provided on the upper edge thereof with a laterally projecting stop lug 31 adapted for contact with the side flanges 18 of the door opening, to thereby limit the outward swinging movement of the door with respect to the receptacle cover to substantially the position shown in Fig. 2 of the drawings.

In the use of the improved waste receptacle above described, it will be apparent that when the cover is in its closed position, paper and other waste matter may be readily inserted from either one of the two opposite sides of the receptacle,

pressure against either of the doors 22 causing the same to swing inwardly more or less to the position shown in full lines in Fig. 3 of the drawings. It will be seen that in this position of the door, and while the other of the doors remains in its closed position, the opening 15 is substantially entirely unobstructed, so that a very large quantity of waste material may be passed there-through and dropped into the bag or sack B within the receptacle body. This maximum opening movement of the door is permitted by the additional space 17 at the top of the receptacle cover, which receives the counter-balancing bar 25 and the ends of the arms 24 of the door. After pressure on the door is released, said counter-balancing weight then returns the door to normal position, the initial outward swinging movement of the door through opening 15 being limited by the stop lugs 31. It is also to be observed that the arc of swinging movement of the lower edge of the door is such, that although the bag 15 may be filled with waste to its full capacity, the swinging movement of the door is not thereby obstructed and the waste matter caught by the lower edge of the door carried upwardly into the receptacle cover.

When the filled bag B is to be removed from the receptacle body, the cover 11 is then swung laterally to the position shown in Fig. 2 of the drawings, and in such movement of the cover, the counter-balancing bars 25 cause one of the doors to swing inwardly into the cover, while the other of said doors swings outwardly, such outward movement being limited by the engagement of stops 31 with the flanges 18. The latter door will thus project obliquely between one side of the cover and the opposed side wall of the receptacle body, the cover being sustained or supported by contact of the free end of said door against a suitable strike plate indicated at 32, which extends horizontally on one side of the receptacle body between the corner 6 thereof. This strike plate may also conveniently bear the manufacturer's name and other appropriate information. Thus marring or scratching of the surface finish of the receptacle by the outwardly swinging door on the cover is obviated and the neat and attractive appearance of the receptacle preserved. When the cover is in its normal upright position on the receptacle body and both of the doors 22 closed, a substantially dust-tight and fireproof closure for the interior of the receptacle is provided. By the provision of the heavy reinforcing band 9 and the reinforcing ribs 20 on the cover, the possibility of bending or distortion of the receptacle or cover walls, even though the device may be abusively handled, is reduced to a minimum.

From the foregoing description considered in connection with the accompanying drawings, the construction, manner of use and several advantages of my present invention will be clearly and fully understood. It will be seen that I have devised a waste receptacle of this kind having great utility in practical use, and which will be exceedingly strong and durable. The device may be produced in various ornamental metals so that it will constitute an attractive article of furniture for office or home use. For use on the city streets, the article may be produced in various sizes, and since the doors are mounted for independent swinging movement, liability of a person being injured by the outward movement of one door as the other door is swung inwardly to open position, or the defacing of walls, or damage or

injury to the doors, will be obviated. I have herein shown and described a practical embodiment of the device which has been found very satisfactory for the purpose in view. It is nevertheless to be understood that the essential features of my present improvements might also be exemplified in various other alternative structural forms, and I accordingly reserve the privilege of resorting to all such legitimate modifications in the form, proportion and arrangement of the several parts as may be fairly incorporated within the spirit and scope of the appended claims.

I claim:

1. A waste receptacle comprising a body, a cover therefor having upwardly converging opposed side walls, each provided with a door opening, a door pivotally mounted in the upper end of each opening, said doors having independent inward and outward swinging movement through said openings, and separate means rigidly connected with the respective doors to counter-balance said doors to closed positions substantially in the plane of the cover walls, and additional means fixed to each door to engage a part of the respective cover walls and limit the outward swinging movement of the doors.

2. A waste receptacle comprising a body, a cover therefor having upwardly converging opposed side walls and an arched top connecting said walls at their upper ends, each of said side walls provided with a door opening, a door pivotally mounted in the upper end of each opening, said doors having independent inward and outward swinging movement through said openings, a separate counter-balancing means rigidly connected to the inner sides of the respective doors adjacent their pivoted ends to counter-balance said doors to closed positions substantially in the planes of said cover walls and engageable with the arched top of the cover to limit the inward swinging movement of said doors, and additional means fixed to each door to engage a part on the respective cover walls and limit the outward swinging movement of the doors.

3. A waste receptacle comprising a body, a cover therefor having a base rim engaging over the upper end of said body, said cover including upwardly converging opposed side walls each provided with a door opening and having flanges projecting inwardly from the edges of said opening, said rim of the cover embodying upwardly extending parts terminating in ribs bearing on the upper edges of the opposite receptacle walls and underlying the flanges at the lower edges of said door openings in contact therewith to reinforce the same, a door pivotally mounted in the upper end of each opening, and means counterbalancing said doors to closed positions substantially in the planes of said cover walls.

4. A waste receptacle comprising a body, a cover therefor having upwardly converging opposed side walls each provided with a door opening, a door pivotally mounted in the upper end of each opening, said doors having independent inward and outward swinging movement through said openings, arms projecting inwardly from the opposite side edges of each door adjacent its pivoted end, and a bar rigidly connecting the inner ends of said arms with each other and disposed in substantially parallel relation to the door pivot to counter-balance the door to a closed position substantially in the plane of the cover wall.

5. A waste receptacle comprising a body, a cover therefor having upwardly converging opposed

side walls each provided with a door opening, a door pivotally mounted in the upper end of each opening, said doors having independent inward and outward swinging movement through said openings, arms projecting inwardly from the opposite side edges of each door adjacent its pivoted end, a bar rigidly connecting the inner ends of said arms with each other to counter-balance the door to a closed position substantially in the plane of the cover wall, and a laterally projecting lug on each of said arms to engage the receptacle wall and limit the outward swinging movement of the door.

6. A waste receptacle comprising a body, a cover therefor hinged to one side wall of said body at its upper end, said cover having opposed side walls each provided with a door opening, a door pivotally mounted in the upper end of each opening, said doors having independent inward and outward swinging movement through said openings, and means for limiting the outward swinging movement of each door, whereby when the cover is in open position, one of said doors has bearing contact at its free end against the side wall of the receptacle body to sustain said cover in open position and out of contact with the body of the receptacle.

7. A waste receptacle comprising a body, a cover therefor hinged to one side wall of said body at its upper end, a door pivotally mounted in one side wall of the cover and swinging to open position relative thereto as the cover is moved to an open position with respect to the receptacle body to position one end of said door for engagement against the opposed side wall of the receptacle body to sustain said cover in open position and out of contact with the body of the receptacle.

8. A waste receptacle comprising a body, a cover therefor having a side wall provided with a door opening, a door pivotally mounted at the upper end of said opening for inward and outward swinging movement therethrough, a counterbalancing bar extending in parallel relation to the door pivot across and laterally spaced from the inner face of the door, and means rigidly connecting the said bar with the door in spaced relation to the pivot thereof.

9. A waste receptacle comprising a body, a cover therefor having a side wall provided with a door opening, a door pivotally mounted at the upper end of said opening for inward and outward swinging movement therethrough, a counterbalancing bar extending in parallel relation to the door pivot across and laterally spaced from the inner face of the door, and rigid parts projecting inwardly from opposite side edges of the door and fixed to opposite ends of said counterbalancing bar.

10. A receptacle having a cover provided with an opening in the wall thereof and flanges projecting inwardly from the edges of said opening, a door pivotally mounted in the upper end of said opening and having flanges projecting inwardly from its lower and opposite side edges, and a counterbalancing bar rigidly connected at its ends to the side flanges of the door in spaced relation from the door pivot and normally balancing the door in its closed position with the flanges thereof in closely opposed relation to the corresponding flanges on the cover wall.

11. A waste receptacle comprising a body, a cover therefor having side walls and a base rim engaging over the upper end of said body, one of said side walls having an opening therein and a closure for said opening, said rim of the cover

including an inwardly folded part bent to provide an internal rib for bearing contact upon the upper edge of the receptacle body, and said rib having an outwardly directed reinforcing flange in contact with the side wall of the cover at the lower edge of the opening therein.

12. A waste receptacle comprising a body, a cover therefor having side walls and a base rim engaging over the upper end of said body, one of said side walls having an opening therein and a closure for said opening, a flange projecting inwardly from the lower edge of said opening, said rim of the cover including an inwardly folded part bent to provide an internal rib for bearing contact upon the upper edge of the receptacle body, and said rib having an outwardly directed reinforcing flange underlying and contacting with the flange

at the lower edge of said opening in the cover wall.

13. A waste receptacle comprising a body, a cover therefor having a side wall provided with a door opening, a door pivotally mounted at the upper end of said opening for inward and outward swinging movement therethrough, a counterbalancing bar extending in parallel relation to the door pivot across and laterally spaced from the inner face of the door, and means rigidly connecting said bar with the door in spaced relation to the pivot thereof, the said counterbalancing bar being engageable with the inside of the cover to limit the inward swinging movement of the door.

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