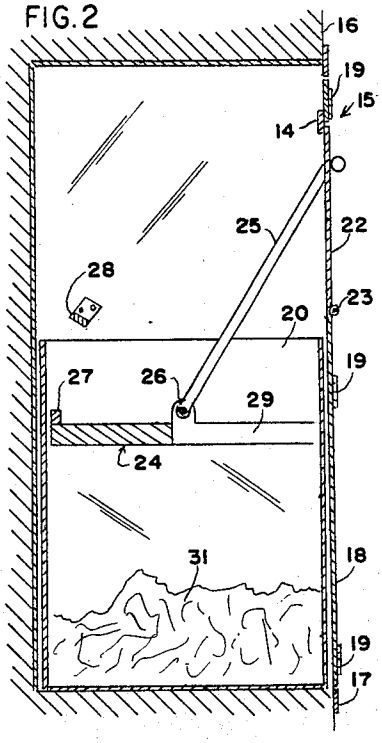
Nov. 15, 1966 J. M. KATZ 3,285,505

WASTE PAPER RECEPTACLE WITH AUTOMATIC TAMPING MEANS

Filed Aug. 5, 1965

FIG. 2



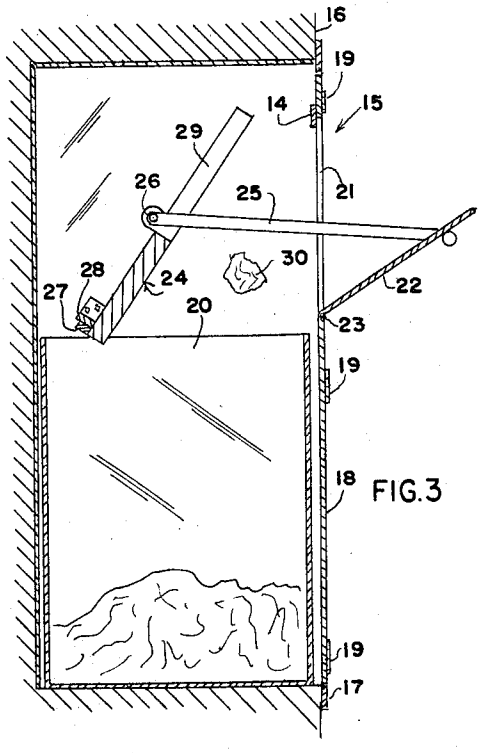
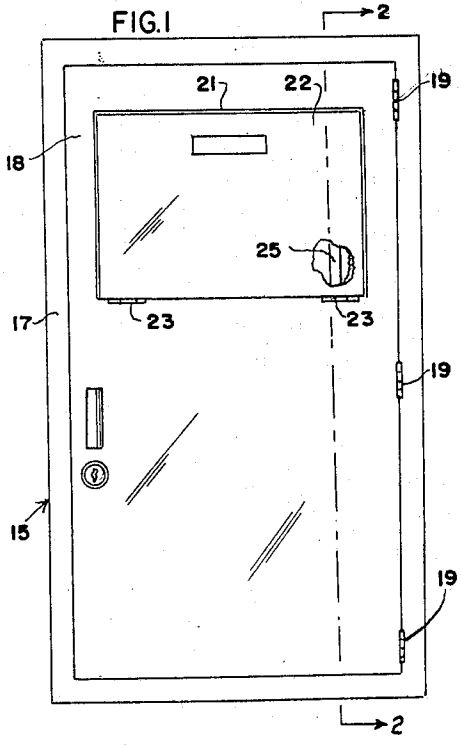


FIG. 3

FIG. 1



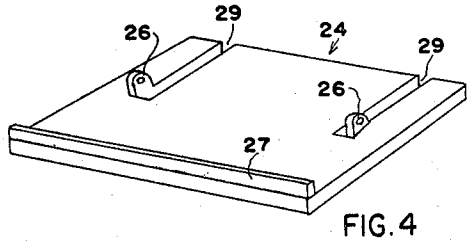


FIG. 4

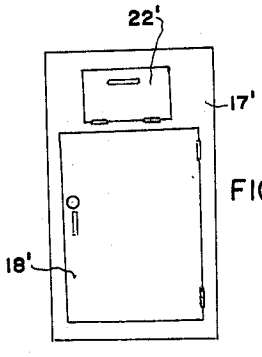


FIG. 5

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3,285,505

WASTE PAPER RECEPTACLE WITH AUTOMATIC TAMPING MEANS

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Filed Aug. 5, 1965, Ser. No. 477,550
3 Claims. (Cl. 232—43.3)

The present invention relates to waste receptacles for paper towels, facial tissues, sanitary napkins and the like, and more particularly to the type for installation in the washrooms of industrial, office, hospital, institutional and other public buildings.

A crumpled paper sheet occupies a considerable volume as compared to the space it takes up when flat. Hence, it does not take long in a public washroom for a waste paper receptacle to become filled and porters are kept busy a few times a day to empty same, or else the public just throws the refuse onto the filled basket, and it falls to the floor. This occurs whether the receptacle is exposed, or within a cabinet offering an opening thereto.

It is important to note, that if the receptacle's contents were compressed at least to approach flatness, the receptacle would hold a considerable amount of waste material. This would reduce maintainance costs, once-a-day emptying in most instances would be sufficient, and there would be no increases in receptacle size.

It is therefore the principal object of this invention to provide a novel and improved cabinet-housed waste paper receptacle reached by opening a normally closed door in the front wall of the cabinet, and such structure shall offer a tamping plate which is automatically operated by said door's movement.

A further object thereof is to provide that when said door is opened to throw waste paper into the receptacle, the tamping plate shall automatically rise to a position to clear the receptacle's mouth, and when said door is closed, said plate shall automatically return into the receptacle and travel downwardly therein a predetermined distance, as a piston therein.

Still a further object of this invention is to provide a novel and improved waste paper receiver structure of the character described, which is simple in construction, reasonable in cost to manufacture, easy to use, and efficient in carrying out the purposes for which it is designed.

Other objects and advantages will become apparent as this disclosure proceeds.

For one practice of this invention, a waste paper receptacle is within a cabinet which may fit into a recess in a wall. This cabinet has a front door to be opened when it is necessary to remove the filled receptacle to have its contents dumped. Said receptacle is below the top of said cabinet door, and there is a relatively small door across an opening in the cabinet door, above the plane of the mouth of said receptacle; said small door being swingable forwardly downwardly to open, whereupon waste paper or the like can be thrown into the receptacle. An arm rigidly fixed and extending from the rear surface of said small door, has pivotally mounted at its distal end, a tamping plate which is down a way into the receptacle when said small door is closed; such pivotal connection being centrally of said tamping plate, so such plate is horizontal at this time. When said small door is opened, the tamping plate will move upwardly out of the receptacle, whereupon it will be cammed to swing to a position towards vertical where it does not obstruct the path from the door opening into the receptacle.

A detailed description and the mode of operation of a preferred embodiment of this invention, will now be given, for which reference will be had to the accompanying drawing.

In the drawing which is part of this specification,

similar characters of reference indicate corresponding parts in all the views.

FIG. 1 is the front view of a waste paper receiving structure embodying the teachings of this invention.

FIG. 2 is a section taken at line 2—2 in FIG. 1, showing the normal rest condition, where the small door at the front, through which refuse is thrown into the housed receptacle, is closed, and the tamping plate is within said receptacle.

FIG. 3 is a similar section, showing said small door open, and the tamping plate in a position out of the receptacle, to make the mouth of the latter accessible from said door opening.

FIG. 4 is a fragmentary perspective view of the tamping plate and the structure extending from said door, on which said plate is swingably mounted.

FIG. 5 is a front view of a modified cabinet construction, drawn to a reduced scale.

In the drawing, the numeral **15** designates generally a cabinet recessed in a wall **16** of a building. The front of the cabinet structure constitutes a frame **17** for the main door **18** which is swingable on the vertical hinges **19**, to give access for the interior waste paper receptacle which is the basket **20**. In the main door **18**, above the basket **20**, there is a central opening **21** into which to drop the waste material. This opening is covered by a relatively small door **22** which is hinged along its bottom edge by the horizontal hinges **23**, to be opened outwardly downwardly. When door **22** is closed as in FIG. 2, a tamping plate **24** is a little distance down in the basket **20**, where it is swingably mounted about its center of gravity onto the ends of the arms **25** which are fixed to the rear surface of said door **22**, from which they extend into the cabinet and basket. The axis of swing **26** of said tamping plate is horizontal, and parallel to the axis of swing of said door **22**. Along the rear edge of the upper surface of the tamping plate **24**, is a bar **27**, adapted to be intercepted by a camming bar **28** which spans and is fixed to the side walls of the cabinet **15**, just above the basket **20**; such interception occurring as is shown in FIG. 3, when the door **22** is swung open. In the embodiment illustrated as shown in FIG. 2, said tamping plate needs the forwardly extending slots **29** therethrough, to give clearance for the arms **25**, to permit the necessary swing of the tamping plate. It is possible to have the bar **28** across the basket **20**, but then, the said basket would have to be heavy enough not to be lifted by the relatively heavy tamping plate **24** in its movement from the position in FIG. 2 to that it assumes in FIG. 3.

In such moved position, the tamping plate is opposite the opening **21**, with its underside facing such opening.

A stop **14**, holds the door **22** from entering the cabinet.

The normal rest condition is shown in FIG. 2, where the door **22** is closed and the tamping plate **24** is a distance down in the waste basket **20**. To throw a piece of waste into the basket, the door **22** is manually opened and so held, whereupon the condition then is as shown in FIG. 3, for in opening the door **22**, the tamping plate **24** is raised, and upon reaching out of the basket, the bar **27** will hook onto the bar **28**, and be cammed thereby to swing and assume the position it is in as shown in FIG. 3. The waste piece **30** thrown in, will fall atop the waste **31** already collected in the basket. Then the door **22** is let go, whereupon it will automatically return to closed position, because the tamping plate **24** will fall and swing back to horizontal, and come down its predetermined penetration into the basket.

It is evident that when the waste piles up in the basket to a height above the lowest position of the underside of the tamping plate, that it will be pressed down

and flattened, and so the basket is made to accommodate a relatively large mass of waste material.

When the porter comes around to empty the accumulated trash, he opens the door **22** to lift the tamping plate **24** out of the basket, after unlocking the main door **18**. Holding door **22** open, he then opens the door **18** and removes the basket to dispose of its contents. By closing the door **22** slightly, he can push the upper part of the plate **24**, swing it a bit, so as to permit the basket **20** clear passage. After emptying the basket, he replaces it while holding the door **22** open.

The door for removal of the basket, may be a separate one as **18'**, shown in FIG. 5, where the small door **22'** and said door **18'** are for openings in the front wall **17'** of the cabinet structure.

This invention is capable of numerous forms and various applications without departing from the essential features herein disclosed. It is therefore intended and desired that the embodiment shown herein shall be deemed merely illustrative and not restrictive and that the patent shall cover all patentable novelty herein set forth; reference being had to the following claims rather than to the specific description and showing herein, to indicate the scope of this invention.

I claim:

1. In an article of the character described, the combination of a waste paper basket within an outer cabinet; said cabinet having an opening in its front wall at a position above said basket, a door across said opening, hinged along its lower edge so that the door opens forwardly downwardly, means to maintain said door from entering said cabinet, a tamping plate positioned horizontally within said basket at a predetermined distance from the mouth of said basket, an arm fixed to said door and extending from its rear to said tamping plate; said plate being swingably mounted about an axis substantially through its center of gravity, to said arm, an element extending upwardly from said plate along the edge thereof which is at the rear of said cabinet; the axes of swing of said tamping plate and door being substantially parallel, and a camming element fixed near the mouth of said basket, adapted to intercept said element extending from the plate, when said door is being opened, whereupon opening said door, said plate will rise and leave said basket and be swung within the cabinet to a position opposite said opening, at which time the underside of said plate faces said opening; there being clearance for said arm to allow such plate movement.

2. The article as defined in claim **1**, wherein said camming element is a bar spanning and fixed to the side walls of the cabinet, and positioned immediately above the basket.

3. The article as defined in claim **1**, wherein said arm is intermediate the side edges of said tamping plate and the mentioned clearance is provided by a slot through said plate, opening in the forward edge of said plate.

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