

Jan. 13, 1931.

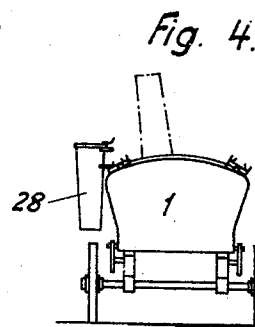
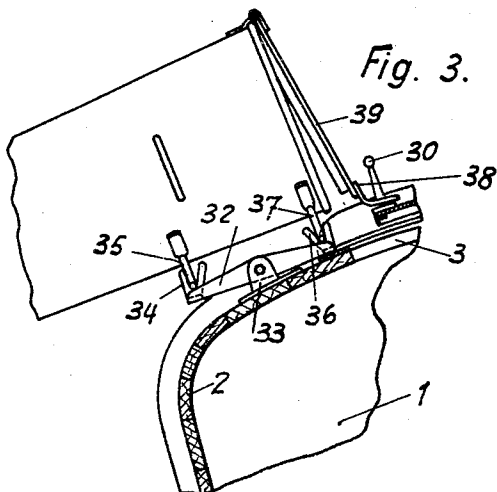
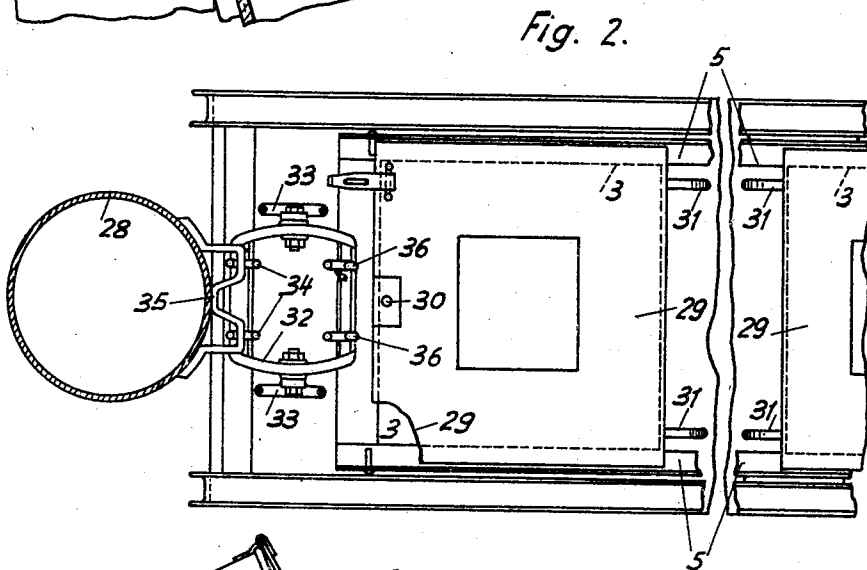
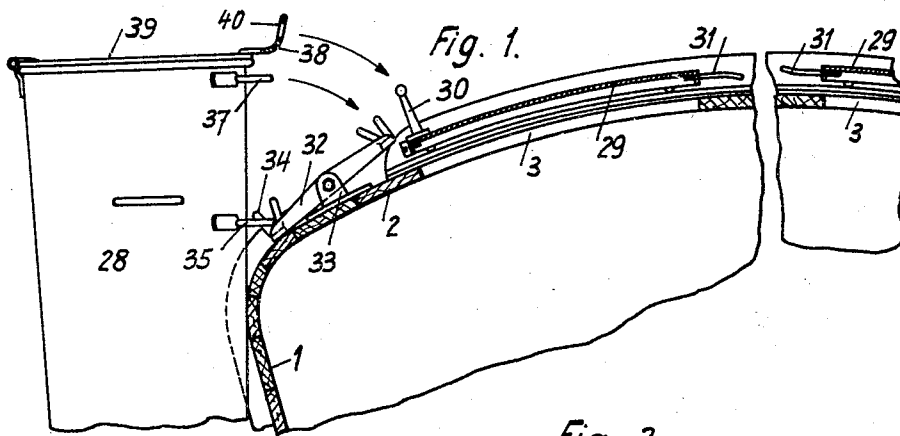
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1,789,050

DEVICE FOR THE COLLECTING OF REFUSE

Filed June 3, 1927

2 Sheets-Sheet 1



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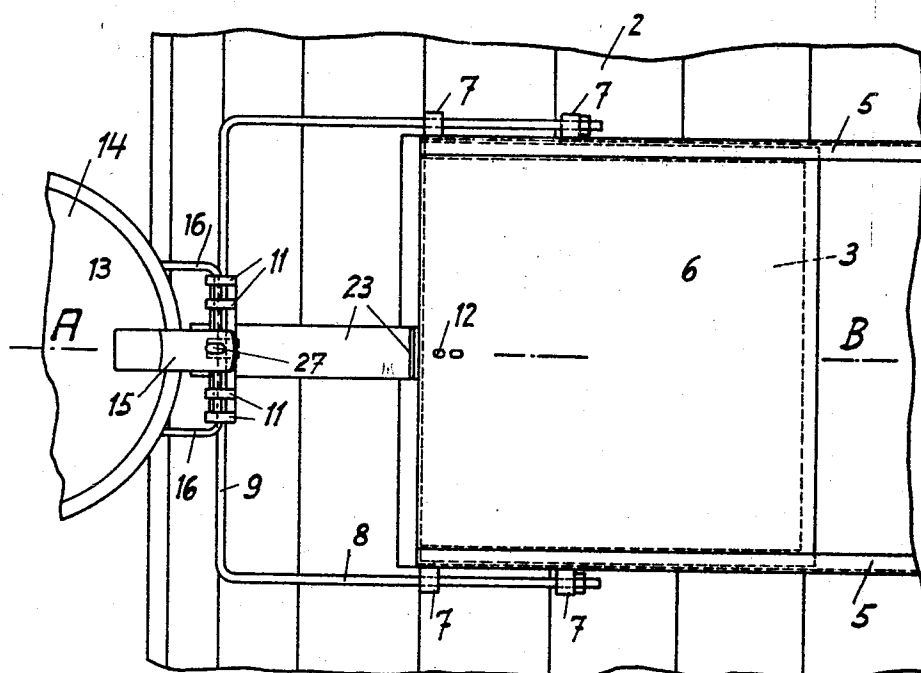
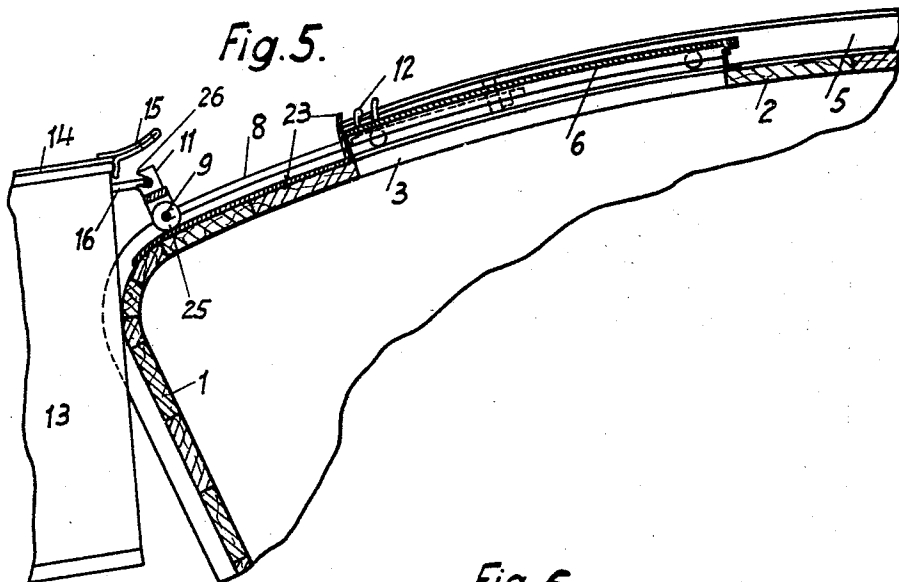
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DEVICE FOR THE COLLECTING OF REFUSE

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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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DEVICE FOR THE COLLECTING OF REFUSE

Application filed June 3, 1927. Serial No. 196,340.

The invention relates to devices for the collecting of refuse stored in dust bins with hinged lids by means of collecting vans with covered body tops and with charging holes therein covered by sliding lids.

This invention relates more particularly to improvements in refuse removing devices of that kind in which the lid of a dust bin, hung on the side of the collecting receptacle of the dust cart, is coupled with the sliding cover closing the charging hole of said receptacle, so that when the bin is tipped over on the top of said receptacle it causes the said cover to uncover the charging hole.

The invention relates still more particularly to such devices in which the hinged lid of the dust bin, which latter is hung on the side of the receptacle of the collecting van is provided with one or more projecting arms adapted to embrace a pin or projection extending upwards from the sliding cover controlling the charging hole of the collecting receptacle, the arrangement being such that when the bin is tipped over onto the top of the collecting receptacle, the sliding cover is pushed along by means of the said arm, or arms of the bin lid, so as to uncover the charging hole and is automatically closed again after the bin has been emptied.

The main object of the invention is to provide a device of said class which allows the emptying of the bins near the center thereof. A further object consists in the provision of means to facilitate the tilting of large and heavy bins.

With these and other objects in view the invention consists in the construction and arrangement of parts as set forth hereinafter.

The accompanying drawings illustrate a construction in accordance with the invention and several variations of details.

Fig. 1 shows in section the invention as applied to a dust-bin with hinged lid and

part of the box of a refuse cart, in the position before the bin is emptied into the box.

Fig. 2 shows a top view of said parts the bin being shown in section.

Fig. 3 shows the bin in its tilted position ready to be emptied.

Fig. 4 shows the cart with the bin hung on the box and fully tilted.

Fig. 5 shows in section on line A—B of Fig. 6 and

Fig. 6 in a top view a modified construction of the device.

Similar numbers of reference indicate like parts.

1 is a cart box which is supposed to be placed in the usual way on an underframe of a refuse cart. In the top 2 of the box 1 two rows of square charging holes 3 are arranged the rows being parallel to the top edges of the boxes. The top 2 is provided with guides 5 running parallel to two opposite edges of each hole 3. On these guides 5 a slide 29 moves, shutting up the charging hole 3 when not being used. On the top 2 between the top edge of the box 1 and each hole 3 a square tilting frame 32 is pivotally mounted in two bearings 33 fixed on said top cover 2. The two sides of the frame 32 running parallel to the edge of hole 3 are each provided with two pairs of prongs 34 and 36 respectively adapted to receive the two hooks 35, 37 of a dust bin 28. The bin 28 is provided with a lid 39, hingedly connected to the body of the bin 28, the lid 39 is provided with a tongue 38 having a slot 40. The slide 29 of the box cover carries on its forepart a pin or projection 30 turned upwards. This is engaged by the tongue 38 of the bin lid 39 when the dust bin 28 is tilted in the direction of the arrows (Fig. 1).

The bin 28 to be emptied is hung on the forks 34 of the tilting frame 32 which are near the top side edge of the box 1 and which therefore are easy to reach. The bin 28 is

tilted and the upper hooks 37 are brought in engagement with the prongs 36. The tilting of the bin 28 needs comparatively little work the bin being approximately balanced when tilting about the hook 35. Even
 5 very heavy bins might be handled by two men and emptied near the centre of the box.

When the bin 28 is swung upwards round the hook 37 of the bin lid 39 opens and pushes
 10 by means of tongue 38 the box slide 29 against the centre of the top, the pin 30 engaging the slot 40. The charging hole 3 is consequently freed for taking in the refuse tumbling out of the bin 28, which tips over
 15 and opens in the meantime. The bin 28 can be turned round, till it reposes on the box cover (Fig. 4). Thus no dust can rise out of the cart box.

Each slide 29 is provided with a guide member 31 at its rear end, the members of
 20 two adjacent holes 3 are bent one upwardly the lower downwardly to allow the two slides to pass over each other in case of the two adjacent holes 3 being uncovered simultaneously.

In the construction shown in Figs. 5 and 6 the hole 3 in the top cover 2 is covered by a
 25 slide 6 running in guides 5 of U-shaped cross-section. On the said guide members 5 bearings 7 are arranged in which the parallel members 8 of a U-shaped frame 9 are slidably mounted. On the frame 9 a supporting roller 25 is rotatably mounted which
 30 runs on a rail 23 fixed to the top of the box 1. A support 11 is rigidly fixed to said frame 9 having open slots 26 adapted to receive the handle 16 of the bin 13. Said bin is provided with a lid 14 hingedly connected with said bin 13 and having a tongue 15
 35 with a slot 27 near its end. The slide 6 is provided with an upwardly projecting pin 12 adapted to engage the slot 27 when the bin 13 is being tilted.

To empty a bin 13 the same is hung in
 45 the frame 9 as shown in Figs. 5 and 6. The bin is now tilted, turning on the support 11 by the hook 16, moreover the frame 9 and therewith bin 13 is being pushed towards the hole 3. The roller 25 runs on the rail 23
 50 until it reaches the upwardly projecting inner end member of said rail 23. The bin 13 is moved further and the lid engages now the pin 12 by means of the tongue 15. The slide 6 is now shifted and the lid 14 is opened
 55 the bin is emptied into the box near the middle thereof.

What I claim and wish to secure by U. S. Letters Patent is:—

The combination with a refuse receiving
 60 receptacle having a charging opening in its top, a slide to cover said opening, a dumping frame rockingly mounted in proximity to said hole, and provided at opposite sides with two pairs of prongs on said frame, a
 65 refuse bin, having two hook members fixed

therein and arranged respectively for engagement with the said pair of prongs of said frame, a lid hingedly connected to the body of said bin and having an extension adapted to engage the slide, whereby when
 70 said bin is hung on one of said pairs of prongs and while it is being tilted about one of its hooked members the lid will engage the slide, the latter uncovering the opening.

In witness whereof I affix my signature.

JAKOB OCHSNER.

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