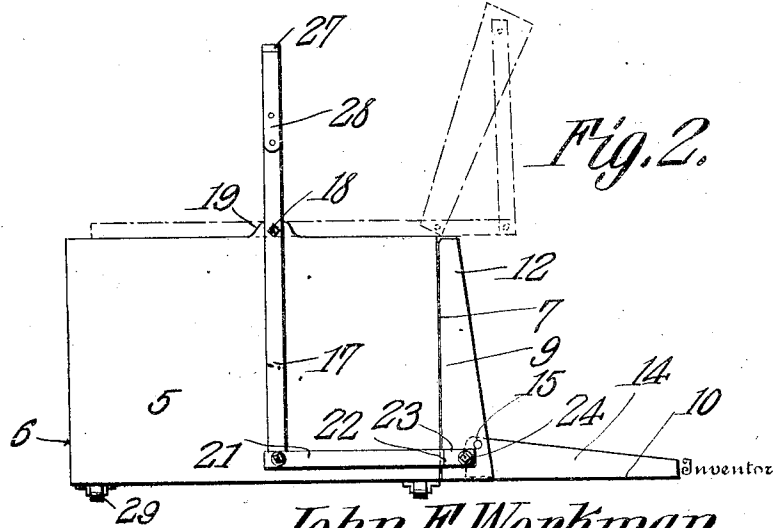
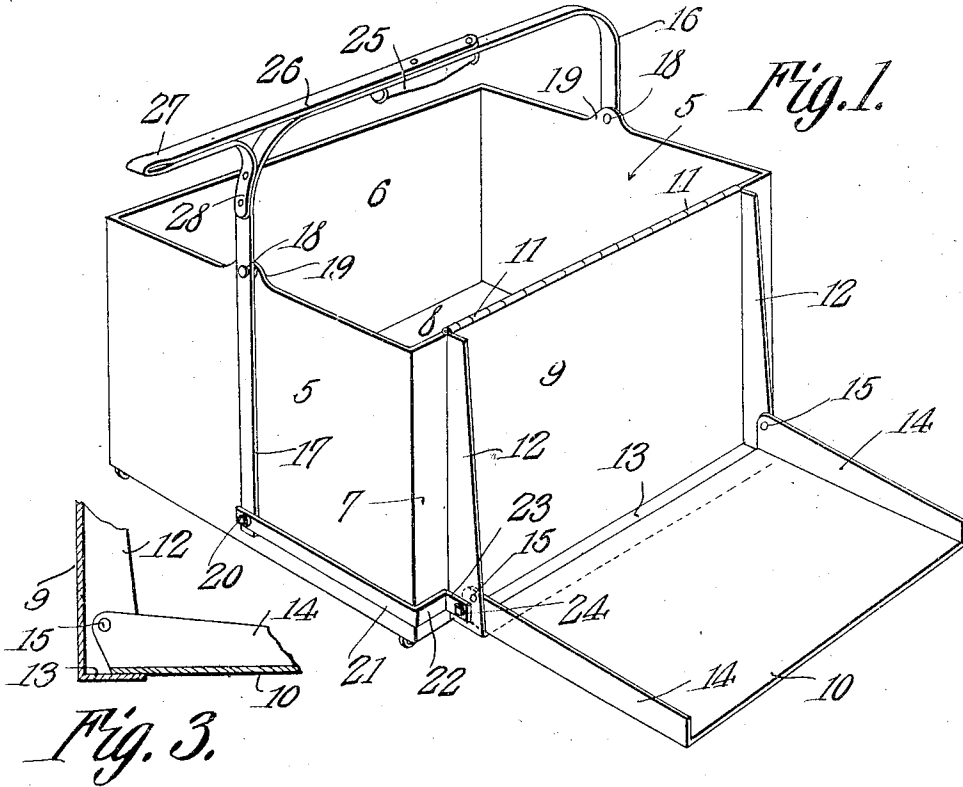


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DIRT REMOVER.
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Patented Aug. 24, 1909.



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DIRT-REMOVER.

932,227.

Specification of Letters Patent.

Patented Aug. 24, 1909.

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To all whom it may concern:

Be it known that I, JOHN F. WORKMAN, a citizen of the United States, residing at Harrisburg, in the county of Dauphin and State of Pennsylvania, have invented a new and useful Dirt-Remover, of which the following is a specification.

It is the primary object of the present invention to provide a dust and dirt collecting device which will not only serve the purpose of a dust pan but also a dust and dirt receptacle. Such devices as are now on the market, of this class, consist generally of a box-like receptacle having an open side and a pan hinged to the lower edge of the side and adapted to be swung vertically to deposit the dirt swept into the same, into the receptacle, but the chief disadvantage of such a construction lies in the fact that the receptacle is open at its side and can only be partly filled with dirt. In employing such a device, it is therefore necessary to make quite a few trips in removing the dirt from the floor of a long corridor or the like, and it is the object of the present invention to provide a device of this class so constructed that the dirt receiving member thereof may be completely filled.

Another feature of the invention lies in the fact that the member into which the dirt to be collected is swept is operated by swinging down the carrying handle of the device and that this handle is provided with a projecting piece which may be engaged by the brush being used whereby it may be swung without necessity of grasping the handle which is employed in carrying the device from one place to another, so that the hands of the user will not be unnecessarily soiled.

Still another feature of the invention lies in so mounting the member into which the dirt is to be swept, upon the receptacle, that it may be swung to position substantially directly above the receptacle and will automatically operate to discharge all of the dirt deposited therein.

In the accompanying drawings, Figure 1 is a perspective view of the device embodied in the invention. Fig. 2 is an end view thereof showing in full lines the position of the several elements when the device is in condition for use, and in dotted lines the position assumed thereby when the dirt collecting member of the device is swung to position to discharge the dirt into the receptacle.

Fig. 3 is a detail view showing a slightly modified form of dust collector.

The receptacle of the device is preferably of rectangular box-like construction having end walls 5, a rear wall 6, a front wall 7, and a bottom 8, and the dust collecting member of the device is comprised of a pair of sections one of which is indicated by the numeral 9 and the other by the numeral 10, the section 9 including a flat body portion provided at its upper end with a flange 11 which is hinged to the upper edge of the front 7 of the receptacle, the said section of the dust collector being in this manner so connected with the receptacle that it may be swung vertically to extend thereabove. At each vertical edge, the body 9 of the said section of the dust collector is formed with a right angularly and forwardly extending flange 12 and a similar flange 13 is formed at the lower edge thereof, the flanges 12 and the flange 13 being connected at their meeting ends so that practically a continuous flange is formed around the two ends and the bottom of the said section 9. The other section of the dust collector is comprised of a flat body 10 which is formed at each end edge with a right angularly extending flange 14 and these flanges are so spaced as to be received between the flanges 12 at the ends of the section 9, pivot pins 15 being passed through the said flanges 12 and 14 so as to hingedly connect the section 10 and the section 9 whereby it may be swung to lie either within the said section 9, between the flanges 12 thereof, or to extend at an angle therefrom as shown in Fig. 1 of the drawings in which latter position dirt may be swept into the section 10 to be afterward deposited in the receptacle previously described.

It will be observed from an inspection of Fig. 2 of the drawings that the pivot pins 15 are so located that when the section 10 is swung to position to lie within the section 9, it will remain in this position and will not have a tendency to drop to the full line position shown in the said Fig. 2, so that when it is desired to move the device from place to place without lifting it from the floor, the section 10 may be swung to position within the section 9.

The handle for the device is of the bail type and has its connecting portion indicated by the numeral 16 and its arms by the numeral 17, the said handle straddling the receptacle endwise with the arms 17 project-

ing downwardly beyond each end wall 5 of the said receptacle, the arms being pivoted as at 18 to ears 19 formed at the upper edges of the said end walls. To the lower end of each arm 17, there is pivotally connected as at 20 the rear end of a bar 21 which has its forward end turned laterally inwardly as at 22 to extend in advance of the front wall 7 of the receptacle and thence at right angles forwardly as at 23 at which end it is pivoted as at 24 to the respective flange 12 of the section 9 of the dust collector.

As above stated, the arms 17 of the handle normally extend vertically downwardly beside each end wall 5 of the receptacle, but it will be understood, from an inspection of the drawings, that when the connecting portion 16 of the handle is swung downwardly and rearwardly so as to lie in a plane with the upper end of the receptacle, the bars 21 will impart a swinging movement to the dust and dirt collector sections in an upward forward direction, the swinging movement had with these said members being through an arc of substantially 180° so that when so swung, the section 9 will extend nearly in a vertical plane with the front wall 7 of the receptacle. The movement of this section 9 to the position stated, will result in the section 10 dropping by gravity into position within the section 9 and at the same time in the dust and dirt being discharged from the receptacle 10 in a direct downward direction into the receptacle of the device. Return of the handle to upright position will of course be automatic inasmuch as it is over-balanced by the dust collector sections and when these sections are returned to normal position, the section 10 will remain in position within the section 9 although it may be readily swung downwardly to position to permit of dust and dirt being swept into it, by being given a slight push with the broom or brush employed in the sweeping operation. The connecting portion 16 of the handle is provided at its middle and upon its under side with a hand grip 25 which may be of wood, cork, or any other suitable comparatively soft material and secured at one of its ends to the said intermediate portion of the connecting portion 16 of the handle and projecting laterally beyond one end wall 5 of the receptacle is a bar 26, which beyond the plane of the said wall 5, is bent back upon itself as at 27 and has its other end secured as at 28 to the upper portion of the corresponding arm 17 of the handle, the back bent portion 27 affording a projection which may be engaged, by the brush being used, for the purpose of swinging the handle downwardly to dump the dust collector, it being understood that by providing this extension, undue soiling of the user's hands will be prevented.

As clearly shown in Fig. 2 of the drawings, the receptacle is supported upon four or

more rollers 29 which are located preferably one adjacent each corner of the bottom 8 of the receptacle and these rollers are so journaled that the receptacle may be propelled along the surface of the floor being cleaned in a direction at right angles to the axes of the dust collector sections 9 and 10, so that, where a long corridor after having been swept, has upon its floor a number of piles of dust or dirt which are to be removed, the device may be propelled by foot along the floor from one pile to another until all have been collected and discharged into the receptacle.

In the modified form of the invention illustrated in Fig. 3 of the drawings, the pivots 15 are so located as to render the section 10 of the dust collector over-balanced when the section 9 thereof is swung to vertical position as shown in full lines in Fig. 2 of the drawings so that after the sections have been dumped, or returned to normal position, the section 10 will automatically drop into position to permit of dirt being swept thereinto.

What is claimed is:—

1. In a device of the class described, a dirt receptacle, a pan-receiving member hinged to the receptacle, and a pan hinged to the said member and adapted to extend at an angle therefrom or lie therewithin.
2. In a device of the class described, a receptacle, and a dirt collector connected to the receptacle to lie beside one vertical wall thereof or to extend at an angle therefrom or to be moved to position above the receptacle to discharge thereinto.
3. In a device of the class described, a receptacle, and a dirt collector comprised of a pair of hinged foldable sections one of which is hinged to the receptacle and adapted to be swung to position above the same.
4. In a device of the class described, a receptacle, and a foldable dirt collector hinged to the upper edge of one wall of the receptacle and movable to position to discharge thereinto, the sections of the collector when folded being adapted to lie beside the said vertical wall of the receptacle, the collector being foldable along a line parallel to the line of connection with the receptacle.
5. In a device of the class described, a receptacle, and a dirt collector comprising a portion adapted normally to lie beside one vertical wall of the receptacle and hinged thereto, and a portion hinged to the first mentioned portion along a line parallel to the line of connection of the first mentioned portion with the receptacle and normally extending at right angles from the first mentioned portion.
6. In a device of the class described, a receptacle, and a dirt collector comprising a portion hinged to the receptacle and lying beside one wall thereof and a portion hingedly

connected with the first mentioned portion and adapted to lie thereagainst or to extend at an angle therefrom, the second mentioned portion being hinged to the first mentioned portion along a line parallel to the line of connection of the first mentioned portion with the receptacle.

7. In a device of the class described, a receptacle, and a dirt collector comprising a portion hinged to the receptacle and normally lying beside one vertical wall thereof, and a portion hinged to the lower edge of the first mentioned member and adapted to extend at an angle therefrom or to be folded to lie thereagainst.

8. In a device of the class described, a receptacle, and a dirt collector comprising a member hinged to one wall of the receptacle and arranged to normally lie therebeside, and a member hinged to the first mentioned member and adapted to extend at an angle therefrom or to be folded to lie therewithin, the second mentioned member being connected to the first mentioned member along a line parallel to the line along which the first mentioned member is connected to the receptacle.

9. In a device of the class described, a receptacle, a dirt collector connected therewith for swinging movement with respect thereto, and a carrying handle for the receptacle connected with the said collector and operable to swing the same to position above the receptacle, the connection between the collector and the handle being such that the

collector will be in position to receive dirt when the handle is in the carrying position, and will be in dumping position above the receptacle when the handle is swung down.

10. In a device of the class described, a receptacle open solely at its top, and a two-part dust collector hinged to the receptacle and movable to position to extend thereabove, one part of the said collector being foldable to lie within the other.

11. In a device of the class described, a receptacle, a dirt collector comprised of a pair of foldable sections one of which is connected to the receptacle for swinging movement with respect thereto and is provided with side portions, the other section being adapted to fold automatically by gravity against the first mentioned section and between the side portions thereof, when the first mentioned section is swung to position above the receptacle, a carrying handle pivoted to the receptacle with its grip portion above the receptacle and having portions extending below its point of pivotal connection with the receptacle, and means connecting the first mentioned section of the collector and the lower end of the said portions of the handle.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JOHN F. WORKMAN.

Witnesses:

FRANK P. SNODGRASS,
W. P. CLARK.