May 6, 1941. S. I. BERGER 2,240,684

CARPET SWEEPER

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Fig. 1

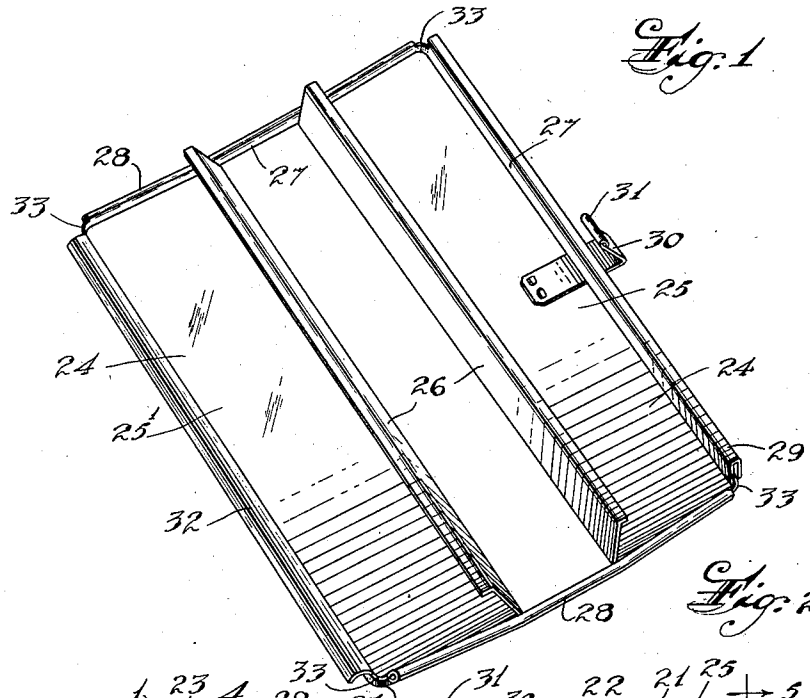
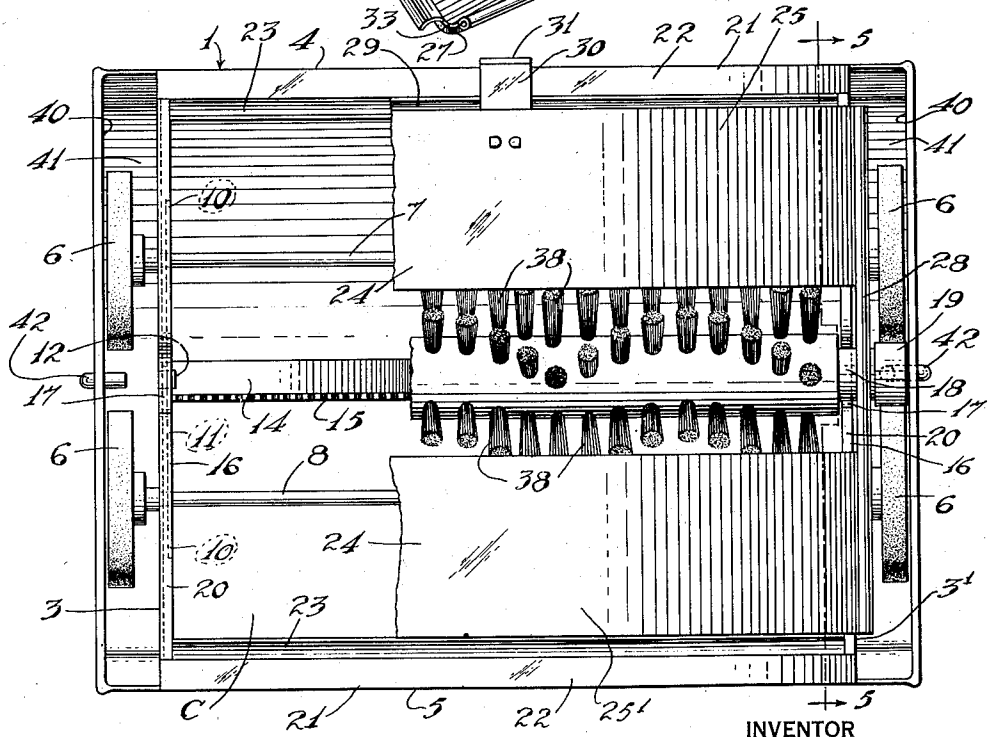


Fig. 2



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Fig. 3

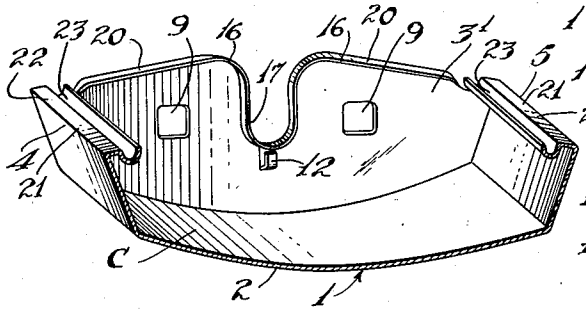


Fig. 4

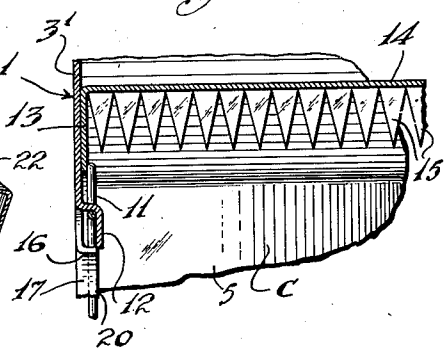


Fig. 5

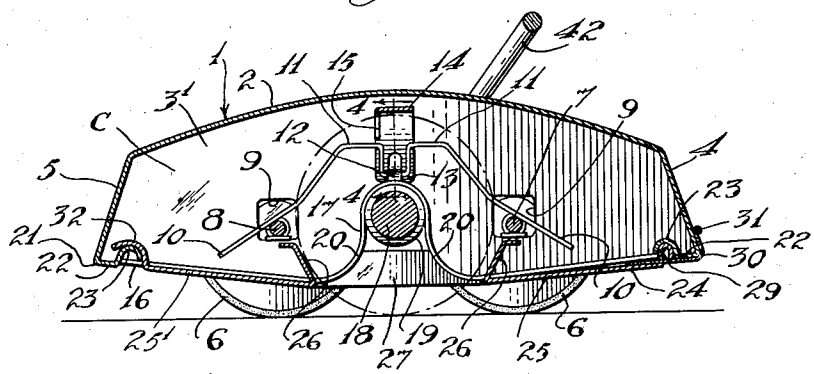


Fig. 6

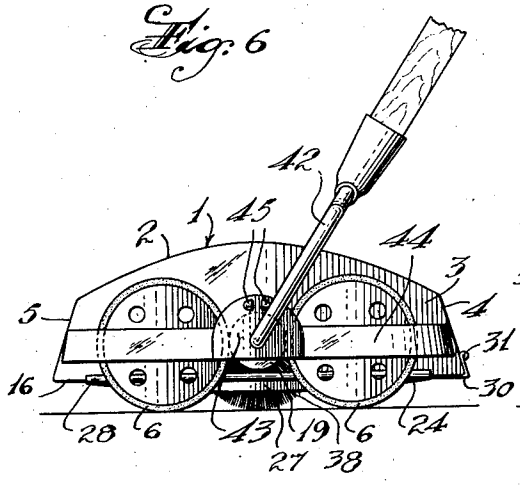
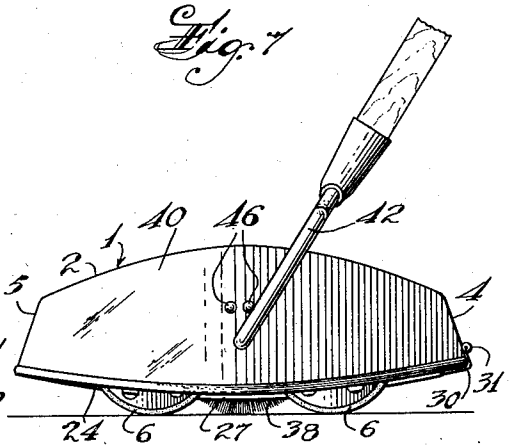


Fig. 7



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CARPET SWEEPER

Samuel I. Berger, Newark, N. J.

Application July 28, 1938, Serial No. 221,859

4 Claims. (Cl. 15—41)

This invention relates to improvements in carpet sweepers.

An object of my invention is to provide a carpet sweeper incorporating novel hygienic and utilitarian features of construction.

A further object of my invention is to provide the carpet sweeper with a debris compartment which is normally closed and sealed.

A further object of my invention is to provide the debris compartment with a removable debris tray which normally closes the compartment and constitutes the bottom thereof.

In the accompanying drawings, in which are shown some of the various possible embodiments of the several features of the invention, and wherein like reference numerals indicate like parts:

Fig. 1 is a perspective view of the debris tray used in connection with my invention,

Fig. 2 is a bottom plan view of a carpet sweeper embodying my invention, parts being broken away for the sake of clarity,

Fig. 3 is a fragmentary perspective view of the casing of a carpet sweeper embodying my invention,

Fig. 4 is a fragmentary, partly sectional view taken on line 4—4 of Fig. 5, in the direction of the arrows,

Fig. 5 is a longitudinal cross sectional view taken on line 5—5 of Fig. 2 in the direction of the arrows,

Fig. 6 is a side elevational view of a carpet sweeper embodying my invention, and

Fig. 7 is a similar view of another form of carpet sweeper embodying my invention.

The carpet sweeper of my invention, shown in the accompanying drawings, comprises a casing 1 having a top 2 side walls 3—3' and end walls 4—5 secured together in any desired or convenient manner to provide a debris compartment C.

The casing is provided with two pair of wheels 6 carried by axles 7 and 8 which freely pass through elongated apertures 9 in the side walls 3—3' of the casing. The axles 7 and 8 are normally downwardly urged to automatically accommodate the wheels 6 to the surface over which the sweeper is moved, by the outwardly directed, free ends 10 of springs 11. The springs 11 are medially secured to the side walls 3—3' by clip members 12 struck up from the side walls, or in any other desired or convenient manner.

In assembling the device, the upwardly directed fork ends 13 of a brush comb strip 14 are snapped under the clip members 12 and then the springs 11 are secured to said members 12, thus displaceably holding the brush comb strip 14 in position against the underside of the top 1 of the sweeper.

The brush comb strip 14 is provided with angularly directed teeth 15.

The lower edges 16 of the side walls 3—3' are centrally recessed at 17 to receive the brush roller 18 whose pulleys 19 are juxtaposed intermediate the wheels 6 in peripheral driven contact therewith. The lower edges 16 of the side walls 3—3' are further provided with inwardly directed flanges 20.

The lower edges 21 of the end walls 4—5 of the casing are inwardly directed to provide ledge portions 22 terminating in flanges 23.

A debris tray 24 is removably secured to the ledge portions 22 to close the compartment C and provide a bottom therefor. The tray 24, in the preferred form shown in the drawings, is struck up from a single piece of metal to provide a pair of spaced tray sections 25—25' each having an opposed, angularly directed inner wall 26. The tray 24 has a struck up continuous perimeter flange 27 which provides continuous side and outer walls for the tray sections 25—25'.

The flange 27 is extended and outwardly curled along the longitudinal portions of the tray to provide longitudinal beads 28. The flange 27 is likewise extended and curled along one transverse portion of the tray to provide a transverse bead 29. The tray section 25 is provided with a spring latch member 30 secured thereto in any desired or convenient manner, the free, curled end 31 of the member protruding from the section 25 beyond the transverse bead 29 and spaced therefrom.

The flange 27 along the other transverse portion of the tray is extended and angularly directed to provide a lip portion 32. The extended portions 28, 29 and 32 of flange 27 terminate a short distance from the respective corners of the tray, providing corner recesses 33 therebetween

In using the device, the debris tray 24 is pivotally secured to one ledge portion 22 of the casing and removably secured to the other ledge portion, thus closing the compartment C and providing a sealed, dust-tight bottom therefor. To attain this end, the lip portion 32 is inserted above one ledge portion 22 and then the transverse bead 29 is positioned in the flange 23 of the other ledge portion, the corner recesses 33 of the tray facilitating this operation; spring latch member 30 is snapped over the edge of end wall 4 of the casing, thus removably securing the tray in position. As ledge portions 22 are of the same

construction it is immaterial to which of the ledge portions the tray is pivoted. When the tray is in position, the longitudinal beads **28** overlap the side walls of the casing, while the tray sections **25, 25'** overlap the flanges **20** of side walls **3—3'**.

The brush roller **18** rotates intermediate the inner walls **26** of the tray sections **25, 25'** so that, in operation, the bristles **38** of the brush roller **18** will wipe the upper edges of the inner walls **26**, discharging the swept debris into the sections **25, 25'**. The brush bristles and walls **26** of the tray sections provide a dust-tight closure for the space between the tray sections **25, 25'**; the flanges **20** at the centrally recessed portions **17** of the side walls **3—3'** seal the side walls. The bristles **38** of the brush rotate through the teeth **15** of the brush comb **14** in use, automatically cleaning the brush.

The contents of the ordinary carpet sweeper are discharged into a bag or sheet of paper which is then closed and deposited in a garbage receptacle. This operation contaminates the room in which the sweeper contents have been discharged and is untidy and unhygienic.

With the sweeper of my invention, the latch **30** is disengaged from the edge of wall **4** and then the tray **24** is removed for emptying into a garbage receptacle or the like, providing a convenient and sanitary method of discharge.

In Fig. 2 there is shown a form of my invention wherein the casing is provided with the compartment C above described, and with arcuate shell members **40** secured to the side walls **3—3'** of the compartment C in any desired or convenient manner, and forming, with said side walls, chambers **41** within which the wheels **6** may rotate, confining any debris carried upwardly by the wheels, and enhancing the hygienic features of the sweeper.

The brush roller **18** of the carpet sweeper may be rotatably carried by the handle bail **42**. In the form shown in Fig. 6, the handle bail **42** passes through plates **43** of bars **44** secured to and spaced from the side walls **3—3'** and has camming latching engagement with protuberances **45** carried by said plates.

In the form shown in Figs. 2 and 7, the handle bail **42** passes through the shell members **40** of the sweeper casing and rotatably supports the brush roller **18**, the bail having camming latching engagement with protuberances **46** carried by the shell members **40**.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. In a carpet sweeper, a casing having end walls provided with inwardly directed ledges terminating in open channels, and a debris tray provided with an angularly directed lip portion for engagement over either channel to pivotally secure the tray thereto and further provided with a channelled portion for reception within the other channel of the casing to close the bottom of the casing.

2. In a carpet sweeper, a casing having end walls provided with inwardly directed ledges terminating in open channels, and a debris tray provided with an angularly directed lip portion for engagement over either channel to pivotally secure the tray thereto and further provided with a channelled portion for reception within the other channel of the casing, said tray being further provided with means to engage the casing to secure the tray thereto.

3. In a carpet sweeper, a casing having a compartment provided with side walls, and a debris tray removably secured to said compartment, said tray being provided with a continuous perimeter flange, said flange having extended longitudinal beads, said casing and tray being provided with complementary means to pivotally secure the tray to an end wall of the casing and with complementary means to removably secure the tray to the other end wall of the casing in position, with the longitudinal beads overlapping and sealing of the lower edges of the side walls of the casing.

4. In a carpet sweeper, a casing having a top, side walls and end walls secured together, inwardly directed ledge portions on the end walls, and a debris tray provided with a lip portion adapted to be inserted over one of said ledge portions to pivotally secure the debris tray thereto and provided with an extended lip portion adapted to be received within the other ledge portion, said tray being provided with longitudinal beads adapted to engage the side walls of the casing to seal the same along said edges.

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