June 28, 1938. S. MILLER 2,121,880

CARPET SWEEPER

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Fig. 2

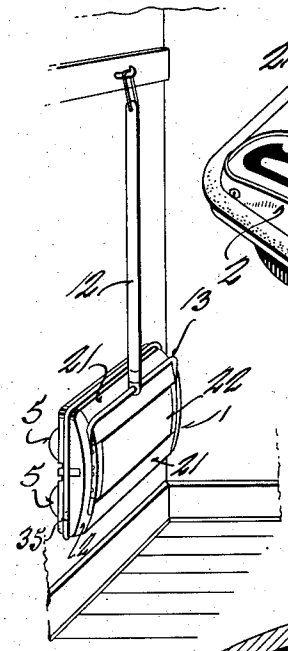


Fig. 1

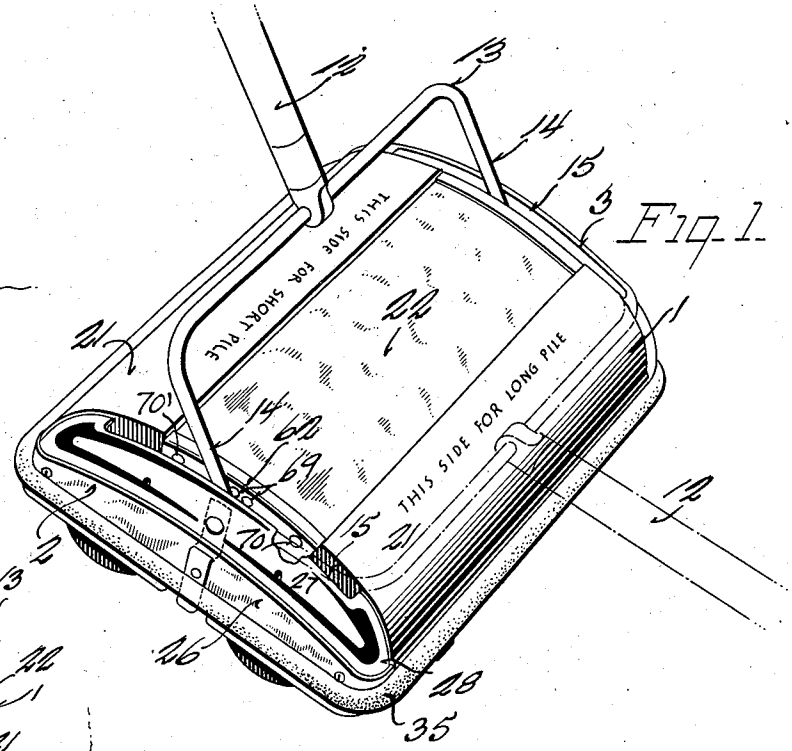
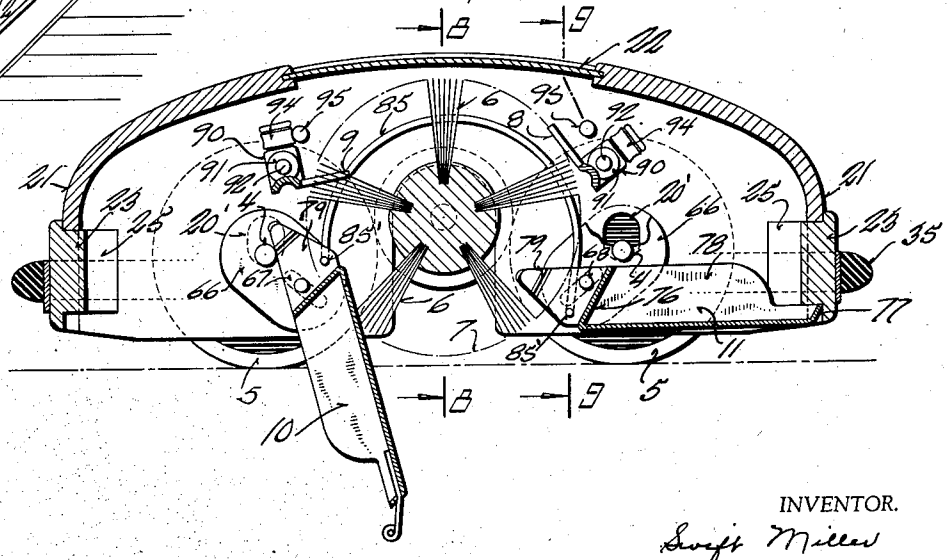


Fig. 3



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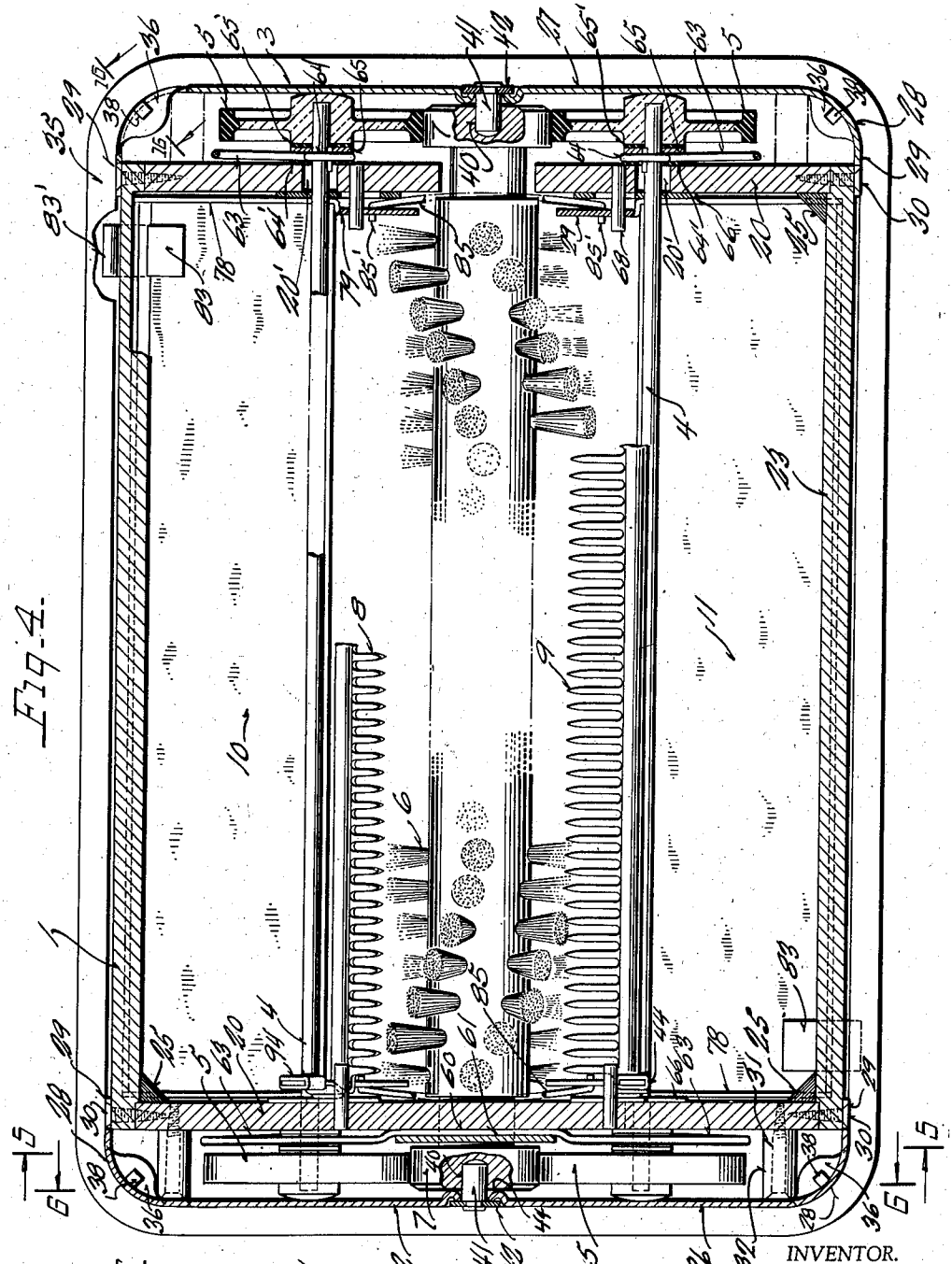


Fig. 4.

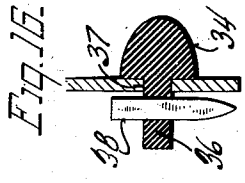


Fig. 15.

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CARPET SWEEPER

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Fig. 5.

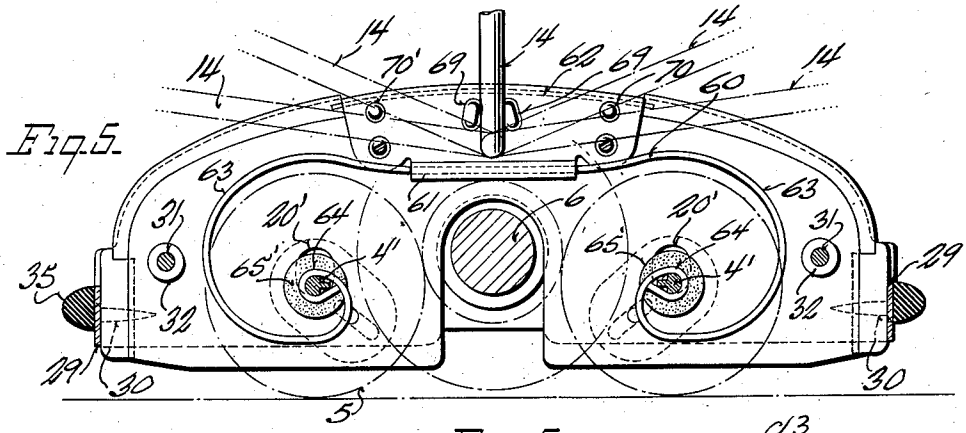


Fig. 6.

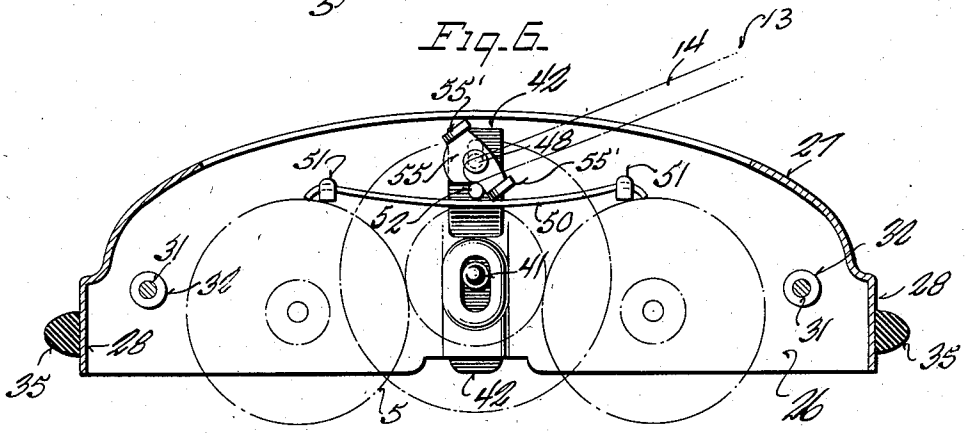


Fig. 8.

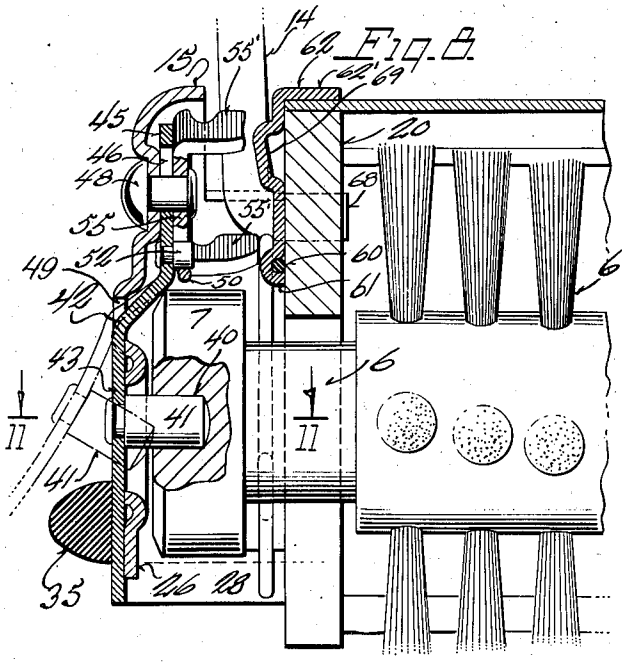
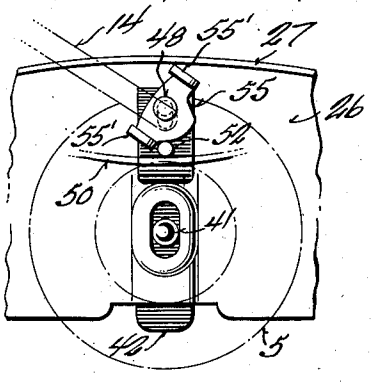


Fig. 7.



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CARPET SWEEPER

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Fig. 9.

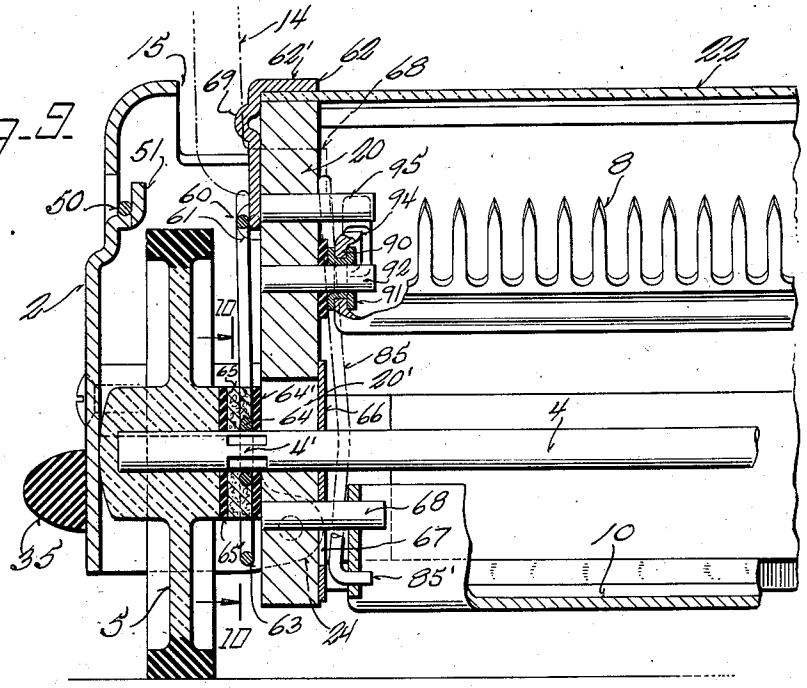


Fig. 10.

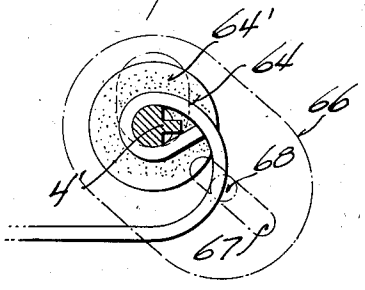


Fig. 12.

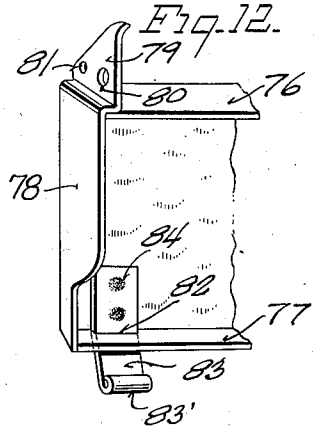


Fig. 11.

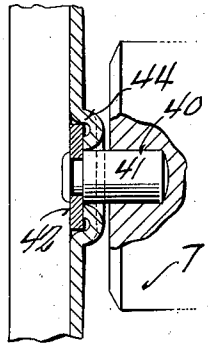


Fig. 13.

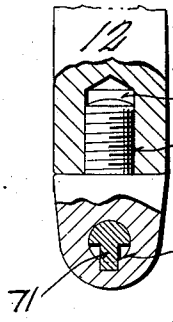


Fig. 14.

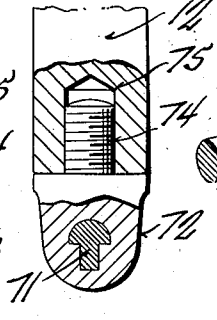
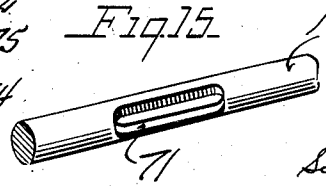


Fig. 15.



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Patented June 28, 1938 2,121,880

UNITED STATES PATENT OFFICE

2,121,880

CARPET SWEEPER

Swift Miller, Wauwatosa, Wis., assignor to E. R. Wagner Manufacturing Company, Milwaukee, Wis., a corporation of Wisconsin

Application March 22, 1934, Serial No. 716,751

12 Claims. (Cl. 15—41)

This invention relates to an improvement in carpet sweepers of the type wherein a wheeled casing is propelled back and forth across the surface or carpet to be swept by means of a handle, the casing containing a brush rotated from the wheels and which sweeps the dirt from the surface into dust pans carried by the casing.

Among the general objects of the invention are to improve, compact, and simplify the construction of the sweeper, enhance its appearance, increase its efficiency and render it easy and convenient to handle, operate and store.

In pursuance of these objects the invention provides a novel mounting for the brush so that its position with respect to the carpet or surface being swept may be controlled or varied, thus rendering the action of the brush equally efficient irrespective of whether long or short pile rugs or carpets are being swept. Furthermore, the control of the position of the brush is interlocked with the position of the handle in such manner that when the handle is swung to one side of the sweeper, one brush adjustment or position is had, whereas when the handle is swung to the other side of the sweeper, the other brush position is effected. The handle or rather the bail interposed between the handle and the casing of the sweeper is so combined and interconnected with the casing that the action of the sweeper is stabilized and rendered more effective as it is pushed back and forth. Not only this but means is provided to releasably retain the handle in any selected adjustment and the connection between the handle and sweeper casing is such as to allow the bail to be brought and releasably retained in substantial parallelism to the mean plane of the sweeper housing, thereby permitting the sweeper to be suspended, when not in use, from a hook or nail and by its handle and with the sweeper flatly up against a wall. Means is also provided to releasably retain the bail and sweeper handle in a vertical position when the sweeper is disposed in its ordinary position on the floor.

The brush is readily removed from the casing for purposes of cleaning, adjustment, replacement or repair, although combined with the brush is an effective comb arrangement which ordinarily maintains the brush clear of lint or dirt.

The manner of mounting the dust pans and of controlling their position is advantageous. The pans may be readily swung to full open position to facilitate discharge of the dirt therein and are releasably retained in such position for the same purpose. The arrangement is such that no dirt is apt to fall on the hands of the person emptying the pans and is also such as to allow the sweeper to be shook up and down to insure discharge of the dirt.

The construction and operation of the sweeper and of its various elements have been further improved in other respects and particulars which will clearly appear hereinafter.

Other objects and advantages reside in certain novel features of the construction, arrangement and combination of parts which will be hereinafter more fully described and particularly pointed out in the appended claims, reference being had to the accompanying drawings, forming a part of this specification, and in which:

Figure 1 is a fragmentary perspective view showing a carpet sweeper embodying the present invention;

Figure 2 is a similar perspective view illustrating the sweeper as it may be stored when not in use;

Figure 3 is a view in vertical cross section taken centrally and longitudinally of the sweeper casing;

Figure 4 is a view in top plan of the mechanism within the casing, the top of the casing and also other parts being broken away and shown in section for the sake of illustration;

Figures 5 and 6 are views in longitudinal vertical section taken on lines 5—5 and 6—6, respectively, of Figure 4;

Figure 7 is a fragmentary sectional view taken in the same plane as Figure 6 but illustrating a different position of the parts;

Figures 8 and 9 are fragmentary views in transverse vertical section taken on lines 8—8 and 9—9, respectively, of Figure 3;

Figure 10 is a fragmentary sectional view taken on line 10—10 of Figure 9;

Figure 11 is a similar view taken on line 11—11 of Figure 8, parts being shown in elevation for the sake of simplicity in illustration;

Figure 12 is a fragmentary perspective view showing novel features of construction incorporated in the dust pans;

Figure 13 is a detail view, partly in section and partly in elevation, illustrating the first step in associating the handle attaching stud or lug to the transverse bar of the bail;

Figure 14 is a view similar to Figure 13 but showing the construction in its final form;

Figure 15 is a fragmentary view in perspective showing how the transverse bar of the bail is distorted to provide the desired key; and

Figure 16 is a detail sectional view taken on line 16—16 of Figure 4.

General construction

Referring to the drawings, it will be seen that the carpet sweeper disclosed therein comprises in general a casing designated at 1 and provided with end extensions or cover plates 2 and 3. The casing is provided with non-rotatable axles 4 on the ends of which the floor wheels 5 are rotatably

mounted. A brush designated at 6 is supported for rotation between the axles and at its ends has pulleys 7 engaged with the floor wheels and driven thereby. Combs 8 and 9 are provided for stripping the brush. In the lower part of the casing dust pans 10 and 11 are disposed to receive the dirt swept up by the brush. The sweeper is pushed back and forth by means of a handle 12, the lower end of which is connected to a bail 13 whose arms 14 straddle the casing and operate in slot-like openings 15 provided between the casing and its cover plates 2 and 3. The lower ends of the arms are pivotally connected to the casing in a manner which will hereinafter more fully appear.

Casing structure

The casing 1 is preferably constructed of wood and has end walls 20, wooden top sections 21 and a transparent window 22 between said top sections (see Figures 1 and 3). The intermediate portions of the top edges of the end walls are recessed to provide seats to receive the end portions of the transparent window 22, and the confronting edges of the top sections 21 are grooved to receive the adjacent edges of the window (see Figure 3). The casing also includes transverse side rails 23, rabbeted along their top edges to interfit with the top sections 21. As illustrated in Figure 4, the connection between the transverse side rails 23 and the end walls 20 may be strengthened by triangular corner blocks 25 glued to these parts.

The cover plates 2 and 3 are preferably stamped from sheets of metal and include body portions 26, the curved top edge and the side edges of which have inwardly extending flanges 27 and 28 (see Figures 4 to 9, inclusive). The side flanges 28 are provided with lugs or extensions 29 which overlap the end portions of the transverse side rails 23. These lugs 29 are apertured and through the apertures screws 30 operate to secure the lugs to the casing. In addition to the screws 30, the cover plates are further secured in position by means of screws 31 which extend between the body portions 26 of the cover plates and are threaded into the adjacent portions of the end walls 20 of the casing. Spacing sleeves 32 are provided on these screws 31. In this way a very simple and yet effective means is provided for holding the cover plates in position with their flanges 27 firmly abutting the edges of the top sections 21 and with their flanges 28 overlapping slightly the ends of the transverse rails 23. It will be noted that it is the flanges 27 that are cut out to provide the slot-like openings 15.

The casing is provided with a bumper in the form of a rectangular piece of rubber 35 (see Figures 1 and 4, the exposed portion of which is rounded. At the corners of the rectangular rubber bumper it is provided with integral inwardly extending webs or lugs 36 which pass through slots 37 provided in the flanges 28. The webs 36 are provided with apertures of circular cross section to receive retaining pins 38 of square cross section (see Figures 4 and 16). These pins 38 are readily accessible upon inversion of the sweeper and may be withdrawn to permit removal or replacement of the bumper, although they are firmly held in place when assembled.

Brush mounting and drive

The pulleys 7 at the ends of the brush have center sockets 40 receiving trunnions 41 riveted to and projecting inwardly from supports or mountings such as spring slides 42 (see Figures 4, 8 and 11). The slides 42 consist of strips of resilient metal (such as tempered steel) having lower portions 43 which are normally slidably fitted in depressions or grooves 44 formed in the body portions 26 of the cover plates 2 and 3. These spring slides also have upper portions 45 offset inwardly from their lower portions and working against the inner surfaces of body portion 26. These upper portions 45 have longitudinal slots 46 therein. A pivot pin or rivet 48 secured to each body portion 26 extends through each slot 46. Cams 55 carried by the inner ends of the pivots 48 constrain the slides 42 to proper movement. Preferably, the pivots or rivets 48 are headed and fixed in position and the cams are rotatable thereon, the parts being so proportioned and dimensioned that neither the cams 55 nor the upper portions 45 of the slides 42 may move axially along the pivots 48. It will be understood that there is a slot 49 in the body portion 26 of each cover plate to accommodate the offset connecting section of the slides between the upper and lower portions of the same and thus allow the desired vertical movement of the slides 42. Bow springs 50 have their ends fixed to the inner surface of the body portions 26, as, for example, by means of lugs 51, struck from the body portions and clinched into engagement with the ends of the springs. The intermediate portion of each spring engages a pin 52 fixed to its spring slide 42 and projecting inwardly therefrom. The springs 50 being under tension urge the spring slides upwardly. The actual position of the spring slides is, however, controlled by the cams 55 which also engage the pins 52. Each cam 55 is provided with opposed inwardly extending ears 55' which straddle the arms 14 of the bail so that the cams are operated by swinging the bail one way or the other, the cams 55, in such event, being rotated by virtue of the engagement of the bail arms 14 with the ears 55'. Thus, with the bail 13 positioned as indicated by the dot and dash showing of one of its arms 14 in Figure 6, a low point of the cam is engaged with the pin 52 thereby permitting springs 50 to raise slides 42 to elevate brush 6 for sweeping high pile carpet. However, when the bail is swung to the position indicated in Figure 7, cams 55 are so rotated that higher points thereof engage the pins 52 to depress the slides 42 and consequently lower the brush for sweeping short pile carpet. The spacing of the ears 55' of the cams 55 is such as to allow the desired freedom of handle movement in either brush adjustment without danger of distributing the selected adjustment. The resiliency of the spring slides 42 permits them to be flexed outwardly to withdraw the trunnions 41 from the sockets 40 (see dotted line showing in Figure 8), thereby releasing the brush 6 for removal. The lower ends of the slides 42 may be conveniently grasped and pulled outwardly to effect such flexion.

Removal of the brush, its vertical adjustment and the action desired in response to the downward thrust exerted upon the sweeper in operation requires a yielding or floating mounting of the floor wheels 5 or their axles 7. Proper driving engagement between the wheels and the pulleys 7 of the brush also requires this. As clearly shown at the right hand side of Figure 4, and in Figures 5 and 9, the openings 20' in the end walls 20 are considerably larger than the axles 4, thereby allowing a certain amount of up and down or back and forth movement of the axles 4 and consequently also of the wheels 5. In order that the axles may be so supported as to cause

the wheels 5 to have driving engagement with the pulleys 7, springs 60 are provided, these springs being anchored in position intermediate their ends and having their ends appropriately interconnected with the axles. In the construction illustrated, the intermediate portions of the springs 60 are clamped against the side walls 20 by grooved or trough-like clamping members 61, preferably formed integral with the lower edge of bracket plates 62. Beyond the grooved clamping members 62 the springs are bowed, as clearly illustrated in Figure 5, and such bowed portions, designated at 63, terminate in curls 64 which embrace and effectively engage flattened portions 4' of the axles 4 (see Figure 10). This arrangement not only effectively interconnects the axles and the springs but the curled ends coacting with the flattened portions of the axle operate to prevent rotation of the axle. In a carpet sweeper this is important as rotation of the axles tends to cause dirt and lint to collect thereon and also to cause string to wind therearound.

To prevent the curled ends 64 of the springs from scratching the side walls 20 of the casing, fiber washers 64' are mounted on the axles 4 between the curled ends 64 and the walls 20. Between the curled ends 64 and the hub of the adjacent wheels 5 a felt washer 65 and also a fiber washer 65' are interposed, the felt washer taking care of manufacturing variations and the fiber washer 65' taking the wear of wheel rotation. This washer arrangement keeps the outer rounded ends of the hubs of the wheels 5 against the walls 26 of the cover plates (see Figures 4 and 9) and tend to minimize noises.

To prevent the dust and dirt from accumulating in the openings 20' and consequently packing around the axle 4 and impairing free movement thereof, metal washers 66 are provided. As shown to advantage in Figure 3, these washers 66 are of oval or oblong form and have lengthwise slots 67 through which the mounting pins 68 (which serve as the pivots for the dust pans) extend whereby to maintain the washers 66 in position. In this way egress of dirt is prevented and proper driving engagement between the wheel 5 and the brush pulley 7 insured.

Bail mounting and stop arrangement

The bracket plates 62 serve not only as an anchorage for the spring 60 but also have formed therein openings which register with similar openings in the end walls 20 providing bearings to receive the trunnions 68 formed on the arms 14 of the bail 13 (see Figure 8).

Just above these bearing openings inclined camming stop lugs 69 are pressed out from the bracket plates (see Figure 5) and are designed to engage the opposite sides of the bail arms 14 to releasably secure the bail 13 and its handle 12 in vertical position.

The bail 13 may be snapped into position between the lugs 69 or swung to either side thereof by simply swinging the handle 12 in as much as the bail is stiffly resilient and so shaped and tensioned that its arms press up against the bracket plates 62 with the proper pressure. However, when the handle 12 is swung the arms 14 may ride over the stop lugs 69, the trunnions freely sliding in the bearing opening to allow such action.

When the sweeper is operated from one side the arms 14 of the bail play between one of the stop lugs 69 and a stop boss 70 pressed out from the bracket plate 62 near one end thereof whereas when the sweeper is operated from the other side, the arms 14 of the bail play between the other stop lug 69 and a similar stop boss 70' pressed out from the bracket plate 62 near the other end thereof (see the upper dot and dash line showing of the bail arms 14 in Figure 5). The lugs 69 when engaged with the bail arms 14 in either operative position of the bail tend to exert a stabilizing action, in that they tend to prevent the front end of the sweeper from rocking upwardly at the end of a stroke, that is, when the direction of movement of the sweeper is being reversed in the manner that it normally is when pushed back and forth across the carpet.

When the sweeper is not in use the bail 13 is swung in one direction or the other around into a plane substantially parallel to the mean horizontal plane of the sweeper and in such position these arms snap past stop bosses 70 or 70' to effectively though releasably retain the parts so related and provide for storing of the sweeper when not in use in the manner illustrated in Figure 2.

The top flanges 62' of the bracket plates 62 also serve to clamp the edges of the window 20 firmly in their seats (see Figures 8 and 9) in addition to giving a finished appearance to the ends of the window.

Connection between bail and handle

Novel means is provided for affording a strong, durable and permanent connection between the handle 12 and the body portion of the bail 13. This means is illustrated to advantage in Figures 13 to 15, inclusive. As therein illustrated, the bail body portion is stamped down or flattened to provide a key 71. An attaching lug 72 having a transverse opening 73 therethrough is slipped over the bail and brought to such position that the key 71 is located therewithin. The lug is then smashed down to cause the metal of the lug to flow into close engagement with the key as will be understood from Figure 14. In the construction illustrated, the lug 72 has a stud 74 adapted to have threaded engagement with a socket 75 provided at the lower end of the handle 12.

Dust pan structure and mounting

The dust pans 10 and 11 are of identical construction (see Figures 3 and 12) and each is, except for its handle or finger piece, made up of a single piece of metal, one side edge of which is bent up as at 76 to form an inclined side wall adjacent the brush and the other side edge of which is bent up as at 77 to interfit with the rabbeted lower edge of its adjacent transverse rail 23. The end edges are similarly bent up to provide end walls 78 and these end walls have extensions 79 which are offset inwardly and provided with openings 80 and 81 to receive, respectively, the pivot pins and the dust pan spring ends. Each side wall 77 is slotted adjacent one end as at 82 so that a finger piece 83 may be inserted therethrough and spot welded to the pan as at 84 (see Figure 12). The outer edge of the finger piece may be beaded or rolled as at 83. The finger piece on one dust pan is located at the end thereof opposite to that at which the finger piece of the other is located so that in emptying the pans or manipulating them the sweeper may be held by the bail and simply rotated through 180° to bring first one and then the other finger piece in close proximity to the hand of the person using the sweeper. Bowed springs 85 of substantially inverted U-shape are provided for releas-

ably holding the dust pans in either closed or open position, these springs being disposed against the inner surface of the walls 20 and having outturned lower ends 85' which project into the openings 80 of the offset extensions 79. The mounting of the dust pans is such that they may be swung to full open position, as illustrated at the left hand side of Figure 3, and when so disposed the springs 85 act to hold the dust pan in such position and with its extensions 79 engaged with the adjacent axle 4. On the other hand, when these dust pans 11 are moved back to their normal operative position shown at the right hand of Figure 3, the effective action of the springs is reversed in that they tend to hold the dust pans in operative position. The offsetting of the extensions accommodates the adjacent portion of the springs 85 as well as strengthens the pan structure in that it backs up the ends of the wall 76. By inspecting the relation of the pivots 68 to the connection of the spring ends 85' with the extensions 79 of the pans, as clearly shown in Figure 3, the dual action of the springs 85 and their action in aiding final phases of pan movement in either direction will be readily understood. As will be understood from an inspection of Figure 9, the legs of the springs 85 adjacent the lower ends thereof are kinked or bent so that above the inturned lower ends 85' the kinked portions bear against the ends of the dust pans, thereby tending to hold the upper portion of the springs against the sides 20 and preclude their shifting over and interfering with the brush.

Comb mounting and stops

As shown in Figures 3, 4 and 9, the combs 8 and 9 have extensions 90 at their ends which are disposed transversely to the comb and provided with eyelets 91 affording bearings into which pivot pins 92 carried by the walls 20 project. Washers 93 may be provided between the eyelets and the walls 20. The extensions 90 continue beyond the eyelets and are encased with rubber sleeves 94 designed to coact with stop pins 95 (preferably of wood to further aid in deadening sound) to limit the extent to which the teeth of the combs may move into the brush bristles, as illustrated at the left hand side of the sweeper in Figure 3. If the combs tend to move too far away from the brush their end teeth will engage these stop pins 95.

Operation and advantages

In operation, the sweeper is adjusted automatically for either long or short pile rugs or carpets merely by swinging the handle 12 to one side or the other and operating the sweeper from the selected side. Such swinging of the handle automatically either raises or lowers the brush and raises or lowers the brush uniformly throughout its extent since both brush trunnions are uniformly adjusted. This enhances the efficiency of the sweeper and enlarges the range of its effective use.

Another distinct advantage resides in the fact that the dust pans may be swung to full open position and are self-locking in open position. The finger pieces are located at the proper end of each pan and there is no danger of dirtying the hands when emptying the sweeper. The advantage of having the axles stationary so as to avoid collection of lint is preserved and yet the springs for the axles are so constituted and are so combined and organized with the sweeper casing and with the axles as to provide for very effective driving engagement between the floor wheels and the brush pulleys at all times. These advantages are realized while precluding egress of dust from the interior of the sweeper or the accumulation of dirt or dust in places liable to impair the operative efficiency of structure.

The sweeper is of highly attractive appearance and presents a well balanced and easily handled and controlled device. The manner of combining the metallic cover plates with the wooden casing has the advantage of enclosing the floor wheels and brush pulleys and the operating mechanism for raising and lowering the brush while preserving simplicity and ornamental quality in the sweeper as a whole. The side extensions lend to the sweeper a graceful finish, blending with the streamlines of the casing or body of the sweeper. The transparent top, by exposing the interior of the sweeper and particularly the dust pans, shows when the pans need emptying. It also permits light to enter the interior of the sweeper thereby lessening moth and germ dangers. The bumper is combined with the casing structure in an effective manner and yet is readily removable and replaceable. The brush itself, while ordinarily automatically stripped of lint and dirt is nevertheless easily removable for purposes of cleaning, replacement or repair and this notwithstanding the positive control had thereover both as to drive and as to adjustment.

In addition to these special advantages, the sweeper lends itself to economical production from materials and by means of facilities ordinarily available. Finally, it is easily manipulated and controlled and is conveniently stored when not in use.

While I have shown and described one construction in which the invention may be advantageously embodied in the particulars mentioned herein and in the foregoing detailed description it is to be understood that the specific construction shown and described has been selected merely for purposes of illustration or example and that various changes in the size, shape and arrangement of the parts and of the materials employed may be made without departing from the spirit of the invention or the scope of the subjoined claims.

The invention claimed is:

1. A carpet sweeper comprising a wheeled casing, a rotary brush carried by the casing, means for raising and lowering the brush, a handle connected to the casing and shiftable relative thereto, and a lost motion connecting means between said handle and said raising and lowering means to provide for actuation of the raising and lowering means from the handle after the handle has been shifted through a predetermined distance, said lost motion connecting means freeing the handle from the raising and lowering means for such swinging movement as may be imparted thereto during the ordinary normal operation of the sweeper thereby relieving the several parts of actuation and wear during such time.

2. A carpet sweeper comprising a wheeled casing, a rotary brush carried by the casing, vertically adjustable slides upon which said brush is mounted for rotation, rotatable members mounted on the casing and interconnected with said slides to control the position thereof, a handle swingably interconnected with the casing, and spaced projections on said members with which said handle is engageable when swung to one side or to the other of the casing to cause the rotat-

able members to control the raising and lowering of said slides and said brush.

3. A carpet sweeper comprising a wheeled casing, slides interconnected with said casing for vertical adjustment relative thereto, a brush rotatably supported on said slides, cams rotatably supported on said casing and interconnected with said slides to control the raising and lowering thereof, said cams having spaced lateral projections, and a handle having a bail pivotally interconnected with said casing and having its arms disposed between said spaced projections and engageable therewith as the handle and bail are swung to one side or the other of the casing to cause the cams to effect raising and lowering of said slides and said brush.

4. A carpet sweeper comprising a wheeled casing, slides interconnected with said casing for vertical adjustment relative thereto, a brush rotatably supported on said slides, pins projecting laterally from said slides, rotatable cams mounted on the casing and engaging said pins, springs for holding said pins against said cams, said cams having spaced ears, and a handle having a bail, the arms of which are pivoted to the casing and disposed between said ears whereby upon swinging of the handle to one side or the other of said casing its arms engage said ears to cause said cams to effect raising and lowering of said slides and said brush.

5. A carpet sweeper comprising a casing having side extensions consisting of flanged metallic plates and a bumper comprising a rectangular strip of rubber extending around said casing and said side extensions, said side extensions having slots at their corners, said bumper having integral webs projecting through said slots, and means coacting with the webs on the inside of said extensions for holding the webs in the slots and the bumper in position.

6. A carpet sweeper comprising a casing, axles in the casing, wheels rotatably mounted on said axles, a rotary brush disposed between and parallel to the axles and driven from the wheels, a pair of dust pans pivotally supported on the casing, said dust pans having extensions and a bowed spring of inverted U-shape having its ends pivotally connected to the extensions, the pivotal connections between the ends of the spring and the extensions being located above the pivotal support of the dust pans in their open position and below the same in their closed position whereby to tend to releasably maintain the dust pans in either open or closed position, said extensions engaging the axles to limit the opening movement of the pans.

7. In a carpet sweeper, a dust pan constructed of a single piece of metal folded upwardly at its side and end edges and having its upwardly folded end edges extending at one end of the casing and offset to back up one of said side edges and to provide for the attaching of a spring thereto.

8. A carpet sweeper comprising a casing having sides provided with openings, axles extending through the openings of said sides, said openings being substantially larger than said axles, wheels rotatably mounted on said axles, a rotary brush disposed between the axles and driven from said wheels, and a pair of springs, each having its intermediate portion anchored to the casing and having bowed ends terminating in curls, the curls embracing portions of the axles and the portion embraced being flattened whereby the curls tend to preclude rotation of the axles as well as interconnect the bowed spring portions therewith so as to urge the wheels into driving engagement with the brush.

9. A carpet sweeper comprising a casing having slots in walls thereof, a bumper comprising a strip of rubber extending around the casing and provided with integral webs projecting through said slots to support the bumper in position, and means coacting with the webs and casing to prevent accidental displacement of the webs from the slots, said means being releasable to provide for removal of the bumper and being readily restored to operative action upon replacement of the bumper.

10. A carpet sweeper comprising a casing having end walls, metallic end plates secured to the casing and having their body portions in spaced relation to the end walls, said body portions having outwardly facing guide grooves therein and being provided with slots at the upper ends of the guide grooves, supporting strips having their lower portions slidably fitted in said guide grooves and having inwardly offset upper portions extending through said slots and working against the inner surfaces of said plates, means for constraining said upper portions to vertical sliding movement relative to said plates, means cooperable with said upper portions and operating between the plates and end walls to raise and lower said strips and brush engaging trunnions carried by the lower portions of said strips, said plates having openings through which said trunnions operate.

11. A carpet sweeper comprising a casing having end walls, metallic end plates secured to the casing and having their body portions in spaced relation to the end walls, said body portions having outwardly facing guide grooves therein and being provided with slots at the upper ends of the guide grooves, supporting strips having their lower portions slidably fitted in said guide grooves and having inwardly offset upper portions extending through said slots and working against the inner surfaces of said plates, means for constraining said upper portions to vertical sliding movement relative to said plates, means cooperable with said upper portions and operating between the plates and end walls to raise and lower said strips, and brush engaging trunnions carried by the lower portions of said strips, said plates having openings through which said trunnions operate, said strips being resilient and being biased to maintain said trunnions in operative position but being capable of having their lower portions flexed outwardly from their grooves to move the trunnions to inoperative position.

12. A carpet sweeper comprising a casing having end walls, metallic end plates secured to the casing and having outwardly facing guide grooves therein and being provided with slots at the upper ends of the guide grooves, supporting strips having their lower portions slidably fitted in said guide grooves and having inwardly offset upper portions extending through said slots and working against the inner surfaces of said plates, means for constraining said upper portions to vertical sliding movement relative to said plates, and brush engaging trunnions carried by the lower portions of said strips, said plates having openings through which said trunnions operate, said strips being resilient and being biased to maintain said trunnions in operative position but being capable of having their lower portions flexed outwardly from their grooves to move the trunnions to inoperative position.

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