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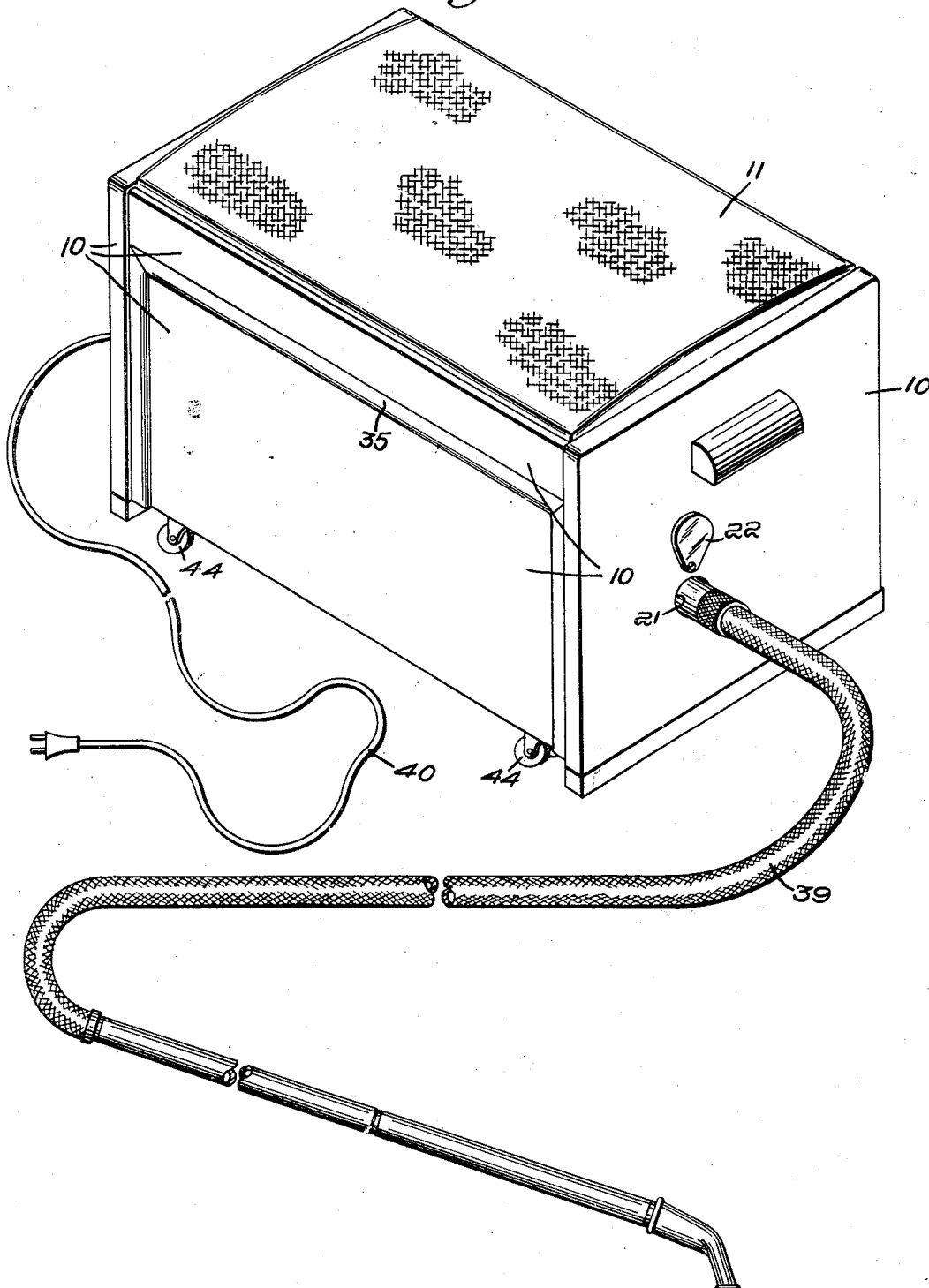
L. B. SALT
VACUUM SWEEPER

2,367,437

Filed Aug. 24, 1943

4 Sheets-Sheet 1

Fig. 1.



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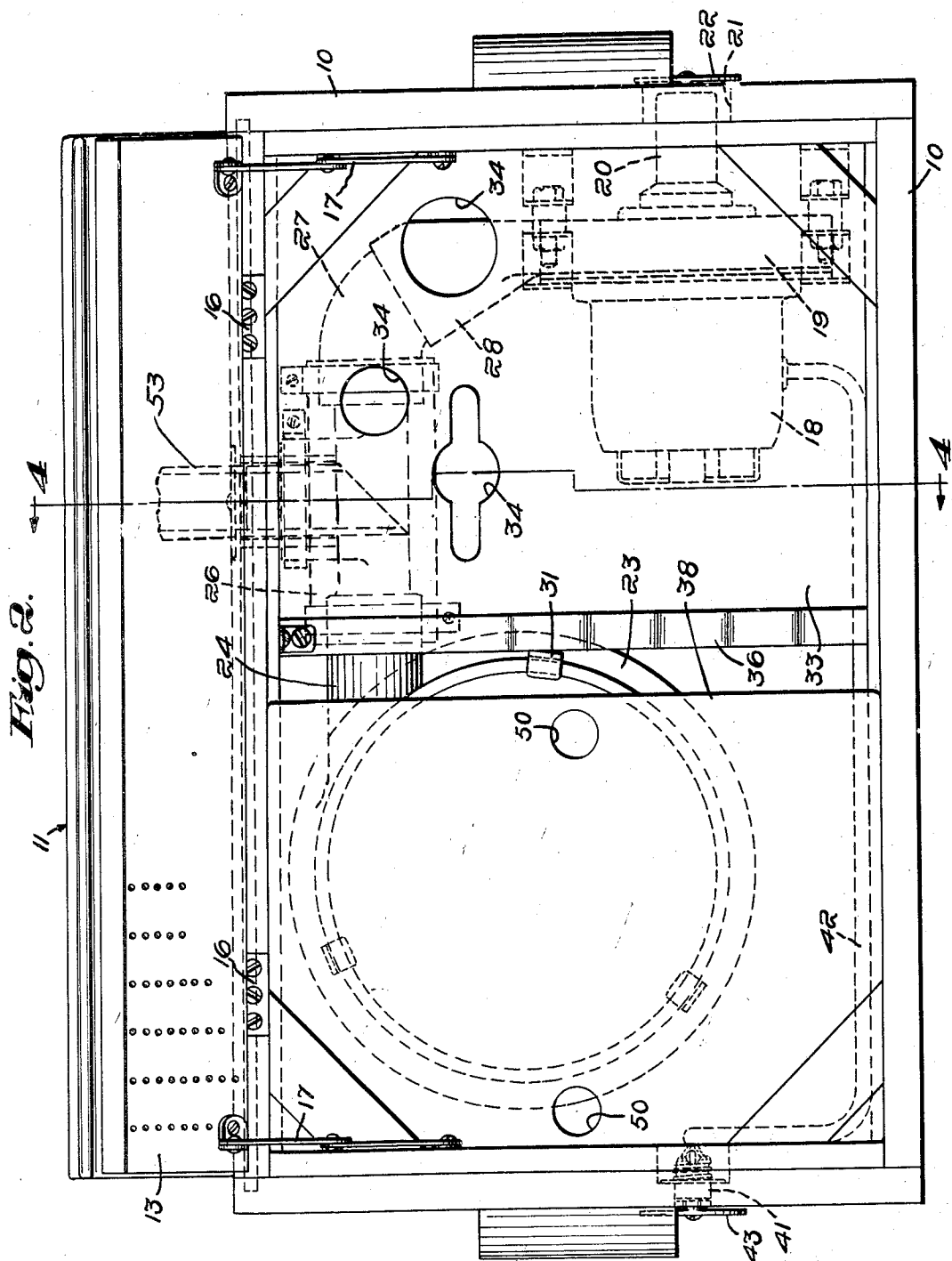
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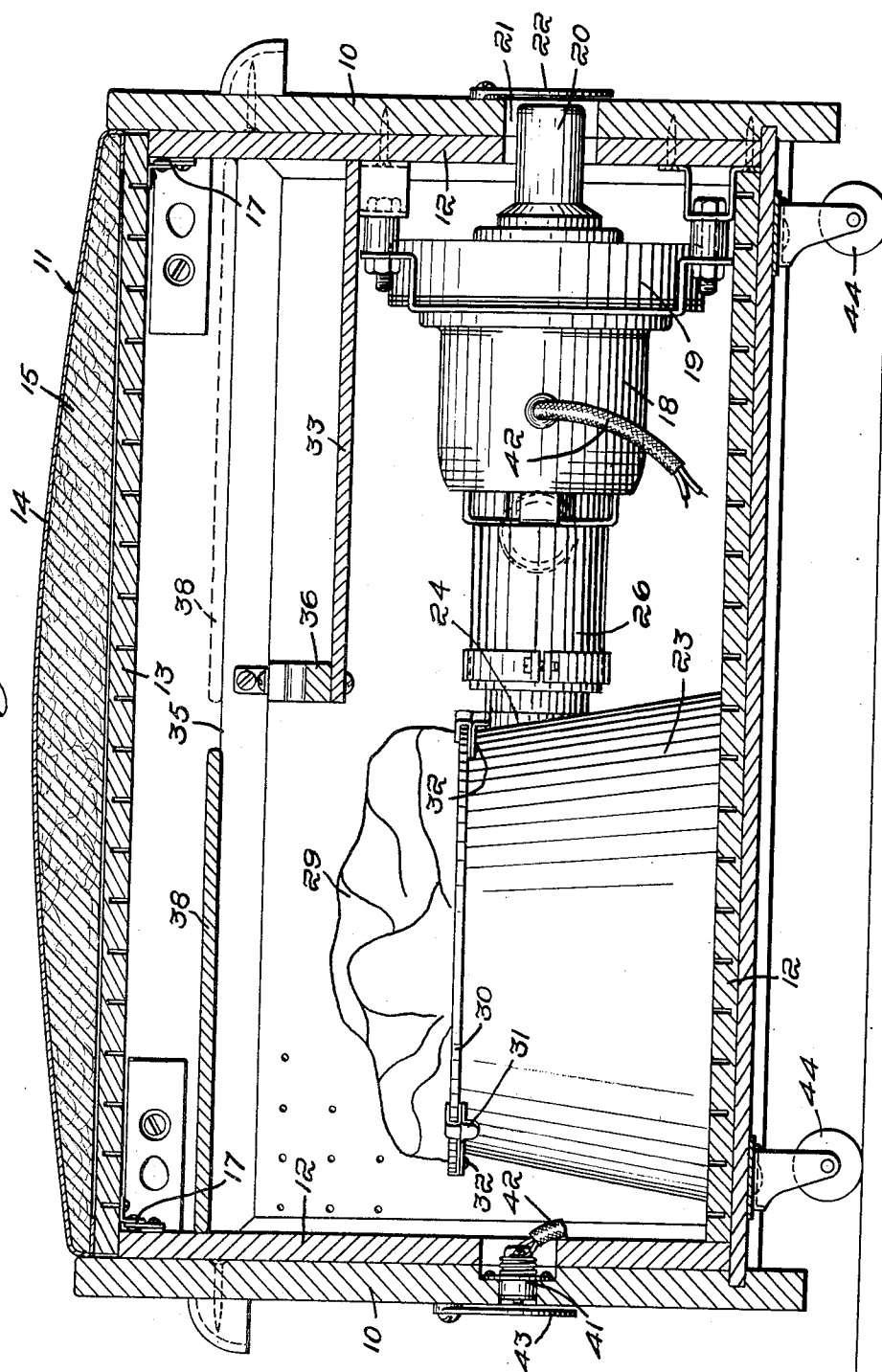
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Fig. 3.



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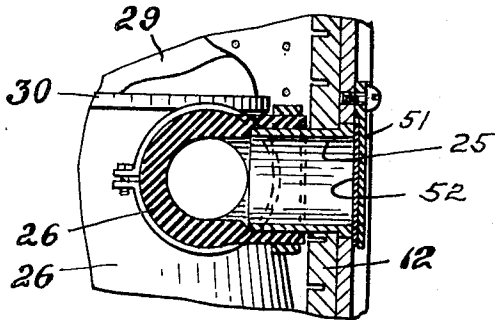
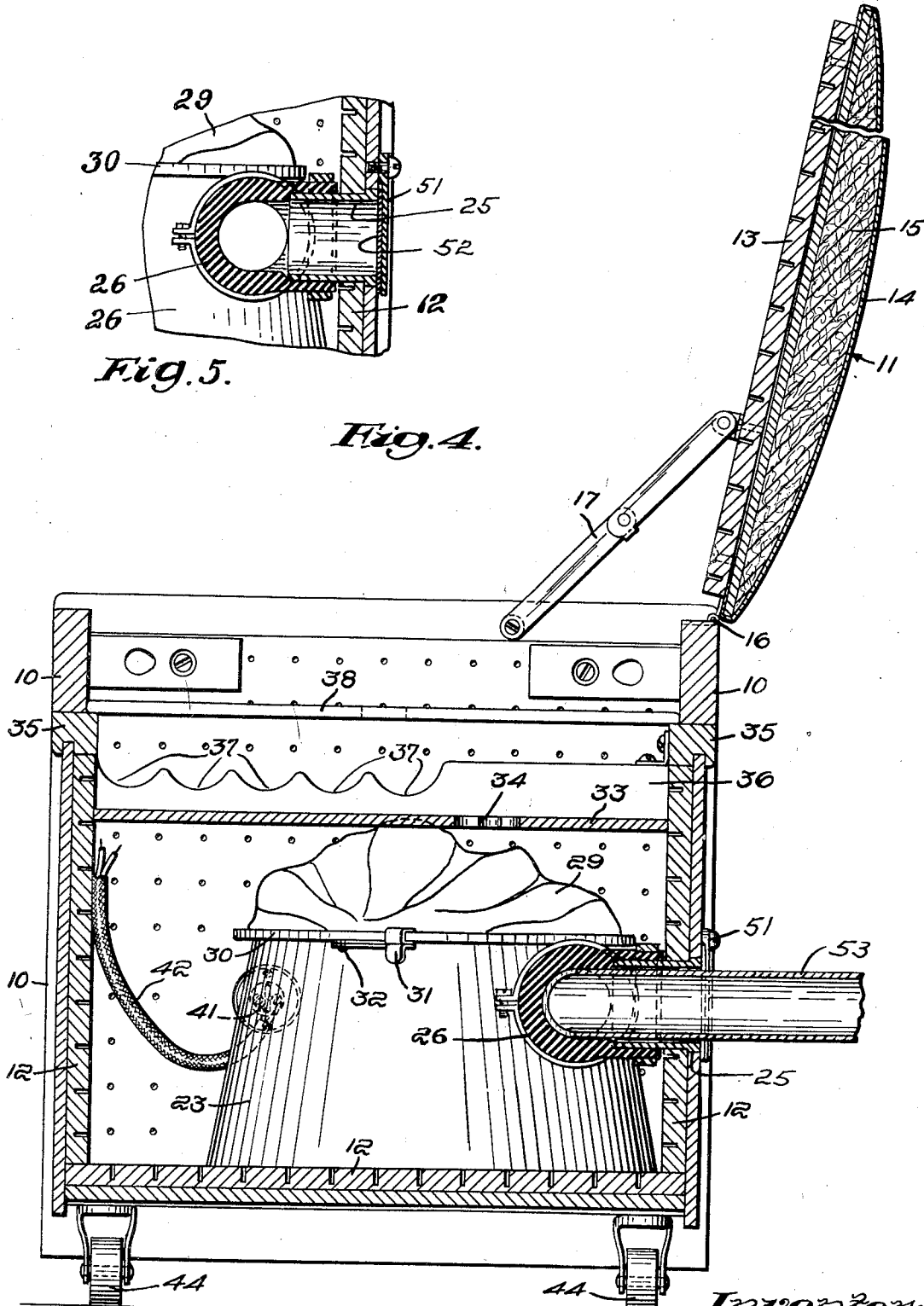


Fig. 5.



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UNITED STATES PATENT OFFICE

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VACUUM SWEEPER

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Application August 24, 1943, Serial No. 499,782

2 Claims. (Cl. 15—1)

This invention relates to vacuum cleaners or sweepers of the household type and has as objects the improvement of, performance and appearance of, the lessening of the noise of, operation of, and the increased ease of handling of such sweepers.

The ordinary vacuum sweepers of the household type represent compromises between appearance and function. For appearances' sake the sizes of components have been reduced and their locations changed with sacrifice in performance. They are noisy in operation and the disposal of the electric cord, the hose and the other accessories represents a problem unsolved heretofore. Moreover in spite of such improvement in appearance as has been achieved heretofore, they are still undecorative machines to be hidden from view when not in use.

This invention provides a vacuum sweeper which is a decorative piece of furniture; has a higher performance than the prior sweepers; is quieter in operation and easier to handle than prior sweepers, and which provides storage space for the electric cord, the hose and all other accessories.

The invention will now be described with reference to the drawings, of which:

Fig. 1 is a projected view illustrating the external appearance of a vacuum sweeper embodying this invention, fitted with electric cord and sweeper hose;

Fig. 2 is a plan view looking downwardly upon the sweeper of Fig. 1 with its hinged top in open position;

Fig. 3 is a side sectional view of the sweeper of Figs. 1 and 2;

Fig. 4 is a sectional view taken along the lines 4—4 of Fig. 2, and illustrates the inner end of an air outlet tube connected to the blower for supplying air to an external tool, and

Fig. 5 is a sectional view of the connection for the air outlet tube but with the tube removed.

The embodiment of the sweeper casing illustrated, is a substantially rectangular wooden box having the decorative outer walls 10 and the decorative, hinged upper wall or top 11. It has the inner walls 12 of sound insulating material, the top 11 having the lower wall 13 of the same material.

As illustrated the top 11 has a decorative fabric cover 14 under which fibrous cushioning material 15 is enclosed. The top 11 is hinged at 16 to one of the side walls 10 of the casing and has attached thereto the pivoted member 17 for limiting the outward movement thereof.

The electric motor 18 and suction blower 19 are mounted in one diagonal corner of the casing. The suction tube 20 extends from the fan 19 into the aperture 21 in the end walls of one end of the casing. The pivoted cover plate 22 covers the aperture 21 when the sweeper is not in use and is adapted to be moved from over the aperture 21 to permit one end of a suction hose to be placed over the outer end of the tube 20.

The dust receiving can 23 is seated upon the lower wall 12 of the casing and has the tangential inlet tube 24 which is fitted into one end of the rubber tube 26 as shown most clearly by Fig. 2. The other end of the tube 26 is fitted over one end of the elbow 27 with the other end of the elbow being fitted within the outlet tube 28 of the fan 19.

The can 23 has a cloth bag cover 29 having a lower flange which fits within a recessed flange 30 around the top of the can and which is held in place by the clamps 31 which are pivoted to the flange 30 at 32.

The rubber tube 26 has a circular opening formed in its outer wall midway between the tube 24 and the elbow 27 at the back side of the box and the metal sleeve 25 extends through an opening in the back side of the box against the tube 24 at, and in alignment with, the opening in the tube. A pivoted cover 51 with an inner facing 52 of rubber, normally closes off the sleeve and prevents the escape of air therethrough. When it is desired to supply air to a tool outside the box as for spraying, etc., the cover 51 is moved to one side and the tube 53 inserted into the sleeve 25. The inner portion of the tube 53 is angled as illustrated by Fig. 2 and has a portion which closes off the receptacle 23 from the tube 26 and which deflects the air from the blower 19 through the tube 53 into an external air outlet hose which is not illustrated.

The shelf 33 extends cross-wise the casing above the fan 19, the motor 18 and the tube 26 and has the several apertures 34 therein for the reception of the various suction nozzles used with the sweeper.

The inner end of the shelf 33 is supported from the front and back wall portions 35 of the casing through the upwardly extending boundary wall 36 which has the curved cut away portions 37 formed therein for the reception of the end portions of the extension tubes for the nozzles of the sweeper.

The slidable shelf 38 extends cross-wise the casing and is seated upon the inner upper ends of the wall portions 35 as illustrated most clearly

by Fig. 4 and may be adjusted as shown by the full lines of Fig. 3 to extend across the space above the can 23 or as shown by the dashed lines of Fig. 3, to extend above the fixed shelf 33. The openings 50 in the shelf 38 are for the insertion of fingers of the operator for sliding the shelf (Fig. 2).

The shelf 33 is located below the shelf 38, a distance sufficient to permit the ends of the extension tubes which are fitted in the curved cut-away portions 37 in the wall 36, to extend under the shelf 38 when it is above the can 23. This permits the relatively long extension tubes to lie on the shelf 33 and the wall 36 and to extend into the space above the can 23.

With the shelf 38 placed above the can 23 and the nozzles and extension tubes in place on the shelf 33 as described, the suction hose 39 and the electric cord 40 can be coiled and placed on the shelf 38 and upon the accessories fitted upon the shelf 33. The cover 11 may then be closed and the casing encloses all of the fittings and accessories.

The end wall of the casing opposite the one recessed to receive the inlet tube 20 of the fan 19, is recessed to receive the electric receptacle 41 for the reception of a plug on the inner end of the cord 40 for supplying electric current through the cords 40 and 42 to the motor 18. The pivoted plate 43 covers the recess in which the receptacle 41 is placed, when the cord 40 is disconnected from the sweeper.

The bottom of the casing is fitted with the casters 44 so that the sweeper may be drawn by a pull on the hose 39 when it is connected as illustrated by Fig. 1, the sweeper thus being moved along during its use by the person handling the hose.

A sweeper embodying this invention permits an improved functional layout. A larger fan, motor and dust receptacle may be used. Since the walls are sound insulating, the noise of operation is almost inaudible.

With the slidable shelf 38 moved above the shelf 33 as illustrated by the dashed lines of Fig. 3, the space above the dust can 23 is open for

the removal of the can. Then as a result of the tangential connection of the tube 24 with the dust receiving can 23, by rotation of the can in a counterclockwise direction (facing Fig. 2 of the drawings) the tube 24 is withdrawn from around the tube 25 and the can 23 may then be lifted from the casing for removal of the dust. Then upon reinsertion and clockwise rotation, it is again connected through the tubes 24, 25, and 26, etc., to the fan.

While one embodiment of the invention has been described for the purpose of illustration, it should be understood that the invention is not limited to the exact apparatus and arrangement of apparatus illustrated as modifications thereof may be suggested by those skilled in the art without departure from the essence of the invention.

What is claimed is:

1. In a vacuum sweeper container having a fan-motor unit in the lower portion of one end thereof and having a dust receptacle in the lower portion of the other end thereof, the combination of a shelf above said unit, said shelf having openings therein for the reception of suction fittings, and a second shelf slidable to a position above said receptacle for receiving with said first mentioned shelf, the electric cord of said unit, and slidable to a position above said first mentioned shelf for permitting the removal of said receptacle through the upper portion of said container.

2. In a vacuum sweeper container having a fan-motor unit in the lower portion of one end thereof and having a dust receptacle in the lower portion of the other end thereof, the combination of a shelf above said unit, said shelf having openings therein for the reception of suction fittings and having an upwardly extending wall at its inner end, said wall being indented for the reception of extension tubes, and a second shelf slidable to a position above said receptacle for receiving with said first mentioned shelf, the electric cord of said unit, and slidable to a position above said first mentioned shelf for permitting the removal of said receptacle through the upper portion of said container.

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