Dec. 16, 1952 E. DAVIE 2,621,497

PORTABLE DUST COLLECTING UTENSIL

Filed Aug. 24, 1951 2 SHEETS—SHEET 1

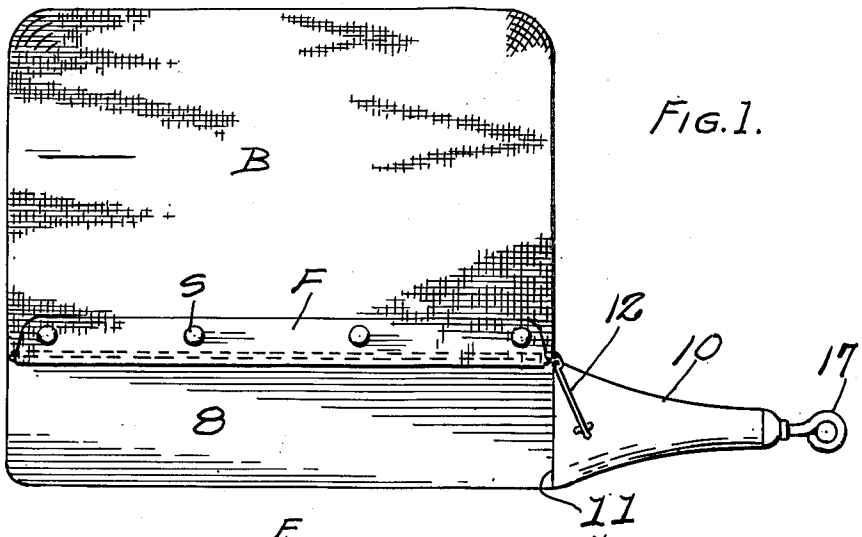


FIG. 1.

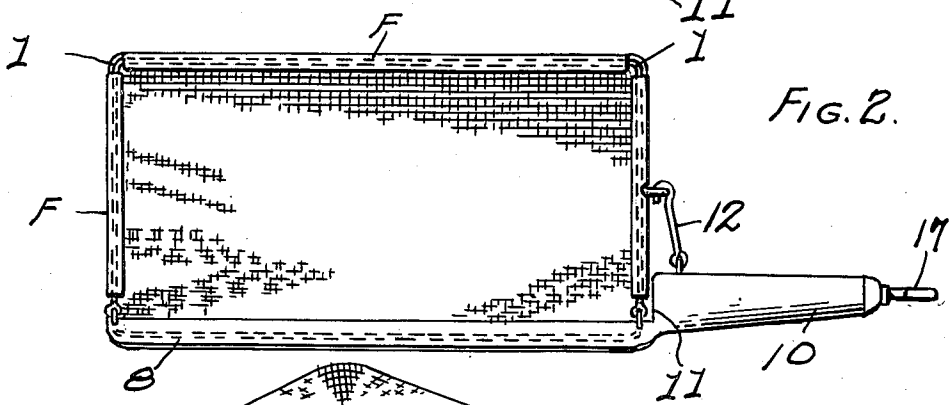


FIG. 2.

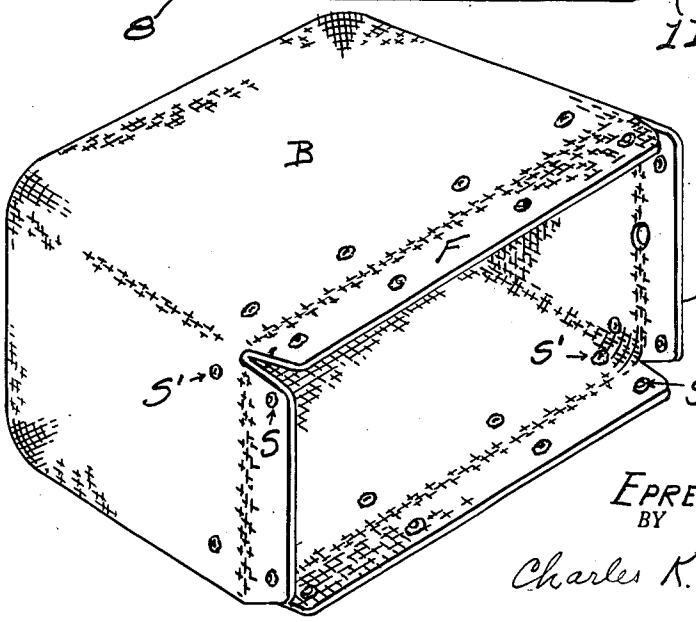


FIG. 3.

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PORTABLE DUST COLLECTING UTENSIL

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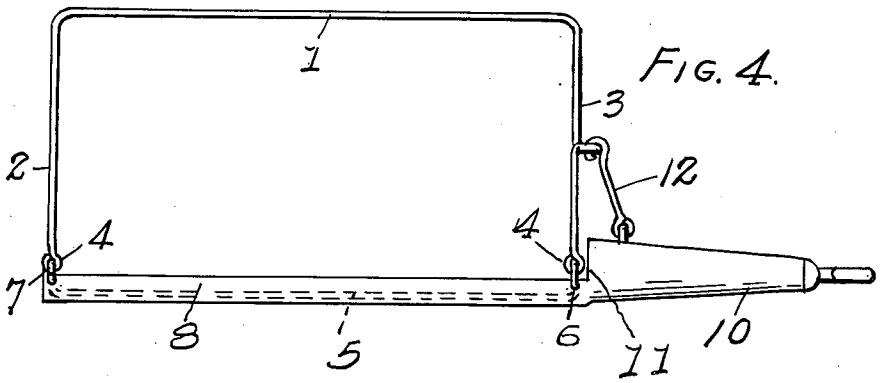


FIG. 4.

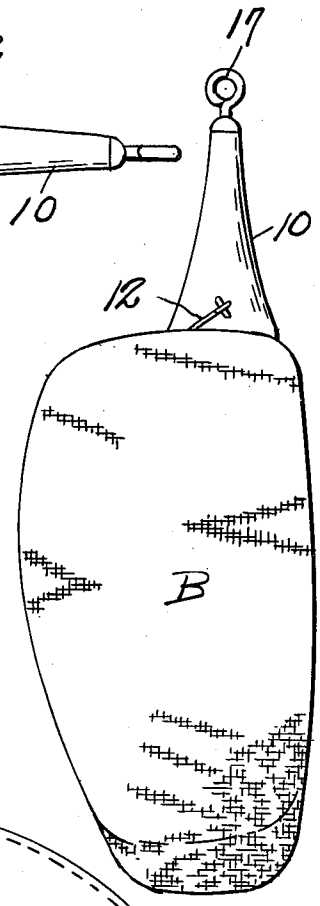


FIG. 6.

FIG. 5.

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PORTABLE DUST COLLECTING UTENSIL

Eprevel Davie, Montgomery, Ala.

Application August 24, 1951, Serial No. 243,449

3 Claims. (Cl. 65—20)

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My present invention relates to an improved portable dust-collecting utensil or implement, of the bag or receptacle type, that is designed for domestic use with a broom or brush, as well as for use in public service places, in cleaning floors, streets or pavements, covered tables and other furniture. As a household utensil it may be manipulated in one hand in cooperation with a broom or brush in the other hand, to sweep dust and other trash from a floor and collect the sweepings in the bag or receptacle, in a sanitary manner; and with facility the collected content of the bag or receptacle may be emptied or disposed of in suitable manner.

The utensil, which may be manufactured in various sizes and shapes, includes a minimum number of parts that may be manufactured with facility and low cost of production, and the parts may be assembled with ease, to assure a durable and handy implement that is efficient in the performance of its required functions. The invention consists in certain novel features of construction and combinations and arrangements of parts as will hereinafter be described and more particularly set forth in the appended claims.

In the accompanying drawings, which illustrate a household utensil, I have disclosed a complete physical embodiment of my invention wherein the parts are combined and arranged in accord with one mode I have devised for the practical application of the principles of the invention. It will however be understood that changes and alterations are contemplated and may be made in the exemplifying drawings and mechanical structures, within the scope of my claims, without departing from the principles of the invention.

Figure 1 is a top plan view of the utensil, in position for use; and Figure 2 is a front view of the utensil of Figure 1.

Figure 3 is a perspective view of a preferred form of the bag or receptacle, detached from the utensil.

Figure 4 is a front view in elevation, with the bag detached, showing the supporting frame, handle, and collecting blade or pan.

Figure 5 is an enlarged, fragmentary detail view partly in elevation and section, showing the manner of bracing the bag in operative position.

Figure 6 is a view in elevation disclosing the utensil in wrapped or compactly folded position, for suspension on a hook when out of service.

In carrying out my invention I employ a bag B, which may be of desired size in adapting it for different purposes, and fashioned of cloth, fabric,

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or other suitable and flexible material, preferably in oblong or rectangular shape.

At the four corners of the open end of the bag it is notched or cut away to provide four foldable free edges or flaps F, and the flaps are equipped with ball and socket snap fasteners S, S' whereby these outfolded flaps may be fastened to the body of the bag to form tubular hems or casings by means of which the open end of the bag may be mounted upon a wire supporting frame, for use.

This two-piece bag-supporting frame of rectangular shape is flexible or foldable, and it includes an inverted U-shape yoke having a top cross bar or rod 1 with depending legs 2 and 3, each of which legs terminates in an integral eyelet, loop, or hook 4. The lower section of the frame comprises a base bar or rod 5 having short end posts 6, 6, that terminate in ears or loops 7 that are adapted to receive and retain the hooks or eyelets 4, 4, of the yoke, and thereby form hinges that permit the yoke to be folded down into position at right angles to the plane of the posts 6.

As here shown the flaps of the bag are outfolded over the respective horizontal and vertical parts of the frame to form the enclosing casings, and the snap fasteners S, S', are utilized to fasten the bag to the frame as indicated in Fig. 5.

Upon the two posts 6, 6, of the base bar 5 is mounted a flat blade 8 of sheet metal or other suitable material, and this blade, or collecting scoop at its rear edge is reinforced or thickened at 9 and bored or drilled near its opposite ends to receive and fit around the two posts. As seen in Fig. 1 the blade projects forwardly to form a lower lip for the open mouth bag, and the front free edge of the blade rests upon a floor or other surface, to guide the sweepings into the bag under propulsion of a broom or brush.

For handling and easy manipulation of the utensil the blade is equipped with a laterally offset, tapered, and preferably tubular handle 10, and the handle at its inner end is fashioned with an abrupt shoulder 11 that guides the movement of the sweepings into the bag; and also guides the collapsed bag as it is wound or wrapped about the blade when the utensil is not in use.

For bracing and retaining the frame and the open-mouth bag in upright position when the utensil is in use, a releasable brace rod or bar 12 is hinged and anchored by its eyelet or loop 13 to an eye-bolt or screw-eye 14 that is rigidly fixed in the top portion of the tubular handle 10. The upper end of this brace terminates in a hook

15 that is detachably engaged in a complementary eyelet 16 that is integral with and offset laterally from the leg 3 of the wire frame.

When desirable or necessary the replaceable bag may be detached from its supporting frame and emptied of its contents and again attached to the frame, or a complementary bag may be substituted for the original bag if preferred.

When not in use, the brace may be disconnected from the frame, the frame with the open-mouth of the bag may be folded downwardly, and then the body of the bag may be wrapped around the blade, as shown in Fig. 6, after which operation the compactly arranged utensil may be suspended by a hook or eyelet 17 on the end of the handle as a connection to a nail or other device.

For heavy-duty service in cooperation with a broom or brush, these parts may be assembled to form a large size implement with the necessary strength and ruggedness to insure durability; and in some instances replaceable and interchangeable bags that are expendable may be thus employed. For lighter work, as for instance in crumbing a table, a smaller, lighter-weight utensil is desirable; and without the use of a broom or brush the smaller utensil may be utilized as a hand-scoop or scraper in the collection of light-weight debris or trash.

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

1. In the portable utensil described, the combination with a wire frame including a horizontal base bar terminating in upright posts, an inverted U-shape yoke foldably connected to the posts, and an open-mouth foldable bag fastened to the frame, of a forwardly projecting scraper-blade mounted on said posts and a laterally projecting handle rigid with the blade, and detachable means uniting the yoke and handle for holding the frame in upright position.

2. The combination with a rectangular wire frame including an inverted U-shape yoke terminating in hinge members, a horizontal base bar

terminating in short upright posts having hinge members coacting with the complementary members of the yoke, and an open-mouth bag having its free edges attached to the frame, of a forwardly projecting blade mounted on the posts, an offset laterally extending handle rigid with the blade, a brace rod pivotally anchored on the handle, a fixed eyelet on the frame, and a complementary hook on the free end of the brace rod for coaction with said eyelet.

3. The combination with an open rectangular and foldable supporting frame including a base-portion, an open-mouth bag having edge flaps folded over the frame, and complementary pairs of detachable fasteners on the flaps and bag for securing the bag to the frame, of a forwardly projecting blade rigid with and carried by the base-portion of the frame, a laterally projecting handle rigid with an end portion of the blade, and a detachable brace uniting the handle and an upright portion of the frame for holding the frame in open position.

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