March 12, 1940. G. CORSON 2,192,896

MOP CLEANER

Filed April 13, 1937

Fig. 1

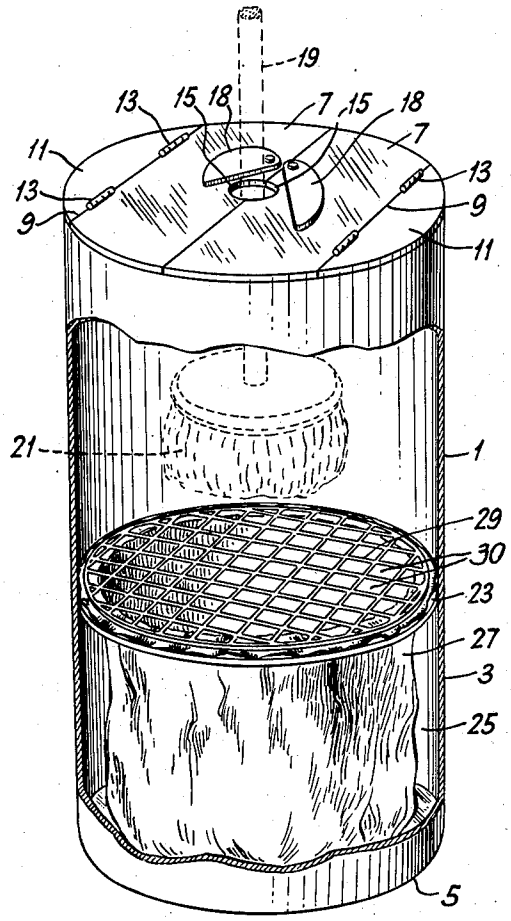


Fig. 2

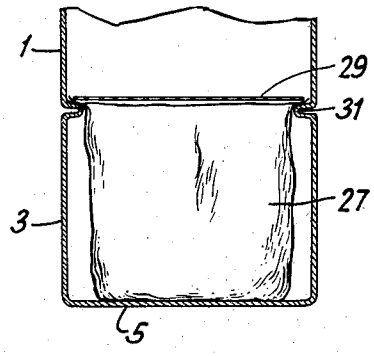
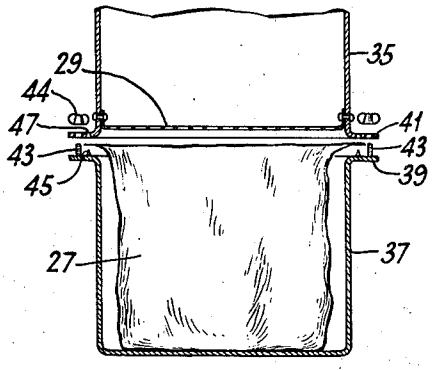


Fig. 3



INVENTOR
GEORGINA CORSON
BY
ATTORNEY

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MOP CLEANER

Georgina Corson, New York, N. Y.

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5 Claims. (Cl. 15—142)

The present invention relates to a mop cleaner which is particularly adaptable for use with that type of mop known as a dry mop.

It frequently happens that in some localities it is both prohibited and inconvenient to shake such mops out of doors, and even if this is done the dust and dirt accumulated in the mop blows or scatters in the process of cleaning or shaking. Such blowing or scattering of the dirt and dust is most unsanitary, disease spreading, annoying and undesirable since the cloud of scattering dust or dirt frequently envelops the person shaking or cleaning the mop and then after scattering drifts into open windows or doors to collect upon household goods.

In accordance with the present invention these objections are overcome through the provision of an arrangement by which the mop can be shaken within and into a container and the dust and dirt accumulated by the mop collected within a paper bag or other suitable and readily disposable receptacle held or otherwise positioned within the container. When the removable receptacle, such as the paper bag, has later been removed from the container it may be readily disposed of without the necessity of becoming subjected to the dirt and dust collected. A further feature of the present invention is to provide either as a part of the container or as an auxiliary thereto a grating, rack, grille or grid element which will provide a convenient means by which substantially all dirt and dust may be removed from the mop by tapping or pounding the mop upon the grating so as to permit the dirt or dust removed thereby from the mop to fall through the interstices of the grating or grid element and into the removable receptacle which is later to be disposed of. In addition, provision is made by the present invention for shielding the top or upper part of the housing container from the possible escape of dirt or dust which is released while the cleaning operation is in progress.

Accordingly, the invention has as one of its primary objects that of providing a sanitary means by which mops or similar types of household devices, such as brooms, brushes and the like, may be cleaned and the dirt and dust removed therefrom while providing a sanitary means of collecting all released material.

A further object of this invention is that of providing a convenient means by which mops or the like may be cleaned without subjecting the atmosphere to dust or dirt which frequently results from any cleaning process, and, at the same time, the invention makes provision for the ready disposal of the refuse material accumulated.

Still another object of this invention is to provide a container for collecting dirt or dust which will have provisions therein for holding securely, but removably, a disposable container to collect the dirt and dust. At the same time it is an object of this invention to provide a container for the above purposes which can be manufactured with minimum expense, which will be attractive in appearance, and which is easily used by reason of the care in design and the separability of the several parts thereof.

Other and further objects of the invention, in addition to many advantages of the cleaning arrangement to be herein described, will at once become apparent to those skilled in the art to which the invention is directed by reading the following specification in connection with the accompanying drawing, wherein—

Fig. 1 represents one form of the device in its assembled form with the central portion of the container removed;

Fig. 2 represents a modification of the arrangement of Fig. 1, with provision made for supporting in a modified manner the grid, grating or grille element used as a part of the arrangement of Fig. 1; and,

Fig. 3 shows a still further modification of the arrangements of Figs. 1 and 2 but illustrates a different manner for assembling the container while still carrying out the same aims and objects of the arrangements shown by either Fig. 1 or Fig. 2.

Now making reference to the accompanying drawing for a further understanding of the invention it will be seen that there has been provided a container element 1, which can be formed of any desired material but preferably of sheet metal or the like so that it can be formed and shaped at a minimum of expense. The container 1 is, according to the illustrated forms, of cylindrical shape with side wall portions 3 and a closed bottom 5.

At the top of the cylindrical container is attached a cover plate 7 which is divided into two separate sections. The edges 9 of the cover plates 7 are fastened to the top members 11 secured to the upper edge of the cylindrical walls of the container and are movable relative to the top members 11 by means of hinge members 13 which are attached to the top members 11 and the cover plates 7. The hinged top cover members 7 have provided on each a small recessed portion 15 which forms, when the two hinged portions 7 are

in the position shown by Fig. 1 an opening 17 of a size sufficient to accommodate the handle portion 19 of a mop 21, or other desired form of instrument which is to be cleaned.

Just slightly below the mid-section of the cylindrical portion of the container 1 a flanged element 23 is supported or otherwise suitably fastened to the wall 3 of the container, as, for example, by rivets or soldering. In the case of a cylindrical container of the character shown by the drawing as an example of the invention the flange element 23 extends throughout the complete circumference of the inner surface wall of the container. The space 25 between the flange element 23 and the bottom 5 of the container space is provided for the positioning of a removable receptacle or collecting bag 27 which is to collect the dirt and dust shaken from the mop or other device to be cleaned.

This removable container 27 for collecting the refuse is usually in the form of a paper bag for the sake of cheapness since it is to be disposed of when filled with dust and/or dirt. This removable container 27 is positioned within the main container element 1 so that the upper edge of the disposable and removable refuse container 27 rests upon the flange element 23 and the remaining portion rests upon the bottom 5 of the main container element 1. When the disposable container 27, or the equivalent, has been so positioned there is also supported in removable manner upon the flange element 23 a grid, grating, rack or grille element 29 which will fasten in a removable manner the disposable container 27 upon the flange element 23. The grid or grating element 29 is preferably formed from metal and is of a more rigid and stronger construction than the container proper because the article to be cleaned is to be pounded or tapped thereupon in the cleaning process.

As shown by the drawing, it will be noted that the interstices 30 of the grid or grating element 29 are of substantial size so that whenever the article to be cleaned, for example, a mop, is positioned within the container and pounded down upon the grid or grating element 29 the collected dirt will readily be dislodged by impact upon the grating 29 and confined within the container and fall into the disposable paper bag container 27 carried in the base portion of the main housing container.

From the above it is apparent that substantially all of the dirt or dust dislodged from the mop will at once drop into the disposable container 27 whenever the mop is pounded lightly against the grating or grid member 29, but should dirt and dust float about within the container 1 prior to settling within the removable container 27 it will be confined within the housing container 1 by reason of the enclosing flap or cover members 7 which, as shown, fit closely about the handle member 19 of the mop. Thus, no dirt can escape to cause discomfort, spread disease, or settle upon any persons or objects within the area within which the cleaning operation is taking place.

After the dirt and dust has been dislodged from the mop, as explained, the mop can at once be removed by merely opening the hinged flap closing members 7. The paper or disposable container 27 also may be immediately removed by dislodging the grid or grating 29, or, where desired, the paper container 27 can be maintained in its desired position solely by the grating or grid element resting upon it and thus positioning it in place.

Whenever the device is not in use for the purpose specified the container may be retained in exposed position, if desired, without objection and without the possibility of objectionable dust spreading if some object be placed upon the container top to cover the opening 17 therein. For instance, such an object might be a bowl of flowers where the main container is kept within the kitchen. However, where desired, there may be provided two additional hinged members 18, 18 which turn about a pivot point 18' or axis perpendicular to the axis of the hinge between members 7 and 11 in order to cover the opening 17 and close completely the container top.

Such hinged or pivoted members 18, 18 are, as shown, of complementary design and shaped to cover completely the opening 17 normally provided in the hinged cover member for the handle portion of the instrument to be cleaned. It has been found, in practice, that closing members of this character can easily be loosely riveted to the hinged members 7 and turned out of the way when the device is in use for cleaning purposes and then later turned to a position to cover the opening in the container top.

While the device has been explained above in referring particularly to Fig. 1 as provided with a flange element supported from the inner wall surface of the container side wall it is possible to so shape the container element 1 that the flange is unnecessary and thus reduce to some extent the cost to manufacture the device. While the flanged portion 23 is generally to be preferred it is also possible, as shown by Fig. 2, to crimp the side wall of the container so that there is provided as a direct part of the container a supporting ridge 31 for the grid or grating element 29. In this modified form of the device the removable container 23, such as the paper bag element, which is later to be disposed of is supported within the main container in the same manner as the paper bag element of Fig. 1 except that in the modified form of device it is usually desirable to insert the grating or grid element within the paper container prior to the time it is placed in the main container 1. Then, when the grating or grid element 29 and the paper container 23 are placed within the main container 1 the grid or grating element can be turned so as to rest upon the ridge 31 formed in the container wall by the crimped portion and the paper bag or disposable container thus forced between the grating or grid and the side wall of the main container element 1. In this manner the container for collecting the dust or dirt, and which is later to be disposed of, is securely fastened or supported within the main container 1 and removable therefrom after having been filled with dust and dirt in exactly the same manner and as conveniently as with the arrangement of the form shown by Fig. 1.

According to a still further modification of the device, and in a still further refined form, although slightly more expensive to manufacture, there has been illustrated by Fig. 3 a form of device which can be used with equal ease to the forms illustrated by Figs. 1 and 2. With the modified form of Fig. 3, the operation of removing the disposable container 23 will be slightly cleaner and not subject the person removing the disposable container to the possibility of becoming dirty or having clothes soiled from

reaching within a container where dust and dirt may have collected upon the side walls.

In this last referred to modified form of device the container is formed in two distinct parts 35 and 37. One of these parts 35, the upper, contains the grid or grating element 29 which forms therein a partially open bottom portion. The other part 37 of the container has the closed bottom portion 5, like that shown by Figs. 1 and 2 but, in contrast, has an open top portion which terminates in an outwardly extending flanged edge 39. Likewise, the upper half 35 of the container also has an outwardly extending flange portion 41 at its lower edge. When the two halves of the container are assembled the flange 41 of the upper portion 35 rests upon the flanged edge 39 of the bottom portion 37. In this position the two halves of the container may be attached in any desired manner but it has been found satisfactory to provide bolts 43 attached to the upper side of the lower flange portion 39 and then to fit the upper section flange 41 over these bolts. To fasten the two sections 35 and 37 together all that must be done is to turn the wing-nut 44 tight upon the bolt in order to hold the two flanged sections of the upper and lower sections of the container tightly together. Of course, it is apparent that other forms of fastening may be used where desired.

In the form of the arrangement shown by Fig. 3 it will be seen that with the upper section 35 of the container having its bottom portion formed as a grating or grid element 29 and the upper and lower sections fastened together, as above explained, there has been provided a form of container device wherein it is possible to tap or pound the device to be cleaned upon the grating or grid element and permit the released dirt and dust to fall into the lower section of the device. All the released dirt and dust thus falls into the removable and disposable container or bag 23 contained in the lower half section of the complete container assembly. As a further advantage of the arrangement of the form of device shown by Fig. 3 it is possible to provide not only the flange elements for holding the disposable container 23 in position but it is also desirable, in many instances, to provide short pins 45 extending a very short distance above the lower flange element and then to fasten the disposable container upon these pins before assembling the two sections of the container. In order that the pins 45 shall not become dented when the upper and lower sections of the container are assembled the lower surface of the upper flange element may be slightly recessed at points on the upper flange opposite the location of the pins on the lower flange section, as shown at 47. This recessing does not add any appreciable increase to the cost of manufacture and is of some assistance in using the device. However, the device finds equal use and acceptability even where no pin members 45 are provided, since whenever the disposable container is placed over the edge of the lower flange and the two sections of the container secured the disposable container is retained in place satisfactorily.

In some instances it is desirable for the purpose of attractive appearance of the device to paint the complete container in attractive designs or to cover it with covering materials, such as cretonne, which does not increase very materially the manufacturing costs.

While the invention has been shown and described in several of the preferred forms it is apparent that many further modifications may be made and, accordingly, I believe myself to be entitled to make and use any of these modifications which would suggest themselves to those skilled in the art provided, of course, that such modifications and changes fall fairly within the spirit and scope of the hereinafter appended claims.

Having now described my invention what I claim and desire to secure by Letters Patent is the following:

1. A cleaning device comprising a container element, a removable and disposable receptacle adapted to be supported within said container, means forming a part of the side wall of said container for supporting said removable receptacle, and a grating element also supported upon said supporting means and adapted, when positioned thereupon, to locate in place said removable receptacle.

2. A cleaning device comprising a container, means for supporting a removable element within said container, a grating element supported removably within the container upon said support means, and a removable and disposable receptacle device also positioned within said container and positioned and located therein by said support means and said grating element.

3. A mop cleaning device comprising a container tube into which a mop for cleaning is adapted to be inserted, a grating element removably positioned within said container, means upon the side walls of said container for supporting said grating intermediate the top and bottom of said container, and a removable and disposable receptacle contained within said container and positioned beneath said grating and located in position thereby, said removable receptacle being adapted to collect dirt dislodged from said inserted mop by impact thereof on said grating surface.

4. A cleaning device comprising a metallic container element, a disposable and non-rigid removable receptacle positioned within said container element, means on the inner surface of the container for supporting said removable receptacle from the wall of said container, and a grating element positioned within the container and also supported from said supporting means upon the wall of said container for locating said removable receptacle within the container and forming an intermediate bottom for the container.

5. A cleaning device for mops comprising a container device, a flange element attached to the wall of said container device intermediate the top and bottom portions thereof, a removable receptacle supported within the lower portion of said container and located in position by and held upon said flange element, and a grating element supported within said container at the plane of support for said removable receptacle.

GEORGINA CORSON.