

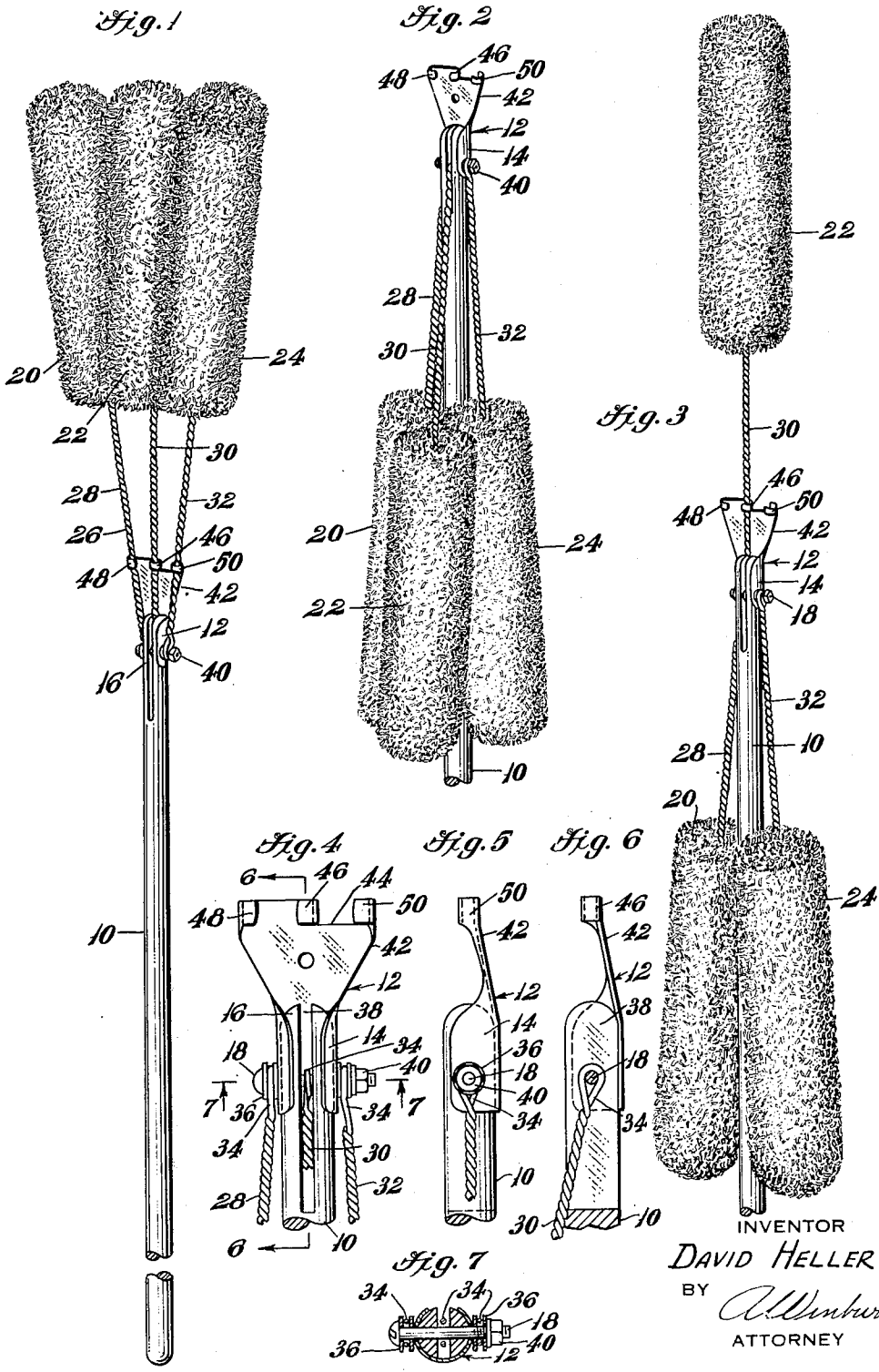
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DUSTING BRUSH

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DUSTING BRUSH

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This invention relates to cleaning devices in the nature of brushes and the like.

An object of the invention is to provide a cleaning device comprising a number of individual brushes mounted on a common handle, and usable one at a time, or in multiples as desired.

Another object of the invention is to provide a cleaning device comprising a common handle and a number of individual brushes, the brushes being mounted on the handle by means of an improved and novel form of fastener whereby they may be moved individually into operative position and retracted out of said position when not needed, the fastener being so arranged as to dispose the extended brushes in such fashion as to cooperate with each other during the cleaning process.

A further object of the invention is to provide a multiple brush, cleaning device which may be employed for a variety of different cleaning tasks, such as for cleaning Venetian blinds, radiators, walls, furniture and the like, with little effort.

Still another object of the invention is to provide a household brush the individual parts of which are washable.

Another object of the invention is to provide a utility brush which is novel in form, simple in design, inexpensive to manufacture, and efficient in use.

Other objects and advantages of the invention will become apparent from the following description of a preferred embodiment thereof as illustrated in the accompanying drawings, and in which,

Fig. 1 is a view of my improved utility brush with all three brush heads in fully extended position,

Fig. 2 is a view of the device shown in Fig. 1, but showing all three brush heads in fully retracted position,

Fig. 3 is a view similar to that of Fig. 1, but showing one brush head in extended position and the other two heads in retracted positions,

Fig. 4 is an enlarged detail view of the upper end portion of the parts shown in Fig. 2,

Fig. 5 is a right side elevation of the parts shown in Fig. 4,

Fig. 6 is a sectional elevation taken on line 6—6 of Fig. 4, and

Fig. 7 is a transverse sectional plan view taken on line 7—7 of Fig. 4.

In the use of utility brushes for such work as household cleaning, it has been found necessary in the past to employ a number of different types

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of brushes, due to the large variety of cleaning tasks to be accomplished. Thus, a brush which would normally be suitable for cleaning walls, would not be suitable for cleaning narrow spaces such as those between radiator sections, or for cleaning Venetian blinds. And, in addition, once such a brush has been used, and has become soiled, it cannot be used again until cleaned.

The present invention discloses a device whereby problems of this type are solved, by the use of a combination brush, employing a common handle with a number of individual brush heads carried thereon. By novel fastening means, one or more of the brush heads may be extended into operative position for use, to take care of any individual task. Where a large bulky brush is needed, all the brush heads may be extended, and when a narrow opening is to be cleaned, then only one brush head is extended.

In order to understand clearly the nature of the invention, and the best means for carrying it out, reference may now be had to the drawings, in which like numerals denote similar parts throughout the several views.

As shown, there is a handle 10 which may be formed of an elongated cylindrical piece of wood or other suitable material, smoothly sanded to provide a comfortable grip for the user, and long enough to reach to the floor, and up to the walls, so as to obviate the need for stooping, and the use of stepladders or chairs to reach high places. A fastening bracket generally indicated at 12, and formed preferably of sheet material, has a cylindrical ferrule portion 14 encircling the upper end portion 16 of the handle 10. A bolt 18 has its shank extending through axially aligned apertures formed in the diametrically opposite walls of the ferrule 14, and through a corresponding bore formed through the upper end of the handle 10.

Brush heads 20, 22, and 24, which may be formed in any suitable manner well known in the art, such as by means of cotton tufts secured together by being intertwined between the strands of twisted wires 26, the untufted shanks 28, 30 and 32 of the heads having their lower ends bent in the form of loops or eyes 34. It will be observed, as best shown in Figs. 4, 5, 6 and 7, that the loops 34 of the two outer brush head shanks 28 and 32, are disposed on opposite outer sides of the ferrule 14, in registry with the above mentioned aligned apertures formed therein to receive the bolt 18, and that the shank of the bolt 18 also extends through the said loops 34.

Washers 36 are disposed on each side of the

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loops 34, the bolt shank also passing through the washers. A slot 38 is cut longitudinally through the end portion 16 of the brush handle 10, as best shown in Figs. 4 and 6, to bifurcate this end portion thereof, and to receive in the slot the lower end of the intermediate brush head shank 30. As shown in Figs. 4 and 6, the eye or loop 34 on the end of the brush shank 30 also has the shank of the bolt 18 extending therethrough.

A nut 40 is threaded onto the unheaded end of the bolt 18, to retain the entire assembly of parts together, as shown best in Figs. 4 and 7, the nut being tightened sufficiently to draw the looped ends 34 of the brush head shanks securely between their abutting parts so as to provide a frictional yielding bias against turning motion thereof.

The bracket 12 has a forward extension 42 in the form of a plate of enlarged width, which is cut away at 44 to form a curved retaining tongue or hook 46 which is adapted to engage around the shank 30 of the middle brush head 22, when in extended position, as shown in Figs. 1 and 3. It will be seen that in order to engage the hook 46, it is necessary to bend the shank 30 to the left as seen in Figs. 1 and 3, in order to clear and come around the end of the hook or tongue, so that the shank is thus sprung back into its normal position when engaged in the hook, and retained securely therein.

In like fashion, extension 42 has oppositely extending tongues which are bent inwardly to form hooks 48 and 50 for engagement with the shanks 28 and 30. It will be seen that for such engagement, it will be necessary to bend or spring the shanks 28 and 30 inwardly to clear the ends of the hooks 48 and 50 respectively, the shanks then springing back into their normal positions as shown in Fig. 1, when in engagement with the hooks, and being thus firmly retained therein. To disengage any brush head shank from its respective hook, it is only necessary to bend the shank away from the hook and move the shank pivotally on bolt 18, downwardly into the lower position against the handle, such as is shown in Figs. 2 and 3.

The nut 40 is tightened sufficiently to hold the retracted brush heads, in their lower positions, so that only one may be extended when required, as shown in Fig. 3, or all may be retracted, as shown in Figs. 2 and 4, for storing or packing the cleaning device. For cleaning a narrow crevice, such as in radiators or Venetian blinds, only one of the brush heads need be extended, as shown in Fig. 3, or two may be extended to clean adjacent crevices at the same time.

When a wall is to be brushed off, all the heads are extended, as in Fig. 1, to provide maximum brushing effect. The brush head tufts are formed of easily washable material, such as cotton, so

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that they may be cleaned with soap and water, without taking the brush apart. It will be apparent that if desired, a soiled brush head may be retracted, and a clean head moved into extended position.

Although I have described a preferred embodiment of my invention in specific terms, it is to be understood that various changes may be made in size, shape, materials and arrangement without departing from the spirit and scope of the invention.

Having described my invention what I claim and desire to secure by U. S. Letters Patent is:

1. A cleaning device of the character described comprising an elongated handle, a pivot shaft mounted on said handle adjacent one end thereof, a plurality of elongated independent cleaning elements having shank portions, means for attaching each of said shank portions of said cleaning elements to said pivot shaft for independent pivotal movement with respect to said handle and with respect to each other, whereby said cleaning elements may be selectively manually moved to extended operative position beyond said end of said handle or retracted to inoperative position alongside said handle, and means for releasably locking said cleaning elements in said extended position, said releasable locking means comprising a bracket member attached to said handle, said bracket member having a ferrule portion engaging said handle and a portion extending beyond the end of said handle, said last named extending portion having lateral hook members for engagement with the shank portions of said cleaning elements.

2. A cleaning device according to claim 1 in which at least three cleaning elements are provided in lateral relationship and in which the said end of the handle where the cleaning elements are mounted is slotted inwardly from the end thereof and in the direction of the longitudinal axis of the handle, for a predetermined distance, and in which the centrally disposed of the three cleaning elements is so mounted whereby its shank portion will be frictionally received within said slot.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
361,502	Gibson	Apr. 19, 1887
590,750	Clarke	Sept. 28, 1897
876,540	Gillespie	Jan. 14, 1908
1,323,604	Martinelli	Dec. 2, 1919
1,603,153	Schaefer	Oct. 12, 1926