

Sept. 23, 1958

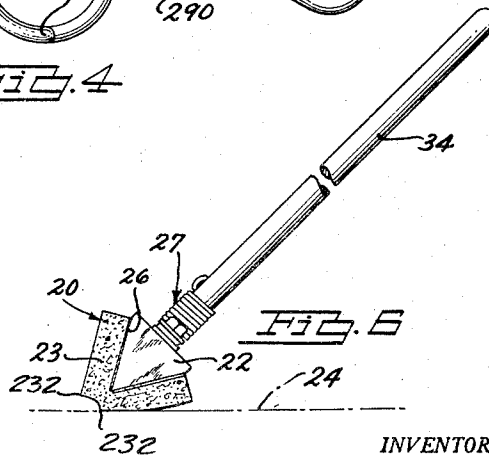
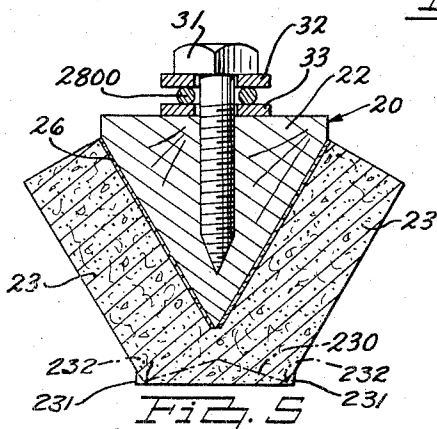
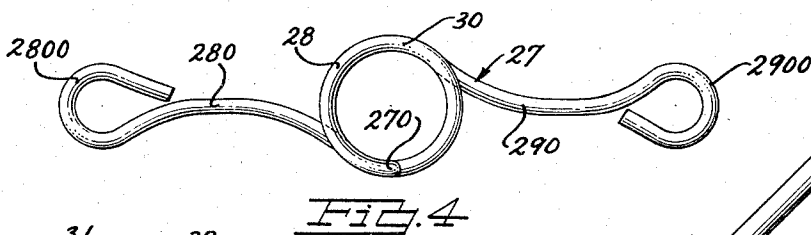
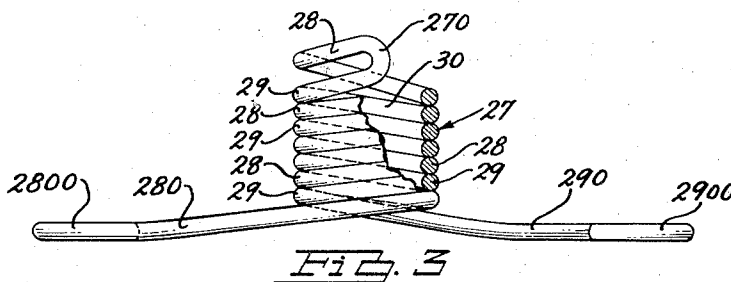
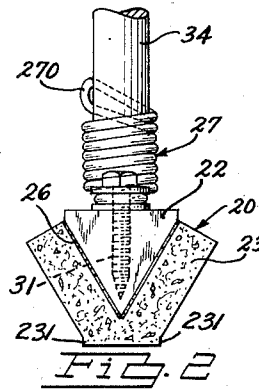
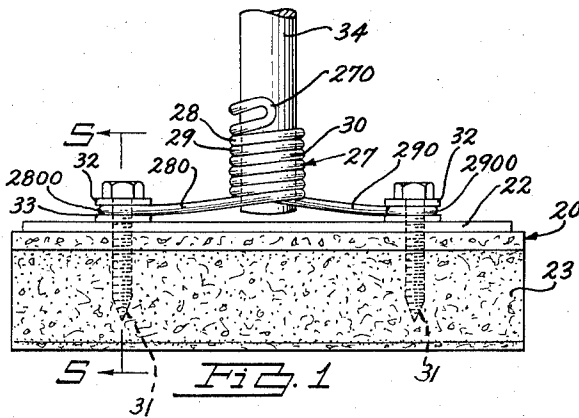
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2,852,797

MOP FOR USE WITH V-SHAPED EXTRACTORS

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2 Sheets-Sheet 1



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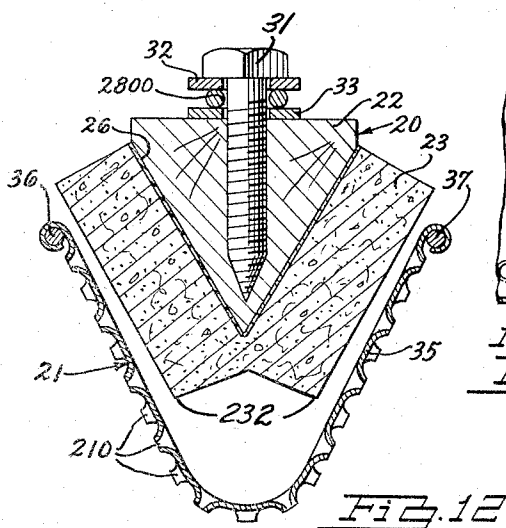
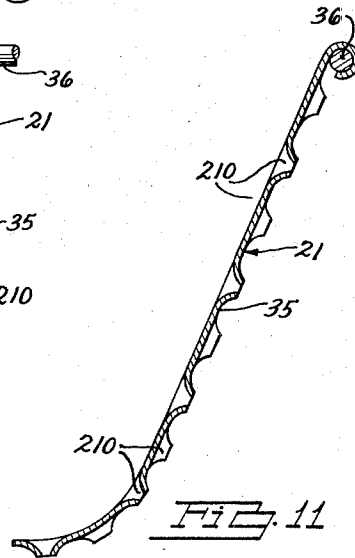
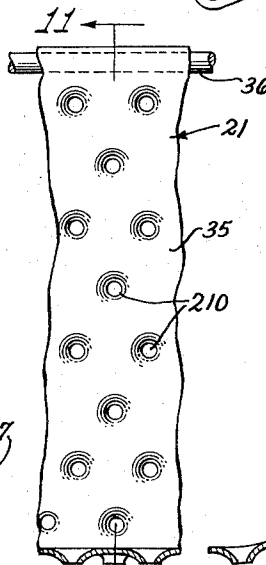
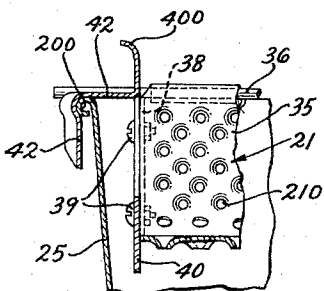
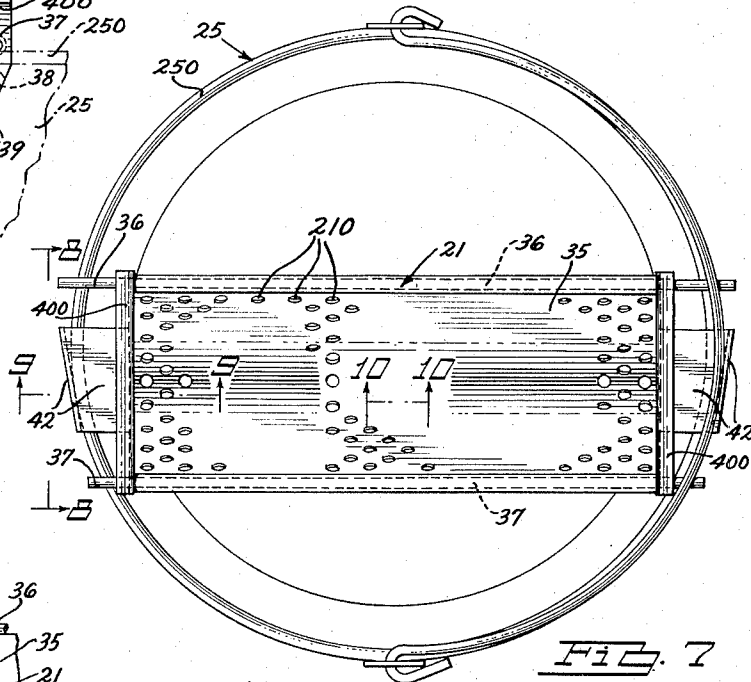
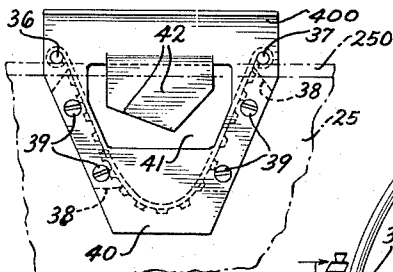
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MOP FOR USE WITH V-SHAPED EXTRACTORS

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1 Claim. (Cl. 15—244)

This invention relates to improvements in mops or cleaning elements, which cleaning elements are particularly constructed to coact with an extractor to provide a simple and effective cleaning of the cleaning element.

The primary object of the invention is to provide an improved simply constructed and efficient mop or cleaning element.

Another object of the invention is to provide a mop or cleaning element composed of a V-shaped body covered on two sides with a compressible porous cleaning pad, such as an artificial sponge or sponge rubber.

Another object of the invention is to provide a cleaning element or the like comprising a body member including a spirally wound double wire connector secured to the body member; into which connector the smooth end of a round handle may be turned and threaded, and from connector the said handle may not be removed without engaging the spring and manually unwinding in respect to the said round handle.

Other objects of the invention will become apparent by reference to the following detailed description taken in connection with the accompanying drawings, in which:

Fig. 1 is a side elevational view of an improved mop or cleaning element illustrative of one element of the combination.

Fig. 2 is an end elevational view of the cleaning element disclosed in Fig. 1.

Fig. 3 is a side elevational view of the cleaning element-to-handle spring connector preferably employed.

Fig. 4 is a top plan view of the cleaning element-to-handle spring connector disclosed in Fig. 3.

Fig. 5 is an enlarged cross sectional view of the cleaning element taken on the line 5—5 of Fig. 1.

Fig. 6 is a side elevational view of the cleaning element with its handle fixed thereon showing the cleaning element wetted and positioned against a surface to be cleaned.

Fig. 7 is a plan view of an extractor element with which the cleaning element is used to provide effective cleaning thereof, the extractor being supported and anchored onto a pail or cleaning bucket.

Fig. 8 is an end view of the extractor element taken on the line 8—8 of Fig. 7.

Fig. 9 is a fragmentary sectional view taken on the line 9—9 of Fig. 7 showing the means employed for removably anchoring the extractor element to a pail or the like.

Fig. 10 is an enlarged detailed fragmentary sectional view taken on the line 10—10 of Fig. 7.

Fig. 11 is a sectional view taken on the line 11—11 of Fig. 10.

Fig. 12 is a sectional view through the cleaning element and the extractor with the cleaning element shown as it is about to be compressed into the extractor.

Referring now to the drawings wherein like numerals refer to like and corresponding parts throughout the several views, the invention comprises a cleaning element or mop 20, the cleaning element 20 including a V-

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shaped block 22 having thereon a compressible porous cleaning pad 23 which will absorb water and pick up dirt when a floor or other surface 24 is scrubbed thereby and which may be easily and readily cleaned when positioned into its complementarily formed V-shaped extractor 21 and manually compressed therein, the said extractor 21 being preferably positioned onto a pail or bucket 25 and includes an apertured wash board surface 210 to assure working of the cleaning pad 23 of the cleaning element 20 as it is compressed and squeezed in the said extractor 21.

The cleaning element or mop 20 is preferably constructed of a solid wooden V-block 22 which is of a length that will telescope into the V-shaped extractor 21. The compressible porous cleaning pad 23 is secured by such means as a waterproof cement 26 to the lower two surfaces of the V-block 22, which porous cleaning pad 23 takes a shape more or less as indicated in Figs. 1, 2 and 5 when first assembled onto the V-block 22 providing cleaning edges 231. However, when certain types of artificial sponge cleaning pads are employed, they assume a shape as indicated by the dot and dash lines 230 in Fig. 5 with cleaning edges 232 and as shown in Fig. 6 during use and as indicated in Fig. 12 when saturated. The cleaning edges 231 or 232 of the cleaning pads 23 shown in Figs. 2, 5, 6 and 12 provide a scouring function as the cleaning pad 23 of the mop 20 is pushed across a floor or other surface 24, which action is substantial—particularly when a relatively stiff artificial sponge is employed.

The cleaning element 20 is removably secured to a round handle 34 by means of a spring wire connector 27 as best shown in Figs. 1-4 inclusive. The spring wire connector 27 is formed from a single piece of spring wire looped at 270 to form parallel strands 28 and 29 which are wound into a coil 30, the free arms 280 and 290 of the strands 28 and 29 being oppositely disposed at the base of the coil 30 and formed into eyes 2800 and 2900 respectively. The V-block 22 is preferably bored from the top thereof to accommodate large screws 31 which extend through the eyes 2800 and 2900 of the connector 27 and self-thread themselves into the said V-block 22. Washers 32 and 33 are positioned above and below the eyes 2800 and 2900 to assure a firm clamping of the connector 27 onto the V-block 22.

To secure the cleaning element 20 onto the round handle 34, the round handle need not be tapered, although it could be tapered slightly at its lower end. The lower end of the round handle 34 is merely screwed into the coil 30 of the spring wire connector 27, which coil 30 expands slightly to receive the said round handle 34. After round handle 34 is screwed to refusal into the coil 30 of the spring wire connector 27, the said handle 34 cannot be reversely turned for removal from the spring wire connector 27 without independently manually unwinding the coil 30 to free it from the round handle 34. This construction provides a simple and inexpensive cleaning element-to-handle connection which will not become loose during use of the cleaning element 20 either in the cleaning of a surface or when extracting water or other cleaning fluid and dirt therefrom by means of the extractor 21.

The extractor 21 is composed of a V-shaped trough 35, is preferably mounted on a pail or bucket 25, and has an apertured deformed washboard surface 210 which is sufficiently rough to work or knead the compressible porous cleaning pad 23 when manually compressed within the said V-shaped trough 35. The general cross sectional shape of the said V-shaped trough 35 is the same but slightly larger than the V-shaped block 22 of the cleaning element 20 onto which the said cleaning pad 23 is cemented. Since the cleaning pad 23 is backed up

by a solid V-shaped block 22, dirty cleaning fluid and dirt is readily extracted therefrom when the cleaning element is pressed into the V-shaped trough 35, and the dirty fluid drains from the apertured trough 35 into the bucket 25.

The said V-shaped trough 35 is rolled along its upper side edges over supporting rods 36 and 37 which are sufficiently long to rest upon the rolled upper edge 250 of the pail or bucket 25. The ends of the said V-shaped trough 35 are flanged at 38, which flanges 38 are bolted by bolts 39 onto end plates 40. The said end plates 40 extend above the top of the trough 35 and are preferably curved at 400 to serve as guides for the insertion of the cleaning element 20 into the extractor 21. The central portion of each of the end plates 40 is cut out at 41 and formed as indicated at 42 to provide anchorage means for engaging and removably anchoring the said extractor 21 to the upper rolled edge 250 of a pail or bucket 25.

The invention, when employed in the cleaning of wood and linoleum floors with water or soapy or detergent solutions, eliminates the on-hands-and-knees scrubbing commonly deemed necessary by housewives to thoroughly clean floors and other surfaces, and, at the same time, the cleaning element can be thoroughly cleansed of dirt by repeatedly dipping the said cleaning element into fluid in the pail and squeezing the fluid out of the cleaning element by wedging it into the apertured washboard surfaced V-shaped trough 35 of the extractor 21.

Although but a single embodiment of the invention has been disclosed and described, it is obvious that many changes may be made in the size, shape, arrangement and detail of the various elements of the invention without departing from the spirit and scope thereof as defined by the appended claim.

I claim:

A mop of the class described comprising, in combination, a wedge shaped block, a spongy covering cemented on two sides and over the apex of said block, a round handle for said mop, and parallelly wound coil spring means removably securing said handle to said mop coiled from a pair of adjacent wires formed from a single wire element bent at its center prior to winding, said adjacent wires being coiled to a diameter somewhat less than the diameter of said handle, said coil spring means including oppositely disposed looped free ends, and means extending through said looped free ends of said spring means securing said spring means to the back of said wedge shaped block.

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