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SURGEON'S FINGERNAIL AND HAND CLEANING BRUSH

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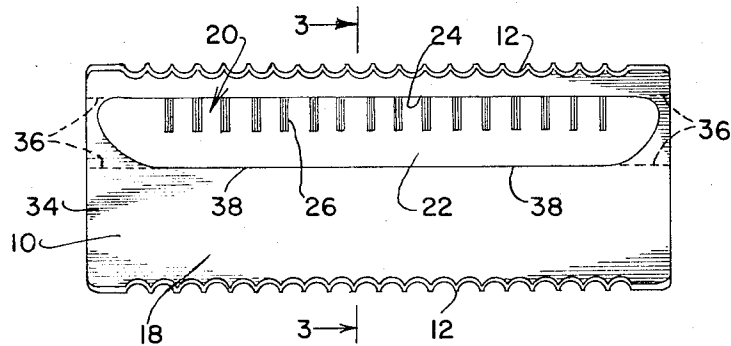


FIG. 1

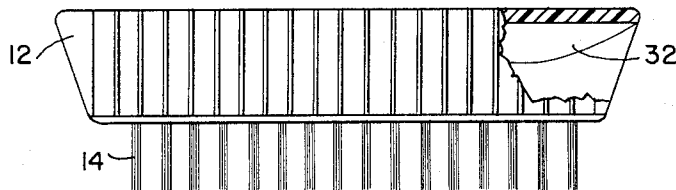


FIG. 2

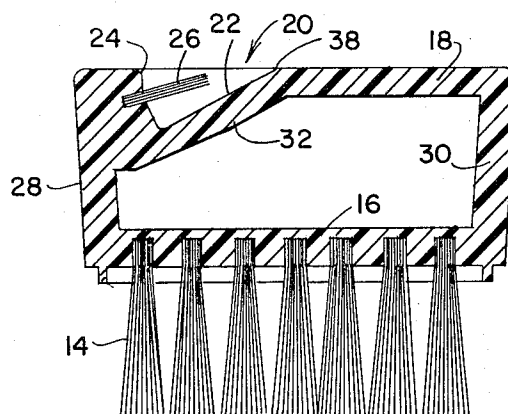


FIG. 3

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3,354,492 SURGEON'S FINGERNAIL AND HAND CLEANING BRUSH

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1 Claim. (Cl. 15-167)

ABSTRACT OF THE DISCLOSURE

This is a brush having a molded one-piece hollow back enclosed by upper, bottom and side walls. There is a groove in the upper wall which extends through the wall and into a filler in the hollow passage of the back. A single row of short bristles form the fingernail brush. The bristles extend from one surface of the groove in a space relation to the second surface of the groove and are entirely located therewithin so as not to change the outline of the brush. A plurality of longer bristles extend outwardly from the bottom wall and form the hand cleaning brush.

This invention relates to hand scrubbing brushes and particularly to those brushes as used by a surgeon just prior to a surgical operation wherein it is desired to clean under the fingernails with the same instrument as used for scrubbing the hands.

Surgeons' hand scrubbing brushes have been made with relatively long soft scrubbing bristles which were quite satisfactory for cleaning the fingers, hands and arms. Such long bristles were too long and soft to penetrate under the nails for a good cleaning operation. The surgeon was required to use a steel nail file, for example, to clean under his fingernails. It is desired that a single brush be provided that will perform a complete hand clean operation.

Accordingly, it is an object of this invention to provide a unitary hand cleaning brush which will satisfactorily clean exterior portions of the hand as well as under the fingernails.

It is another object of this invention in combination with the preceding object to provide an outline for such a brush which is the same as a brush without the additional fingernail cleaning features.

According to this invention a hand scrubbing brush, such as one used by surgeons just prior to a surgical operation, is provided in addition to the usual long soft bristles, a group of relatively short fingernail cleaning bristles. Such short bristles are mounted in a recess such that the space between the nail and the skin on the end of the finger may be readily cleaned. By suitably mounting the short bristles in a recess in the hand engaging unit of the brush, the same outline of the prior art brush not having the fingernail cleaning feature is provided, keeping a standard size brush such as to fit existing brush dispensers.

Referring now to the accompanying drawing:

FIG. 1 is a plan view of the preferred embodiment of this invention;

FIG. 2 is a side elevational view of the FIG. 1 brush;

FIG. 3 is an enlarged cross-sectional view of the FIG. 1 brush taken in the direction of the arrows along the line 3-3.

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A fingernail cleaning set of bristles are added to a hand scrubbing brush to provide one brush which provides complete cleansing action for hand surfaces and under fingernails. A recess is formed in one wall portion of the hand engaging unit. A set of short bristles are supported in the recess and extend therein such that fingers may be slid back and forth across the hand engaging unit for cleaning under fingernails.

In one form, the recess is an elongated groove with the short bristles extending crosswise to the groove length and are substantially contained inside the groove such that the outline of the brush is not substantially altered by the short bristles.

Referring now more particularly to the drawing, like numerals indicate like parts and structural features in the three views. A hand engaging unit 10 having serrated side wall portions 12 support a plurality of long bristles 14 supported in the bottom wall portion 16. Bristles 14 are used when scrubbing the hands and arms. Such bristles are sufficiently long and soft to provide good skin cleansing action but are unsatisfactory for cleaning under fingernails.

In upper wall portion 18 there is formed a groove 20 having an angled side portion 22 and a steeply angled side portion 24. A plurality of short fingernail cleaning bristles 26 are fixedly mounted in wall portion 24 and arranged in tufts as shown. It is preferred that the tufts are fastened into side portion 24 by non-corrosive nickel-silver anchors (not shown). Note that bristles 26 are substantially disposed within groove 20.

It is also preferred that hand engaging unit 10 be hollow, as best seen in FIG. 3, consisting of lower wall portion 16, upper wall portion 18 and side wall portions 28 and 30. In such a hand brush engaging unit a laminated filler 32 is fixedly secured to wall portions 18 and 28 as best seen in FIG. 3. Groove 20 is formed in wall portion 18 and filler 32. In a commercial product the entire hand engaging unit 10 including filler 32 and groove 20 would be formed in one operation as in a molding machine forming a sanitary one-piece handle for the brush.

The illustrated embodiment shows groove 20 having closed ends, no limitation to the particular groove shape is intended. For example, groove 20 may be extended to the ends 34 of unit 10 as indicated by dotted lines 36 (FIG. 1). Alternatively the shorter grooves may be formed for containing the fingernail cleaning bristles, an important feature of this invention being that bristles 26 are substantially disposed within the recess in which they are mounted.

In using the improved hand scrubbing brush, the outer skin of hand and arms are cleansed in the usual manner by using bristles 14 with soap and water. When it is desired to clean the fingernails, the brush is reversed in the hand, and the nails of the other hand are laid against the hand engaging unit as at 38 with the fingers being moved along the length of groove 20. Alternatively the brush may be moved along its longer axis.

Since bristles 26 are comparatively short with respect to bristles 14, they are not subject to bending and tend to penetrate between the skin and the nail for effective cleaning therebetween.

What is claimed is:

A hand cleansing brush for cleaning hands and fingernails, including in combination, a one-piece molded plastic

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back member which is substantially oblong in configuration and comprises an upper wall portion, a lower wall portion and first and second side wall portions integrally joined with opposite walls thereof spaced apart from one another to provide therebetween a hollow passage open at each end and extending longitudinally of the longer dimension of said back member, a filler portion integral with said upper wall portion and extending into the hollow passage, said upper wall portion and said filler portion having a groove therein bounded by first and second inwardly angled and opposing surface portions extending longitudinally thereof, said second surface portion making an angle with said upper wall portion greater than said first surface portion, a first plurality of short bristles being mounted in a single row on said second surface portion and extending into and being disposed within the groove in a spaced relation from said first surface portion so that

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the oblong outline of said back member is not substantially altered thereby, and a second plurality of bristles longer than said short bristles mounted to said lower wall portion and extending outwardly therefrom.

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