ABSTRACT OF THE DISCLOSURE

A surgical scrubbing device is provided with a sponge, bristles, and a fingernail cleaner positioned relative to each other in a manner such that all functions of the device can be carried out without putting the device down on a potentially contaminated surface and without the shifting of one's grip on the device. In one embodiment, for example, the sponge comprises the bottom surface; the bristles are positioned on the top surface near one end, and the fingernail cleaner projects horizontally outwardly from the end near the bristles.

This application is a continuation in part of my co-pending application Ser. No. 618,092 filed Feb. 23, 1967, now abandoned.

BACKGROUND OF THE INVENTION

Surgical hand brushes are commonly provided in hospitals and doctors' offices. They are sterilized and usually are made readily available in conveniently placed dispensers. The brushes are used by physicians, surgeons, nurses, etc., for "scrubbing up" prior to working in a sterile environment.

A surgeon, for example, might begin scrubbing up by removing a brush from the dispenser, pouring an antiseptic soap on the brush, and vigorously scrubbing his hands and forearms. If a fingernail cleaner is available, the surgeon might set the brush down, pick up the fingernail scraper and scrape beneath his nails. He might then set down the fingernail cleaner, pick up the brush, and continue scrubbing his hands. He might repeat these steps several times. Each time the surgeon sets down one of these devices, it contacts a possibly unsterile, contaminated surface and he is faced with the alternative of using another brush or of using a potential vehicle for the transfer of contaminants from the unsterile surface to his hands.

The surgeon may be required to scrub up several times each day—possibly six or eight times. It has been found that large numbers of scabbers per day lead to considerable abrasion of the skin. This repeated abrasion incites a more exuberant growth of bacteria which may penetrate deep into the skin of the hands.

This excessive abrasion to the skin suggested the use of a sponge, for at least partial cleaning of the skin, while reserving the use of bristles for areas of the hands requiring more vigorous cleaning such as the areas under the fingernails.

There is therefore a need for a surgical scrubbing device which will permit the carrying out of all hand cleaning and scrubbing functions, including fingernail scraping, by a person without requiring him to set down the device, or even to shift the position of his hand after he has once picked up the device.

OBJECTS

It is therefore an object of my invention to provide an improved surgical scrubbing device which will thoroughly cleanse the hands without undue trauma to the skin.

A specific object of my invention is to provide a surgical scrubbing device which permits the carrying out of all cleaning and scrubbing functions by a person without his putting the device down on a potentially contaminated surface and without requiring the shifting of his grip on the device while one hand is cleaning the other.

Further objects and features of my invention will be apparent from this specification and the following claims when considered in connection with the accompanying drawings illustrating several embodiments of my invention.

SUMMARY OF THE INVENTION

I have now found that the foregoing and related objects can be attained in a surgical scrubbing device comprising: (1) a body suitably rigid and adapted to be gripped by a first hand of the user while the second hand of said user is being cleaned and scrubbed; (2) a sponge fixed to a first surface of said body and being, in a selected position of said device, the bottom of said device; (3) a plurality of bristles positioned near an end of said device and projecting outwardly from a second surface of said body, said second surface being, in said selected position, an upper portion of said device; and (4) a fingernail cleaning means projecting outwardly (and preferably from said same end) and, in said selected position, projecting outwardly toward said second hand; wherein, by a rotation of said device and without a change in said user's grip, the fingernails of said second hand can be cleaned, said second hand can be scrubbed with said bristles, and said second hand can be sponged; and wherein said device is adapted, without setting said device down, for facile transfer to said second hand for a like cleaning and scrubbing of said first hand.

More particularly these objects may be attained in such a scrubbing device if, in addition, the surfaces of said body are generally oblong, if said body and said fingernail cleaner comprise a unitary molded object with said fingernail cleaner projecting outwardly from a corner of said body, and if said bristles project outwardly at an angle of about 90 degrees relative to said cleaner.

I have discovered that this particular spatial arrangement of a plurality of bristles, a sponge, and a fingernail cleaning means on a single body will produce the result that a user can carry out all the hand cleaning and scrubbing functions, including fingernail scraping, without requiring him to set down the device or even to shift the position of his hand after he has once picked up the device.
of my device; that is, when the device of FIG. 7 is being used to clean fingernails.

FIG. 10 is a view in perspective showing a second position of my device; that is, when the bristles of the device of FIG. 10 are being used.

FIG. 11 is a view in perspective showing a third position of my device; that is, when the sponge of the device of FIG. 7 is being used.

In describing the preferred embodiments of the invention illustrated in the drawings, specific terminology will be resorted to for the sake of clarity. However, it is not intended to be limited to the specific terms so selected, and it is to be understood that the specific terms includes all technical equivalents which operate in a similar manner, to accomplish a similar purpose.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

In FIG. 1, I have shown a referred embodiment of my surgical scrubbing device. A body 10 is formed from a block of wood, plastic, or other suitable material. It may be solid or hollow and should be sufficiently rigid to be held firmly by the hand of the user. If plastic is used, a hollow body is preferred because it is lighter and requires less raw material. A sponge 12 is attached to one of the larger generally oblong surfaces of the block 10. I usually refer to the sponge surface as the bottom of my device. Projecting from the upper, generally oblong surface 14 are bristles 16 which are positioned near an end 18 of the body 10. The bristles 16 and the sponge 12 may be attached to the block 10 in any suitable manner.

A fingernail cleaning means in the form of a tapered, pointed finger 20 projects outwardly from an end of the device, said end being the same one 18 near which the bristles 16 are positioned. When the scrubbing device of my invention is positioned such that the sponge surface is horizontal, the fingernail cleaning means extends outwardly, preferably generally horizontally outwardly, away from the solid body 10.

A groove, such as groove 22, may be provided in two opposite surfaces of the body to enable a better grip to be attained by the user's fingers.

FIG. 2 shows another embodiment of my invention which includes a solid body 10 and a sponge 12. This body has an upper surface 14, a portion of which is inclined, as at 24. Alternatively, the inclined surface 24 could extend the entire length of the body 10. Bristles 16 are shown projecting angularly upwardly and perpendicularly to the block 10. Bristles 16 are near the end 18 of the device and a fingernail cleaning means 20 projects outwardly from the same end 18, the outward projection of the bristles and the outward projection of said fingernail cleaner forming an acute angle.

In FIG. 3 I show an embodiment of my invention which has a body 10 and a sponge 12. Bristles 16 project angularly upwardly to form an acute angle with the upper surface 14. Bristles 16 are near the centrally located tapered finger 20 protruding from the end 18 of the device.

In all these embodiments, a necessary spatial relationship is maintained between the sponge 12, the bristles 16, and the fingernail cleaning means 20 in order that the objects of the invention can be attained. The sponge is fixed to a first surface of the solid body 10, which surface, in a selected position, is the bottom. The bristles extend outwardly near an end of the body and from a surface which, in the selected position, is an upper portion of the solid body. The fingernail cleaner extends outwardly, and preferably, from the bristle end. As will be pointed out, this spatial relationship offers a unique and novel advantage.

Although I prefer the embodiments of my invention which I have described above, still other embodiments are possible.

Another embodiment of my invention has bristles extending upwardly from near one end of the body and the fingernail cleaning means projecting from the opposite end.

In FIG. 7, I show such an embodiment which, like the embodiment of FIG. 1, has a solid body 10 beneath which a sponge 12 is attached and from one end of which a fingernail cleaning means 20 projects. However, the bristles 16 project generally upwardly from near the opposite end of the solid body 10. This embodiment may also be provided with grooves 22 to enable a better grip on the body 10 to be attained.

In FIG. 8, I show the using of two fingernail cleaners 20, one projecting outwardly from the end of the body 10 which in provided with bristles 16 and the cleaner projecting outwardly from the end opposite the bristles.

FIGS. 9, 10, and 11 show, in a manner similar to FIGS. 4, 5 and 6, how the embodiment of FIG. 7 can be held while all functions of the device are being carried out.

OPERATION

A surgeon, or other user of the surgical scrubbing device of the invention, would normally remove the device from a sterilized dispenser and would then retain any wrapping protecting the device. Then he would grasp the device by one hand, for example by the right hand (as shown in phantom in FIG. 4).

In the first cleaning operation, the user might hold the device as shown in FIG. 4; the sponge on the bottom, the bristles on the top, and the finger cleaner extending toward the left. In this position the device is used to clean the fingernails of the user's left hand.

The brush can then be used in the second cleaning operation (as shown in FIG. 5). To go from the position of FIG. 4 to the position of FIG. 5, the user, without changing his grip on the device, simply bends his wrist and turns the device through about 90 degrees or less (depending on the angle at which the left hand is held). If he is using the embodiment of FIG. 1 where the bristles form a right angle with the nail cleaner, the user would turn the device through about 90 degrees. If he were using the embodiments of FIG. 2 or FIG. 3, he would turn the device through an angle of about 45 degrees.

The device can then be used in the sponging operation (as shown in FIG. 6) which requires merely the turning of the device back to its original position wherein the sponge is on the bottom. It is important to the concept of the invention that these operations can be carried out, and even repeated several times, without requiring the user to set the device down. It will be apparent from FIGS. 4, 5, and 6 that, alternatively, the entire operation could have been performed by holding the device stationary (as in FIG. 4) and adjusting the position of the left hand.

In FIG. 5 and FIG. 6, in addition to showing brush position, I also show an alternative grip on my device which is different from the grip shown in FIG. 4. However, either grip could be used initially and maintained throughout the cleaning and scrubbing operation.

When the left hand has been completely cleaned and scrubbed, the device can be transferred to the left hand by merely turning it end for end and changing hands, as would be illustrated by a mirror image of FIG. 4. The user can then proceed to clean and scrub his right hand in the manner described.

If the user has the embodiment illustrated in FIG. 7; that is, a device wherein the bristles are near the end opposed the end from which the fingernail cleaner projects, he might, for example, grasp the device with his left hand and hold it as shown in FIG. 5 in order to clean the fingernails of his right hand. He would then scrub his right hand, as shown in FIG. 10 and sponge his right hand, as shown in FIG. 11. The device could then be transferred to his right hand for the cleaning and scrubbing of his left hand. Because the bristles are positioned near as shown in FIG. 5, it is possible to provide the top which can be grasped by the user.
and which thus avoids contamination of the bristles from the hand.

The sponge may be natural or synthetic and it, like the bristles and nail cleaner, can be wetted with antiseptic soap or detergent compositions. The latter may be present in the packaged device and can be added during use, for example, from a foot operated dispenser.

I claim:

1. An improved surgical scrubbing device adapted to be gripped in a selected position by a first hand of the user for cleaning the second hand of the user, said device comprising:
   bristles, a sponge and a fingernail cleaning means fixedly mounted to an elongated single body having generally oblong surfaces and attached, in the selected position, with the sponge at its bottom, the bristles projecting generally upwardly from the top thereof positioned only near an end of the body to provide an area free of bristles to avoid contamination from the hand and the fingernail cleaning means projecting outwardly from the same end of the body, wherein the fingernail cleaning means and the body comprise a unitary molded object; the bristles projecting outwardly at an angle of about 90° relative to the means; and

2. The device according to claim 1 wherein said fingernail cleaning means projects from a corner of said body.

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