

## Medical Matters.

### THE HANDS OF SURGEONS AND ASSISTANTS IN OPERATIONS.



In a clinical lecture delivered at University College Hospital, on the above subject and published in the *Lancet*, Mr. Arthur Barker, F.R.C.S., Surgeon to the Hospital, laid down the following rules in regard to the cleansing of the hands which may usefully be studied by nurses. Indeed, we advise all

who are able, to read the whole lecture, their own work will be the better performed if they assimilate the principles therein laid down. It is noteworthy that simplicity in aseptic ritual is the key note of the lecture, and in the opinion of the lecturer one of the most important desiderata. He says in part :

The question of the cleansing of the hands in the first instance is of course the most important of all. It is not too much to say that this fact is now fully established and that an enormous amount of laborious bacteriological work has been done to find the best methods, and the number of valuable essays which have been written on the subject is very large. Having read all the most important and tried many methods I may say that I have more confidence in the results of Ahlfeld's and Fürbringer's experiments (now many years old) of sterilising the hands with very hot *running* water and pure soap and brush, followed by spirit, than in any others. This has to be employed in no perfunctory manner but over and over again for many minutes at a time. The evidence is strong that by this method of disinfection the percentage of organisms clinging to the hands is as small as, or smaller than, by any other known procedure. Nevertheless, we will do well to admit at once that after any method of cleansing, a perfectly sterile hand is an exception. Moreover, it must be remembered that it has been proved over and over again bacteriologically that the surface of a hand cleansed to apparent sterility becomes after a short time re-infected from its own skin follicles in the process of sweating, etc., even if no organisms reach it from without. This all suggests several alternatives. First, that the hands should be washed frequently during all operations of any duration and this should be considered indispensable. Their own impurities which transude to the surface, and others accidentally reaching them from the air or casual contact with the patient's skin, even in the case

of a surgical incision into healthy tissues, are thus removed by washing over and over again during the operation.

The second alternative is the wearing of impermeable rubber gloves which can be easily sterilised and will retain within them any impurities exuding from the hands until the end of the operation. Having been one of the first to introduce rubber gloves from abroad and for a long time to use them in operating I am not speaking without experience when I say that I distrust them during operation except in very exceptional cases and value them when it is a question of keeping the hands clean for operation. The distrust arises from the recognised fact that they are very easily pricked, cut, or torn without the fact being recognised, and if so the fluid derived from the perspiration of the hand, which has been proved to contain numerous bacteria, escapes into the wound more or less concentrated. They are of value, however, when it is a question of dealing with foul parts before operating on clean tissues. They can be used to protect the hands from septic material and then removed. It is for this reason that they are dispensed with in most of my own operations unless I or my assistant happens to have an abrasion on the hand which is not quite healthy. Otherwise they are only used to keep the hands clean for future use. This is the reason why my house surgeons have been directed for years past to wear rubber gloves in the wards and casualty department when manipulating dirty cases. By this rule I believe we secure a higher standard of purity in our hands when it is necessary to employ them to take part in serious operations. That is to say, they are not being constantly re-infected with septic organisms. But there is a further rule which I have carried through for many years as rigidly as possible for myself, my house surgeons, and dressers and which contributes perhaps as much as anything to surgically clean hands. By this rule I train myself and my subordinates so far as possible never to touch a foul dressing with the naked hand. To avoid this there is always a trayful of sterilised forceps and other instruments at hand for every dressing and thus we save the fingers from contamination with pus and other secretions. This, of course, does not obviate the necessity of careful washing of the hands after each dressing, but under this system there is much less dangerous material to be washed away. And remember that a hand once fairly infected with bacteria is extremely difficult to disinfect again, even with numerous washings and germicides. If any of you doubt this statement read the experimental work of Heile

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