not expressed, was none the less experienced. In our judgment it must raise the general status of the Nursing profession, and increase the usefulness of its individual members. In both results it will, we predict, prove an unmixed benefit to Medical men, and will justify the foresight of those who have so warmly and powerfully supported it.

LECTURES TO NURSES ON ANTISEPTICS IN SURGERY.*

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LECTURE III. (CONTINUED).

N. OW you have to prepare the various things required, and, as I am only speaking of antiseptics, I shall not particularize all the instruments, but speak only of those things which influence the asepticity or otherwise of the operation.

The operating table has, of course, been well scrubbed, and washed with carbolic soap and water, and the macintosh over it also. When the patient is placed upon it, she is generally placed upon a blanket, which covers her until the opera-tion commences. As soon as she is partially chloroformed, the abdomen is exposed. This should first be shaved, if required, the whole surface washed with turpentine, which is again quickly washed off with carbolic soap and water, a perfectly clean nail-brush being used. The cleansed surface is then covered by a piece of lint wrung out of warm 1-40 carbolic lotion. Now, the patient has some clothes on her, and she is lying on a blanket. These things contain germs, and therefore the cleansed skin and presently the wound require protection from these. You will have ready three or four large plain towels, not rough ones, lying soaking in warm 1-40 carbolic solution. These are now wrung out, and so placed around the abdomen, and over the clothes and blanketing, that there will be a good wide space of aseptic linen around the wound. This serves another very important function. If the operator requires to lay down for a moment knife, forceps, director, &c., he will have a safe place upon which he may place them; they will not go on to a blanket, and then back into the wound, carrying with them shreds of wool, laden with spores. Moreover, you may place a sponge there with safety, which you dare not do upon a blanket.

And now the operation has commenced. Knives,

forceps, all the instruments required, are placed in a shallow dish containing r-40 carbolic solution, on a small table near the operator. I will speak later about the cleaning of these instruments. One of you is standing ready to hand the sponges as called for. Another has charge of the ligatures, sutures, needles, &c.; another is ready to take away anything which the operator has removed; another has charge of the dressings. Let us take each in order.

The Nurse with the sponges.

Fresh sponges must be thoroughly shaken or beaten to get rid of all fine sand, which they generally contain, and the Nurse must pick or cut out any larger masses. When all that can be seen or felt has been removed, the sponges should be placed under a stream of running water, so that any particles that were overlooked may be washed away. This latter process should continue for about an hour. They are then placed in a large dish containing water, and allowed to stand for a couple of hours. If any sand or *debris* of any kind is found in the dish, they should be again placed under running water for half-an-hour.

If nothing escapes from them they are transferred to the strong 1-20 carbolic solution for an hour, and lastly wrung out and kept in a stoppered bottle, which has been thoroughly rinsed out first by boiling water, and contains some 1-40 carbolic solution.

Sponges which have been used require different treatment. They contain coagulated blood, fibrin, pus, or serum. Sir Joseph Lister places them in a tank of water, where the animal material putrifies, and then the sponges can easily be cleaned. But this seems to me a perfect way of introducing bacteria into the innermost parts of the sponge, from which you have again to dislodge them. Besides, there are quicker ways of cleansing, free from this objection. They should, first of all, be laid in a shallow dish, containing one part of liq. potassæ to ten of water. This will dissolve out animal material. In the course of three hours, you may remove your sponges and place them under running water, this time not to remove sand or grit, but to wash away the dissolved fibrin, &c., after which you proceed as before. If the sponges still do not look very clean, you can bleach them, and, at the same time, antisepticise them by soaking them in a saturated solution of hyposulphite of soda. When thoroughly soaked, transfer them to a dish containing muriatic acid and water, in the proportion of one to thirty, the muriatic acid, united with the soda, setting free sulphurous acid, which is a powerful antiseptic, as well as bleacher. It is a peculiarity of all such agents, that they act with far more force when just liberated from some chemical compound than at any other time. You

^{*} As these Lectures will in all probability be reprinted in book form, revised by the author, the diagrams, being printed in colours, are omitted.



