

HALF-A-CENTURY AFTER LISTER.

[We reprint the following interesting article from *St. Bartholomew's Hospital Journal*.]

It is but barely credible that a mere sixty odd years ago eminent London surgeons were saying that "an abdominal operation should be classed among the methods of execution," that the existence of germs was still a good music-hall joke, and that one in every three patients who submitted to surgical intervention of any kind died horribly of the universal scourge of the day—"hospital gangrene."

In those days every hospital ward in London had upon it, quite literally, the smell of death. In the eyes of the public, a card of admission to a hospital was tantamount to a death certificate. In military hospitals the death-rate was from 80 to 90 per cent.

Surgeons operated in flowing beards and frock coats stiff with blood. On their ward rounds they were followed by a Sister bearing a towel and basin of water that they might moisten their fingers after the examination of some suppurating wound, before passing to the next. And over all there hung the paralysing cloud of professional arrogance—as a contemporary observer said, "the colossal apathy, the monstrous inertia, the inconceivable indifference of the students and surgeons of London to new ideas."

In this atmosphere of 1877 two men entered King's College Hospital, one as a surgeon, the other as a student. The first, Joseph Lister, was an Englishman of fifty, who had been working along new lines in Glasgow and Edinburgh; the second, who is now one of King's most distinguished sons, Sir St. Clair Thomson, was a young Scot just embarking upon his professional career.

Sir St. Clair Thomson's story of his meeting with Lister, his experiences as dresser, house surgeon, and later friend and colleague of the great master, and of all the miraculous transformation of medical science which the work of Lister brought about, and which he has been privileged to watch and assist from its earliest struggles, formed the subject of his recent address to the Listerian Society of King's College.

When Lister chose "The Changes in Organic Matter Designated by the Term 'Fermentation'" as the subject of his inaugural address, the only comment of his fellow surgeons was "Such matters are no concern of a surgeon!"

As soon as he entered the wards he was at once subjected to the petty persecutions of the Nursing Sisters of St. John, who disapproved of his "excessive hand-washing," while his colleagues on the staff delighted in raising the usual sycophantic student laughter by calling on someone to "shut that door lest one of Mr. Lister's 'germs' gets in!"

In 1877, for the first time in history, Lister performed an operation for wiring a fractured patella. Surgeons were aghast at "this unwarrantable opening of a healthy joint." Had the patient died, Lister should have been prosecuted for manslaughter, they said. "C'est magnifique," one more cynical onlooker remarked, "mais ce n'est pas la chirurgie!"

The struggle of this gentle and long-suffering man went on for many years before acceptance and recognition came. Carbolic, corrosive sublimate and other chemicals were tried and discarded one by one in the search for antiseptics. Alone in the wards, Lister's cases escaped gangrene. "See, gentlemen," he would say to the half-dozen apathetic youths who followed him upon his rounds, "See, the wound is quite sweet. Just a little serous discharge—that is all." But like most people who assist at miracles, their minds were upon other things.

One day as he entered the hospital he was met by Sir St. Clair Thomson, then his house surgeon, and, putting his arm about the young man's shoulder, he began to speak sadly of the need for universal recognition of his doctrines.

"I do not expect to see the day," he said, "but, Thomson, you may."

Within ten years Lister had received the first peerage ever conferred upon a surgeon, and had been hailed as one of the greatest minds in the whole history of medical science. Those who had been loudest in their sneers were now most vociferous in their acclamations; while Sir St. Clair Thomson, who had himself been the first to introduce the doctrines of asepsis into Queen Charlotte's Hospital, was able to rise at dinner and remind his master of those earlier words, and to tell him that that very day in Germany a midwife had been arrested for not observing antiseptics. The battle had been won.

So in the lifetime of one man we bridge the gulf which lies between those days and ours—days which, as Sir St. Clair Thomson suggested, might well be ranked "Before" and "After Lister," that great genius who "created anew the ancient art of healing, and did more in his own lifetime than all the surgeons of the earth had done since the era of Hippocrates."

G. F.

A NOTE ABOUT BLOOD TRANSFUSION.

In recent years the practice of blood transfusion has become increasingly popular until nowadays it is a fairly common procedure, and every hospital of any size has its register of volunteer or paid blood donors. Whenever a considerable amount of fluid has been lost, e.g., by hæmorrhage, the comparatively slow efforts of Nature to replace that fluid have to be supplemented by artificial means. These take the shape of either the injection of one or two pints of sterile normal salt solution directly into one of the patient's veins, or, better still, because more lasting in its effect, the transfusion of blood from another person (the donor) into the patient's circulation.

This, however, is not quite so simple as it sounds. To begin with, every possible precaution has first to be taken that the donor is free from syphilis, tuberculosis and other communicable diseases. Then the technique of the transfer must be such that the donor's blood is not allowed to clot before reaching the patient. But that is not all. It has been found that some bloods are antagonistic to others, the serum of one man destroying the red corpuscles of another. If such an antagonistic blood were used, the red cells of the donor would be destroyed in the patient's body and the effect of the transfusion would be rendered useless or even dangerous. To overcome this bloods are divided into four groups, which are ascertained by a series of delicate blood tests into the technique of which it is not necessary to go here. By this means the hospital has at its call a number of donors whose blood grouping is known in advance and who are available, therefore, to be called upon at any time. When a transfusion is decided upon, the grouping of the patient himself is first of all ascertained and an appropriate donor is then called up. This all sounds very complicated but as a matter of fact once the register of donors is complete, together with their groupings, the actual procedure of transfusion can be done quite reasonably quickly.

The transfusion itself may be done directly, in which case the blood is transferred direct from donor to patient either by a two-way tap and syringe, or by joining an artery of the donor to a vein of the patient. These methods are not much in vogue, being technically rather difficult. The method commonly used is as follows: the donor is bled to the required quantity, the blood being caught in a sterile vessel containing a solution of citrate of soda. This prevents it clotting and it is then run slowly directly into the patient's vein.

The effect of the loss of blood on the donor is not as a rule very severe and he recovers fully after a period of rest.

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