Some advances in modern surgery : being the presidential address delivered before the Bath and Bristol Branch of the British Medical Association, on June 27th, 1894 / by Nelson C. Dobson.

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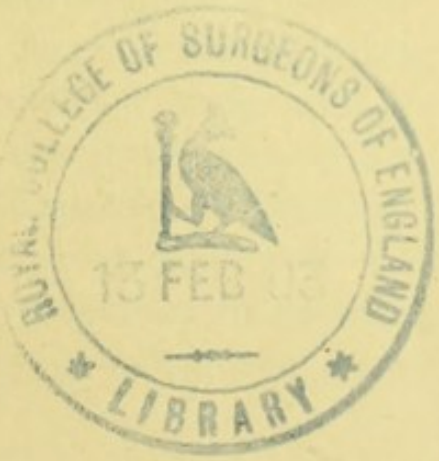
Consulting Surgeon to the Bristol General Hospital; late Professor of Surgery in Bristol University College; President of the Branch.



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My first words to you must be those of grateful thanks for the honour you have conferred upon me, by electing me as your President for the ensuing year; it is an honour which, I assure you, I most highly appreciate and value. I am not ashamed to confess that it was among my early hopes and aspirations that I should one day find myself in the position in which I now stand, and I thought that if ever the opportunity occurred I should accept it with something like glee; but now that the time has at length arrived, I find (owing in part to personal considerations to which I need not further allude) that the pleasures of realization are not equal to those of anticipation:

> "But that ever holds, all things that are,
> Are with more spirit chased than enjoyed."

It is, perhaps, not the least of my misfortunes that I am the immediate successor of so distinguished and energetic a member of this branch as your retiring President, Dr. S. Smith: but this is a misfortune I am not going to deplore, as it brings with it a certain amount of compensation, for the recollection of his address on "Twenty-five Years' Clinical Experience" furnished me with a cue for my own; and just as he dealt with the medical aspects of that period, so will I endeavour to do with the surgical. I will, therefore, crave your indulgence for a

space, while I pass in brief review some of the many changes, I think I may safely say improvements, which have occurred during the last quarter of a century. If any justification were needed for my selection of this subject, it would be that I have been for more than twenty-five years actively engaged in the practice of surgery, and may, therefore, be supposed to know something of what I am saying; but had it been otherwise, the enormous advances and magnificent triumphs of surgery during this time must be matters of interest to all of us. It is indeed a subject worthy of an enthusiast, and if my powers of speech were equal to the importance of the subject and the interest I take in it, you would have a stirring address; but I must content myself with the delivery of a plain unvarnished tale. There is not a single organ or a great cavity of the body that has not been invaded, and successfully invaded, by the surgeon. It is no part of my intention to speak to you of special surgery, such for instance as ophthalmic surgery, of which the public have recently had such a famous and conspicuous example in the person of a distinguished statesman; nor shall I speak to you of such special surgery as that of the throat, nose, or ear, because from inclination and opportunity I know little of these; nor of the great advances of abdominal surgery, though not for quite the same reason—for, as most of you know, a part at least of my thought and work has been in this direction. The bare recital of the advances in this field would occupy me longer than you would care to listen; they stand out in such boldness and prominence, and are so well known to you all, that it is unnecessary.

I rather intend speaking to you of advances not less important, though perhaps less obtrusive, which have been going on silently and quickly in the field of what I may call general surgery. To the younger generation these may appear only as matters of every-day experience, because they never recollect them otherwise than as they now are; but I shall point out that scarcely a single surgical operation remains in all its details or principles unaltered, and the alteration has been that of advance. See, for instance, what has been done by the scientific study of

the relation of micro-organism to wounds, which has resulted in the practical application of what is known as the antiseptic treatment of wounds; what a revolution has been effected, and how vast the benefits attained! In the treatment of wounds it has caused those familiar friends of our youth, pus, surgical pyrexia and pyæmia, to disappear almost entirely, and to be replaced by almost certain primary healing. I know that a few sceptics and scoffers are still to be found, but I think it may safely be affirmed that, however much the methods we may adopt for carrying out our ends may vary, the antiseptic principle will remain with us so long as surgery has an existence. There are, I am aware, other things besides the destruction and exclusion of micro-organisms which have been largely contributory to the well-doing of wounds, such as drainage, absorbable ligatures on bleeding vessels, the proper suturing of the wound, and the environment of the patient. But over and above these, the micro-organism plays the *rôle* (to use the somewhat hackneyed phrase) of the "predominent partner." I make no pretence of having more than a very superficial knowledge of these minute bodies; I cannot tell you at what phase of their existence they are most active, whether in their youth, maturity, or decline. Most of us believe they are all-pervading in their influence, that their numbers are almost incalculable, that they present a great variety of size, and form a diversity of action; that some are very potent for evil, while others are antagonistic, perhaps even antidotal, to these, or at least, benign in their action. When I remember these and other attributes, I am tempted to apply to them Milton's description of the Spirits—

> "For Spirits, when they please,
> Can either sex assume, or both—so soft
> And uncompounded is their essence pure,
> Not tied or manacled with joint or limb,
> Nor founded on the brittle strength of bones,
> Like cumbrous flesh, but, in what shape they choose,
> Dilated or condensed, bright or obscure,
> Can execute their aery purposes,
> And works of love or enmity fulfil."

If I were asked to name what I consider the greatest advance

of modern surgery, I should say, taken in all its far-reaching influences—in enormously lessening the rate of mortality, in reducing the period of convalescence, in robbing operations of many of their terrors to the surgeon and of much of their pain to the patient—I should unquestionably say, "The antiseptic treatment of wounds."

I will now ask you to bear with me for a few moments while I call to your minds some modifications and improvements that have occurred in old and long-established operations. Take, for instance, strangulated hernia: it might have been thought there was here no room for alteration, yet within the last few years the treatment of the sac and also of its contents, under certain conditions, is quite changed, to say nothing of the fact that we also now most commonly complete the operation by one or other methods of radical cure. Changes even greater have occurred in the radical cure of non-strangulated hernia; Woods and Wutzer and all that class of complicated and uncertain methods have disappeared for ever in the face of what is called the open method: these operations are more exact, less risky, and more successful than the old methods.

Once more, let us glance at the time-honoured operations for the removal of stone from the male bladder. When I first began to operate we had then, as now, two methods; viz., lithotomy and lithotrity: but how changed are the guiding principles of these operations, especially the latter. It is true that lateral lithotomy is practised in pretty much the same way as of old, but it is now much restricted in its applicability by the modern crushing operation, and there are those who think it will fall into disuse; my own view is that it is still the best operation for children. Suprapubic lithotomy, so long known, is now practised on entirely different principles; advantage is taken of a long-known anatomical fact, and instead of being resorted to only in those cases the despair of lithotrity, or the lateral operation, it is now deliberately selected both in children and adults by some surgeons as the best method of removing stones in those cases in which crushing is not applicable. With regard to lithotrity, the rule up to twelve or fifteen years ago

was, short and repeated sittings, small instruments, and natural expulsion of fragments; now, thanks mainly to our American cousins, all this is changed. We use large instruments, long sittings if necessary, with complete crushing, and evacuation of fragments by suction and the use of large tubes; in fact, a complete reversal of all former rules, so that very much larger stones can be dealt with than was some years ago thought possible, and the larger portion of all cases of stone in the adult male are now treated by crushing, and even in children the range of usefulness of lithotrity has been much enlarged. It is no part of my present intention to dwell on the relative merits of these operations, or I could have much to say, for I have had experience of all these methods, and probably the most obvious and lasting record of my work at the General Hospital is to be seen in the small collection of stones which I have removed, and which have been so admirably mounted by my friend, Mr. Walker, and are now in the museum of the hospital. In speaking of diseases of the bladder, I need scarcely remind you of the advances which have been made in the diagnosis of tumours and diseases of this organ, by means of electric illumination through the endoscope, and the treatment of these tumours by suprapubic cystotomy and by other means. We also practise suprapubic drainage of the bladder in old-standing cases of prostatic retention, and remove with some success tumours and hypertrophies of the prostate.

As with the bladder so with the urethra, advances have to be recorded: it is true that in the main we treat stricture of the urethra as we formerly did, yet internal urethrotomy has been perfected, and external urethrotomy much modified, by the introduction of Wheelhouse's operation; and accidental rupture of the urethra has been successfully treated by immediate suture. The neighbouring organ, the rectum, has not been neglected in the general surgical advance. Indeed, I know of no simple surgical proceeding so useful as the forcible dilatation of the sphincter, in itself often curative of certain diseases, and always of use in facilitating other operations in the locality. The treatment of fistula and piles has been

improved; but in the treatment of cancer of the rectum, by complete or partial excision of the organ, I, in common with many others, have witnessed the good effects of progress; and though, as I have said, I do not wish to speak of abdominal surgery, I cannot refrain from mentioning how much this terrible disorder may be relieved in suitable cases by the modern operation of inguinal colotomy.

In operations on the scrotum, we may notice the excellent results of slitting up the tunica vaginalis and stitching this to the skin of the scrotum, in those cases of hydrocle which refuse to be cured by tapping and injection; whilst the open method of operating on varicocele, as we now practise it, excising a portion of the varicose veins, is to be recommended for its exactitude and safety, as compared with the older operation. I speak feelingly on this point, as I once nearly lost a young and promising life from septic trouble after the old needle operation; but with our improved methods I am disposed to think that, except for special purposes, the majority of varicoceles had better not be operated on.

If we turn for a moment to such common operations (though by the way not common now in frequency) as amputations, we find still improvement; witness the oval amputations at hip and shoulder joint, also some of the more recent amputations of the foot, though I doubt whether these will hold their own against the older operation known as Symes'. We have gained much during these operations by the use of the elastic tourniquet for restraining hæmorrhage, as compared with the older forms of tourniquet or finger pressure; whilst the means of permanently stopping bleeding by the use of absorbable ligatures is an improvement of almost incalculable benefit. Indeed, in every department of surgery, turn where you will, it seems to me there is an unbroken line of progress.

In the complete or partial removal of the tongue, Whitehead's method of removal by the scissors is an immense improvement. Just as I spoke a few moments ago of the surgery of the other end of the alimentary track, so is it with this portion and all the intervening parts; so is it with the

treatment of pleural effusions, whether serous or purulent, and more recently still purulent deposits in the lung itself, but of this I have no personal experience. Why, even the very simple operation of tapping for ascites is a different proceeding than it was twenty years ago: we now use either a small trochar or we make a small incision, evacuating the fluid, and at the same time exploring or washing out the abdomen in suitable cases, and thus not unfrequently curing the patient. Great and important have been the recent advances in the surgery of the cranium and the spinal column. Much has been done in the way of operating for the removal of meningeal and cerebral growths, for the evacuation of blood or inflammatory products, and also for the relief of epilepsy and microcephalus and thrombosis of lateral sinus; but the path is still a thorny one, and caution and increased knowledge are necessary before we can reckon with anything like certainty on the results of operations on these vital centres. The splendour and brilliancy of the achievements of a few highly-skilled and highly-trained persons cannot, I fear, as yet be taken as the measure of general success in this department of surgery. The same is true of operations on the spinal cord and its surroundings, but in the last few years the diseases of the column itself and the results of these diseases on its contents has been much advanced, so that much is expected of laminecty.

I cannot pretend, even in the brief way I am attempting, to carry you over the whole field of surgical progress, but I should now wish to direct your attention to the more satisfactory methods now in use for dealing with malignant diseases by operation. Take, for example, the operation for cancer of the breast: we now widely remove the whole of the breast, and also at the same time clear out the axillary glands, and in like manner with cancer of other organs that admit of removal; and the same applies to two, three, or even more recurrences. Still, I fear, the cases are few in which we can satisfy ourselves that we have cured cancer by operation. At present operation is the only method of promise, and up to now holds its own against erysipelas toxine, or any other means. The principles which

guide us are, the early recognition and wide removal of the affected part with the adjacent glands.

In the joints and bones we find that excision has been perfected, and the newer practise of erasion has given good results, whilst for operations on the bones, such as for knock-knee, bent femur, tibia, &c., ununited fracture of long bones, and fractures of patella and olecranon, the advance has been very marked.

I have said enough, I think, to prove to you that the advances in surgery during the last twenty-five years have equalled that in any other branch of science, and in this respect will compare favourably with scientific developments in the steamship and the railway, in the telegraph and the telephone, and are at least of equal importance to the welfare of mankind. I remember that in the edition of Erichssen, which I used to read as a student, there was a passage which said that in the manipulative part of surgery we had probably reached finality, yet since then this very department has most advanced. I have shown you that the science and art of surgery has been most progressive—some may be disposed to think aggressive would be a more correct term; I have occasionally thought so myself, but I have learned to be charitable in this respect, for I have not unfrequently found myself doing operations with success which I had previously thought unjustifiable. There is no doubt that as we get older we tend to become more conservative, and to ask ourselves more and more what is the use of some operations which we or our younger colleagues are occasionally almost compelled to undertake. It is natural that our younger colleagues should be more enterprising, and to them we look to maintain and develop that progress we all desire; and having known pretty intimately what I may, without offence, call the younger generation of our profession in Bristol for many years, I think I shall not be misunderstood when I say that so far as they are concerned we shall not look in vain. Those among us who are no longer young need not despair; there will, I believe, in the future be more and more opportunities for consulting with men of long and large experience, with men who have

worked hard and observed accurately, such men as our greatest English writer speaks of when he says:

"Experience is by industry achieved,
And perfected by the swift course of time."

Mere knowledge is comparatively easy of acquirement, but experience is a plant of slow growth; and perhaps one of the great regrets of those who from age or infirmity feel themselves obliged to get out of the main stream, and even to re-seek the shore, is that the experience they have gained by long and laborious methods goes with them. I think and believe that this is not entirely so, but that some remains, garnered—it may be in very small quantities as far as some of us are concerned—by those with whom we have been associated in our work, and that the world is to this extent the better for their existence. I do not know that I can better end what I have to say, or better express what I wish to convey, than by quoting you two well-known lines:

"Knowledge comes but wisdom lingers, and I linger on the shore,
And the individual withers, and the world is more and more."