Remarks ON ORTHOPAEDIC SURGERY IN RELATION TO HOSPITAL TRAINING.

MADE IN OPENING THE ANNUAL MEETING OF THE BRITISH
ORTHOPAEDIC ASSOCIATION IN LONDON ON NOVEMBER 12TH

BY

SIR ROBERT JONES, K.B.E., C.B., CH.M., F.R.C.S.,
PRESIDENT.

FIRST of all I wish to congratulate the British Orthopaedic Association on its ever-increasing vitality. When the association was founded, on the initiative of our good friend Dr. Osgood, we were in the midst of war, with but little time to spare on outside objects, and we displayed, I fear, a timidity as to the future of the association which time has proved to have been quite uncalled for. We now know that its potentialities are unlimited, and that they depend very largely, if not entirely, on the enthusiasm, the work, and the enterprise of its younger members. We depend on them for light and leading, and to carry the torch into dark places. We of the old brigade should encourage, and even endeavour to guide, the efforts of those who follow us. The moment we become obstructive and unsympathetic, the time has come for our best friend to guide us from active scenes and persuade us to lead a harmless and contented life, dwelling on the memories of the past. The signs of surgical senility are doubtless noted in quarters we least expect—they are rarely obvious to ourselves. A diminished surgical initiative may be compensated for by a ripe critical judgement and a sense of proportion, but the mind no longer receptive to a new idea belongs to a bygone day. The tide of surgical advance cannot be held back by voices from the past.

I need not dwell on the services of orthopaedic surgery to the injured of the war, nor on the services of the war to the orthopaedic surgeon; they have been generously and universally acknowledged. Not the least of these advantages is the better understanding which has developed between the general surgeon and ourselves, and the widened knowledge which has resulted from our association with one another. It should be our pleasure and our duty to do all we can to foster this good feeling in order to attract the best men to the surgery of the extremities. So long as we remain an exclusive cult, claiming a special perfection, we deserve some of the neglect and scorn with which we have been treated in the past. If we possess a special knowledge, it should be shown in the character of our work, which must ever remain the sole criterion of its value.

THE SCOPE OF THE ORTHOPAEDIC SURGEON.

The term "orthopaedic" has been somewhat confusing, and yet we still await a more expressive name to cover the group of cases we desire to treat, and this suggests the very important question as to the type of case which the term should cover. In the past a very superficial surgical knowledge was required by the orthopaedic surgeon. Lateral curvature, flat-feet, knock-knees, and certain congenital deformities mainly sufficed to represent the specialty. A few tenotomies and an occasional osteotomy were all the operations that were practised. An operative technique was not imperative, and the use of the knife was a last resort and generally represented the failure of mechanical effort. We must remember, however, that it is to these our forefathers, who by mechanical means and laborious effort accomplished so much, that we are so greatly indebted for our success in the operative field of to-day. They have impressed upon our minds the knowledge that an operation is but an incident in the treatment of a case, and that success so largely depends upon efficient after-care. In my early days under the tuition of H. O. Thomas, part of my daily routine consisted in manually unravelling advanced club-foot, aided, perhaps, by tenotomy of the tendo Achillis. Each case would represent several months of hard work, consisting of alternate stretching and fixation. The lesson it taught, however, was invaluable in demonstrating the effects of perseverance and patience.

Such a narrow definition of orthopaedic surgery as sufficed then cannot be allowed to obtain to-day, and for this reason we should agree as to the limits of its expansion. May I therefore venture to suggest the group of cases which a modern orthopaedic surgeon should be prepared to treat? They should consist of

Fractures—recent, malunited, and ununited.
Congenital and acquired deformities of the extremities.
Paralyses of the extremities.
Diseases, derangements, and disabilities of the joints, including the spine, wry-neck, and those conditions included under the general term "bone-setting."

This definition covers a very large area of surgery, and therefore will appeal to the ambition of the best type of young surgeon. To master the intricacies of so large a section of work requires exceptional ability, and the portals of success are not open to any but the very highly trained. This is as it should be. Some of the very distinguished general surgeons who helped us at the orthopaedic centres during the war have emphasized the fact that many of the operations involved in that work were amongst the most difficult they had ever known. This is a sufficiently good reason for raising the standard of education in the case of all who practise the specialty. The war has taught the orthopaedic surgeon that he has to be more of a general surgeon; it has taught the general surgeon that he should be more of an orthopaedist.

I have always maintained that an orthopaedic surgeon must primarily have a thorough working knowledge of general surgery, and that all through his life he must be cognizant of its advances. I cannot emphasize too strongly that unless this be accepted as a cardinal principle our section may even yet be reduced to a side-show—a refuge for anyone who is unable to hold his own in any operative procedure which his art requires of him. He should be saturated in sound surgical principles, and not become entangled in bewildering detail. He should be a master of detail but never governed by it. Function is his goal, and he should know and be able to practise the best way of arriving there. He must have a sense of perspective and of proportion. An operation means to him but the beginning of his problem. His most brilliant operative exploit, unless directed to a functional success, should be a reproach. This can only be achieved by acquiring, in addition to mechanical knowledge, an operative skill of the highest kind. I have only to look around me now to recognize men who have done splendid service during the war, and in whose hands one may safely trust the future of orthopaedic surgery.

The demand, however, is greatly in excess of the supply. We want more men, and better facilities for training them. We want every student to imbibe orthopaedic knowledge from a competent teacher. We want his attendance at the department to be made compulsory. It is futile to suggest that the curriculum is overburdened. The type of case which he will meet in the orthopaedic department is precisely that which confronts him at the examination board and in any remote village where he may practise. We want well trained men prepared to devote themselves to orthopaedic work, and to take their places on the staffs of all our general hospitals. On the other hand, if education is to be complete, it is essential that the orthopaedic department be fully equipped and adequately staffed. The principles of prevention should be studied, and the department should not be merely utilized to rectify cases which have not done well. How often on entering a so-called orthopaedic department do we find merely a massage room, a few Zander machines, some electric apparatus, but nobody with the requisite knowledge at the head of affairs!

Before offering a few suggestions on orthopaedic departments in relation to general hospitals and on the facilities for teaching, I wish to anticipate the attitude of the general surgeon towards the widened definition of orthopaedic surgery which I have advanced and which I look upon as fundamental. The surgeon may very properly urge that if so large a group of cases were taken from his wards much valuable teaching material would be lost to him. The answer to this is that the general surgeon should have an absolute right to treat any case and as many of any type of cases as he desires. The orthopaedic surgeon is alone to be limited as to type. He should only be allowed to treat cases which are included in the definition. The general surgeon should not be limited by any definition of any sort. Under such an understanding there

would be no resentment and no reservation. Take fractures as an example. The treatment carried on in the orthopaedic ward would be contrasted in friendly rivalry with that of the surgeon who takes such cases into the general ward. If the orthopaedic surgeon falls short of expectation, the rivalry will be to his disadvantage. Truth never shows better than when contrasted with error, and in the nature of events fractures will be absent from such an orthopaedic ward. If he should succeed, the reverse condition will occur, and the general surgeon will be only too delighted to be rid of a case in the treatment of which he does not excel. In any case, the rivalry will benefit them both—and, incidentally, the patient.

A great defect in our large general hospitals is the system whereby a surgeon is expected to treat equally well cases in regard to which he is an acknowledged master, and cases which do not interest him in the least. There is an urgent call to remedy this dangerous defect. Once a surgeon is convinced by demonstration of his inability to give the best to a patient he would no longer care to invite comparison. A surgeon of international reputation on the brain is only too pleased to hand over a case of haemorrhoids and accept a tumour of the pituitary. A well-organized orthopaedic department should prove a pleasant dumping ground to many a skilful and conscientious surgeon.

THE ORTHOPAEDIC DEPARTMENT OF A GENERAL HOSPITAL.

The question now arises as to how an orthopaedic department in a general hospital should be organized. I have been asked this question by the staffs of several hospitals, and after consultation with some of my *confrères* I would suggest the following as an outline scheme:

Scheme.

The definition of orthopaedic surgery on the lines I have suggested should be adopted.

The general surgeon should be allowed to treat any of such cases as he desires.

The work of the orthopaedic surgeon should be strictly limited by the definition.

No orthopaedic department should be confined to the treatment of out-patients; it should be a complete unit with beds commensurate to out-patient demands.

The staff should consist of:

(a) *An Orthopaedic Surgeon.* This officer should be in charge of the department and see to its efficient conduct. He should be responsible for all cases admitted to his department. His practice out of hospital should be confined to orthopaedic surgery. He should have a seat on the Medical Board, and hold equal rank with the general surgeon.

(b) *An Orthopaedic Registrar.* He should be a Fellow of the College or studying for his final examination. He should be selected as a man desirous of practising orthopaedic surgery.

(c) *A House-Surgeon,* who should be appointed for at least six months.

(d) Dressers and clinical assistants.

Nursing.—It is important that the matron should grant security of tenure to the sisters in charge of the orthopaedic out-patient department and of the orthopaedic wards. It takes time to train nurses in the special work involved, and considerable responsibility is attached to them. They should, therefore, not be removed and placed elsewhere when it can be avoided.

Beds.—In a hospital of 300 surgical beds we should aim at obtaining 40 for the orthopaedic service. These beds should be segregated and not mixed with other types of cases. Beds in the country, as I will point out later, should be available for children. The out-patient department should contain a complete physio-therapy department, a plaster room (preferably in close proximity to the operating theatre), a plaster modelling room, a photographic room, and a workshop for the manufacture of splints and appliances. In order that complete records may be kept, a secretary should be attached to the unit.

OPEN-AIR COUNTRY HOSPITALS.

I have suggested country beds. For over twenty-five years I have preached the doctrine that children's hospitals should be abolished from the towns and established in the country. These hospitals should not be of the character of "cripples' homes" or "convalescent hospitals." They should be fully equipped and staffed for the most modern

type of surgical work. Such hospitals, in addition to being economical, are of infinite service to the child. I would lay down as a fundamental principle that no in-patient hospital for children should be started in the centre of our cities, and that existing institutions should deal only with out-patient clinics and act as fitting centres, a few beds being retained for urgent and acute cases. A long experience has taught me the injustice of segregating sick and deformed children in the vitiated air of city hospital wards. Over twenty years ago, with the help of Miss Hunt, we started the first really open-air hospital in the world, where the children live in the open air by day and by night all the year round. This was followed by the large country hospital at Heswall, and later at Ruislip and Harrow. In none of these hospitals is there any possibility of closing the wards, and through sunshine and storm, snow and sleet, one side of the shed is always absent. It is a most inspiring sight to visit these children. Gaiety reigns rampant. Infectious disease—the bane of hospital wards—has never spread, nor has there been one instance of so-called "catching cold" or pneumonia. At Baschurch this principle of open air was extended to soldiers, and nowhere in my military inspections have I met with more contented men nor such rapid healing of wounds. The sheds are cheap and decrepit—there is an air of penury about it all—but it is the birthplace of a great reform, which is steadily gaining ground all over the world. Already several hospitals have sprung up in the United States based upon this rough Shropshire model. I have emphasized this subject because I feel very strongly that orthopaedic surgeons should convince hospital authorities of the urgent necessity of open-air annexes for the active treatment of crippled children. I am delighted to find that the governors of the Royal National Orthopaedic Hospital have adopted this principle, and are now appealing for funds to build and fully equip a country branch, where most of the operations will be performed. We should see that this is followed by similar action on the part of our general hospitals—especially where orthopaedic departments are attached.

THE TRAINING OF ORTHOPAEDIC SURGEONS.

It is a great misfortune that we have comparatively few well trained orthopaedic surgeons in Great Britain. In consequence there exist a very large number of avoidable deformities. This defect can only be overcome by the organization of efficient training. From all quarters there is a growing desire to learn, and it is obvious that if preventive methods are to be mastered we have to insist that our orthopaedic departments should have the opportunity of training students. We should pay no heed to the cry that there is no time. The training is essential if the practitioner is to become efficient. Take a walk round almost any wards with a physician, and you are almost certain to find a case that requires orthopaedic help. Visit the different spas and note the crippled adults in their bath chairs, most of them having consulted a distinguished physician. Yet nearly all these deformities are avoidable. Take such a group of cases as that of the rheumatoid. On scores of occasions I have been taken to their bedsides in hospitals and elsewhere to see if anything can be done for their joints. Valgoid ankles, acutely flexed knees, adducted and flexed hips—all avoidable. The assimilation of elementary orthopaedic facts would prevent it all. If a joint must stiffen, it should be allowed to do so in the best functional position. If the practitioner always knew this, and the consultant also, what trouble and anxiety it would save, and what a blessing it would be to the patient! The same holds good regarding poliomyelitis. The student therefore must be taught.

Having started our orthopaedic department, what can we suggest to facilitate teaching?

We will deal first with the undergraduate. I think it will be agreed that the student is more receptive of orthopaedic training towards the end of his curriculum than earlier. The essential point, however, is that his attendance should be compulsory for a certain number of sessions. It should be possible that on one day a week the orthopaedic department be prepared to lay itself out for systematic instruction, and the student should be obliged to attend upon at least twenty occasions. During that period every variety of case should be demonstrated, and opportunities should be afforded him to do practical work.

More especially should he be taught the principles that underlie the prevention of deformities and their correction. At this clinic the instruction should be of the simplest kind, and the student should not be burdened by material of a controversial character. He should not leave this clinic until he has mastered the simpler and more efficient methods of treating fractures. He should also be made familiar with the uses of plaster-of-Paris. This course of education should be carefully planned, and week-end visits should be made to the country hospital. In my opinion the out-patient departments of the general hospitals in London should lay themselves out for the reception of the undergraduate, and a hospital such as the Royal National Orthopaedic, in alliance with the Shepherd's Bush Hospital, should be equipped for the training of the post-graduate. Post-graduate teaching has hitherto been of a very unsatisfactory kind. Practitioners have come for, at most, a month or six weeks, and the arrangements, on the side of both teacher and student, have been of a most casual kind. The glamour of the operating theatre has overshadowed the out-patient department from which the bulk of his training should come.

Systematic instruction should be offered the post-graduate, and should consist of short courses for the practitioner who merely wants to be familiar with modern methods. Even this tuition should be carefully planned so that the education may prove intensive. The post-graduate who can only spare three months should be encouraged, for he is the type of man who feels the responsibility of not being competent. The post-graduate school should, however, be prepared with higher courses of training as applied to men who wish to become thoroughly efficient orthopaedic surgeons. These courses should extend some over one and others over two years, and graduates should be given every opportunity to familiarize themselves by practice both with mechanical and operative technique. At the end of the first year, if the work of the graduate has been satisfactory, he should be granted a diploma in orthopaedic surgery, and if he elects to train a second year he may take his university degree in the same subject. The higher courses should offer the advantages of the anatomical, the physiological, and the pathological departments, and for a degree original research work should be essential. I sincerely hope that a progressive university will favourably consider such a scheme.

There is one more point in connexion with training that I would like to suggest—namely, that the orthopaedic surgeon attached to teaching hospitals should be granted a lectureship, and that he be asked to deliver certain of the systematic lectures dealing with his specialty.

At present, alas! there are not enough orthopaedic surgeons to meet the hospital demands, but in many hospitals surgeons will be found who are interested in the surgery of the extremities. The results of the hospital treatment of injuries leave very much to be desired, and an effort should be made in all hospitals to segregate these cases into special wards. They are too often left in charge of the most junior member of the staff. A segregation of such cases in order that comparisons may be drawn will soon lead to better methods of treatment, and the surgeon who shows the greatest aptitude will ultimately obtain control.

In conclusion, I need scarcely emphasize the fact that on the personality not less than on the efficiency of the surgeon will the success of the orthopaedic department depend. Friendships and discussions with the staff will all make for higher education, and a feeling of comradeship will immensely add to the efficiency of hospital work. We can never forget the delightful spirit that dominated our orthopaedic centres during the war, where we each spoke to the other of our failures, and where any advance made by any member of the staff became at once the property of all. The secretive mind had no place amongst our workers. No member of a team was jealous of the other, and light hearts tempered responsibility. Uppermost in our thoughts springs Shepherd's Bush—a hospital so closely associated with His Majesty King Manuel, to whom we as orthopaedic surgeons owe so much, who accompanied us with unerring instinct through deep and troubled waters, and who devoted four years of his life in self-sacrifice and devotion to the cause of the wounded soldier. We welcome him amongst us to-day, proud that we can count him an honorary fellow of the British Orthopaedic Association.

ULCERATING GRANULOMA OF THE PUDENDA CURED BY INTRAMUSCULAR INJECTIONS OF ANTIMONY TARTRATE.

BY

H. LOVETT CUMMING, M.D., CH.B. EDIN.,
D.P.H., D.T.M. AND H.CAMB.,
SHANGHAI.

THE disease known as "ulcerating granuloma of the pudenda," "granuloma inguinale," "granuloma venereum," etc., is fairly prevalent in South China, British Guiana, West Indian Islands, India, West Africa, South Africa, and Northern Australia; it is less frequently seen in Ceylon and Central Africa. I have met with a number of cases in Malaya, but chiefly among coolies from India and China. It does not seem to be common among Malays and Javanese.

Ulcerating granuloma is now generally considered a venereal disease. In the great majority of cases it commences somewhere on the genitals, usually on the penis or labia minora, or on the groin, as a papule or small nodule. The epidermis over this gradually becomes inflamed, thinned out, and excoriated, and the surface breaks down to form an ulcer. The resulting ulceration is seldom deep. The disease either spreads by eccentric peripheral growth or by auto-infection from an opposing surface.

The affection is probably of protozoal origin, but so far nothing definite has been established. Some writers have described a spirochaete as the cause, while Donovan found present in the lesions certain bodies resembling "gigantic bacilli with rounded ends." Siebert found, in all instances, similar bodies in material from various countries, but called them diplococci.

On the other hand, spirochaetes have only been found in a certain number of cases, and when these have disappeared after salvarsan treatment the disease has still continued. In fact, salvarsan and allied preparations in the treatment of this disease have been either altogether useless or extremely disappointing.

I have seen several cases where the disease was quite uninfluenced by intravenous injections of salvarsan, which, with the more extensive experience of other writers, goes far to prove that, in any case, the origin of the affection is unlikely to be spirochaetal. The incubation period is uncertain. It is not referred to in any of the well known textbooks. In the case about to be described it was at least four weeks. Probably, in most cases, it is never likely to be much shorter than that period.

It is only within very recent years that antimony tartrate has come to be used in various diseases, chiefly tropical, which have hitherto resisted, almost completely, all previously known forms of treatment. This drug has been given with great success in kala-azar, Delhi boil, trypanosomiasis, bilharziosis, yaws, certain forms of syphilis, and in ulcerating granuloma of the pudenda.

During the summer of 1916 the writer saw a very advanced case of the latter disease cured at the Albert Docks Hospital by intravenous injections of antimony tartrate. This case was fully reported by Low and Newham in the BRITISH MEDICAL JOURNAL of September 16th, 1916, p. 387.

The following case is of particular interest on account of the method of treatment used and its complete success with comparatively small amounts of the drug introduced into the system.

S. H., an American, first consulted me on September 8th, 1919. He was suffering from chronic gonorrhoeal discharge—a thick yellow "bonjour drop"—which had been present off and on for nearly a year; also from several soft sores, three in number, with hard edges, situated on the dorsum of the penis in and behind the balano-preputial furrow, and involving to a slight extent the proximal end of the glans penis. There was a considerable amount of inflammation and infiltration present round the sores but no definite induration. The glands of the groin were neither enlarged nor tender.

The patient, who is a very observant and intelligent man, stated that he had first noticed on March 3rd, 1919—about six months previously—what appeared to be a slight abrasion, "similar to a hair-cut," which he himself treated steadily for about five days with alternate applications of silvol and potassium permanganate crystals, placed between layers of damp gauze and applied directly to the suppurating area—about two fresh applications of each drug every twenty-four hours. As a result by March 10th—a week later—there was closure of the