cise depended solely on the medical man. He must have the assistance of skilled manipulators, who would faithfully carry out his directions in his absence, just as a good nurse did in her own province. Some effort was now being made in London to supply this want, but there was no reason why the Taunton and Somerset Hospital should not now furnish practitioners in West Somerset with what was required in that line. It was said that two years of training were needed to make a nurse competent in massage; if it was remembered that a considerable knowledge of anatomy was indispensable, this estimate would not seem exaggerated. Massage was of course a panacea, but the list of maladies in which competent authorities had found it useful numbered forty or fifty. The physiological effects of massage were not yet fully worked out, but it appeared that *effleurage* stimulated the skin muscles, produced dilatation of the superficial vessels, and insensible perspiration, excited the skin reflexes, and, acting through the skin nerves, increased the rapidity of the heart's action, as well as of the circulation. *Pétrissage* forced the lymph out of the muscles, increased the velocity of the blood current in the part, temporarily decreased the size of a limb, and increased its muscular power. Unlike *effleurage*, it reduced instead of increasing the pulse rate, more especially when it was applied to the abdomen. The local effects of *massage à friction* were much the same as those of *pétrissage*, while *tapotement* was most effectual in exciting muscular contraction. The electrical excitability of muscle was also increased under massage, as was seen in the restoration of that power in cases of paralysis, in which it had been previously dormant. Medical gymnastics and calisthenics might often be advantageously combined with massage.

A SHORT RETROSPECT OF MEDICAL PROGRESS.

Delivered at the Annual Meeting of the North Wales Branch.

By E. J. LLOYD, M.D. Aberd.,
President of the Branch.

AFTER returning thanks for the honour done him in electing him President, Dr. Lloyd said he proposed to speak of some of the most prominent advances which medicine and surgery had made in recent years, and also to call attention to a few of the most pressing topics of medical politics. One of the signs of the present time was the energy which was being expended in the pursuit of germs. By the discovery of the tubercle bacillus, Koch threw open a new continent to scientific research, and the results obtained so far by the various explorers had yielded a rich produce of knowledge. A new science had sprung into existence within the last two or three years—namely, bacteriology; professorial chairs of bacteriology were being founded at the centres of medical instruction, and in the laboratories attached thereto germs were being cultivated and isolated with a success which augured well for valuable discoveries in the future. No reference to this subject would be complete which did not include the name of Louis Pasteur. It was not necessary here to recapitulate any of his triumphant discoveries, or to remind them what he had so far achieved in his efforts to combat the virulence of rabies. The scientific world would watch with interest his proposal to deal with the rabbit scourge in Australia by means of the cholera microbe, if the consent of the colonists to this suggestion could be obtained. Perhaps the latest development in the science of bacteriology was the alleged discovery of a cancer microbe, but all was yet uncertain with regard to it. There might or might not be a cancer microbe, but we did well to hope that there was; for in this direction alone did it seem possible that any gleam of light could come in the advance of our knowledge of the disease. The gradual elaboration of our knowledge of germ life had not solely been found of use in the discovery of the cause of disease, but also in the antiseptic treatment of wounds. A most important detail had recently come to light upon the subject of antiseptics—namely, that of the truly antiseptic power of soaps and alkalies. Experimentation had demonstrated that instruments which had been previously washed with soap and potash were much more quickly and effectually sterilised by carbolic and sublimate solutions than by the latter two reagents alone. The President then dwelt at some length on the virtues of iodoform and perchloride of mercury as germicides, and on the conditions under which they should be used. He then referred to the rapid progress which had been made within the past few years in the surgery of the brain.

Two factors had contributed to this gratifying result—namely, the confidence which antisepticism gave to surgeons in the well-doing of their operation wounds, and advances in physiology, by which surgeons were able to localise the precise position of lesions. Abdominal surgery, again, had made immense progress during recent years. Surgeons nowadays thought no more of opening the abdomen than surgeons in old days would have thought of opening an abscess. This confidence came from the knowledge which extended experience had taught us of how to treat the peritoneum. It was now known that the peritoneum was tolerant of almost any amount of surgical interference, provided it was treated with, so to speak, surgical politeness. Laparotomy was now performed for many and various conditions of injury and disease of the abdomen. Attention might first be directed to the good results which had been obtained by its performance in those cases of acute intestinal obstruction, 95 per cent. of which, if unrelieved by art, proved fatal. In a collected series of sixty-nine cases of this description, the mortality was 46 per cent., and even many of them were in a condition of profound collapse at the time of operation. Under more favourable conditions in the future, we might hope for a better record than that. Laparotomy had also been performed during the past year in a great number of instances of wounds of the intestines, and in cases of rupture of the urinary bladder, with results which, on the whole, were satisfactory. It had even been done in cases of perforation of the intestine occurring during typhoid fever, but without success. The radical cure of hernia was also now a successful procedure. Leaving the field of abdominal surgery, intubation of the larynx had been proposed by Dr. O'Dwyer, as a substitute for tracheotomy, and the operation seemed worthy of trial. The application of electricity to the treatment of disease had also undergone great development in recent years. Just as electricity was now competing with gas in the commercial world, so might it be said that it had entered into competition with the knife in the treatment of many forms of disease. Electricity, as applied to medicine, might now be spoken of as an exact science; and it was impossible to doubt that it was destined to occupy in the future a valuable position as a curative agent. Electrolysis had been found of great service in strictures of the urethra and the rectum. With regard to Dr. Apostoli's treatment of uterine fibroids by electrolysis, great claims were advanced in its behalf, but the method had so far not found much favour amongst experts in this country. The treatment of these cases by electrolysis, however, had not yet had a fair trial in England, and until this had been the case, it was only right to suspend judgment. In adverting to this subject, one was only more deeply impressed with the extent to which electricity was competing with the knife in the treatment of disease; for here was an instance in which the knife would be altogether superseded, if the results of the application of the current should prove, after extended trial in the hands of independent observers, to be in the end satisfactory. Passing then to medical politics, the President said the subject was, in the present day, becoming more and more one which demanded the attention of every practitioner who had the interest of his profession at heart. Medical men, as a rule, were credited with possessing very little business capacity. "Common experience (he continued) shows that much seems to be done for us in the passing of laws without any consultation of the profession at large. The fact that this is so is, after all, perhaps, our own fault. We are too lethargic in the matter of striving for and protecting our own interests. Medical men would apparently, by their action, make the outside world believe that they were too much engrossed in their daily work to undertake and organise agitations in the protection of their rights and in the correction of manifest imperfections in the laws which affect them. But, judging from the signs of the times, it does not seem to be probable that this will always prove to be the case. There are hopeful indications that we are gradually acquiring the habit of bestirring ourselves when necessary in the cause of our rights and interests. The well-conceived efforts which have recently been made to repel the autocracy of the government of the Royal College of Surgeons of England is an earnest of the growing interest which is being taken in the furtherance of many much needed reforms. Every member of the profession has a voice in the matters which affect his interests, if he only will trouble himself to use it, and it is plainly our duty collectively to make our voices heard when the occasions arise which demand our serious attention. In the furtherance of this view I think that the Branches of this great Association should devote certain of their meetings in the year to

the discussion of matters of this description, upon which it is desirable that some opinion should be expressed by the profession at large. Who, for example, can dispute that there are at the present moment before us proposals of reform of extreme importance which hitherto have, for the most part, been left merely to the medical journalists to discuss in the pages of the press? What effort, may I ask, have we taken to show what our feeling is in regard to the proposed new M.D. degree of the colleges in London? Surely this is a question of vital importance; but, despite this fact, the body of the profession have contented themselves with gazing at a distance and leaving those who have made themselves responsible for the measure to work unaided. I must not, however, detain you longer in the discussion of this theme. It is one which, in my opinion, will not be permitted to be so much neglected in the future as it has been in the past. Depend upon it the more we display an active interest in medical politics the better will it be for ourselves and the better will it be for the profession."

ABSTRACT OF A PAPER ON PHYSICAL INDICATIONS IN HEART AFFECTIONS.

Read before the South Midland Branch.

BY ARTHUR H. JONES, M.D.LOND., M.R.C.P.LOND.

AFTER alluding to the rapid advance in the knowledge of diseases of the heart which had been made during this century, Dr. Jones said that before the introduction of modern methods, our predecessors had no doubt often arrived at accurate results by minute observation of the physiognomy, pulse, and breathing, as modified by cardiac affections. Their eyes were probably more accurately trained than those of modern physicians, who were, perhaps, too apt to trust entirely to their stethoscope and the sounds which it made audible. A danger connected with this was that an exaggerated meaning might be put in auscultatory signs, so that a heart which did its work noisily was on that ground alone liable to be condemned. We were so fond of pathognomonic signs, that if we could discover a sound or a movement, or the absence of a natural sound or movement, we were apt to associate with it too definite a lesion. Medical men, however, had now learned that a loud *bruit* or a large heart did not necessarily involve incapacity for the ordinary duties of life. Cases were related which illustrated this truth. It was not often, perhaps, that there was complete absence of symptoms with marked cardiac lesion, but many cases presented themselves in which, with definite organic lesions, the patient was only occasionally aware of there being anything wrong with his heart. Observers were now pretty well agreed that in many cases of damaged valves, or otherwise damaged hearts, we might give a more favourable prognosis than used to be the case only a short time ago, and our knowledge of the law of compensation, and its mode of operation enabled us to forecast more accurately. Much depended on the lesion, and on whether it was progressive, or was likely to become so. A definite cause, such as a strain or attack of rheumatism, together with the possibility of giving the patient a fair chance of developing corrective hypertrophy or dilatation, made the progression relatively favourable; on the other hand, the existence of valves undergoing progressive changes, such as atheroma or the interstitial growth, present in so many cases of mitral stenosis, were absolutely unfavourable.

That the existence of a *bruit* did not necessarily mean grave cardiac lesion, everyone must be constantly recognising. Basic systolic *bruit* over the pulmonary valves could mostly be placed on one side as being simply functional. This, however, was not always the case, and such cases should be examined very carefully lest a case of congenital organic mischief, which closely simulated the functional *bruit*, should be passed over. The class of congenital heart diseases was not a clear or well-known one. A *bruit* somewhere about the base, with some symptoms dating back to birth, or nearly till then, or with some displacement of the apex and accentuation or other alteration of the pulmonary second sound, should raise suspicion. Illustrative cases were cited.

Other *bruits* were sometimes present which did not indicate valve lesion or failure. A very localised *bruit*, varying, perhaps, with the position of the patient, the pressure of the stethoscope, or the movements of the chest, situated near the apex and unac-

companied by any enlargement of the heart or other variation in the sounds, might be explained by friction patches or lung adhesions. Further, there were *bruits* heard in the position with most of the characters of systolic mitral murmurs which did not appear to be caused by any cardiac lesion. Such murmurs were now thought to be due to temporary weakness of the heart-muscle interfering with the approximation of the parts around the mitral valve when the valve should close, and thus giving rise to slight regurgitation, indicated by a *bruit* which disappeared when the heart-muscle recovered its tone. At the same time the disappearance of a *bruit* could not be taken as an indication that it was non-organic. Everyone was familiar with the erratic *bruit* of mitral stenosis, present one day and gone the next. In other valvular lesions, also, even very marked *bruits* might cease, especially near death. A loud *bruit* was no longer taken as an indication of a severe lesion, and a faint one of a slight lesion; in fact, increased intensity of the *bruit* was often a hopeful sign as evidencing that compensation had been effected.

The cases in which *bruit* was absent, though the heart was seriously affected, were various. There was the large heart of renal or arterial disease. Increased resistance in the vessels had caused hypertrophy, and possibly some additional cause led to serious dilatation, so that no *bruit* was present. Then there were cases of marked valvular lesion, stenosis, or incompetence, and here the heart-muscle was weak; and cases of simple dilatation. Observation of the position of the apex-beat was more reliable than listening for a *bruit* in heart cases. In thirty cases of his own, in which, though there was little or no *bruit*, the heart was seriously diseased, the apex was considerably displaced in most of them, being beyond the nipple line. It was, however, necessary to guard against a false conclusion in this matter. Fibroid phthisis, or adhesions due to other causes, might displace the apex-beat of a healthy heart, which again might be pushed over by pleural, or outwards and upwards by peritoneal effusions. Again, a diseased heart might be pushed over from the left towards the right side by an effusion in the left pleura. Methods of determining displacement of the apex-beat by measurement and percussion were then described, and examples of great lateral and downward displacement were cited.

On the other hand, there were cases of valve lesion where no *bruit* was present, and the apex-beat was not appreciably displaced. In the early stage of endocarditis, before there had been time for the development of hypertrophy or dilatation, this might readily occur in a heart too weak to give rise to a murmur. The intensity of the aortic, and especially of the pulmonary, second sounds might also give valuable information. If causes of increased pulmonary tension (fibroid phthisis, emphysema, etc.) were excluded, the working power of the heart might be judged of and a clue to organic lesion obtained, by first noticing that the pulmonary second sound was accentuated or very deficient. Enfeeblement of the sound was often noted in cases of large heart associated with renal mischief. It was usually the correlative of extreme dilatation of the right ventricle, and was an indication of grave mischief. Accentuation of the sound, on the other hand, was present in many cases where the symptoms were slight; but he had usually found other signs more clearly indicative than that as regards prognosis—the clearness or otherwise of the sound produced by closure of the pulmonary valve was very valuable; increasing intensity under treatment being of good augury, and increasing or mere unchanged feebleness the reverse.

In the absence of *bruit*, when the heart's impulse was too indefinite to localise, a short sharp first sound (making the first and second sounds closely resemble each other) was suspicious. It indicated a weak dilated cavity, and showed that the heart was ill-prepared to battle with any valvular lesion or other obstruction to the flow of the blood.

With regard to treatment, the value of rest could not be overrated. Arterial tension should be reduced by blue pill or other means. Strychnine, which was apt to be forgotten in our eagerness to use digitalis and other heart-tonics was a valuable drug in cardiac affections. According to Dr. Herbert Habershon, the hypodermic injection of two minims of liquor strychniæ, repeated in some cases, was most useful in failure of the heart's action from weakened muscle. It had succeeded where the instantaneous injection of ether had been useless.

MEDICAL MAGISTRATE.—Dr. H. J. Strong, of Croydon, has been placed on the commission of the peace for that borough.