vanity and self-seeking on the part of some of the larger Branches. The danger of disunion, however, will now be removed, or reduced to a minimum, by the proposed new constitution of the governing body. Each Branch will be able to make its voice heard and its grievances attended to, because its representatives in the Council will have no excuse for not attending to their duties. If your honorary secretary is unable to absent himself from his practice four days in the year, you can and ought to elect another member in his place who may be able to do so; and the payment of such representative's travelling expenses by the parent Association now proposed will materially expedite his journey to and from London.

The next duty which the Branches owe to the Association is to further to the utmost of their ability those movements in the interest of science, which it is now more and more disposed to institute and to foster. I need only cite the last great effort in this direction—viz., the collective investigation of disease, so happily and so ably initiated by my predecessor and friend, Professor Humphry of Cambridge. Our Association is now, as I have just said, both rich and powerful. By the use which it shall make of those great moral forces will it be judged both by the profession throughout the world, and by the educated public at home. As time goes on, and the vista of medical research opens up wider and farther upon our mental vision, fresh subjects will present themselves for investigation, fresh difficulties to be overcome, fresh honour, let us hope, to be won. Do not leave all this work to the parent Association. Every Branch may easily make some contribution to the general stock; for it must be unfortunate indeed if, within its area, there be not some inquiring minds, some men with leisure and ability to add to our stock of observed knowledge, or to work out vexed questions by the powers of strict induction.

The Branches, moreover, owe a moral obedience to the parent Association. The decision of the majority must be more likely to be for the general good than the desire of the minority; and no great Association composed of units of equal privileges and equal aims, as ours is, can afford to dispense with the moderating power of the general body.

Lastly, let me call your attention for one moment to the duties which the Branches owe to themselves and to their members reciprocally. Every Branch should endeavour to absorb into itself every member of the profession residing within its area, who is not excluded by moral considerations. It is clearly the duty of the honorary secretary of the Branch to look up every new comer, and to remove the scruples of those who hitherto have stood aloof from joining it. Nearly one-third of all the members of the Association are still unattached to any Branch. It is true that a great many of these—army and navy men, and residents in foreign countries—are unable to join any Branch with effect; but there are still numbers close to our doors who do not take the trouble to join a Branch. These should be told that they owe it to the Association to strengthen the Branch to which they are neighbours. As the Branches have a moral right to the knowledge which their individual members can afford to lay before them, so has the Association also a right to that of unattached members, which is now almost in every case lost to the general good.

The duty of members to the Branch to which they belong I take to be, to attend the meetings as frequently as they possibly can, and communicate everything worth relating to the Branch. Let it be remembered that there is nothing now known even in the very fountains of medical knowledge—the metropolis and the great medical schools—which cannot be learned by us in the provinces within a very short time from its publication. There are men in every Branch quite capable of assimilating such knowledge, and throwing it before a meeting for comparison with the experience and the thought of every member present. Thus, and thus chiefly, can knowledge be diffused.

One more important point. The greatest care ought to be taken to make sure that each man, before he is admitted to the privileges of a Branch member, is a fit and proper person to associate with gentlemen. Every year our mutual intercourse is becoming more intimate; we are becoming better known to each other; and we are often enabled by it to appreciate the good qualities of those upon whom in our ignorance, we may have been led to look upon with some suspicion or distrust. It is absolutely necessary that those who disregard the moral laws of our Association should be eliminated from our society. This is not to be easily done. The greater necessity is there that care be taken that *unclubable* men be not admitted into our assemblies, which are clubs in everything but the name.

Hospitality is the great bond of friendship; let us foster it to the

utmost of our power. But, to do so, black sheep must be sent to the limbo of vulgar self-assertion, of false pretence, of dishonesty, or of gross immorality. Let us begin the new era, the second half-century of our existence, with a determination to be gentlemen first, and scientists or politicians afterwards; and so with hopeful boldness we may exclaim, *Floreat sempiternæ Medicorum Britannicorum Societas!*

AN ADDRESS

ON

THE MEDICAL ACT AMENDMENT BILL.*

By W. M. CROWFOOT, M.B., Beccles,
Ex-President of the East Anglian Branch.

[AFTER thanking the members of the Branch for the courtesy shown him during his year of office, and the honorary secretaries for their assistance and advice, Dr. Crowfoot proceeded to comment on the Medical Act Amendment Bill. He said:]

After perusing the original Bill as given in the JOURNAL for the 24th March last, the amendments which were introduced into it during its passage through the House of Lords, and the comments of the medical press upon it, I think it cannot be doubted but that the Government have made an honest attempt to grapple with the difficulties of the question, and to provide the profession with a complete and efficient code. They have adopted the suggestions of the Royal Commission, and also to a great extent those of the Reform Committee of this Association, in framing the Bill; and there seems to be a general agreement on all sides that the main principles of the measure are good, though, in the opinion of many, there are certain points which require alteration. Under these circumstances, I think it is the bounden duty of all the Branches of this Association to give the Bill their careful consideration, to support it so far as they conscientiously can do so, and to use their influence to get such amendments introduced as may be required in order to render it as efficient as possible.

The main features of this Bill seem to me to be: 1. The establishment of a single comprehensive minimum examination as a sole requirement for obtaining a licence to practise medicine; 2. The introduction into the Medical Council of members elected directly by the profession throughout the country; 3. The penal clauses.

The establishment of a uniform minimum examination will do away with the anomaly, which at present exists, of numerous examining bodies, not one of which tests the knowledge of the student in all the three branches of medical science which the general practitioner requires to know. The framing of rules for medical education, and the actual conduct of the final examination, is entrusted to medical boards, of which there are to be three, one for each division of the kingdom; but, according to the amendments introduced into this part of the Act, it would seem that the duty of conducting any examinations previous to the final one is to remain with the existing examining bodies. The Medical Boards are to act under the supervision of the Medical Council. The Medical Board for England is to consist of sixteen members, viz., eight for the Universities of Oxford, Cambridge, London, Durham, and the new Victoria University of Manchester, and eight for the Royal Colleges of Physicians and Surgeons. The principal objections to this part of the Bill come, as may be supposed, from the medical corporations and the Medical Council. With respect to this last body, however much we may respect the individual members composing it, yet I do not think that as a body it has conferred such benefits on the profession at large, or so far fulfilled the anticipations which were formed on its establishment, as to render its extinction, at least in its present form, a matter of regret. With regard to the Colleges, however, the feeling in the profession will, I think, be somewhat different. They have undoubtedly in times past done very much for medical education. Had it been passed in its original form, this Act must, I think, have tended very considerably to reduce the importance of these bodies; and, as at present amended, I fear its effect must be to lessen their influence, and probably their funds. To meet their objections, an additional member on the Medical Board has been given to each of the Colleges, so that they now have as many representatives as all the

* Delivered at a combined meeting of the East Anglian and Cambridge and Huntingdon Branches.

Universities put together; and the minimum examination established by the Act is not to confer any title, but simply a right to practise. A still more important modification has been proposed by the Medical Reform Committee of this Association. It is to this effect: "That no man be entitled to have his name entered on the *Medical Register*, as a registered medical practitioner, unless, in addition to the licence of the General Medical Council, he shall be attached subsequently to one of the universities or medical corporations, and be authorised to register the title as acquired." This is a point which I hope will be well discussed at the present meeting. For my own part, I much doubt the utility of this proposed amendment. If the student has proved that he possesses a competent knowledge of medicine, surgery, and midwifery, why lay any further burden upon him by compelling him to affiliate himself with one of the medical corporations or universities? The Lord President refused to accept an amendment of this character; but the lower grade conferred by the colleges, as for instance the membership in the case of the College of Surgeons, may still be registered, and will of course confer a title on the recipient; and the higher grade, the Fellowship, will doubtless still be sought for by those who intend to devote themselves especially to the practice of surgery. It has been urged that the effect of this part of the Act will be to lower the general standard of medical education, and to deter men from taking the higher degrees. I cannot, however, myself think that this will be its effect. The examination established by the Medical Council will at least insure the possession, by those who have passed it, of as much knowledge as was required for the membership of the College of Surgeons, in surgery, and for the licence of the College of Physicians or Apothecaries' Company, in medicine and midwifery; and there will be just as much inducement to take the higher degrees conferred by the colleges and universities as before. As far as the general public is concerned, all medical degrees are of the same value, and it matters not to them whether a man be the holder of a bogus degree, or a graduate of the University of Oxford, Cambridge, or London. In the eyes of the profession, of course, it is very different, and it seems to me that there will be just as much desire amongst young medical men to gain the respect of their professional brethren by taking a high degree as heretofore. The Act provides for the registration of all such degrees as may be approved of by the Medical Council. Other objections which have been raised to this part of the Bill are, that it does not sufficiently clearly define the course of study to be pursued by the student, and distinguish between the preliminary scientific and the strictly practical part of his education; but it seems to me to be wiser to leave these matters to be settled hereafter, and modified from time to time by some authority constituted by the Act, than to attempt to define them too rigidly by the Act itself. Whether this authority should be the medical boards, whom the Government Bill has invested with this power, or the General Medical Council, is a point which seems to me to be doubtful.

There are two provisions in the Bill which seem to me to be decidedly objectionable. The first is, that the Medical Boards should have power to acquire and hold lands, as by such action the number of corporate bodies, of which there are already too many in the profession, would be increased; and the second is that some of the members of the Medical Boards may be laymen. Now, as the duties of these Boards are entirely connected with medical education, I think it would be better that they should be composed entirely of medical men.

On the second great feature of the Bill, viz., the introduction into the Medical Council of representatives elected directly by the profession, I need say but little. It has met with general approval on all sides, and has long been earnestly contended for by the Medical Reform Committee of this Association. The new Medical Council is to consist of eighteen members, six to be nominated by the Crown, four to be elected by the Medical Board for England, two by that for Scotland, and two by that for Ireland, and four direct representatives, two for England, one for Scotland, and one for Ireland. It is hoped that thus constituted the Medical Council will be less under the influence of the corporations, will be less representative of vested interests, and more able and free to act for the general good of the profession.

Lastly, as regards the penal clauses of the Bill, I think that these will generally commend themselves to the profession. An important amendment has been introduced into this section at the instance of the Reform Committee of the Association; and, as it now stands, "If any person, whether a registered medical practitioner or not, who practises for gain, or professes to practise, or publishes his name as practising medicine or surgery, or receives any payment for

practising medicine or surgery, takes or uses a medical title which he is not entitled to take or use, he shall, on summary conviction, be liable to a penalty not exceeding £20." The number of persons authorised to conduct these prosecutions has also been increased. It is to be hoped that these provisions may lead to the extinction of some of the numerous quacks who now prey on the public. It has also been proposed to introduce a clause preventing unqualified assistants from conducting branch practices under the protection of qualified men; but this proposal has not, I believe, been adopted, though it seems to me desirable that such should be the case before the Act becomes law.

It will be observed that two of the old corporations—viz., the English and the Irish Apothecaries' Companies—are extinguished. A more important matter is, that the original proposal in the Bill to impose an annual tax on all registered practitioners has in the amended Bill been omitted. The profession is thus saved from an unnecessary and unfair tax.

I have thus briefly touched upon a few of what seemed to me to be the more important points in the Government Medical Bill. I doubt not that many others will be brought out in the course of the discussion which we hope shortly to have on this measure; but I trust that what I have said may enable some here present, who may not have studied the Bill very closely, to form some opinion on the advantages or disadvantages to the profession likely to ensue, should it become law in its present form.

ABSTRACT OF LECTURES

ON THE

METAMORPHOSIS OF SUCTORIAL FISHES AND BATRACHIA.

Delivered at the Royal College of Surgeons of England.

By W. K. PARKER, F.R.S.,

Hunterian Professor of Anatomy in the College.

LECTURE VIII.

GENERAL GROWTH OF THE EMBRYO TADPOLE OF THE FROG.

The first external indication of the embryo frog is the pyriform medullary plate. The chief feature in it is the axial groove, which soon becomes prominent, and ends behind at the blastopore, the lips of which are continuous with the two medullary folds. As the sides bend upwards to form the medullary canal, the embryo elongates and assumes a somewhat oval form. At this time the cranial flexure can be seen, and the blastopore soon becomes shut off from the exterior. The embryo now elongates, and the mesoblast becomes segmented. Somites are first found in the neck, and are added successively behind in the unsegmented posterior region of the embryo. The hind end of the embryo grows out in a rounded prominence, which rapidly elongates and becomes a well marked tail, entirely formed by the elongation of the postanal section of the body. The whole body has a well marked dorsal flexure, the ventral surface being convex. At this stage the cranial flexure has become very marked, and the mid-brain forms the anterior termination of the long axis of the body, and at each side is an optic vesicle. The rudiments of the hyoid mandibular and first branchial arches project as folds at the side of the head, but at this stage the visceral clefts are not open. Rudiments of the proctodæum and stomodæum have appeared, but neither of them communicate with the mesenteron. Below the hyoid arch is a peculiar disc on each side. These are embryonic suctorial organs, formed of plates of thickened epiblast. At a later period they meet one another in the middle line, but separate again and finally atrophy. They are absent in *Pipa* and *Dactylethra*, but present in most of the batrachians; they are probably remnants of the same primitive organs as the suctorial discs of *Lepidosteus*. The embryo grows in length, while the tail becomes bent round to the side, owing to the want of space in the egg. At the front of the head the olfactory pits become distinct; the stomodæum deepens, though still ending blindly, and three fresh branchial arches are formed. There are thus six arches, namely the mandibular, hyal, and four branchial arches. Between these pouches of the mesenteron push their way to the surface. Of these there are five, there being no pouch behind the last branchial arch. The first of these afterwards forms the hyomandibular cleft, the second the hyobranchial, and the third, fourth, and fifth, the branchial clefts. Though the pouches of the throat meet the external skin, an external opening is not established till after the