two substances are simultaneously administered after they have been mixed together outside of the body. In the case of antivenin and venom the difference is as great as 1 to 1,200.

This experimental result, harmonising altogether with a physical as distinguished from a biological explanation of the antidotal action of antitoxins, emphasises the lesson, gradually receiving acceptance in practice, that for the effective treatment of an infectious disease the quantity of antitoxin must be a very large one, and at least 1,000 times greater than is indicated by the *in vitro* experiments by which their antidotal power has usually been determined and standardised.

For this reason the antitoxic serums frequently in use at the present time must be regarded as too dilute solutions. It is indeed probable that the process of immunisation, even when carried to its utmost limits, is incapable of producing antitoxic serums sufficiently powerful, in doses which can be administered, to cure a patient suffering from the effects of a large lethal quantity of toxin. Chemistry, however, has as yet left almost untouched the investigation of antitoxic serums, and it may confidently be expected that, when more knowledge has been obtained of their chemical composition, this difficulty will be overcome by the separation of the curative from the worthless ingredients.

By such results as are exemplified in the experiments that I have described a new era has been originated in practical medicine. Considering how limited were the means—if, indeed, they previously had existed—of actually preventing death when the fatal disease conditions were already present, a special fascination attaches itself to the subject of the antidotal treatment of disease, the newly created serumtherapeutics. It has merely entered the first stages of its development, and has had to contend in its applications to human beings with the difficulties presented by the presence of undiscoverable amounts of disease toxins, diffused by living generators, which are present in the body in unknown quantities and in varying toxic potentialities. The results already obtained are, however, of much value. Diphtheria has had its case mortality reduced from 70 per cent. to 26 per cent., or, according to another estimation, from 40 per cent. to 8 per cent.; hydrophobia has been so far brought under therapeutic control, by means which have not as yet been developed to their full efficiency, that its mortality has shrunk at least from 16 to 1 per cent.; the prognosis of tetanus has been deprived of much of its gloomy forebodings; the cure of pneumonia, of tubercle, of erysipelas, and of septicæmia is on the eve of being realised; a complete demonstration has been obtained of the power of antivenins to prevent the toxic and lethal effects of venoms; and the experimental data are being surely accumulated for completing the greatest triumph of preventive medicine by the discovery of an antitoxic serum for the cure of small-pox.

These, however, are to be regarded as merely the first fruits—in some cases requiring further maturing by the light of science—of the ample harvest which is ripening. Their acquisition, at the same time, has been sufficient to supply materials for constructing, in imperfect outline, the doctrine of the toxic origin of disease to which I have ventured to ask your attention. This doctrine has at least the merit of being able to bind together in one harmonious unity the conception of the actual nature or essence of a large number of diseases, including those which most urgently demand consideration. It supplies a simple and intelligible basis for treatment. Under its directing influence it may confidently be anticipated that Medicine will reach a position of definiteness previously unattainable; and, above all, that the healers of disease will have their resources in this beneficent function rendered more effective and valuable for mankind.

MEDICAL PRACTITIONERS IN GERMANY.—According to Eulenburg-Schwalbe's *Reichsmedizinical Kalender*, recently issued, the total number of medical practitioners in the German Empire in 1897 was 24,873, being an increase of 873 as compared with the previous year. They were distributed in the several kingdoms and States of the Empire as follows: Prussia, 14,957; Bavaria, 2,699; Saxony, 1,832; Würtemberg, 835; Baden, 949; Alsace-Lorraine, 731; Hesse, 655; and Hamburg, 519.

ADDRESS IN SURGERY.

BY

THOMAS ANNANDALE, F.R.C.S. EDIN.,
F.R.C.S. ENG., F.R.S. EDIN.,

Regius Professor of Clinical Surgery in the University of Edinburgh;
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*At the Annual Meeting of the British Medical Association at
Edinburgh, July, 1898.*

THE PRESENT POSITION OF SURGERY.

MR. PRESIDENT AND GENTLEMEN,—I desire to join my colleagues in offering you a most sincere welcome to Edinburgh, and I desire also to express the hope that you will all be able to look back upon your visit here as pleasant, interesting, healthy, and profitable both to mind and body.

When asked by a deputation of my colleagues in Edinburgh to give the Address in Surgery I felt that an honour had been very kindly and courteously shown me, but in accepting this offer I also felt that I had undertaken a responsibility—a responsibility which called upon me to speak to this distinguished audience as a representative of Scottish surgery. This responsibility was all the more serious to me, for my friends know well that I am more ready with the knife than with pen or speech, and as my daily life for many years has been to lecture and demonstrate to students as babes entering the profession, I had some fear that I might be offering to you as men and kings in the profession baby's food. My first difficulty was to select a text on which to address you. I might have offered you some of the results of nearly forty years of active hospital and private surgical practice, but I felt that an account of any such results was more fitted for the Departmental Sections. I also at one time thought I might have endeavoured to prove to you, and I think could have proved to you with success, how much Scottish surgeons and Scottish work have assisted in the development and improvement of surgical practice, but with this thought there suddenly came to my mind the old Scotch saying, "Ye'll hae a guid conceit o' yersel," and accordingly I at once dropped the idea of Scottish self-glorification.

After consideration it seemed best to me to take some more general text, and accordingly I decided to offer you a few remarks upon the present position of surgery. It must, I think, be universally acknowledged that the present position of surgery is of the highest. There are now few diseased conditions in which surgery does not play a very essential part in connection with treatment, and there is scarcely a single organ of the body, internal or external, which is not the subject of successful surgical procedure. The brain, the organs of the chest, abdomen, pelvis—many of which were so long looked upon as belonging solely to the province of the physician—are now shared, if not principally absorbed, by the surgeon as regards the relief or cure of their diseases.

It has sometimes occurred to me that on not a few occasions my esteemed colleagues, the physicians, have a strong longing to be surgeons for the time being, in order that they might be able to carry out some surgical procedure which their experience has taught them to be more efficacious than medicine.

For the sake of convenience, and partly also as is known to some here, that a discourse in this country is not considered complete unless delivered under from three to twelve heads, I propose to treat my subject under certain heads. In consideration for your feelings and time I propose to confine these heads to three, the minimum number allowed, and to speak of present surgery in:

- I.—Its Scientific Aspect.
- II.—Its Practical Aspect.
- III.—Its Moral Aspect.

I.—ITS SCIENTIFIC ASPECT.

It must at the outset be acknowledged—and acknowledged with gratitude—that the marvellous advances in connection with present surgical practice are largely indebted to those who have diligently, honestly, and successfully carried on experimental and other research in connection with the sciences of chemistry, physiology, bacteriology, anatomy, and pathology. We, as surgeons, look forward hopefully to receive

the continued aid of these gentlemen in still further promoting our art, and it should be our duty to encourage and assist in every possible way all such scientific work, work which in connection with surgery can only be considered to be in its early infancy, and will require much care, accuracy, and close industry to establish its steady and sure growth.

I would now refer to some of this scientific work which has so benefited surgical practice. To speak of the antiseptic system at the present time is to speak almost of ancient history, but two reasons prompt me to refer to it. First, because it was in this school that its distinguished author carried on those carefully conducted and original researches and experiments which led him to suggest this great principle; secondly, because I have lived long enough to have had experience of three epochs in connection with surgical wounds. As a young apprentice more than 40 years ago I witnessed the dressing of wounds by the application of layers of ointment, the edges being brought together by sutures of thick silk and the arteries secured by ligatures of the same material, the ends of the ligatures being left hanging out of the wound and acting much like setons. As a dresser under the great Syme I learnt the simpler methods of water dressings and of dry dressings, and lastly as a pupil and colleague of Lister I had the good fortune to follow the various stages of the developments of the antiseptic treatment. In the first of these epochs I gained a large experience in connection with septic suppuration, hospital gangrene, pyæmia and septicæmia, all of which conditions were common and frequently led to fatal results. In the second epoch my experience of septic suppuration, pyæmia, and septicæmia was small in comparison, but still too common. In my third and present epoch such experience has been reduced to a minimum.

In the early stages of the antiseptic suggestions failures undoubtedly occurred, but such failures when honestly investigated were important as lessons, and the consideration of their causes did much to establish on a successful basis the great principle. There were some who, ignoring the principle of the antiseptic treatment and also ignoring the established principles of surgery, preached and practised that the mere application of carbolic acid or other antiseptic lotion was all that was required and when such treatment was unsuccessful condemned the whole system.

Let me quote a sentence from an address which I gave when appointed Professor of Clinical Surgery in this University, now twenty-one years ago: "It is not the mere application of carbolic acid in one form or another which constitutes the antiseptic treatment, but the true antiseptic surgery is that which is the result of many years' patient, thoughtful, and scientific research; of vast, laborious, and expensive experiments, and of much and valuable time spent in clinical observation on the part of Mr. Lister."

I confess that I was one of those who, while carefully watching the progress of Lister's work, and thoroughly believing and greatly admiring his great scientific abilities, were at first cautious in accepting all the details of its practical application, because I felt that these were somewhat complicated; and it was certainly a great relief to my mind and to the minds of many others I am sure, when it was found that in actual practice many of these details could with safety to the principle be much modified and simplified; and further, I had learnt from experience that even with the use of antiseptic treatment the ordinary principles of rest, avoiding causes of irritation, and attention to the general health must not be ignored. I know that no one rejoiced more than Lister himself when it was proved that his great system could be successfully simplified, and so used under circumstances which formerly made it difficult or impossible to carry out.

But while the external application of antiseptic means and precautions is now thoroughly established upon a simple, and at the same time efficient, basis, it must not be forgotten that injurious organisms enter the body and tissues by other channels than through external wounds or breaches of surface; and therefore it is that the science of bacteriology becomes so important a study in connection with disease, and with the results of injuries and surgical procedures. It is to a further study and knowledge of this science—which must be considered as still in its infancy—that surgery as well as medicine looks for more light in connection with the causation and treatment of diseased conditions.

Although experimental and pathological research and clinical observation have already done something to explain and determine the action of certain organisms, the particular manner in which these organisms cause in one case no result, and in others injurious results, cannot be considered as proved.

We certainly have learnt certain facts: first, that organisms of various kinds gain entrance into the tissues or organs of the body; secondly, that some special condition of these tissues and organs favours their development and multiplication.

Such organisms vary much in form, source of origin, situation where chiefly met with, conditions under which they develop or are destroyed, and the special effects which they produce. In the majority of instances the bad effects are produced not so much by the multiplication of the organisms themselves as by poisons or toxins caused by their presence or behaviour in connection with the tissues. Further, it would appear that the resulting toxin may not itself produce the poison, but give rise to chemical changes and products which are the real cause of the injurious results. It is also an interesting fact that the presence of more than one form of bacillus may either increase or destroy these injurious results.

The conditions of the tissues or soil in which the organisms settle has much to do with the results caused. Individualism, age, constitution, general condition of patient, and any local condition, more particularly any condition which interferes with the vitality of the tissues, influence much the action of organisms.

The resistance of the tissues to the injurious effects of organisms depends upon the condition of these tissues, upon the activity of the organisms, and upon the amount and virulence of the toxins develop. It appears that it is the spores of organisms which most resist destruction, and as these spores may germinate not only in the tissues, but outside the body, they act as a serious source of infection.

From the facts I have just stated it will be judged what difficulties arise in connection with the study of bacteriology, and consequently with the treatment of the injurious results produced by the numerous organisms which invade and affect the human body. Bacteriological experiments upon the lower animals may in some instances aid us, but the conditions of the lower animals are not always the same as those of human beings, and therefore results obtained in the former are not always safe guides as regards results in the latter.

Continued careful study of anatomy and pathology and accurate clinical observation should do something to increase our knowledge, but I venture to think that much of our future trust for light must be in connection with physiological chemistry, which we hope may be able to teach us more of the origin, causation, and behaviour of the various toxins, and of the action of the tissues in connection with them, so that we may be able to counteract their injurious effects by appropriate treatment.

At the present time we endeavour to treat the general effect of these toxins, either by the administration of remedies supposed to produce a general antiseptic effect—but it cannot be said that such treatment has proved satisfactory except in a limited number of cases—or by the introduction into the tissues by subcutaneous injection of so-called antitoxins. This latter treatment has met with an encouraging amount of success, especially in certain directions; but its position is still uncertain and much further experience is required to place it on a safe and reliable foundation. All who have employed the antitoxins in connection with surgical conditions must have encountered this uncertainty as to their action. My own experience is that, though some severe cases of septicæmia have recovered after the injection of an antitoxin, other cases very similar have recovered without any antitoxin being used.

I would suggest that another important subject for further study is the physiological action or connection between one tissue or one organ and another. May not further experience of this connection help us in carrying out treatment based upon this connection? Take, for instance, the suggestion of Beatson for removing the ovaries in cancer of the female breast, incurable by other means. Having thought it my duty to test this suggestion, I carried it out in three typical cases, and my experience and the experience of others who have

tried this procedure has been that, though the disease was not cured, the removal of the ovaries had certainly some influence upon the diseased local condition.

I venture also to suggest that as a possible and further addition to treatment some more careful work should be devoted to the action of drugs upon the toxin poisons, such drugs being introduced either by the mouth, by subcutaneous or intravenous injection, or by inhalation. We know that large quantities of saline fluid may be injected into the veins with safety, and it is therefore not unreasonable to suppose that other solutions of a non-irritating and antiseptic nature may be similarly employed.

The remarkable results obtained by thyroid extract should be an encouragement to us in this respect, and it has already been proved that certain vegetable products act as powerful antitoxins. If it can be discovered that certain drugs can be safely and successfully used as antitoxins it will much simplify our treatment, for such remedies would be more easily and more certainly handled than the antitoxins now in use.

The treatment of sarcoma or other new growths by means of toxins is another subject of great interest to the surgeon. The results obtained by Colley and others by the mixed toxins of streptococcus and prodigiosus do show some hopes, for under the use of these toxins growths have undoubtedly disappeared, but I think that all who practise surgery will agree with me when I say that sarcomas and other growths do occasionally undergo a check in their development, and even disappear without any apparent cause. In all probability these occasional occurrences are the result of some physiological or bacteriological action which is not perceptible.

Reference to the scientific aspect of surgery would not be complete without some notice of the "new photography." Ordinary photography has always been of great assistance to surgeons, and will continue to be so for the illustration, progress, and record of many of their cases, but its new and latest development has already proved to be of the greatest service in diagnosis, and consequently in connection with successful treatment, and an improved development of it will no doubt add still more to the success of surgical practice. The scope of this department of science is a very wide one, and by its means we may add much to our knowledge of osseous development and growth, of the relation and position of internal organs, and of the actual condition of diseased parts. In connection with many surgical conditions, and especially in connection with injuries of various kinds, this photography is invaluable.

In leaving this, the scientific, portion of my address, I desire again to express the indebtedness of practical surgeons to those discoverers and workers in science who have by their honest and accurate observation obtained results which have done so much to improve our practice and so render our treatment more successful.

II.—ITS PRACTICAL ASPECT.

To one like myself who, as apprentice, student, and surgeon, has for more than forty years followed the practice of surgery, its steady and remarkable progress is a most interesting study. In watching this progress it not infrequently appeared as if perfection in some particular procedure had been reached, but a little more experience or a little more observation gave rise to a suggestion which entirely drove the so-thought perfection from the field and opened up a new and important practice with resulting benefit to suffering humanity. There are few surgical procedures which have not undergone some change and marked improvement since I first commenced the study of surgery, and the number of new procedures suggested would require many pages even to enumerate them. While not a few of these suggestions have become established in practice, many others, being founded on incorrect or ignorant principles, have perished, and deservedly so. To myself and to others it has often been interesting to observe the gradual development of some procedure or treatment; a suggestion made by one surgeon would lead to an improved suggestion by another, and this process of improvement might again be taken up by a third or fourth, until at length its thorough success was established. My Scottish modesty prevents me referring to work of my own, but it will always be to me a feeling of satisfaction that in connection with my very special

opportunities for experience in surgical practice I may, in some small way, have been able to assist in adding to or originating such suggestions and improvements. I know I shall be excused if I here refer to the fact that to the great Syme I owe my opportunities for the study and practice of surgery, and it was in connection with my intimate association as his assistant for more than ten years that I learnt how to attain and how to exercise the qualities which are the essence of good and honest practice. Another personal incident I may be allowed to mention is, that as a baby I once rested in the arms of the great surgeon Liston, who was the favourite chief of my father, and although at that time I received no bodily nourishment from him, in after-life I obtained much surgical nourishment from the study of his writings and work.

The advances in our scientific knowledge, combined with extended and more accurate clinical observation, have, as has already been stated, assisted much in the improvement of practical surgery, and the development of what I would designate honest specialism must also be looked upon as adding to our practical resources and treatment.

If asked to define any special characteristic which will apply to the practice of surgery at the present day, I would be inclined to say simplicity—antisepticity of course being granted—a simplicity in which is included operative procedure, instrumental assistance, and after-treatment. It is true that from time to time new procedures and new instruments are suggested, but as a rule it will be found that if practical surgeons adopt and employ them they are in the direction of continued simplicity with some addition to their efficiency.

In a general address such as this a reference to all the improvements which have taken place, and are taking place, is quite unnecessary, as such improvements must be well known, or should be known, to all who desire to carry on with success the active practice of surgery.

For such knowledge we have not only our own experience to aid us, but we have to thank the medical press and the many distinguished authors who by their books and papers bring the results of their own experience and observations and researches under the notice of the profession.

Although so many and so great changes have taken place as a result of the advances in the departments of science already referred to, it would be very wrong to ignore the work of those surgeons who are no longer with us. Many of these surgeons showed a knowledge and wisdom and forethought of conditions and procedures which have stood the test of time, and still remain sound and correct as monuments of their genius. This knowledge was principally the result of shrewd and careful clinical observation and reasoning, for they had little or no scientific aids to help them, and their success under such circumstances should be an example to all of us to make every use of our clinical opportunities, and to observe closely, carefully, and honestly.

But the practice of surgery has not only reached a high standard of improvement, but it has much widened its area both as regards the number of its procedures and the number of those who practise them. This is scarcely the time or place to discuss the exact relationship between surgery proper and what is called gynæcology. Of late years these departments have been gradually merged into one another, so that the line of demarcation between them is scarcely apparent. Both are really surgical procedures, and both require for their proper and successful performance that training and those qualities which make the good surgeon. That physicians under the designation of gynæcologists should now become operating surgeons is perhaps only a little return for the fact that surgeons have so extensively and successfully invaded the province of physicians, and as time goes on some balance may perhaps be arrived at which, while guarding the interests of the public, will satisfy the representatives of medicine and surgery.

In this greatly-improved era of practical surgery it is well perhaps to suggest a caution, for there is undoubtedly a tendency—and more especially in the case of some of our younger colleagues—to be too ready to resort to surgical procedures. When greater risk was attached to operative procedures, surgeons young and old had for the sake of their patients and their own reputations to take into account these

risks even in comparatively slight operations; but now that so little risk attends operations, they may be undertaken without due consideration of all the circumstances or necessities of the case. I would as a senior colleague venture to remind my younger friends that Nature, with perhaps some little non-operative treatment, will do much, and that no operative procedure should be suggested or practised until the case has been thoroughly studied and found to be unrelievable by other means.

As a practical surgeon in this, the Edinburgh, School of Medicine, it may be expected that I should refer to my experience of anæsthetics, and I accordingly express the opinion that chloroform holds the field as the best general anæsthetic in connection with surgical procedures; and although I have met with a few fatal results from its administration, I have most thorough confidence in its safety if carefully used and its effects diligently watched. Perhaps the best test of my confidence is the fact that having a few years ago suffered from a poisoned finger received when operating, I required to take an anæsthetic on several occasions in order to have deep incisions made for the relief of extensive supuration. The anæsthetic I took was chloroform, and it was administered according to the "open" method by one of my assistants and not by any special anæsthetist.

It is my opinion that fatal results will occasionally take place in connection with all anæsthetics, and that these fatal cases may be divided into (1) avoidable, (2) unavoidable. The avoidable ones are those which are due to careless administration, or to neglect of means to prevent blood or other matters entering the air passages, and should not occur if proper care is exercised. To avoid these risks it is essential that one person should give sole attention to the anæsthetic and watch both respiration and pulse, more especially the respiration and its nature, during the whole period of its administration. I need scarcely say that the preparation of the patient before the anæsthetic is employed is, when possible, important. I prefer to give a small basin of plain soup about two hours before the chloroform is administered, and if the patient is feeble, or the operation likely to be attended with much shock, a tablespoonful or more of brandy or whisky a quarter of an hour before the anæsthetic. In cases in which there is a risk of matters, and especially of blood passing into the air passages, the dependent position of the patient's head, as advocated by me in 1879, will often prevent this accident, and, should it take place, immediate tracheotomy must be resorted to if the symptoms are serious.

The unavoidable cases are, in my opinion, the result of heart failure from fatty or other conditions, and occasionally I believe they may be caused by cerebral conditions, as I have seen a fatal case in which the symptoms resembled most an epileptic seizure. Further, I believe that in the majority of these unavoidable cases it is impossible by any external examination prior to giving the anæsthetic to discover the condition which has led to the fatal result. I am inclined to think that the avoidable accidents are more frequent than the unavoidable, and if so it teaches us how important it is to avoid, by careful preparation and administration, anything likely to bring about an unfavourable result.

I would like here to give a word of warning as to the use of cocaine in local anæsthesia, and more particularly when it is used by subcutaneous injection. My experience is that some individuals are specially susceptible to its action, and therefore, if too strong a solution or too large an amount of a weaker one is injected, the result may be faintness and serious interference with heart action. It should therefore be used cautiously, and a stimulant be given, or be at hand in case of such symptoms occurring.

Not wishing to weary you, I close my remarks under this head by referring to the importance of taking carefully into consideration everything likely to influence the performance or result of any surgical procedure, and when possible to first remove by proper treatment conditions likely to interfere with or to retard the recovery of the patient. It is not age or apparent feebleness which is likely to cause anxiety, but it is the condition of the organs and the tissues which should guide the surgeon, for if these be in a weak or in a diseased state they are more likely to become the soil for injurious bacteriological development and action.

III.—THE MORAL ASPECT.

I make no apology for offering a few remarks under this head, with the explanation that I employ the term "moral" in its highest and widest sense, for I am decidedly of opinion that it becomes every member of our profession who has the true sense of relieving suffering humanity at heart, and who desires to maintain the honour and reputation of his profession, to speak out with no uncertain meaning in regard to every action which is dishonest or dishonourable or tends to be so. The actions and practices of so-called quacks or unqualified individuals are much to be deplored, and it is in every way desirable that legalised checks should be established so as to prevent or limit them, and more particularly in the case of the ignorant and uneducated public. If the educated public consult such practitioners—and it is not very uncommon for them to do so—they can only blame themselves should unfortunate results take place.

It is, however, of practices inside the profession of which I wish to speak. It is sincerely to be regretted that in some quarters the true, honest, and high feeling which should be the standard principle of the members of our profession is in the present day partially or wholly ignored, and in consequence our profession is not always respected as it should be and its members are looked upon by some as mere humbugs, in some cases not without reason, thinking more of fees and fee accumulations than of their patients' cure or relief.

Three causes seem to me to influence this much-to-be-lamented evil which has insidiously invaded our profession—1, Active competition; 2, untrained specialism; 3, society demands.

There can be no doubt that the number of medical practitioners has increased, but in connection with the increase of the population this increase in numbers is not so great as is generally supposed. A few years ago I selected statistics in connection with this question, and taking some of the largest provincial towns in England and Scotland, I found that the number of medical men as compared with the population was very little changed from what it had been twenty years before. The active competition, therefore, is in my opinion not so much due to the increase of medical men as to the fact that in many instances most of the remunerative work is done by a few, which leaves much hard work and poor pay for the remainder of the profession. My suggestions for the cure of this are that those who constitute the few should be specially careful to guard and encourage the interests of the many; should not seek to secure every remunerative appointment within their reach, but should at least leave some crumbs for their less fortunate brethren.

The second cause is untrained specialism. I have already stated that honest specialism has aided much the practice of surgery, and by honest I mean such practice as is founded upon a thorough knowledge of all the different departments of the profession, and upon an honest study of all the circumstances connected with the various conditions which affect the organ or organs which are specialised.

Specialism in the hands of qualified members of the profession, unless practised under these conditions, is simply quackery, and quackery of the worst kind, for it is carried on by those whom the public understand to be properly educated as regards their profession. There are few who endeavour to practise their profession with integrity who have not met with cases in which mere symptoms have been treated by operation or otherwise, the real source of the diseased condition having been entirely ignored, either through ignorance or for reasons which can only be classed as contemptible and degrading to the profession. The cure for such practices is not easy, and it can only be hoped that the honest members of the profession will note such practices, and endeavour to check them by exposing their real nature, and by endeavouring with tact to educate the public mind to avoid those who practise them as unsafe and possibly dangerous advisers.

The third cause is society demands. A section of the public, or I should rather say a section of what is termed "society," has done much to interfere with the proper feeling which should exist in our profession.

Men, women, and even young people read and discuss professional matters and diseases; books are published and advertised which are written more to catch the eye of the public

than to advance the knowledge or reputation of the profession; a certain class of newspapers and periodicals devote one or more columns to professional subjects, and even give gratuitous advice in the form of "Questions and Answers." The manners, qualifications, and doings of members of the profession are freely criticised at afternoon teas and other entertainments. One man is condemned, and some supposed failures in treatment are magnified or invented, while another receives extravagant praise, and many of his wonderful surgical or other procedures are lauded, and not infrequently described with marvellous details added. One is glad to think that in the majority of instances the surgeon or specialist has no art or part in such proceedings; and having, with justice, confidence in his abilities and upright conduct, much regrets that they should exist, and does all he can to prevent their occurrence. But there are some, I fear, who take advantage of such extravagant popularity, and, having become the fashion, trade upon it in a manner which is not consistent with the high feelings which should influence all our professional relationships. It is fortunate that there still exists among the public in all classes of society many who are endowed with Nature's nobility and good feelings and who are not influenced by the extravagant or false opinions of fashion, but who have both respect and esteem for those members of the medical profession who conscientiously devote themselves to the relief of suffering.

We can all hope, but I fear hope in vain, that those members of society who lead a frivolous, useless, and sometimes unholy life may some day realise that they are not acting as true citizens of their country or taking any proper interest in the welfare of their countrymen and countrywomen.

If some of their energies, some of their time, some of their sympathy, and some of their money were employed to assist their fellow-creatures, they would themselves reap reward by feeling that their lives were not altogether a selfish existence.

If any member of our profession encourages or takes part in society's ignoble life or actions, he is not worthy to belong to the profession, and he certainly does not add to its reputation.

In conclusion, Mr. President and Gentlemen, I wish to thank you all for the patient and kind manner in which you have received my address, and more particularly because I feel that I have not been able to offer you anything that is new or original.

I would also wish to express how great a pleasure it has been to me to meet so many of my distinguished and representative colleagues. We are all labouring in the cause of our noble profession, and it becomes all of us to join hands and to assist and sympathise with one another so as to advance our science and art, and in this way increase our power for the cure and relief of humanity.

ITALIAN MEDICAL CONGRESS.—The Italian Society of Internal Medicine will hold its ninth annual meeting in Turin at the end of September. Professor Guido Baccelli will preside. The subjects proposed for discussion are Blood-Letting; Organotherapy; Advances in Diagnosis and in General Therapeutics. A large number of communications on subjects of present interest have been promised. Owing to the fact that general exhibitions—in which medicine in its present and also in its historical aspects is largely represented—will be open, and that surgical, ophthalmological, hygienic, and other special Congresses will be held at the same time, the forthcoming meeting promises to be of exceptional interest. Further information can be obtained from the General Secretary, Dr. E. Mangianti, Via S. Francesco da Paola 4, Turin.

MEDICAL MINISTERS.—The new French Cabinet includes a member of the medical profession in the person of Dr. Viger, the Minister of Agriculture. Dr. Viger held the same portfolio in four previous Governments: Dupuy (1893), Casimir Périer (1893), Dupuy (1894), and Bourgeois (1895). It is interesting to note that M. Peytral, the Minister of Finance in the present Cabinet, is a pharmacist. In Italy Professor Guido Baccelli is now again Minister of Public Instruction, a post which he held in the Cairoli and Depretis Governments (1880-1884), and afterwards in that of Crispi (1893-1896).

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF MEDICINE

At the Annual Meeting of the British Medical Association at Edinburgh, July, 1898.

By GEORGE W. BALFOUR, M.D., F.R.C.P. EDIN.,
LL.D. EDIN. & ST. AND.,

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PERSONAL EXPERIENCE OF AN ALMOST FORGOTTEN EPISODE IN MEDICAL HISTORY.

In saying a few words of introduction from the Chair of this Section, over which I have the honour to preside, it has struck me that a few words from personal experience in regard to a now almost forgotten episode of medical history might prove both interesting and instructive. There are not many now alive who remember the time when bloodletting was the panacea for almost every ailment, and when patients could be no longer safely bled they were certainly leeches and cupped. There must be few survivors of the time when one of the earliest lessons in surgery was to distinguish between an ordinary blood clot and one which was bled and cupped, or who were taught that in uncomplicated pneumonia such confidence was to be placed in bloodletting that "the only essential action of the prognosis was the day of the disease on which the treatment was commenced," as it sometimes failed when delayed more than two or three days from the commencement of the disease.¹ Yet such were the earliest lessons in medicine which I received, lessons which were daily exemplified in the wards of the old Royal Infirmary.

When within a year of my graduation I made my way to Vienna with the view of studying homœopathy, which had just made a convert of one of our ablest professors (Henderson), I occupied my time at first in improving my knowledge of percussion and auscultation under the world-renowned Dr. Joseph Skoda, and you may imagine my astonishment when I found that in his wards the severest cases of pneumonia were treated with poultices and regulated doses of extractum graminis (hay tea), and with nothing else unless much pain was complained of, when a few grains of Dover's powder were superadded.

It was truly astonishing to behold in bewildered amazement a pneumonia melting away under the magic influence of the decillionth of a grain of phosphorus, but it was indeed a *reductio ad absurdum* to find this magic influence emulated by the virtues of hay tea, and to be told by Skoda that pneumonia was a disease which tended not to dissolution but to resolution.

The *'ομοιον πάθος*, known to Hippocrates as one of many theories available to guide and to explain the treatment of disease under certain circumstances, was raised to a paramount position by Hahnemann, who enunciated the doctrine that by it alone could disease be not only cured *tuto, cito, et jucunde*, but silently and at once extinguished. In this respect homœopathy was the eighteenth century analogue of our modern antitoxin treatment. Remedies were selected not for any healing virtues they were supposed to possess, but because of the power they were believed to have of exciting a disease similar to that they were supposed to cure. A crude dose of such a remedy could not, as you may well suppose, benefit a patient, but by superadding a medicinal disease to that he already suffered from was bound to make him worse. This was called medicinal aggravation or exacerbation, and, to prevent any risk of this, Hahnemann invented a most elaborate system of preparation by which all the noxious qualities of the drug were gradually removed and nothing but its healing virtues left. The first step in this preparation was necessarily dilution, by which the active and noxious properties of the drug were gradually eliminated; at the same time by a series of rubbings and handshakings the already spiritualised remedy had its dynamic power so developed, that, when administered in a fitting dose, the disease for which it was appropriate melted quietly away without any previous exacerbation. In spite of all this elaborate care, and in spite of the terrors of medicinal aggravation for