

"Intelligence," says Herbert Spencer, "is the adjustment of the inner to the outer relations." If, then, the outer relations become more numerous, complex, and heterogeneous, the process of adjustment must become proportionately more difficult and hazardous. And our outer relations have surely grown numerous, complex, and heterogeneous in modern times. Our environment has grown varied and intricate; and our environment it is that contains these conditions of modern life, which, acting upon complex and subtle nerve-centres, cause our increased nervousness and increased liability to nervous disease. On every class, and on all ages, the pressure of modern life puts a severer tension. Competition waxes keener; the struggle for existence grows more exciting; and that this struggle involves danger is certain, for statisticians tell us that annuitants, clergymen, and the well-to-do classes who have to take no thought for the morrow, live longer than shopkeepers, artisans, and labourers, who have to contend for daily bread. In this struggle men find it to their advantage to crowd into towns, and Mr. Bright looks forward to a gradual diminution of the rural, and an increase of the urban, population. Well, it is in towns that nervousness and nervous diseases most abound, their growth being encouraged apparently by the excitement of town-life, by the absence of the refining and tranquillising influences of nature, and by the relaxation of those social restraints which conduce to rectitude of conduct in villages and small communities.

Address

DELIVERED AT THE OPENING OF THE SECTION OF OBSTETRIC MEDICINE,

*At the Meeting of the British Medical Association in
Cambridge, August, 1880,*

BY W. S. PLAYFAIR, M.D., F.R.C.P.,
PRESIDENT OF THE SECTION.

GENTLEMEN,—The majority of you are doubtless engaged in the active practice of the profession in all its branches; and I may confidently appeal to you to say whether the subjects coming under this Section do not only form a large part of your daily work, but, if it be not the case, that they give rise to more anxiety, and involve a deeper sense of responsibility, than perhaps any other part of your calling. If this be so, I hope you will agree with me that it is a matter of urgent importance that sufficient attention should be given in our medical schools to the training of those who are about to enter the ranks of the profession in subjects which form so large a part of their future work. Unfortunately, there is a universal consensus of opinion on the part of those who are best qualified to judge on this point—that is, those who are responsible for the teaching of midwifery and its cognate subjects—that the present arrangements of the examining boards are lamentably inadequate for the purpose. I do not think that I am entering on topics inconsistent with the work of this Section if I say a few words on this question. It is, indeed, only by bringing the defects that exist in our present course of education as regards the teaching of obstetric medicine prominently before the profession, and thus ventilating and agitating this important topic, that any real reform can be hoped for. It so happens that those who are responsible for the arrangement of our curricula and for drawing up our schemes of examination, have themselves no practical knowledge of the subjects, and may fairly be assumed to be entirely ignorant of the enormous strides that obstetric medicine has made since they themselves were students. The General Medical Council, and the board for preparing a scheme for conjoint examination, do not contain any practitioners who are specially devoted to the teaching or practice of obstetrics. There are on these bodies many eminent surgeons and physicians, but not a single obstetrician; and it is not, therefore, surprising that our special subject should be entirely neglected. I can give you no better evidence of this assertion than the fact that in the scheme of study recently prepared by the delegates of the

various examining bodies, in which it was proposed to remodel the present curriculum, while only forty lectures, extending over three months, were devoted to the whole vast subjects of midwifery, the diseases of women, and the diseases of children, two separate courses of six months each, were rendered compulsory for what is called practical medicine and surgery; that is, the examining of urine, the use of the microscope, bandaging, and the like—all very useful, no doubt, in their way, but which it is simply ludicrous to compare for a moment to the subjects coming under the head of obstetrics. Nor can it be pleaded that this neglect in giving effect to an urgently needed reform is the result of ignorance of the requirements of obstetrics; for the strongest possible representations have been made to those in authority. In 1868 all the teachers of midwifery in the metropolis signed a memorial to the General Medical Council, setting forth how impossible it was for them to do justice to their subjects in the short course of lectures allotted to them; in 1869 a deputation from the Obstetrical Society of London waited on the Home Secretary for the same purpose, and that body has memorialised the General Medical Council twice, in 1868 and 1879, and all without avail.

Now, what is the practical outcome of the existing state of things? Of course, medical students naturally devote themselves with most ardour to those branches of education which they are led to believe are most important, and, when they find obstetrics and gynaecology relegated to a summer course, they very reasonably suppose that they can well afford to neglect them. Moreover, those who do follow the teaching of their professors with some degree of attention have only a garbled and mutilated epitome of midwifery proper presented to them; for what human being can possibly accomplish the impossible task of doing more than that in forty lectures, while gynaecology cannot even be alluded to? It is really lamentable to think of the hundreds of men who are launched into the daily work of practice with such preparation as this, and of the infinite suffering and misery which their ignorance, for which they cannot fairly be held responsible, may cause. To those on whom is imposed the impossible task of teaching midwifery under such conditions the question is of vital moment. We may remonstrate; we may disclaim responsibility; but the fact remains, that we are the men to whom the students look for instruction. And when, being men with consciences, we reflect on the risk to life and the damage to health that may follow, we cannot, I am sure, but feel it to be our duty to protest as strongly as we can. It was only the other day that the Fellows of the Royal College of Physicians, assembled in Comitia, found it necessary to complain of the ignorance of the candidates who applied for the College licence on topics connected with practical obstetrics. I have had the honour to examine for that licence, and I know that the complaint was not unfounded. But what remedy did they suggest? It is hardly credible, but it is a fact, that all they proposed was to issue a circular to the teachers of midwifery, begging them to pay more attention to the teaching of obstetrics; while at the same time they rejected a motion, proposed by Dr. Barnes, and seconded by myself, that they should recommend an extension of the period of instruction to six months. In the face of the repeated assertion of the metropolitan teachers of midwifery that they could not possibly teach their subject in the time allotted to them, such a circular was a manifest absurdity, and could have no possible effect but that of demonstrating the ignorance of those who proposed it.

I do not think that a meeting such as this can do anything to enforce the needed reform; but the opinion of the profession at large is, beyond doubt, a great power; and therefore I have ventured to trespass on your patience by referring to this topic, since it is one which must interest you all, especially such of you as have sons or relatives who are to follow your steps; and I feel confident that, if due pressure be applied, both to the examining bodies and by your individual advice to the members of the Legislature with whom you may have influence, in the new scheme for conjoint examination which must ere long become law, the due claims of obstetrics will no longer be so unfairly overlooked as has hitherto been the case.

And now, gentlemen, having ventilated a pet grievance of my own, I shall not occupy your time further by any introductory remarks on the work before us. You will, I am sure, agree with me that the Section is peculiarly fortunate in having Mr. Spencer Wells to introduce that on gastrotomy.

Only a few weeks ago he performed his thousandth ovariectomy; and, having accomplished that astonishing feat and won for himself undying fame as the practical father of abdominal surgery, he may well turn his energies into a new direction, and reap fresh laurels in developing a comparatively new and untried branch of operative skill. It is not to be expected that an operation requiring so much manipulative dexterity can ever be widely performed; nor are the cases in which it is even to be contemplated of anything like the frequent occurrence of those requiring ovariectomy. Still, it is a matter of primary consequence that its indications, risks, and methods should be thoroughly and closely studied; and I anticipate that the discussion about to be commenced will naturally increase our knowledge of the subject.

The second topic we have selected for discussion is of scarcely less interest, and, bearing in mind that it treats of the best means of dealing with emergencies that may happen at any moment in the practice of anyone of us, of still greater practical importance. I know of nothing in practice more trying, and more requiring cool judgment, than a sudden and severe attack of post-partum hæmorrhage. Fortunately, modern science places at our disposal means of arresting hæmorrhage and of obviating its effects, such as the injection of styptic solutions, the use of hot-water irrigations, and the hypodermic injection of ergotin and sulphuric ether, which were unknown to our predecessors, and with regard to which much remains to be learnt.

In addition to these subjects of debate, we have a superabundance of most valuable and interesting papers on questions of great importance.

ON THE ANTI-MALARIAL ACTION OF THE CHINCHONA COMPOUNDS.

By T. J. MACLAGAN, M.D.

(Concluded from p. 215.)

THE theory of the mode of production of any disease which most commends itself to us, is that which best explains the whole of its phenomena. The view that malarial poisons are minute organisms is the only one which seems to afford even a reasonable explanation of the natural history and course of the fevers to which they give rise. It is with reason, therefore, that we accept the view that such is the nature of the poisons of intermittent and remittent fever.

The chinchona compounds cure these fevers. How do they do so?

There are two ways in which the curative effects of quinine in ague may be produced: either the quinine may so act on the system as to render it insusceptible to the action of the ague poison; or it may so act on the ague poison as to deprive it of its power of affecting the system. In other words, the action of quinine is either on the system, or on the poison. Let us inquire which it is. And first let us take its action on the system.

Quinine in large doses (10 to 30 grains) possesses in a remarkable manner the power of lowering the temperature of the body when unduly elevated. How it exercises this power is not known.

It has been supposed to be due to a special action of the quinine on the nervous centres: and if we recognise the existence of a special thermic centre regulating the distribution of heat, as the vaso-motor centre regulates the distribution of the blood—a supposition in favour of which much might be said—this explanation is to be regarded as a very feasible one.

Binz thought that this effect of quinine was to be explained by its lessening the ozonising power of the blood, and so checking oxidation. All that we really know, and all that concerns us at present, is that quinine in large doses lowers febrile temperature. What we have to consider is whether or not its curative effect in intermittent fever is due to this property, or to some other and special remedial action.

In virtue of its febrifuge properties quinine has been administered in all febrile ailments. It was at one time claimed for it that it possessed the power of cutting short typhus. More recently it has been claimed for it, as for other febrifuge remedies, that it exercises a distinctly cura-

tive action in typhoid fever, and shortens the duration of that malady. But this conclusion is not supported by the evidence.

There is no proof that quinine either shortens the duration or lessens the danger of either typhus or typhoid fever, or that it exercises a distinctly curative and curtailing effect in any other form of fever than intermittent and remittent.

The point is one which could be easily proved, and would long ago have been proved had the facts been as some have stated them to be.

I have frequently given quinine in large doses in all febrile ailments. My experience entirely coincides with that of Murchison, who says, with reference to both typhus and typhoid fevers, that he had "seen no evidence that at whatever stage it was given it shortened the course of the disease or diminished its danger."

With the exception of the external application of cold, quinine given in large doses is the most powerful febrifuge remedy we possess. There is probably no febrile ailment in which it would not pull the temperature down. But in every such ailment, except intermittent and remittent fevers, this depression is temporary. While the temperature is lowered by quinine, the morbid process which constitutes the disease still goes on; by and by the anti-pyretic effect of the drug passes off, and the disease runs its course uninfluenced by what has taken place.

So it is with all the continued and communicable fevers. Quinine has no power to arrest their course. Where there is trouble or danger from mere elevation of temperature, it may do good by lowering this; but there its usefulness ceases.

In intermittent fever the case is very different. Here the quinine actually cures. It puts a stop to the whole morbid process, and all that constitutes the disease; and it does this so constantly, so speedily, and so certainly, and its beneficial effects are so lasting, that one cannot fail to see that they are altogether peculiar, and altogether different from those got from its administration in other febrile ailments. That the action of quinine in arresting the course of intermittent fever is not to be explained solely by its febrifuge properties is further shown by its power of preventing such fever. Given during the intermission, it prevents the fever from coming on. Taken regularly by those living in malarial districts, it prevents them suffering from the action of the poison of intermittent fever. It exercises no such action in any other febrile ailment.

Besides its febrifuge property, quinine possesses no other special action on the body by which its curative effect in ague can be explained. This property does not account for its remarkable power of arresting the progress, and guarding against the occurrence, of that disease. We are thus forced to the conclusion that the curative effect of quinine in intermittent fever is not to be explained by any action which that drug exercises on the system.

The only alternative view is that it acts on the poison of intermittent fever, and deprives it of its power of affecting the system. There are two ways in which quinine might deprive the ague poison of its morbid action: it might supply to the poison the second factor requisite to its propagation, and so prevent it taking this from the system; or it might simply destroy the poison. The first is extremely unlikely. Indeed, it is difficult to find anything to say in support of it, except that it is possible. It is not at all certain that such an action might not be accompanied by considerable disturbance. But even if it were not, it could scarcely result in a cure of the disease. It would simply lead to the continued development of the ague poison during the whole period of the administration of the quinine, and to an outbreak of the disease when the drug was stopped. For the large quantity of poison which, on this view, would necessarily exist in the system at that time, would find there the material necessary to its growth and propagation, and consequent morbid action, just as it would have done had quinine never been given.

The view that quinine acts by destroying the malarial poison has much more to commend it. Regarding this poison, as we do, as a minute organism, there is nothing improbable in the view that quinine should exercise a destructive action on it; for we know from the elaborate investigations of Binz that quinine possesses in a remarkable manner the power of destroying many minute organisms, and arresting processes dependent on their growth and propagation.

It thus consists both with what we believe regarding the ague poison, and with what we know of the action