

above-mentioned case. These colonies became more abundant twelve hours later.

Microscopically the organism was found to be a micrococcus arranged in clusters. The micro-organisms were Gram-positive.

THE PROPOSED CORONERS BILL.

BY

JOSEPH GRIFFITHS, M.A., M.D., F.R.C.S.,
SURGEON TO ADDENBROOKE'S HOSPITAL.

THE following has been written in the hope that it may help to formulate opinion in the medical profession upon the proposed Coroners Bill, which, it appears to me, demands from medical men a close study as to its provisions and a clear insight as to its probable effect upon them, the public, and the State.

In spite of the fact that the proposed Coroners Bill was accepted, approved, and, one might almost say, blessed, at the last Annual Meeting of the British Medical Association held in London, it may be well, now that there will of necessity be some time to wait before it can be presented to the Houses of Parliament either in its present or in an amended form, to review its main provisions, and to see how they would alter what is the present custom and how they would affect the doctor.

This proposed bill naturally divides itself into two parts—namely, the one which deals with the coroner, his appointment and function; and the other which deals with the certification of death.

The first part of the bill may be dismissed with only a reference to the conditions of appointment of a coroner, for that is the only part that intimately concerns us.

It is generally well known that medical men have from time to time expressed their dissatisfaction with the way in which some coroners interpret their duties, and with the inefficiency of some owing to a lack of even a rudimentary knowledge of medicine. As is well known, a coronership need not be confined to the members of the two professions of law and medicine, for any one with sufficient knowledge, if adjudged a fit and proper person, may be appointed. In practice, however, this old office is now held either by a doctor or a lawyer—in the majority of instances by a lawyer—and the appointment once made is for life.

Medical men maintain that a coroner should possess not only a rudimentary knowledge of medicine, but a considerable acquaintance with it, because the work is often of such a nature that it can only be properly interpreted by a medical man, and that all a man with such a training requires is an elementary course of instruction, not in law, but in dealing with evidence and how to sift it. A lawyer thinks his knowledge of law is all that is required, and that any medical evidence he may need will be forthcoming by the summoning of a medical man to attend. Now, in the proposed bill the appointment is to be given to a barrister or lawyer of five years' standing or to a doctor with a degree in law, or one registered as a barrister or lawyer. The law man's attitude is upheld—the doctor's is disregarded. The doctors' complaint about coroners was and is now made, not in their own interests, but in that of the public. Our suggestion is that all coroners under the present régime—be they lawyers or barristers—should possess before appointment at any rate an elementary knowledge of medicine in all its branches; but the lawyers have up to the present prevailed, for what is in the bill amounts practically speaking to this—all coroners must be lawyers or barristers, and if one be a doctor in addition, all well and good. The doctor, who has almost invariably during the history of this important office made an exemplary coroner, is in the future to possess either a degree in law or be a barrister or lawyer. The barrister or lawyer has only to show he has been in practice for a period of five years, whereas the doctor must, in addition to his professional attainments, gain a degree in law—perhaps the easiest way to qualify. Thus an additional burden is thrown upon the doctor and practically none upon the lawyer. The doctors confess in their innocence a knowledge of law would be of advantage to them in acting as coroners, but the lawyers are self-sufficient, and consider themselves quite equal to the work, even if they be

ignorant, as some of them can be, of any medical knowledge. If the medical profession be content with the proposed alteration it can be of but little use to draw attention to the distinction of treatment meted out to the doctors and lawyers in this new bill. I, for one, will be sorry to think that our successors may, and with justice, say we were sold at such and such a date—meaning the passing of this or a similar Coroners Bill. If the legal profession is the stronger, let us submit for the present to our luck, bad as it may be, but let us not acknowledge that the lawyers are in the right, for the sake of the community.

CERTIFICATE OF DEATH.

The conditions for filling up a certificate of death at the present time places no other obligation upon the doctor than giving to the best of his ability the cause or causes of death. The information as to the death, the identification of the body, and the fact that the person is dead, are all given to the doctor by the informant, and it is no part of his duty to investigate one or all of them. All he does is to fill up the form and hand it to the applicant, who takes it to the registrar in order to obtain a burial certificate. Accordingly, some one who knows the person, and who knows he or she is dead, applies to the doctor, who certifies to the cause or causes of death, so far as he knows them; there the duty of the doctor ends, and this service he renders, by compulsion, it is true, to the State free of charge.

Under the present proposal, as embodied in the bill, notice of the death is not to be sent to the doctor. But, within twenty-four hours of the death of a person, the doctor must proceed to view the body and then to identify it, see it is actually dead, and then fill up and sign the certificate and post it to the registrar. Thus, in addition to filling up the certificate free of charge to the State as formerly, he is further compelled to see that it is so-and-so, that he is dead, and then to duly post the certificate to the registrar. The inspection of the body of a dead person is made for two purposes, at any rate—(a) to identify the person, and (b) to see that he or she is actually dead. Identification of the body is very important, and so is the examination of the body with the view of seeing whether life is extinct, and in a well-regulated State reasonable means ought, we would all agree, be taken to ensure this being done.

First, as to the identification of a corpse. Who is in a position to identify the body of a dead person? Not the doctor, not the police, no one except the relatives or person who lived with and knew the deceased. The doctor is not asked in a coroner's court to identify the body, for a very good reason. An inspection of a dead body by a doctor would be of no more value than an inspection by a stranger, except in places where the doctor is familiar with his former patient. In big towns, for example, an inspection by the doctor called in casually, perhaps, could be of little, if any, value, and in small towns and in the country it would be superfluous and lead to nothing but vexation to the relatives and to the doctor.

Secondly, as to evidence of death. Judging from the number of cases in which there is genuine fear of being buried alive, it is necessary that doctors should regard the subject seriously. To determine whether a person is dead or alive is no easy matter; mere inspection of a body, feeling whether it is warm or cold, trying to count or detect the respiratory movements or the cardiac impulses, are all uncertain and not worthy of consideration, if the object be to determine actually whether life be extinct or not. So far as I can gather, it is necessary to perform something that will revive the ordinary signs of life without any dubiety, and yet such as will not interfere in any way with complete restoration to life should it be present. Venesection, as commonly performed fifty years ago, would, I think, serve the purpose, because it would certainly wake the person up, and would not in any way interfere with complete restoration to life. Every doctor could perform the operation, and no one need be buried alive provided some one or the State directs that such an operation of skill be carried out.

Therefore, in connexion with identification, the doctor will be of little value; but in order to make sure a person is actually dead a doctor must be employed, and he must by some means make sure in each case; indeed, he must

of necessity venesect or do something that will actually determine whether life be present or not. To do the one he is practically useless; to do the other he must exercise his skill and knowledge, again at the bidding of the State, and, as it is proposed, without reward or remuneration.

We may well ask, Is it right to order a man to perform a duty that he is for all practical purposes incapable of carrying out? Is such service of any value? The answer to the first question is emphatically, No; and that to the second is that it pays no one—not even the State—to obtain valueless information. In by far the majority of cases the question of identification is immaterial, but in a few it is of the utmost importance to the State that identification should, if possible, be made out; but no medical man could undertake such work, even if he had time on his hands and wished to offer his services to the State.

The medical man, on the other hand, is the only person in the community who can establish the fact whether a man is dead or alive, and in order to do so he must exercise his skill and knowledge, for both of which he had to pay, as well as for the privilege of exercising them. The State, however, if the proposed bill becomes law, demands the doctor's time, skill, and knowledge without thanks, reward, or remuneration, as a contribution to the State—a contribution in addition to that which each and every member of the community (doctor included) has to give in the way of payment of taxes. Accordingly, the State wishes to demand from doctors not only their due in the form of taxes, but also a proportion of their time and the exercise of their skill and knowledge. The doctors will thus be taxed not only in money, but in service, which no other member of the community can give, and which, I may add, no other member of the community, even if he could, would dream of giving without an adequate remuneration.

A great question of principle is at stake in the proposed Coroners Bill, and a mere demand for payment to the doctors for work done is not, to my mind, an adequate response on our part; even if this demand were conceded, the changes would not, so it seems to me, be to the advantage either of the State or of the members of the medical profession, for the scheme is fundamentally wrong. Great changes can be satisfactorily dealt with—that is, dealt with in such a way as to make an alteration which will form a substantial basis for future progress—only when clear-cut principles are laid down and a machinery devised in harmony with such principles.

If we seek for the objects of the promoters of the proposed Coroners Bill, it will be seen that they may be resolved into the following:

1. To obtain a better trained officer as coroner.
2. To secure a better plan for the registration of death.

All I need say upon the first object has already been said. With regard to the second object there is a great deal to say and much to consider—because the consideration of this leads to a review of the work of registration of births and deaths, to the exposure of our present system of a want of a register of the people living in any community, and to the contemplation of the proper conduct of such work for the advantage of the State. The registration of births and deaths has been in force since the year 1836, and in consequence the State possesses information as to the number of births and deaths which may occur in any given time. With regard to the deaths, there is not only a registration, but also an attempt, more or less successful, to classify all the causes of death. The information thus given and collated helps those in authority to see the distribution of diseases, and to find out whether something can be done to prevent premature loss of life. (The registration of births and deaths is in the hands of a lay person who merely records the information sent or given him.)

The object in view clearly is to place in the hands of the State knowledge of all the additions by birth and the subtractions due to death, and so to obtain a register complete as to births and deaths in the whole country. Additions and subtractions due to immigrations and emigrations respectively are not recorded, and there is no register of such persons that is available for State purposes. Were such a register compiled a complete list of all in the country would be available. Every ten years, however

the State does find out the exact number of persons in the country on a particular date. The changes which have taken place in the intervening years are neither recorded nor taken heed of. It will be observed that the decennial census register is for the whole country—the State as a whole, and the information obtained in the census is for the central office, each locality receiving back only numbers showing its own position.

Although we have the machinery for the making of a local register which, so far as it goes, is pretty complete, yet we do not possess an official register of the inhabitants of any locality. All we possess is an unofficial local directory of the householders and a list of ratepayers and voters, neither of which can be regarded as a complete register of the inhabitants.

Is such a local list desirable, and if so, what purpose would it serve? There can be no doubt that every community should possess a complete list of its inhabitants, to which additions from births and subtractions from death should be duly registered as they occur. Besides, lodgers who come and go should have a place as well as those families who depart from or come to reside in it. In this way a complete list of every community could be got and kept up to date without much expense. Whether a decennial census would then be necessary or not could, after a short experience, be determined. The purpose served by such a local register of the inhabitants would be (a) for use to the police authorities, and (b) to the Public Health Department. The police would know the to-and-fro movements that take place in a community, and the medical officer of health would be in possession of information invaluable to him in tracing the origin of infectious diseases, etc., and in giving accurate estimates in the statistical information he compiles periodically. With such a register for every locality, the notification of births, not the registration of names, etc., becomes a reasonable step forwards, because it brings to the notice of the medical officer of health—not, be it noted, the registrar of births and deaths—an event which may be attended with danger to other members of the community, and which may require the help of the State to preserve and promote the life of the infant. Further, the identification of a dead person desired for in the Coroners Bill becomes a simple matter, for that would then resolve itself into the simple question, Is the dead person Mr. So-and-so, who has lived in a particular house? One person may personify another, but the deception would soon be discovered if placed in the hands of the proper authorities for detection. Both these purposes are of immense importance to the State, and the wonder is that we do not possess an official register of every locality in the country. The want of such an official register hampers the police in the efficient conduct of their duties, and is perhaps the greatest defect at the present time in the public health service.

I take it that the objects of the State as shown in the bill will find support, and a cordial one, in every doctor throughout the land. A proper legal inquiry into the causes of death where not known, identification of the dead person and a certificate that death has actually taken place, would only give information that the State ought to possess. To obtain all this it is necessary to have the services of a man trained in the law, another trained in settling the question of identification, and another to find out if death has actually taken place and from what cause or causes. It is not likely that these three functions will be found combined in one person. We know that neither a lawyer, a doctor, nor a detective, often combines them, and such an one would be a rare bird.

The promoters of the proposed Coroners Bill realized that, to make the proper inquiry into the manner in which death was brought about and its immediate cause, it is necessary to obtain a man trained in law—a barrister, lawyer, or doctor with a degree in law. To me this seems reasonable and quite sound.

When, however, they put upon the doctor, who had been in attendance upon the deceased, the duty of finding out when death occurred and to undertake the task of identification; then I think it is time for the members of the medical profession to wake up and declare that by their training they are not fitted for either duty. How, indeed, can a doctor find out when so and so died? Surely someone who is cognizant of the death should inform him. His business is to be at the service of the living and not to

seek out death. Again, when it is thought that a mere inspection of a body within twenty-four hours of the supposed death is sufficient to warrant a doctor in declaring life is extinct, ignorance of the difficulties in the determination of the presence of or absence of life can be the only excuse. In most cases a layman's testimony is sufficient, but in a few the task would test the best of us.

The demands of the bill have already been criticized, and now it may well be asked, How do you propose to carry out the objects the promoters of the bill have at heart?

Now, given a local register in the hands of the medical officer of health, I would suggest the following:

1. When a death occurs the relatives to notify the police.

2. The police in case of a natural death to inform the doctor who was last in attendance.

3. The doctor, if he is satisfied, to sign a certificate and to give it to the police officer to take to the local medical officer of health's office, where it should, if in order, be registered.

4. The medical officer of health to grant a burial certificate and the police officer to convey it to the relatives. (In case the doctor declines, or there are some difficulties in the way of signatures, then the medical officer of health should prosecute inquiries and make or order to be made a proper medical examination of the body of the deceased.)

5. In case all be explainable by natural causes, the medical officer of health should then issue a burial certificate; if no such explanation can be put forward, the medical officer of health should ask the coroner to undertake the necessary legal inquiry.

6. In all cases of accident, suicide, etc., the police officer to communicate direct with the coroner, who would call for the services of the medical officer of health for the district to aid him in every way through his special medical officer to find out the cause or causes of death.

Such is the outline of the scheme I would advocate, and I venture to think that the objects of the promoters of the Coroners Bill would be attained in a far simpler and less costly way than that put forward.

If, however, the State requires the application of a test as to whether a body is alive or dead, the State should be prepared to pay for the performance of an operation of skill, be it venesection or anything else, and the proper person to perform such is the general practitioner in attendance during the life of the deceased.

In conclusion, all I have to say is that those who are concerned in this matter should soon take steps to put into shape their own ideas and present them to the proper authorities before the bill is again proceeded with, and so avoid increasing difficulties in obtaining amendments.

THE PITFALLS OF "MENTAL TESTS."*

BY

CHARLES S. MYERS, M.D., Sc.D.,

LECTURER ON EXPERIMENTAL PSYCHOLOGY, UNIVERSITY OF CAMBRIDGE.

In this country at least psychology seems likely to suffer from the same dangers of popularization as have for years past been affecting anthropology. Just as it has been widely supposed that only a printed book of instructions and queries need be read for an amateur to sally forth into the field and collect reliable physical measurements, or trustworthy evidence of social organization, so there appears to be starting a belief that no special course of training is necessary in order to conduct on a large scale investigations of a psychological nature.

Folk are loth to recognize that the younger sciences—for example, economics, genetics, psychology, education—demand as much adequate preparation and study as the older before reliable work can be undertaken in their respective fields. Certainly every one thinks himself capable of discoursing and deciding about themes of psychological interest. Royal and Departmental Commissions, which do not contain among their members a single psychologist, are appointed to report on matters which are fundamentally of psychological concern. The psychologically untrained physician does not hesitate to

pronounce on the psychology of insanity, nor the biologist on human and animal intelligence and instinct.

I want to protest as strongly as I can against the notion that any useful purpose can be served, so far as psychology is concerned, by collecting masses of psychological data with the help of an army of untrained observers. I have heard it confidently asserted that the gross errors inevitably arising from inaccuracies and inconsistencies of procedure among different observers cancel one another in the long run of such vast numbers of measurements. Nothing, I think, can be more dangerous or false than this idea that the untrustworthiness of crude methods diminishes as the number of observers increases. It involves the assumption that in the long run errors occur to an equal extent in opposite directions—a most unlikely hypothesis.

Individual differences in mode of measurement are great enough even in anthropometry, despite the standardization of measurements. There is, I believe, a well founded rumour that when the pigmies visited this country and were independently measured by several observers well practised in anthropometry, the results obtained by these observers were startlingly divergent. If this be so, the sooner the fact is put on record the better for the future security of anthropometry. In any case I am sure that hitherto it has not been adequately realized how untrustworthy is a comparison between the measurements obtained by different observers upon the same individual. I can only give one or two actual examples, but these, perhaps, are sufficiently striking. Professor Cunningham and Mr. Browne measured the heads of several anatomists at a meeting of the Anatomical Society some years ago. One of their subjects gave a head length of 198 mm. and a head breadth of 147 mm.—that is, a cephalic index of 74.24. The same individual happened to be measured subsequently by Miss Alice Lee, fully as competent an observer, who obtained a head length of 195 mm. and a head breadth of 150 mm.—that is, a cephalic index of 76.92. Thus there was a divergence of over 3.5 per cent in the values of the index obtained from the same individual by these observers, although each claimed to be taking precisely the same measurements—the maximal head length and the maximal head breadth.

A similar experience befell me only a short time ago. My head was measured by an observer who had for some months been engaged in making a vast collection of anthropometric data. He entered my head length as 202 mm., my head breadth as 168 mm.—that is to say, a cephalic index of 83.2. Doubting whether these data were accurate, I took the calipers in my own hands and obtained a head length increased by 4 mm. and a head breadth diminished by 2 mm., yielding a cephalic index of 80.6. The latter I know to be approximately correct.

If inaccuracies to this extent occur when anthropometry is in the hands of fairly-trained observers, what must be their size when the measurements are undertaken by the interested amateur! And, if they are great in measuring the *physical* characters of man, what must they be in measuring the *mental* characters! For here we have not only the dangers arising from the improper use and reading of the instrument, but also the different effects upon the subjects' mental condition produced by different observers. One observer knows his subjects well, another awes them by an unsympathetic attitude, while another unconsciously helps them by suggestion.

We have the further difficulty that it is impossible as yet to standardize mental tests as we have standardized physical measurements. Far more laboratory work is necessary before such fixity becomes possible or desirable. The approved test of to-day is rejected to-morrow.

But I will leave these difficulties on one side and pass on to the *purposes* of this wholesale application of "mental tests." One of the objects is to discover by statistical means the differences which exist in different communities. A vast number of measurements of a given character is taken in one community and an equal number of measurements of the same character is taken in another. The averages of the two series are compared, and the conclusion is drawn that an undoubted, or a probable, or no certain difference exists between the two communities in respect of this character. As is well known, the certainty of the difference depends not only on the number

* A paper communicated to the British Association for the Advancement of Science, at the Sheffield Meeting, 1910.