OBSERVATIONS

ON THE

GROUNDS OF BELIEF IN MEDICAL EVIDENCE
TOUCHING INSANITY.*By JOHN CHARLES BUCKNILL, M.D., F.R.S.,
Late Lord Chancellor's Visitor.

I HAVE been led to invite the attention of the members to this subject by a recent and remarkable charge made to a jury by that usually sound and able judge, Lord Moncrieff, the Lord Justice Clerk of Scotland.

On the trial of one James Macklin at Glasgow for murder in May 1876, Lord Moncrieff denounced and condemned that old test of irresponsibility on account of unsound mind, which legal ingenuity has invented and long upheld against medical opinion; namely, the incapacity of distinguishing between right and wrong. "As in point of fact", said Lord Moncrieff, "except in acute mania or idiocy, there are very few lunatics who do not know right from wrong, in the sense of being capable of forming and even acting on the distinction, much unreasoning inhumanity had been the result of this unscientific maxim."

It will be curious to observe how long this northern light will take to penetrate the sublime regions of English judicature; but, in the meanwhile, we doctors need not be very thin-skinned when we find judges speaking of each other's opinions and practice in such terrible terms of condemnation. Having thus broken loose from this unscientific maxim, which has been the cause of much unreasoning inhumanity, Lord Moncrieff proceeded to suggest to the jury "what he thought a far safer and a more constitutional, and a more reasonable ground" for their judgment. "Soundness or unsoundness of mind", he said, "was a fact which had to be judged of, not as a question of law or science, but in the ordinary rules which are applied in daily life. One took the assistance of legal or scientific views; but the jury were as good judges as any lawyer or doctor of whether a man whom they met in daily life was sound or not. If it turned out that he was able to conduct himself with propriety in the ordinary relations of life, not excluded from the confidence of his fellow-men by reason of distrust of his sanity, they had advanced not the whole of the journey, but nine-tenths of it, towards their conclusions." "The tenth part of the journey", Lord Moncrieff proceeded to say, "was whether the man laboured under an insane delusion", etc.†

This dictum, so well expressed by Lord Moncrieff, has been called the *habit and repute test*. Now, the inquiry which I desire to moot this day is whether or not soundness or unsoundness of mind is a fact to be judged of, not as a question of science, but according to the ordinary rules of daily life, so that twelve common men impaneled as a petty jury may, from their own experience and knowledge, be as good judges as any expert whether a certain man is of sound or of unsound mind. The idea is not a new one, but has been very strongly expressed by other eminent authorities—by Lord Shaftesbury, for instance, before the Select Committee on Lunatics in 1859, in his reply to Question 192, and also with great force by the late Lord Westbury, in the debate upon the third clause of his Lunacy Regulation Bill on March 26th, 1862, by which he attempted to exclude medical opinion in inquiries of lunacy. "An evil habit", he said, "had grown into a precedent with judges and juries, of assuming that insanity was a physical disease, and not a subject of moral inquiry, and, therefore, that they were bound to accept medical testimony in reference to it. If there were any process by which a man's skull could be cut into, and the different coats and linings of the brain exposed, so as to exhibit whether they were too much gorged, or the circulation impeded, there might be something in the plan. But medical science had not obtained that pitch of development, and medical men imagined external things to be the indices of things unseen."‡

* Read before the Public Medicine Section at the Annual Meeting of the British Medical Association in Sheffield, August 1876.

† At the subsequent trial of Thomas Barr for murder, the Lord Justice Clerk used almost the same words in his charge to the jury. "The question of sanity or insanity", he said, "soundness or unsoundness of mind, is simply a question of fact, to be judged of by you upon ordinary rules, and the intercourse between men and men in daily life. It is not a question of law, as I said, or a question of science: it would be most unfortunate if it were either the one or the other. The tendency of the lawyer would be to find all men sane, and the tendency of the medical man might be to find all men insane."

‡ It seems to have been overlooked by Lord Westbury, that all men, whether they be ignorant or expert, must in questions of insanity accept external things as the indices of things unseen, unless it can be shown that a state of mind can itself be seen.

Lord Westbury, however, proceeded to adduce two instances in which his supposed plan of cutting open a man's skull would have given no answer, one being that of "a celebrated Scotch judge who administered justice for many years with great skill and knowledge of the law, and, after his death, which took place suddenly, a *post mortem* examination was held, when it was proved that he had been subject to excessive softening of the brain, and that it had been going on for several years". Another similar case, he said, had happened recently in the person of one of our own judges; the inference being drawn that lunacy is not a physical disease, nor medical evidence of its existence of any worth, seeing that it is absurd to suppose that administrative skill and knowledge of the law can coexist with unsoundness of mind, which, if medical men are right, must be the result of extensive softening of the brain.

To return to Lord Moncrieff's dictum, which is temperate and not intentionally hostile to us, and seems worthy of serious discussion, the fallacy of it appears to be in the admission that soundness or unsoundness of mind is a patent and simple fact, and not a matter of opinion founded upon groups of facts which are oftentimes by no means obvious to the apprehension of unskilled persons. Complex perceptions are constantly, but most erroneously, described as matters of fact, although they are in truth woven into shape by a tissue of inference, and are notional assents or generalisations; that is to say, opinions as to resemblance and relation of real things or of sensations of things. Nothing, indeed, deserves to be called a simple matter of fact which is not either an act of consciousness or a sensation referable to an individual phenomenon or event. And it seems impossible to entertain so complex an idea as the mode of life of a man, be he sane or insane, and the estimation in which he has been held by other men, without multiplied inferences and judgments, that is the formation of opinion. The appreciation of the conduct of a supposed lunatic, therefore, towards other men must be a tissue of fact and of opinion, respecting which I must venture to differ from Lord Moncrieff in thinking that the ordinary rules applied in daily life by common men to common things are less likely to be a safe and reasonable guide than the skilled observation and trained inference of those who have made such matters the subject of earnest and laborious research.

With regard to the repute for insanity which a man may have among his fellow-men, the remembrance that there was once One of whom it was said, "He hath a devil and is mad", might well bid us hesitate in accepting such grounds of prejudice and passion in aid of any serious judgment.

No doubt, there are men whose habit of life obviously indicates insanity to the lowest understanding, and whose repute as madmen among their fellow-men is the natural result of their condition and conduct; but such glaring instances do not frequently come before a jury either in a criminal or civil court. The habit of life is very often shown in lunacy trials to have been orderly, and nothing is more disputable than repute; and, if learned doctors differ upon scientific grounds, ignorant laymen cannot agree upon superficial ones.

But the jury has to form its opinion, and to say positively Yea or Nay or, to speak more accurately, each jurymen has to form his individual opinion and to agree to a common verdict in conformity therewith. It is a curious blunder we are apt to make that a jury has a collective mind; on the contrary, the truth must be that, in every trial, every individual jurymen forms his opinion on somewhat different grounds from his fellows; for no two minds are alike in their ability and disposition to appreciate evidence; and Mr. Hicks's good story of the Cornish jury is true in principle in every trial, be the verdict good or bad.

Now, what is the probability that the individual common jurymen will be able to satisfy his mind in a question of lunacy by the ordinary rules of daily life, and without the aid of skilled evidence? In these days, lunatics do not run loose about the country like mad Toms of Bedlam in the olden time; nearly all of them are under care and control, and it is by no means improbable that, of twelve shopkeeping and farming jurymen, a large proportion may have never been brought into close contact with a madman of any kind or description; and it is very certain that the notions of insanity entertained by such people are extremely exaggerated and fanciful. Left to themselves, they would find no man insane who was not as mad as Nebuchadnezzar. They could no more distinguish a somewhat obscure case of insanity than they could make an almanack, yet they would very rightly trust to an almanack, and as rightly trust to a skilled opinion on insanity, if they believed it to be really skilful and honest. Unfortunately, medical science is very far from being as mature and certain as that of astronomy, but, such as it is, it must be used both in daily life and in the courts. A grocer or farmer finds difficulty in making water. He goes to his surgeon, who, having touched something with a steel bar, informs him that he has a stone in his bladder, and that a large

and dangerous wound must be made in his body, in order to remove it; and the man places his life in the hands of the surgeon, because he accepts the authority of his opinion. There is to him the local pain and sudden stoppage, which are facts, and the skilled opinion as to the nature of those facts, and to which he submits. The same man acting on a jury has the fact of a homicide brought before him, and is compelled to arrive at another momentous decision, and again the chief solvent of his doubts will necessarily be the skilled opinion of a medical man; of one this time who has not devoted his life to the study of surgical disease, but to that of mental disease, and nothing which the judges can say to the contrary can prevent it. On both occasions, he submits to an influence to which all mankind must yield in varying degrees and circumstances; namely, to the influence of authority in matters of opinion, and by authority I mean the influence of one man's opinion upon the belief of another who does not comprehend the proof. That for which the jurymen is justly responsible is the proper choice of his authority and the due weight which he attaches to it. If he went with his disease to a quack water-doctor, or at the trial confided in an ignorant pretender, he would incur the risk of losing his own life or of unjustly taking the life of another. In weighing and accepting the opinion of an expert, he deliberately exercises his reason, and, in doing so in the judicial case, he has the best help which learned and acute intellects can provide; for the hostile counsel is or ought to be a sharp test of hollow pretence, and the presiding judge is or ought to be a sound critic and a sure guide. Still, the jurymen determines for himself to what extent he will give credence to the opinions of a witness. "Authority is opposed to reasoning," says Sir George Cornewall Lewis, "if by reasoning we understand the process of appropriate inquiry conducted by the person himself. But between authority and reason there is no opposition, nor does the one exclude the other."

The tests of authority which are habitually and with moderate efficiency applied in courts are the possession of special knowledge, honesty and veracity in imparting it, freedom from bias, prejudice, and interest, and the consensus of scientific or professional opinion. Time will not permit me to dwell upon these marks of the value of evidence; but the very able author I have just mentioned may well be consulted thereupon in his admirable work on *The Influence of Authority in Matters of Opinion*.

Passing from the jurymen to the witness, let us now inquire in what logical form his evidence must be conceived. The form, indeed, may seldom be expressed, but the potentiality for its use must always be accepted and understood, as the banker does not weigh every coin which passes over his counter, though the balance is at hand. In affirming insanity, the syllogism will be:

1. All men who present any one of certain groups of signs of mental states are of unsound mind.

2. This man presents one of these groups of signs.

3. Therefore, he is of unsound mind.

In affirming the opposite proposition, the syllogism will, of course, be:

1. All men who do not present any one of certain groups of signs of mental states are of sound mind.

2. This man does not present any one of these groups of signs.

3. Therefore, he is of sound mind.

The *major* premiss here is a generalisation, and involves only a notional assent. It would not be untrue if there were no madmen in the world, but it is, nevertheless, founded upon the expert's own observation of individual cases, assisted, indeed, and directed by the recorded observation of others and by the funded knowledge of mental disease which is in the possession of our profession. The rules of judicial procedure will very properly not permit this fund of borrowed or inherited knowledge, which has not been derived from the expert's observation, to be used in evidence as if it were his own. It is at best second-hand evidence, which is always admitted with great caution and reluctance. We must, indeed, use the knowledge of others in the pursuit of knowledge for ourselves, otherwise we should ever remain in the very infancy of science; but we have no right to use such knowledge as witnesses as if it were verily our own; and I think that a laxity of practice in this respect has gone far to foster the prevalent feeling as to the vagueness and uncertainty of medical testimony. If an expert, however great his experience may be on other matters, have no personal knowledge on the very matter in question, I venture to think that his presence in the witness-box is not desirable. An expert witness may, indeed, be fairly asked whether the generalisations he makes of the knowledge he has acquired by observation are such as are made by other labourers in the same field; whether, in fact, there is a consensus of skilled opinion in the notional assents which he has formed, seeing that this consensus of opinion is one of the strongest and most accepted marks of authority.

A court of justice is not exactly the best place for the promulgation of the results of novel research; and the man who attempts to be original in the witness-box often obtains, if he do not deserve, a *mauvais quart-d'heure*; and yet the generalised knowledge which is needed for the support of the major premiss in the syllogism must be that which the witness has himself acquired, or which he has first learned from others and has himself verified. Such knowledge possesses authority in itself in direct relation to the repute, the honesty, and disinterestedness of the witness, and it gains rapidly increasing authority, according to the agreement and support which it receives from independent observers. At present, in the matter of lunacy, this consensus of opinion is far from being universal; still, I think that no candid and well informed person will be bold enough to deny that a vast store of knowledge on the subject of insanity has during many years been accumulated by numerous true and trustworthy labourers in all civilised countries, upon which there is a positive consensus of opinion, and which, having been verified by the witness himself, becomes very properly the basis of his generalisation and the grounds of his major premiss. Notwithstanding Lord Westbury, the alienists of England, France, Germany, and America have learned with certainty that, even in their department of study and research, external things are the indices of things unseen upon which a diagnosis may be most rationally established, and they possess the proof that their knowledge is scientific in the fact that they are able to foretell events. They can very frequently foretell the course and termination of the disease which is their peculiar study with quite as much exactitude as those of many other diseases can be predicted; and, notwithstanding all that has been objected against the laxity of their evidence, not many sane men are in existence in this country who have escaped punishment for crime in consequence of their mistakes, and still rarer instances have occurred in which sane men have been found insane by civil courts on their testimony.

But, referring again to Lord Moncrieff's dictum, I think we may say truly that the consensus of opinion about insanity in the class from which petty juries are struck only exists in a rudimentary state, and is only applicable to extreme cases, just as such men will agree in believing that arsenic will destroy life, but need to be informed in what manner and with what symptoms.

The gross proof that one man has given another half an ounce of arsenic needs no more science than the gross proof that a raving madman has knocked another man's brains out; but, when it comes to minimum doses and obscure symptoms and delicate analysis, how much would the "ordinary rules" which the common jurymen "applies in daily life" assist him in either case in the awful duty of deciding to send a fellow-man to a shameful death? The intricate difficulties of the question must ever compel the jurymen, and even the judge, to require skilled guidance in determining this often unsaid but always understood major, and it is but a weak argument that this proposition can as yet only be stated with modest reservations and admissions of imperfect knowledge. The reason why it is imperfect is because it is difficult of attainment, and not because those who have devoted themselves to its acquisition have been indolent, careless, or unskilful; yet, such as it is, the relative knowledge of a skilled expert in insanity, compared with that of a petty jurymen, does not, I think, deserve all the depreciation to which it has been exposed by legists, and which is now forcibly, though perhaps not intentionally, expressed in the recent dictum of this eminent judge. But to relegate a question to the uneducated because the learned and skilful have found it difficult, is to place a burden upon the ass because the horse has stumbled with its weight, a folly which even a petty jurymen would not commit.

The *minor* of the above syllogism is, as usual, the practical point which must always be expressed and, if possible, proved. It differs from the *major* in being a matter for real in contradistinction to notional assent, in being applicable and referable to a person or a thing in contradistinction to a state of mind; that is to say, to a concrete individual case, instead of a generalisation of knowledge. The *minor* is: This man presents one of these groups of signs of a mental state. I use the word "signs" in preference to the medical term "symptoms", as being more general and less misleading.

With signs we have to do with our own sensibility; that is to say, with sensation; and indeed we cannot affirm this proposition without immediate reference to our senses. We have in some way felt the signs of insanity in another, and the madman has been an object to us, while assent to the truth of the *major* may be purely subjective, having no reference to any particular object. Professor Clifford has attempted to show that the states of mind of other men are to us something between *subject* and *object* which he proposes to call *eject*; but I think the distinction too subtle, and that we know the states of mind of other men only by sensible signs. Medical men in this matter are apt to fall

into a confusion of expression, if not of idea, by making no distinction between the sign and the thing signified, by speaking, for instance, of incoherence of speech, which is a sign, as if it were the vagabond and unassociated flow of ideas, which is the thing signified. It is not strictly and constantly enough remembered by medical men that the object of the legal inquiry is always and only the state of mind, and that all our evidence of sensible fact has reference to that which we cannot touch, or see, or hear, and which we can only infer from the signs which it manifests, the things which are seen being merely the indices of the things which are unseen.

Let me, as an example, refer to a group of signs of a state of mental alienation which an expert might look for in the individual man submitted to his examination. The usual signs of anything are causes and effects, and the surest signs of insanity are states of bodily disease which are known to cause insanity and conduct speech and bodily conditions which are its consequences. General paralysis and epilepsy are the most obvious instances of causal signs, and can it be doubted that the skilled observation of a medical man as to the symptoms of these bodily disorders is not of more worth than all the rude and crude guesses of common men? Let us take the former disease as an illustration. As long ago as 1855, I pointed out, in the *Medico-Chirurgical Review*, vol. xvi, p. 384, that, "on more than one occasion, I had detected the early symptoms of general paralysis in persons accused of theft"; and my observation has since been most fully confirmed by my professional brethren, so that, among well informed alienists, general paralysis is now acknowledged to be a very sure sign of an unsound state of mind in which the commission of theft is highly probable. But the existence of general paralysis in its early stages—that is, of the sign—is by no means an obvious fact, but needs all the skill of an expert for its detection, and, when detected, it needs the knowledge of an expert for the inference which connects it with the offence. A most instructive case will be found in the twentieth number of last year's *Lancet*, in which a man with general paralysis was convicted at Doncaster of stealing a gold watch in a railway train, at a trial (if such ignorant proceedings merit that name) where my friend Dr. Crichton Browne gave evidence. "I shall not easily forget," writes Dr. Browne to Dr. Maudsley, who reports the case, "the smiles of incredulity which pervaded the Doncaster Court House, from the recorder downwards, when I described the inequality of the pupils, the slight tremor of the tongue, and other *little* symptoms, which enabled me to recognise the justice of your diagnosis of general paralysis. I shall not easily forget the derision with which my prediction that the robust healthy looking man standing at the dock would not live above eighteen months was received at all hands." The prediction, however, was fulfilled; for the man, after conviction, died raving mad in less than a year.

Time will not permit me to give other illustrations; but I think the principle will not be gainsaid by any honest, intelligent, and instructed man that, in a multitude of instances, the signs of an unsound mental state which would be admitted to be valid by the consensus of skilled opinion in this and in all other civilised countries are not such as can become known to petty jurymen from the daily experience of common life. If it were otherwise, *use* which gives facility would be a futile waste of labour, and the saying of the man that he did not know whether he could play the violin, because he had never tried, would not be so absurd as it seems.

That the juryman has to decide is true, and I am one of the last men to wish it otherwise; for I am old-fashioned enough still to hold that twelve honest men in a box are the palladium of English liberties; I quite concur also with Lord Westbury that it is always at bottom a moral question which the jury has to decide, and not a physical or scientific one. It is the question whether this man ought to be punished or not for this crime, or whether he was capable of making this will, or whether he is capable to manage himself and his affairs. These are all moral questions, but they all hang directly upon the physical and scientific one of whether the man's brain can or could perform its healthy mental functions or not. And my argument is that, on this, except in rare instances, the common juryman must needs require scientific information and guidance, which he may partly understand, but which he must mainly accept upon good authority.

What is good authority? That is the question which it is the bounden duty of the jury, with the assistance of judge and counsel, thoroughly to sift. If it be not good, it will be misleading and mischievous; for

"Authority, although it err, like others,
Hath yet a kind of medicine in itself
That skins the vice o' the top."

If it be false, it hides the sore of ignorance, but will not cure it. Mental pathology is certainly no mock science, though it be yet in that

stage of immaturity which lays it most open to the invasions of enemies and of pretended friends, of hostile critics and of charlatan supporters. Of the latter, none are more mischievous than the enterprising speculator who heavily discounts real knowledge to gain credit for remote probabilities. But we mental pathologists are not bound to know more than we can know by painstaking and laborious study. Let us firmly stand upon the generalisations of knowledge upon which we are agreed, and upon the facts which we have ourselves carefully observed, and confining our opinions to the scientific question of the existence of sound or unsound mind, leave its moral corollary entirely to the courts, whose duty it is to infer and enforce it. The judges may decide, as indeed they have done, that one kind of madman shall be punished for crime and another excused; and, with the aid of the legislature, they might even decree that madness shall be no excuse for crime, as drunkenness is not; but, to decide the scientific question of what madness is, is beyond the province of the courts. "A court of justice," says Cornewall Lewis, "which was highly esteemed for its judgments on questions of law, would render itself ridiculous, and shake its authority, even within its own sphere, if it attempted to determine questions of science".

REPLY

TO

DR. LEARED ON THE MECHANISM OF THE SOUNDS OF THE HEART.

By CHARLES J. B. WILLIAMS, M.D., F.R.S.,

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ALTHOUGH Dr. Leared has taken his time in replying to my remarks on the mechanism of the sounds of the heart, which appeared in the *JOURNAL* on September 30th, 1876, he does not appear to have mastered the subject; for his misunderstandings and misquotations are something unusual. For example, he quotes me as saying: "The case is one of striking through a space at a tight barrier", etc.; whereas my expression was: "The case is *not* one of striking through a space at a tight barrier", etc. This reversal of the sense makes nonsense, which he proceeds to deal with accordingly.

Again, seeking for further support for his notion that sounds are caused by the movements of liquids *per se*, he "places the matter before Dr. Stone", and quotes from his reply the following oracular sentence: "Any person, whatever his scientific position, who declares the impossibility of sounds being produced in fluid alone states a fallacy." Either Dr. Leared misquoted, or his oracle misunderstood, my words, which were: "I conclude, then, that the sounds of the heart are not produced by any motions or collisions of the blood, because I find that no *such* sounds can be produced in fluids alone."

Dr. Leared then cites another authority, Amédée Guillemin, in proof that liquids alone can produce sounds; but this instance—that of the water-syren—I had expressly specified as deriving its notes from the motions of a solid. This instrument, by the revolution of its perforated disc, causes a rapid succession of openings and shuttings of holes through which a current of air or of water passes. The rhythmic puffs or spurts thus produced, when rapid enough, cause a continuous note, the pitch of which is in proportion to their frequency. This is a case of current-sound, the vibrations being produced by the motions of the revolving disc.* But neither in its working nor in its results has it the slightest analogy to the normal sounds of the heart.

So likewise, in the other case mentioned by Dr. Leared, a whistling results from the wind passing through a keyhole, or from a person blowing into a key or through his lips, because the air is thrown into sonorous vibration by the resistance of the edges and hollows of the keyhole, the key, or the lips respectively. These sounds have an affinity, not with the natural sounds of the heart, but with the morbid sounds or murmurs; and, so far as I know, I was the first to point out the analogy between them. Nearly fifty years ago, I expressed my belief that an improved knowledge of the laws of sound would prove that liquids as well as air could be thrown into sonorous vibration by

* It may be questioned whether the note of the syren originates in the perforated disc or in the current which it divides, and which certainly appropriates and conveys the sound. They probably vibrate together; and the movement of the disc must be considered as much the cause of the note as the motions of the wings of insects are of their hum, which we hear through the air.