PART IV.—NOTES AND NEWS.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

A quarterly meeting of the Medico-Psychological Association was held in the Royal College of Physicians, Edinburgh, on Tuesday, the 14th of December. Among those present were Drs. Jamieson, Clouston, Fraser, Batty Tuke, Ireland, Frd. Skae, Anderson, Thomas Howden, J. A. Campbell, Laycock, McDowall, Brodie, Grierson, Maclaren, Denholm, Stewart, and Professor Calderwood.

On the motion of Dr. IRELAND, Dr. LAYCOCK was called to the chair.

The minutes of last meeting were held as read.

EXHIBITION OF PATHOLOGICAL SPECIMENS.

Dr. CLOUSTON showed the brain of the epileptic patient, whose case was described in the "Clinical Notes and Cases" of the Journal for October, 1875 (p. 427). Dr. Clouston then showed two microscopic specimens, being sections made by Dr. J. J. Brown, of Morningside. The one showed innumerable small apoplexies in the spinal cord of a kind not previously described, and the other miliary sclerosis affecting the medulla in a case of general paralysis, where the sclerosis followed the peripheral nerve-fibres inwards, and also followed the course of the small arteries.

REFLEX AUTOMATIC AND UNCONSCIOUS CEREBRATION.

The CHAIRMAN then said, an interesting paper on "The Unilateral Phenomena of Mental and Nervous Disorders," by Dr. Archibald Robertson, indicates a field of observation which Asylum Superintendents might very usefully occupy on a systematic plan. Many years ago I worked at these unilateral phenomena, and have a chapter on the subject in my "Treatise on the Nervous Diseases of Women" (p. 199). I venture to suggest a few points of not difficult observation. The physiognomical diagnosis of unilateral diseases might be helped by observing the unilateral development, atrophy, or other conditions of soft parts like the ears and nostrils, or the development and colour of the hair on head and face. It is seldom that the two ears are alike in size or form or development of lobe or helix. Thus there may be a soldered lobe on one side and a "wattle" or unsoldered lobe on the other. When this is so, it is most usual for the cerebral or encephalic disease to be on the same side as the soldered lobe. In the "Medical Times and Gazette" for 22nd March, 1862, I have given illustrations of various kinds of ears. Hæmatoma may also be unilateral. I have observed in cases of encephalic diseases hæmatoma of the ear on the same side as the symptoms. The experiments of Brown Sequard tend to show that there is a spot in the restiform tract which regulates the circulation in the ears of rabbits. The distribution of the hair on the face corresponds obviously to nerve-centres. It is usually thinner on the left than on the right side. So also as to colour and greyness. One whisker may be greyer than the other. A medical friend informs me that he had a neuralgia on both sides of his face, and that his whiskers turned so grey that he shaved them off; his moustache and chin beard being unaffected. Lately attention has been directed in "Nature" to the proportions of the hand and fingers, but more especially of the index to the ring finger. The varying proportions observed have been thought to be due to race, but it is more probable that the special uses of the hands determine these. Here, again, the two sides differ in proportion, size, &c. The easiest and surest plan of observing the proportions of the hands would be to place each hand flat on a piece of stout paper with the palms downwards, and the thumbs placed

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close to the index finger, and then to mark the outlines in pencil; or the thumb may be placed at a fixed distance from the index, say an inch, measured at the tip of the thumb. Ears might be either photographed or casts taken. In either case it would be well to notice the line of direction of the long axis of the ears to the cranium, which from much observation I have concluded is *ethnic*, and in relation to the form and set of the nose. Other points might be named, but these are enough for illustration.

Professor LAYCOCK then read a paper on "Reflex, Automatic, and Unconscious Cerebration." (See Originals, Pt. I, and January No., p. 477.)

Dr. IRELAND, in the course of a few remarks upon Dr. Laycock's paper, said that his own position had been well enough defined by the title of his essay—"Can Unconscious Cerebration be proved?" Many processes might take place within the cerebrum of which we knew nothing; but when anyone asserted that such a process took place, the onus of proving it rested upon that person. He would not enter into the question of priority between Dr. Laycock and Dr. Carpenter; and one of the reasons why he had paid more attention to the expositions of the theory made by Dr. Carpenter, was that Dr. Laycock had mixed up his views on unconscious cerebration with his theory of reflex cerebral function. Nevertheless there was no necessary connection between the two. Reflex cerebral action, as described by Dr. Laycock, might take place, and be attended with consciousness. Dr. Laycock had demurred to his remark that unconscious cerebration derived no support from physiology, but was based upon self-examination or inferences derived from it. But in those portions of his paper which Dr. Laycock had read to the meeting, there was nothing to show that this was erroneous. Dr. Laycock had asserted that the examination of certain mental processes resembled those which the chemist made upon visible matter. In the case of the chemist certain re-actions could be seen to take place within the test tube; but in the brain certain molecular changes were known as ideas. If any one could study these molecular changes, and tell their order, nature, and succession, *that* would be physiology; but to study them as ideas, and then to tell us that these ideas were the result of molecular changes, was a mixture of psychology and physiology which he held in little esteem. He was apt to get impatient at explanations which still left everything to be explained. His own mind instinctively recoiled from any causal connection between changes in the composition or arrangement of molecules and our ideas. He thought the learned professor's remarks on the teleological nature of organisms were well put. He had read one of Dr. Laycock's philosophical papers, in which he referred certain instincts in animals to a principle of unconscious mind in the universe, which, like the force of gravity, is a property of matter, and like it probably dependent upon an immediate volition of the Deity. We were thus led back by the learned doctor to a purely immaterial conscious force as the real origin and final cause of what had been called reflex action and instinct. He could not clearly distinguish this from the old axiom—*Deus anima brutorum*. Dr. Laycock had a great talent for detecting analogies; but these analogies appeared to him to be often too loose. He often reminded him of the speculations of ancient Greek philosophers. The Greeks, in their dearth of observations, explained the phenomena of the physical world by generalisations taken from mental processes, such as the relations of form and number. Dr. Laycock seeks to explain mental processes by analogies drawn from physical science. Dr. Laycock said that mental association was a process similar or identical to spinal reflex action. Well, he could see a certain loose resemblance; but the comparison looked better in the mouth of a poet than in that of a metaphysician. Dr. Ireland then went on to remark upon the great difficulty of proving that we have been unconscious of any past mental process. The state of double consciousness would always be in the way of any attempt like those made by Dr. Carpenter to infer the existence of unconscious cerebration from realised intellectual results, for it never could be proved that such results

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were not worked out in states of dreaming or somnambulism, in which consciousness existed, though separated from memory. Dr. Ireland did not, as Dr. Laycock seemed to believe, entirely agree with Sir Wm. Hamilton's view that consciousness was retained even during sleep; but he thought it probable that a feeble condition of consciousness might remain at some times, getting weaker or stronger, or again lapsing into unconsciousness. He thought that the subject could not be studied without very searching self-examination. He had noted several instances in which people might hastily say that their actions were not accompanied by consciousness, and yet, where, on reflection, it was found that they were so. A man had a heavy body in his pocket, and yet had no distinct consciousness of the weight; but if the weight were suddenly pulled out of his pocket by someone unknown to him he often noted the difference, that is between the weight he formerly supported and the weight he now supported; but in order to make the comparison he must have known both the first weight and the second weight which he supported. He referred to a well-known instance where a woman, who had lost sensation on one side, was apt to drop her infant when her eye did not rest upon it, showing that consciousness was necessary to a simple operation, which could easily be combined with other actions. Dr. Ireland mentioned a case which had happened to him the other day. He wrote a letter, promising to send an enclosure, and sealed it up. Almost immediately after he could not recollect whether he had put in the enclosure or not, and opened the letter; but on seeing the enclosure something in the manner it was folded immediately brought back to his memory that he had been quite conscious when he put it in. There were generally several parallel objects of consciousness, but the memory did not always follow all these parallel objects. In general those objects which were most attended to were best remembered.

Dr. CLOUSTON said he was sure they had all listened with great pleasure to Dr. Laycock's paper, and that he thought they would all agree he had made out a remarkably good case in proof of his discovery of reflex function as applied to certain parts of the brain; and thought there was no doubt that in future the credit of making this discovery would be given to Dr. Laycock, and not to Dr. Carpenter; and that, in regard to the discovery of this and other similar functions of the brain which Dr. Laycock had made, they were so much in accordance with the law of evolution as they now understood it, so much in accordance with what Herbert Spencer had called the development from the homogeneous to the heterogeneous, that they must be true. They coincided entirely with the whole law of evolution as it was applied to biology. Dr. Laycock's discovery of reflex action, as applied to the higher functions of the brain, followed its discovery as applied to the cord, his discovery of trophic centres followed that, and, last of all, his generalization as to the thermal centres, all these generalizations formed a part not only of physiological discovery, but a part of the law of evolution, as it was understood. It struck him that there was one weak point in Dr. Laycock's paper. As he understood it, the Dr. claimed for himself to have distinctly stated the law of evolution in 1839. He quoted the words of the passage, "chain of phenomena." Now he thought that the pointing out of a "chain of phenomena" and the statement of a law of evolution, as now stated by Mr. Herbert Spencer, were two different things—as Mr. Spencer would say the one is a being, the other is a becoming; the one is the pointing out of a mere gradation; the other of a development; the one is a series of phenomena, the other is a real law or generalization. In regard to the automatic function of the brain it seemed to him that Dr. Laycock and Dr. Carpenter were using the same phrase in totally different meanings, and, therefore, they occupied different grounds. This applied also to the unconscious cerebration, and when they jumped from the automatic to the unconscious cerebration, they jumped from the region of physiology to the region of metaphysics. Dr. Ireland had sufficiently dwelt on this aspect of the question.

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The CHAIRMAN said Dr. Ireland seemed to have a difficulty in regard to the differences between physiology and metaphysics. There can be no doubt that these terms are often used in a vague way, whether they refer to method or subject of inquiry. Sir W. Hamilton dwelt fully upon that in his lectures. The science of *phusis* or nature—*natura* in Latin—has both a general and a limited scope. Primarily it was general, and was the science of the laws which govern the material universe. Hence, physiology and physics—*ta phusica*—what belonged to phusis or nature corresponded formerly to what are now known as the philosophy of nature—natural philosophy—the natural sciences. The word metaphysics, merely denoted *ta meta phusica*—what came after the *phusica* in Aristotle's works, and thus another subject and method was differentiated. Now the mental physiology of the present day, so far as it includes memory and other cerebral phenomena, are termed in Aristotle the less phusica, or "*Parva naturalia.*" But *phusis* and *natura* are words which denote laws in the sense of order of development or *genesis*, and, therefore, mean also evolution, and more especially the things that are about to be evolved—*natura* being the plural of the obsolete *naturus*. The word metaphysics, as now commonly used, means, in regard to method, the acquisition of knowledge of mental phenomena by speculation or thinking about them; more especially in a wider sense by thinking about those phenomena of nature which are beyond observation or experience. From this point of view Mr. G. H. Lewes has proposed to substitute the term metemperics—that is to say, beyond experience—for the word metaphysics. Dr. Ireland has observed that it was utterly absurd to speak of any connection between atoms and consciousness. But not so absurd as it may appear, when it is remembered that atoms are metaphysical and metempirical things. No one has ever seen or felt an atom, nor even a molecule, which is a congeries of atoms united according to definite laws. Sir Wm. Thompson has attempted to calculate from mathematical data the size of the molecules of water, but even that process is metempirical. There are, however, two kinds of philosophical or metaphysical speculation, which are wholly different. The one starts with a fact of experience, *i.e.*, of something done—the other with a something thought, the common method. A knowledge of atoms is reached by the first mentioned method. The thinker divides a piece of matter into two parts (here the Chairman divided a piece of paper). Then each half is thus further divided, and each sub-half is again divided, and so on, until the act or fact of division is mechanically impossible. But he can go on dividing in thought or imagination, and can thus repeat the process *ad infinitum*, concluding necessarily that matter is thus infinitely divisible. This, then, is both metaphysical and metempirical. But, for the purposes of deduction and practical work, the mental process of subdivision must stop somewhere, and so at the point where it is stopped we say the particle of matter is indivisible further. Now this is simply the meaning of the word atom. All this while the atoms exist to us only in thought, and, as such, are inseparably connected with that state of consciousness upon which the thought depends. But all thought, however profound, requires brains—made up theoretically of these metaphysical or metempirical atoms—indeed, the more profound the thought, the more necessary are brains for the thinking. It was simply an impossibility that the "mongol" idiot woman (pointing to a cast of whose skull was on the table) could have any reasonable notions of philosophy or of atoms. The Chairman then proceeded to show that another source of the difficulties Dr. Ireland had found was in the vague and contradictory meanings attached to the words unconsciousness, mind, and the like, and thus confounding the states or conditions of the living man, named consciousness, with the cause of these conditions. What he had all along attempted to show was, that consciousness as usually and practically understood, is not a cause, but that causation must be put further back, and traced to a point of origin common to both the phenomena of life and of consciousness. This, in fact, was done long since in Greek

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philosophy, and by St. Paul, one of the greatest of both Jewish and Christian philosophers of his time. The Chairman also reverted to the philosophy of evolution as a philosophy of the causes of the phenomena of life, and which, taken in connection with the correlation of physical forces, first shown by Faraday in modern times, will give a new view to many questions of the day, as has been already shown by the philosophical works of Herbert Spencer. He thought it only right to observe, however, that the same method was followed by him forty years ago, and that he had acquired much information from the writings of philosophers of the 17th century, when the discoveries of Newton led to changes in philosophy, and to discussions like those of the present day. The doctrine that motion or energy is indestructible, and is never lost, but only transferred, was explicitly stated by Grew in his Cosmologia Sacra. What he (the Chairman) had developed most especially in regard to mental science and the practice of medicine, both in mental and general diseases, was the doctrine of the law of reversion as correlative with that of evolution, and of both as correlative with the laws of development and nutrition, not only of all living things, and of granules and cells, but of the molecular evolution and reversion of their chemical constituents. Here was a field for working at what comes before us in daily life, which is "the prime wisdom." There are insuperable difficulties, doubtless, in the way of ascertaining the relations between conciousness and organisation, some of which the Chairman named, but it was a serious fallacy in method to conclude, from our ignorance of things, that they are non-existent. He did not say, therefore, that plants are unconscious, because that which in us corresponds to vegetative life is so. He could not, in fact, solve the question, except metempirically, or by speculation, but if he were obliged to come to a conclusion on the question, the answer would be a modified acquiescence in the affirmative, assuming also that there may be very different states of consciousness from those of mankind.

CASE AND AUTOPSY OF A KALMUC IDIOT.

At this stage Dr. JAMIESON, of Aberdeen, took the chair.

Dr. FRASER read a paper on a "Case and Autopsy of a Kalmuc Idiot." (This will appear with illustrations in a future number.)

Dr. IRELAND said, that in the absence of Dr. Brodie, he wished to make a few remarks. The paper had interested him extremely, and he hoped it would open the field for a new type of idiocy. He believed this co-relation of structure sometimes gave a clue to a line of research. It was difficult to see the connection between the different peculiarities which Dr. Fraser had so carefully studied. But it was possible that by comparing them with healthy individuals they might be able to get at a specific generalisation. He could not say that he ever met such a type or felt in his own mind the necessity of classifying it. But the subject was almost entirely new to him, and he would certainly look and see whether he could find any members of the class which Dr. Mitchell and Dr. Fraser had described. He did not think that there were any Kalmucs in the East, and he thought they should exclude this kind of patronymic from the kingdom of Fife (laughter). He did not quite understand that all the features that constituted a type had been observed by Dr. Mitchell. He certainly had good hopes that Drs. Mitchell and Fraser would yet work out something in regard to the matter worthy of notice. In regard to an allied type of idiocy he must say that he did not think he had seen cases of Cretins in this country. Some asserted that Cretins were a very distinct form of idiot. If they tried to describe the Cretin they would find that the exceptions were as great as the rule. He could not make out that they could prove the existence of Cretins in Scotland. He said if he were classifying the Kalmuc idiot he would put him under his own "Congenital" class. He had stated his belief that the class of congenital idiots, when it was fairly worked out, would be resolved into two or three classes. He would be very well pleased to see a sub-class of idiocy erected.

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