Fourth. The need of distinguishing between the value of the testimony of experts and non-experts.

Fifth. The diagnosis of insanity should be purely psychological, and not at all physical, by contrasting the mental manifestations of the individual in health with the mental manifestations of the same individual in disease, and also with the mental manifestations of the average man in the same condition of life. If a diagnosis of insanity cannot be made out by the mental manifestations alone, it cannot be made out at all.

Sixth. A clear and scientific confession of ignorance should be made, if necessary.

Seventh. Experts should be called and paid by the Court, and there should be a general reform of lunacy jurisprudence.

[It is evident that the fourth, fifth, sixth, and seventh of the foregoing propositions deal with the legal rather than the scientific aspects of the disease. In another place Dr. Beard says, "We may be justified in condemning a man scientifically, when we have no right to condemn him legally;" and again, "The law makes inquiry only of legal irresponsibility as the result of mental incoordination."]

A. R. URQUHART, M.D.

Tassi on a successful Case of Trephining.—Dr. Eugenio Tassi was more successful with his patient. R. P., a wandering merchant, fell asleep upon a wall and lost his equilibrium, striking a pebble on the ground with the left side of the head. He was found unconscious, and was brought to the hospital, when it was found that he had a contusion of the scalp and a fracture at the posterior part of the left frontal bone, with symptoms of concussion of the brain. Consciousness returned; the wound did well for eight days, and there was no constitutional inflammatory action, when one morning it was found that he was paralysed in the right arm and leg, and in a comatose condition. It was determined to use the trephine, which was done thirty-two days after the injury. It was applied "in correspondence with the coronal point (*punto stefanico*) between the pteric and the bregmatic points." The pia mater was intact; but several detached fragments of bone were found pressing upon it, which were cautiously removed. While this was being done the arm was noticed to move a little. In a few days the mental powers were completely re-established, speech returned, and the limbs recovered their lost activity. During the treatment

there was a spontaneous luxation of the right thigh, the cause of which could not be ascertained. The patient left the hospital completely cured, though he had to use a crutch, owing to the dislocation.

Seppilli on a Case of Atrophy of the Cerebellum.—In the *Rivista Sperimentale di Freniatria* (Anno V., fascicolo iv., 1880) there is a long article on this rare disease by Dr. Seppilli. The patient, a woman of feeble intelligence, had at the age of twenty-eight been afflicted with typhoid fever. During her convalescence there was observed a general tremor and disorder in all the motions of the body. This was accompanied by distinct disturbance of mental power, incoherence of thought and a proneness to weeping and laughing, with hallucinations of sight and hearing. She thought she saw beasts, which terrified her, and heard voices calling to her. This mental disturbance and disorder of motion increased till she was brought into the asylum of Reggio Emilia.

On entering it was found that all the muscles of the face, eyes, and tongue were disordered with clonic contractions. The muscles of the neck were rigid, the arms bent and contracted, and were extended with difficulty. There were occasionally rapid ataxic movements of the arms with contortions of the fingers. The legs were semiflexed and slightly contracted. The general sensibility seemed increased, and tendon reflex of the patella was easily brought out. These disorderly motions increased with the mental excitement, declined with mental calm, and ceased during sleep. A period of excitement alternated with a period of quiet which passed into stupor. The articulation was much hindered by the motor disorders, which were greater at one time than at another. The patient gradually wasted away, and died nineteen days after admission.

The principal abnormality found was the smallness of the cerebellum, which only weighed 56 grammes, less than half the usual weight in women. It was regular in its shape, but hardened in texture, and the grey matter was much wasted. The pons, crura and medulla oblongata were of the normal size. The convolutions of the cerebellum were small and unequal. In the texture of the organ the cells of Purkinje were much less numerous than usual, and those which were found had only half the usual size, and their processes were small and thin. In the median lobe the cells of Purkinje were more abundant, though not so frequent as in a

normal cerebellum. The grey matter of the nucleus dentatus was much diminished. The connective tissue was in excess, and the walls of the meningeal vessels thickened.

The general result might be said to be atrophy with sclerosis limited in great measure to the lateral lobes.

He notices the observation of Stefani, that in pigeons the cellules of Purkinje are found to be atrophied after lesions of the semicircular canals.

Dr. Sepilli cites twelve cases of atrophy of the cerebellum. These do not include the two recently described by Dr. Donald Fraser in the 'Glasgow Medical Journal' for March, which were probably published after Seppilli's paper was written. His observations certainly confirm the prevalent view that the cerebellum has something to do with the co-ordination of the different muscular adaptations necessary to maintain the equilibrium and harmony of the bodily movements. In the cases of Combette, Verdelli, Otto, and Lallement, there was no deficiency of co-ordinating power. In the latter case the atrophy was confined to one side of the cerebellum, and the median lobe remained unaffected, and according to Nothnagel it is this median lobe whose affection leads to the disturbance of co-ordinating power; but in Otto's case the cerebellum was very small, though apparently of healthy texture. Sepilli observes that in four cases of atrophy of the cerebellum (those of Combette, Fidler, Verdelli, and Otto) the intelligence was limited. In the two cases of Dr. Fraser the intelligence was not affected.

It is clear that there are still contradictions in our observations upon disease or deficiency of the cerebellum which cannot at present be harmonised. We have not yet reached a generalisation which will at once explain the function of the organ and enable us to understand the symptoms described as following upon diseased action in its texture

Riva on Decolorisation of the Choroid in the Insane.—Dr. G. Riva (*Rivista Sperimentale di Freniatria*, Anno V. fascicolo iv.) claims to have discovered a true and special morbid process in the insane. This seems to consist in a diminution of the amount of pigment in the choroid coat, so that through the ophthalmoscope the papillæ appear paler than usual.

Dr. Riva found this condition present in thirty cases out of 117 lunatics studied by him. It seems especially common in pellagrous insanity. Lombroso, in his work on Pellagra, treated it as a phy-

siological process, the result of the depigmentation attendant on the coming on of old age. Riva regards it, at least in the degree observed by him, as peculiar to insanity. He sums up as follows:—The posterior chamber of the eye presents a characteristic appearance in insanity, especially in its intermittent and paroxysmal forms, and where it is dependent upon the pellagrous cachexy. This appearance is caused by diminution in the amount of pigment in the choroid coat and the epithelial pigment of the retina (*epithelio pigmentato retinico*), so that the retina becomes discoloured and turbid.

2. This is not a physiological phenomenon, since it is never observed in so prominent a degree in the sane.

3. The coincidence of these alterations in the fundus of the eye with morbid changes in the brain liable to produce active or passive congestion in the vessels of the choroid, leads us to admit that hyperæmia, which in other parts of the body gives rise to hardening of the tissues, is the most frequent cause of the appearance described.

W. W. IRELAND.