rejected of men. On another occasion we shall be at the pains of pointing out what we conceive to be certain defects yet discoverable in the laws enforcing, and in the means for carrying out, the care and medical treatment of the insane. If in so doing we disturb in some degree that indolent sense of security whereby men are so prone to cry "Peace" when there is no peace, we shall endeavour to make compensation by indicating the reforms needed, and by pointing out on the distant horizon the seeming dawn of a brighter and a better era both for the insane and for those who minister to their care. H. M.

A Practical Treatise on Apoplexy (Cerebral Hæmorrhage); its Pathology, Diagnosis, Therapeutics, and Prophylaxis: with an Essay on (so-called) Nervous Apoplexy, on Congestion of the Brain and Serous Effusion. By W. Boyd Mushet, M.B. Lond. Churchill and Sons, London, 1866. Pp. 194.

It is to Part I of this volume, entitled 'Apoplexy' (Cerebral Hæmorrhage), that we shall chiefly devote our attention; Part II being an essay reprinted from the 'British and Foreign Medico-Chirurgical Review,' Vols. XXXVII-VIII, and which has therefore been before the public for several months past.

From the preface we learn the object of the writer. "I have attempted," he says, "to extricate apoplexy as a substantive disease from an assemblage of symptoms, *i.e.*, from the multiform phases of Coma." "My views are based on experience, on practice; and I entered on the subject free from bias or pre-conception, the constancy of cardiac lesions first suggesting, and, indeed, instigating the inquiry." He adds, "My argument also, I fear, is short of convincing." With this last remark of the author we are unfortunately compelled to say that we entirely agree; though we cannot but acknowledge the very large amount of labour and thought that has been devoted to the consideration of a most difficult question.

For all efforts made in the direction of simplicity and unity (to quote our author) we are indeed grateful. But *his* efforts in this particular case are eminently unsuccessful.

Is apoplexy a substantive disease?

Is cardiac lesion a constant factor in that disease?

"A precise definition is exceedingly important, as *Apoplexy* should be regarded as a disease, not a form." Dr. Mushet rejects every definition that has been given by other authors, excepting perhaps that of Dr. G. B. Wood, of Philadelphia (but on this point more hereafter). He tells us that "*Apoplexy may be defined as a more or*

less sudden impairment of the functions of the brain and nervous system, of consciousness, motion, and sensation—from extravasation of blood into the substance, or upon, or between the membranes, of the brain, arising from internal causes." This definition of course excludes simple congestion, serous effusion, and the (so-called) nervous apoplexy; whilst *apoplexy* and *cerebral hæmorrhage* appear (with Dr. Mushet) to be convertible terms. Let us contrast with this opinion that of one who is a true philosopher and a noble ornament to our profession. Dr. Mushet appears to have entirely overlooked the Clinical Lectures of Professor Trousseau, published in Paris in 1862, and of which so excellent an edition in English was commenced at the beginning of this year by Dr. P. Victor Bazire. We earnestly commend these lectures to his careful notice. Every word of them should be deeply stored in the memory of each one of us. What does Professor Trousseau say on this subject? *

"Observe that I do not use the word apoplexy, and purposely so, because there is a great difference between cerebral hæmorrhage and apoplexy, although some confound them still, in spite of the majority of our classical authors who try to do away with this deplorable confusion. Now what is meant by apoplexy? According to its etymology, it means an affection in which, as the Ancients described it, an individual falls, and is struck down suddenly, like an ox felled by the butcher. 'Apoplexia dicitur adesse quando repente actio quinque sensuum externorum, tùm internorum, omnes que motus voluntarii abolentur, superstite pulsu plerumque forti, et respiratione difficili, magnâ, stertente, unà cum imagine profundi, perpetuique somni.' And if to this short sketch of Apoplectiform phænomena, given by Boerhaave, you add the definition of Paulus Ægineta, that this abolition of consciousness and of the sensibility of the whole body is caused by an affection of the sensorium commune (communi nervorum principio affecto), you will know what is meant by apoplexy.

"You understand now why this term and that of hæmorrhage should not be considered as synonymous. On the one hand *apoplexy* is a generic term which must be specified, because apoplectiform phænomena are often connected with pathological conditions very different from hæmorrhage." We have given this quotation *in extenso*, because it places before us so clearly the fundamental difference between the opinions of Dr. Mushet and Professor Trousseau. The conclusions of the latter strike us with conviction as to their accuracy, and fill us with confidence in the truly philosophic spirit that has dictated them. Apoplectiform phænomena, as Professor Trousseau states (p. 4, Engl. ed.), may be the result of *cerebral*

* Lect. I, p. 3, English edition. Lect. LII, vol. ii, p. 269, French edition.

softening, of a large accumulation of serum in the ventricles, or of *congestion* carried to the highest point, though such cases are very rare. *Embolism* and the so-called *nervous apoplexy* may in his opinion produce similar results, whilst on the other hand he believes that hæmorrhagic clots can exist in the brain without any impairment of the intellect, and affection of the senses; "in fact, without any symptom indicating that the brain has been deeply modified in its functions."

Dr. Mushet gives (pp. 15—17) a summary of the opinions of various writers on what Dr. Abercrombie described as "this curious subject," viz., the cerebral circulation.

He then proceeds to the consideration of the second great *point* in his treatise, viz., the *constant* connection of cardiac lesion with apoplexy; and to support his view, he gives us reports of ten cases which have come under his own observation during his residence at the Marylebone Infirmary, we believe. But that we may not mislead our readers, and thus do an injustice to Dr. Mushet, we must anticipate our remarks on this question by stating that he by no means wishes us to understand that hypertrophy of the left ventricle of the heart (for such, we conclude, is the special cardiac lesion to which he refers) is the *sole* cause of apoplexy, but that this cardiac lesion, and disease of the cerebral arteries combined with it, are co-efficient factors (to use his own words) in the production of this formidable pathological condition.

Before we discuss minutely these cases reported by Dr. Mushet, we must refer to his remarks (pp. 86, 87) on Sir Thomas Watson's opinion on this subject. "*He acknowledges*," Dr. Mushet says, "*the frequent co-existence of cerebral hæmorrhage and hypertrophy*, but ascribes the latter to diseased and dilated conditions of the aorta, and thinks the associated changes are the concomitant effects of the same cause."

According to Sir T. Watson, when the arteries of the brain are ossified or changed, or rendered brittle in any way, the commencement of the aorta also is found, in a majority of cases, to be the seat of similar alterations. The elasticity of the vessel is seriously impaired by deposits in its inner tunic, the free passage of the blood is impeded, and hypertrophy of the left ventricle is the natural compensation for this state of the aorta. "The strength of the left ventricle, therefore, in such cases, is not a true measure of the force with which the blood is driven into the distant arteries; quite the contrary: it is a measure of the *difficulty* with which the blood is circulated through the *primary branches*, and therefore through the entire system of the arteries. It indicates the *diminished* force with which the blood is likely to reach the cerebral vessels."

We wish particularly to direct attention to our author's criticism of Sir T. Watson's opinions on this subject, because it appears to us

that in every detail the argument of the latter is confirmed by an analysis of Dr. Mushet's ten cases. We must premise that cerebral hæmorrhage was observed in all of them, and that where the heart was examined there existed hypertrophy of that organ. We subjoin, in a tabular form, an abstract of those cases, so far as our proposition is concerned.

Case 1.—J. G., æt. 63.—Lungs emphysematous. Coronary arteries atheromatous. Aorta slightly so.
„ 2.—S. A., æt. 72.—Lungs emphysematous. Aorta and coronary vessels atheromatous.
„ 3.—E. S., æt. 72.—Bronchitis. Coronary arteries atheromatous. Fibro-calcific deposits in mitral and aortic valves.
„ 4.—J. T., æt. 70.—Lungs congested; gorged with serum. Coronary arteries atheromatous. Traces of atheroma in the aorta.
„ 5.—D. Q., æt. 68.—Lungs engorged and emphysematous. Coronary arteries atheromatous. No valvular disease.
„ 6.—R. B., æt. 68.—Lungs congested and emphysematous. Heart not weighed.
„ 7.—C. H., æt. 72.—Lungs emphysematous.
„ 8.—L. W., æt. 46.—Lungs emphysematous. Aortic valve thickened by fibrous deposits, and the orifice much contracted.
„ 9.—J. S., æt. 54. } No examination of thorax or abdomen.
„ 10.— – S., æt. 64. }

We observe that in five of these cases there were atheromatous or fibro-calcific deposits in the aorta at its orifice, or in the thoracic portion of that vessel; that in one the report is, "no valvular disease;" in two others there is no mention at all made of the condition of the aorta; whilst in the last two cases the thorax was not opened. In none of them is any allusion made to the *impulse in the carotids*, whether increased or diminished; so that we have no means of estimating the effect on the brain of the hypertrophied condition of the heart. We must again repeat our conviction that in no single detail do these ten cases militate against the teaching of Sir T. Watson.

In reference to them we must also observe that they do not appear to us to warrant our author's appeal to Dr. Clendinning's observations as confirmatory of his own. The latter noticed that hypertrophy of the heart was accompanied by an increase in the weight of the brain; that in the cases noted by him the average weight of that organ was 52½ oz., the average weight of a healthy brain being 50½ oz. in the male, and 44 oz. in the female. In Dr. Mushet's cases 1 and 2 (in which alone the weight of the brain is noticed), it is 42 oz. and 42½ oz. respectively, the first being that of a man, and the second that of a woman. Hence we cannot conclude that hypertrophy of the heart was productive in these cases of increased cerebral circulation.

Our remarks must now be brief. The chapter on 'Treatment of

Cerebral Hæmorrhage,' and the essays 'On (so-called) Nervous Congestion of the Brain and Serous Effusion,' may be profitably compared with the invaluable teaching of Professor Trousseau, in his lectures on 'Venesection in Cerebral Hæmorrhage and Apoplexy,' and on 'Apoplectiform Cerebral Congestion, and its relation to Epilepsy and Eclampsia.'

As regards the connection between renal disease and apoplexy, we think that our author has scarcely done justice to Dr. Todd's observations on the same subject. He has entirely omitted to notice the interesting and varied paralytic phænomena connected with cerebral hæmorrhage, and which are so ably recorded in Dr. Todd's Clinical Lectures.

Will the author forgive us if we point out a serious error? In restricting the term apoplexy to cases of cerebral hæmorrhage, he says that his view is supported by that of Dr. G. B. Wood, of Philadelphia. Now, from 'Wood's Practice of Medicine,' vol. ii, p. 656, 4th edition, we learn that in many cases of apoplexy it is quite impossible to determine whether hæmorrhage exists or not, and that in all cases of true apoplexy the symptoms are produced either by simple congestion of the brain, by hæmorrhage within the cranium, or by sudden serous effusion. It is therefore quite clear that Dr. Wood's opinions differ very much from those of our author. Such a mode of reference begets painful distrust.

We would earnestly entreat Dr. Mushet, before publishing again, to improve his style by the study of a few of our best writers, *e.g.*, Dr. Abercrombie, Sir T. Watson, Dr. Todd, and Dr. Burrows. He would then avoid the use of such ungrammatical sentences as may be found on pages 16 and 85, in the paragraphs commencing "Further, have physiologists," and "The proposition, I believe." The word "contendible," p. 95, must be an Americanism.

As regards the correction of the press, we trust that *we* shall be more fortunate than our author. "Lacunec," p. 43, for "Laennec;" "Rokitauski," pp. 70, 72, 79, for "Rokitanski;" "Bouilland," p. 87, for "Bouillaud;" and "Audral," p. 93, for "Andral," are unfortunate mistakes.

We close our review with one more extract from Professor Trousseau's 'Clinical Lectures'*:—"J'ai tenu surtout à vous dire et à vous redire qu'il fallait vous garder avec une égale sollicitude de l'insuffisance du savoir et de l'excès de la science, telle qu'on la fait prématurément pour la glorification des théories."

* Lect. LXXIII, vol. ii, p. 676.