all air communication to be cut off by cross ventilation in a most careful manner. We highly approve the recommendation to warm the lavatories and closets.

Section 2 concludes with some interesting tables of cost, the result being that its approved examples show an approximate expenditure on the buildings per bed of between £300 and £400, notable exceptions being St. Thomas's Hospital at £777, the Hotel Dieu, in Paris, at £1,215, and the Johns Hopkins at Baltimore at £866.

In our next number we hope to extend what under present circumstances is necessarily a very brief review of a work, which, but for some odd and irritating misprints and mistakes in wording, is a very excellent example of composition, printing, and illustration.

Étude Clinique sur la Grande Hystérie ou Hystero-Épilepsie. Par Dr. Paul Richer. Second Edition. Paris, Delahaye, 1885, pp. 975. *(First Notice.)*

We congratulate Dr. Richer on the splendid book, which represents the second edition of his great work on the disease we know as hystero-epilepsy, but which he, with Professor Charcot, more scientifically calls La Grande Hystérie. To the brilliant originality which characterized the scheme of his original volume, he now adds the perfection of finish, especially in the direction of illustration. But it is not mere pictorial representations, however graphic, which will convince those English neurologists who have not yet been persuaded of the striking accuracy with which the Salpêtrière school have described this most interesting form of neurosis, and so Dr. Richer, although excelling as an artist, piles Pelion upon Ossa in the shape of overwhelmingly weighty scientific facts, that even if any one had not seen a case of the kind, he must give way to such incontrovertible evidence. We say this, however much many may think it a hopeless platitude, because there *are* some who, more in ignorance than in anger, violently contest even the bare existence of such phenomena, and to them we commend the study of the same so eloquently described in Dr. Richer's pages.

We hope to point out at the end of this review the absurd weakness of "le scepticisme," "prétendu scientifique" as Professor Charcot calls it, in drawing attention to the extraordinary comprehensiveness and breadth of the position which the observers of this recently discovered or re-dis-

covered disease have consciously or perhaps unconsciously taken up. We conceive that it will not be out of place here to give a short summary of the clinical phenomena exhibited by a patient in an attack of the malady before we pass on to discuss the fascinating connection between them and other instances of cerebral "irritable weakness." We may be forgiven if we just by way of a prefatory title draw renewed attention to the definition of the disease which Messrs. Charcot and Richer offer us. We shall not now enter upon the advisability or unadvisability of retaining the term hystero-epilepsy, but it does seem at this period very advantageous to remind our readers of the great value which is attached to Professor Charcot and Richer's view of the disease as exaggerated hysteria; a view which entails a causative pathology, which we imagine few would object to, namely, that these two conditions (ordinary hysteria and hystero-epilepsy), although differing greatly in degree of violence and in extent of action, *i.e.*, variety and number of the parts of the nervous system involved, yet own a common seat of primary excitation, and therefore pathologically are closely united. Such an argument is very little, of course, when taken by itself, but it stands firmly on the clinical evidence afforded by every stage existing to show the gradual passage of the one condition into the other.

We cannot do better in giving an epitome of Dr. Richer's description of a complete attack than by re-producing the stages into which he groups the phenomena, it being clearly understood, as he himself urges, that such grouping is merely adopted for ease of description:—

1st stage: Prodromata.

2nd stage: Epileptoid period, including phases of tonic and clonic contraction and "resolution."

3rd stage. Period of contortions and violent movements, which he designates "clownism."

4th stage: Period of emotional and passionate attitudes.

5th stage: Period of delirium and hallucinations.

The patients who are the subjects of these attacks are doubtless infinitely more common in France than in England. It would be very interesting indeed if we could find that it occurred commonly in the Welsh and Irish branches of the Celtic family, but whatever race they belong to they seem to present very much the same prominent characteristics, and owe their misfortune almost always to a similar causation, namely, severe fright as a leading factor, coupled with aber-

rant sexual function. Usually they are young or middle-aged women, very rarely men, capable of performing many social duties, but rendered prostrate at times of varying frequency by the epileptoid attacks and their sequelae. Such persons, moreover, present several well marked neurotic phenomena, which have especially been the object of ridicule by the sceptics so gently denounced in the preface by Professor Charcot. These symptoms are hemianæsthesia, spots of excessive hyperæsthesia, etc., etc., and depending as they apparently do on functional disturbance of the sensory portions of the cerebral hemispheres, are influenced by means which appear absurd to those who have not studied the subject in its innumerable relations with other well ascertained facts of hypnotism, &c., &c. Following Richer's description closely, we commence, then, with the mental prodromata. Naturally these affect the emotional side of the patient's nature *par excellence*, and commence, it is to be understood, not merely on the day of the epileptoid attack, but may precede it by at least a week. Under these latter circumstances the patient finds it impossible to fulfil social obligations, not being able to confine her attention to work, or remember facts of immediate importance. Such a patient is often deeply melancholic, or on the other hand restless, jealous, and irritable. The irritable stage may be accompanied by cries, just in the same way as the stage of delirium often is. We will now turn to the prodromatous symptoms, which are apparently the result of excitations of the medulla oblongata, and will commence with the disturbance of the respiratory centre as the most important. Every one is familiar with the sense of suffocation, which forms so marked a feature of ordinary hysteria, and it is never wanting in the graver attacks as an introduction to the complete process, and accompanying it are minor symptoms, such, for example, as loss of voice, laryngeal spasm, and continual yawning.

Passing to the cardiac and vaso-motor centres, we find that the heart palpitates violently, the pulsation in the arteries being vigorously marked in the neck and the temples. Vaso-motor troubles are rare as a rule, but have been observed to resemble the vaso-motor disturbances seen at the climacteric, viz., dilatations of the vessels evidenced by flushings and heat of the surface. The contrary, viz., cold and cyanosis, are sometimes noticed.

Visceral changes, *e.g.*, gastric crises, large collections of

gas in the large intestine, borborygmi, etc., frequently occur. In this prodromatous stage, tremors are noticed just as the patient is dropping off to sleep, and usually occur just before the onset of the epileptoid fit. Rigidity of limbs (contracture) is also frequently present, is very interesting in connection with the question of the seat of the lesion, and will be noticed later on. Hemianæsthesia has popularly gained the reputation of being the symptom *par excellence* of hystero-epilepsy, and is certainly of very general occurrence. Here we will note that the anæsthesia is rarely complete while analgesia is the rule. The patient cannot feel any pain from a prick, but is conscious of being touched by the pin. Hyperæsthesia, sometimes also present, is usually limited to little patches here and there, the so-called hysterogenic zones, or more accurately speaking, areas. Total blindness usually accompanies complete hemianæsthesia, and is on the same side.

The next point connected with prodromata is the existence of an aura. The commonest form it takes is acute ovarian pain, and many patients complain of general pains, especially about the neck, of the *globus hystericus*, and of sudden shocks and sensations of fulness in the stomach. Professor Charcot demonstrated years ago that the seat of onset or of the origination of the disturbance was a painful ovary. Since that discovery several spots about the trunk and more rarely about the limbs (Pitres) have been found to similarly afford a starting point for the stimulus to the spinal cord when they are pressed upon. Such points are:—(1.) Over the ovary; (2.) Superior iliac spine; (3.) Tip of the eighth rib; (4.) Under surface of breast; (5.) On the breast; (6.) On the first and tenth dorsal spines of the vertebræ. Just to the side of the latter point is sometimes another. All these points are painful to pressure, and on the same being applied they cause the excitation of the fit or the arrest of it when it has begun. The latter facts will perhaps explain the occurrence of what has been long called hysterical spine. In dismissing this part of the subject—and, being a minor point, we shall not return to it again—it seems possible to us that the hysterogenic areas are situated simply on those parts of the skin which are directly connected by nerve fibres with that portion of the spinal cord which happens to regulate the functions of the breast and the genital organs, and consequently pressure stimulates the portion of the cord which is connected functionally with the organs just men-

tioned, and that this stimulus passes up to the highest centres.

We now come to the second stage, which has the greatest interest for us personally, and which Dr. Richer has handled in so masterly a way as to make it almost impossible for us to give up the term hystero-epilepsy. As we wish to specially examine this point later, we shall content ourselves with only a few remarks now respecting the details of the epileptoid convulsions, just noting the peculiarities which separate them on the one hand, and connect them on the other with true epilepsy. The first exception we would draw attention to is the absence of any cry. Occasionally, however, as might have been expected from the fact of laryngeal spasm occurring, guttural noises take the place of the characteristic epileptic cry. Loss of consciousness, of course the most important feature of this stage, is invariably absolute; and here again we have another point of deepest interest in determining the seat of this grave functional disturbance. The stages through which the patient passes are exactly those of ordinary epilepsy, namely, the tonic, the clonic, and the phase of resolution with stertor. The tonic phase is usually an imperfect tetanus; the clonic consists, of course, of quickly succeeding sharp contractions of the muscles, these contractions being almost always four per second in the very valuable tracings with which Dr. Richer has fortunately illustrated this branch of the subject. The pupil in the tonic stage is contracted, in the clonic dilated. We should like very much to have described this stage at full length, but really we should only be wearying our readers with an account of an ordinary epileptic fit, and moreover we intend to refer to this point again.

Concerning the stage of relaxation ("resolution"), we only wish to remark the occasional occurrence of single sharp contractions of the muscles, we having ourselves observed this phenomenon after the artificial induction of epilepsy in the lower animals.

Following on the stage of "resolution" we have a brief period of violent movement in which the whole body is thrown into extraordinary contortions, an exceedingly constant figure of which is the so-called arc de cercle, which is practically nothing but ordinary opisthotonus. Dr. Richer tells us he has given "le nom pittoresque de clownisme" to this stage.

The last two stages as Dr. Richer gives them to us are

really but varying degrees of the same mental state. His expression for the former of these is "la période des attitudes passionelles," and the latter "période de délire." But the mental undercurrent of this stage is exactly the same, namely, hallucination. Thus in the first the patient clearly imagines very distinctly that she sees persons of whom she is very fond, and addresses them in appropriate terms, while in the second the tone of these terms is changed to hatred and rage, and finally the hallucination resolves itself into zoopsia, the patient imagining that she is surrounded by animals.

Let us here remark that although the subsequent periods are of very variable duration, the actual epileptoid seizure does not usually last more than two minutes, this interval of time being a matter of especial interest in considering the pathology of this affection.

Suicide: Its History, Literature, Jurisprudence, Causation, and Prevention. By W. Wynn Westcott, M.B.Lond., Deputy Coroner for Central Middlesex. H. K. Lewis, Gower Street, London, 1885.

In a former number of the Journal * we gave some important statistics of suicide in England and Wales, based on the returns of the Registrar-General. We avail ourselves of the book whose title heads this review to return to the subject, and to give additional statistics relative to suicide in other countries.

The author discusses the ethics of suicide, and gives a brief history of ancient and modern opinion in regard to it, illustrated by a considerable number of examples from the time of Sesostris to the unfortunate medical student Mahomed Ismail Khan, who destroyed himself in London, in 1883, by prussic acid. The literature of suicide is rapidly sketched, and a useful bibliographical index is appended. The chapters on the criminal and civil jurisprudence of suicide will be found useful, and form a curious comment on the variety of opinion in different countries, and in different times in regard to *felo-de-se*. Mr. Westcott considers that the true doctrine of English law in regard to suicide may be stated thus, in its relation to insanity:—"If suicide affords any presumption of insanity, it is of insanity at the moment

* July, 1885.