there is one thing wanting still—Dr. Maudsley sees the same vast all-pervading Spiritual power; but he sees it upside down. Therefore he rushes on to assail the overweening man, who dares to say that this power as it works in him is a freedom, and by that right to claim a destiny and a rank above the natural creation, and he rates him roundly for "an insufferable conceit." Yet these lines, after all, admit of only one final explanation. As Prof. Tyndall said at Belfast, the recognition of that oneness of underlying power means a *new definition of matter*. "Matter" is no longer the blank opposite of "Mind," definable only as that which does not think. It is rather that which has or is the potentiality of all life and progress. If so, we have got down to Matter at the bottom of the scale, only to fall through that also, and find Mind, Spirit, God—the thinking, living, willing Power—below and through and above the whole. Let Dr. Maudsley grant us this, and we will not despair of convincing him also that Mind is not a function of Matter, but Matter rather a phase of Mind—that Will may be free, and society and the universe endure nevertheless—and that Physiology and Psychology may yet lie down as the lion and the lamb together, and try to solve in friendly rivalry that final problem which may indeed prove some day to be the keystone of the whole—the question how this "non-bodily entity which we call Self" can act and react with a material organism.

OXON.

Traité de la Paralysie Générale des Aliénés. Par M. VOISIN.

The last class includes the so-called "general paralysis without mental symptoms."

Voisin thinks that it would be absurd to say that a patient had locomotor ataxy without ataxic symptoms, and that it is equally impossible to have general paralysis without mental change. We cannot see the parallel, for general paralysis does not connote insanity. The spinal trouble may be primary or secondary, and our author thinks he can arrest its ascent to the brain by antiphlogistic measures. This variety may slowly proceed to weak-mindedness; the process takes longer in women than in men, but is slower if taken in hand soon, and more prolonged in private than in public asylums in France. Many authors give three years as its average duration, but M. Voisin objects to limit it to any sacred period, the terminations of these cases being in cure,

death, or chronicity. He is angry at doctors denying cures, and proceeds to quote some. The case on page 197 was 60 years of age; this is rather old for ordinary general paralysis. Marcé thinks—and we are inclined to agree with him—that many of these cured cases were alcoholic ones.

Death generally results from inter-current troubles, such as pneumonia, diarrhœa, or bed-sores. M. Voisin remarks that these cases seem to have an immunity from epidemic cholera. This appears to us nonsense, and about as correct as the old idea that lunatics had a like immunity from venereal and other diseases.

In the next chapter complications are considered. Bouchat's definition of a complication is a morbid phenomenon developed secondarily under the influence of pre-existing diseases. We cannot accept this as a definition, for in one case we should have dementia, and in another paralysis—both to be regarded as complications.

Really, M. Voisin only includes accidents arising from the cerebro-spinal axis, such as apoplectic, epileptic, hysteric, and tetanic attacks. We think it would have been better to have considered these after they had been described.

The only point that is noteworthy in the apoplectic seizures is that the temperature rises before the fit, and keeps above normal, and, so long as this is the case, our author recommends leeches, purgatives, and little food. These attacks, occurring in the early stages of the disease, may suddenly prove fatal, and if they follow an arrest or remission, give a fresh impulse to the disease. All symptoms then become more marked, and dementia is evident.

The epileptiform attacks only differ from these in having convulsions. M. Voisin asserts that there are many relations between epilepsy and general paralysis of the insane, and that many epileptics die of this disease. He appears to have a somewhat indefinite idea of epilepsy, regarding it at one time as a special disease, and at another time as only a set of symptoms. He refers, too, to the conjugate deviation of the eyeballs, and to its importance in localising the seat of the disease, and at once impresses local treatment, leeches, &c.

Hysterical attacks are rare in *female* general paralytics, and absent in *male* cases. Tetanic attacks are alluded to as due to congestion of the anterior columns of the cord.

For convenience of description, we make no objection to the use of the terms apoplectic, epileptic, hysteric, and

tetanic; but if these are to be considered as essentially different attacks, due to different causes, we object, for the evidence, to our mind, preponderates greatly in favour of these attacks being merely differences in degree, not in nature. There is said to be a difficulty in deciding whether the attack is due to congestion, hæmorrhage, or serous infiltration, whatever the latter may be; but congestion alone passes off without leaving rigidity. And the thermometer, too, is of assistance, as in most cases of apoplexy the temperature falls at first, while it rises in general paralysis. In general, we should say that time is the surest test; in simple epilepsy a few hours, in general paralysis a few days, in apoplexy weeks are occupied in restoring power. M. Voisin has some faith, but that not unbounded, in localised centres in the brain; he believes the centres are not truly motor, but of will acting on certain motor centres.

As might have been expected, a very elaborate discussion of effusions into and about the membranes follows, and the theories of the formation of new membranes are considered. We do not purpose following our author through all these, but will only mention what he thinks are symptoms that should lead one to suspect effusions or formation of new membranes —*i.e.*, seizures of short duration (half a minute to a minute) rapidly recurring—15 in an hour; the predominance of contractions over clonic convulsions; absence of convulsions of the eye-ball; and the localisation of these symptoms in one limb or one side.

Some of the apoplectic seizures in which the temperature is below normal are looked upon as ventricular dropsy, associated with venereal disease. This seems to us to be quite unproven. Spinal lesions are next considered in their various relations—1st, when brain and cord troubles are simultaneous; 2nd, when spinal symptoms precede cerebral symptoms; 3rd, when spinal symptoms come after cerebral.

If both occur together, the spinal symptoms are likely to be overlooked, but general spinal symptoms may be detected, and tender spots found on the spinal column. Attention is also directed to double sciatica, and this is very important, as Dr. Wilks has pointed out. Sciatica is very rare in women, and if it occur double, the disease is almost certainly due to cord disease. M. Voisin does not admit an ataxic general paralysis; he holds that one patient may have locomotive ataxy and also general paralysis, but that they interfere with each other. Our own experience teaches that,

in men, we find patients, who have suffered from genuine locomotor ataxy, become genuine general paralytics, and we have ourselves had cases in which changes in the posterior columns were in direct relation to the duration of the ataxic symptoms; our belief is that the diseased process spreads from the posterior columns to the rest of the nervous centres.

In the second series, the cord was first affected. Either the cord and brain were both ready to break down, and the cord took the lead, or else on the disease being started in the cord, the brain trouble is said to have been reflex, due to vaso-motor troubles arising from the cord disease.

Paragraph 2 on page 247 seems to us confusing. Third series—"Cas où les troubles médullaires sont postérieurs aux troubles cérébraux; à cet ordre de faits appartiennent les cas de périencéphalité consécutive aux lésions des cordons postérieurs."

It is interesting to notice that either column of the cord may start the disease, but that, as a rule, the disease spreads from above downwards, and prefers the posterior parts; the degeneration in this part is said to be more superficial than in genuine locomotor ataxy, and this accords with our own experience. The symptoms of posterior spinal meningitis—which is generally chronic—are pains as of girding, hypochondriacal feelings, local tenderness, and post-mortem congestions, thickenings and new formations. These latter, as described by our author, include the bony plates, that are not uncommon in other diseases, and have nothing special about them. Occasionally acute muscular atrophy may arise from disease of cells of the anterior horn. M. Voisin has not seen any cases of labio-glossal paralysis, but the writer of this article has recently examined, both alive and also post-mortem, a case in which there were all the signs of bulbar paralysis.

One of the most alarmingly elaborate chapters of this book is No. 12, which treats of diagnosis. It contains forty pages, but we can hardly name any part that can well be spared, though it strikes us as being too lengthy.

If the mental symptoms predominate, the disease may be mistaken for ordinary insanity; if the motor predominate, ordinary paralysis may be treated; while, if we get both symptoms together, syphilitic brain disease may be overlooked.

In the first case, mania, melancholia, or congestive mania may be mistaken for general paralysis; but the diagnosis

must be made from the troubles being both mental and physical, the age, habits, diathesis assisting, the increased temperature and loss of smell being very valuable; no single mental symptom is pathognomonic. We think M. Voisin does not take sufficient notice of the emotional instability in general paralysis, as we have often made or confirmed our diagnosis from this. He is anxious to discard the terms "Mania" and "Melancholia," and in theory he is right, as he prefers the terms "simple insanity with excitement," and "simple insanity with depression;" but who would use these longer expressions, unless he intended writing books as big as M. Voisin's? It seems to us next to impossible to be quite sure about the diagnosis of some cases of depression, as they will neither speak, move, nor put out their tongues. Their temperature is not above normal, the pupils may be irregular, the skin sallow and greasy. Some such cases die after having fits, and some adhesions of membranes occur. For our own part, we do not feel much sorrow in being unable to make a definite diagnosis, but not so M. Voisin, for he would not feed and stimulate such cases if he thought them general paralytics, though we would in either case.

Our author distinguishes between congestive mania and general paralysis, by the delirium in the former being more co-ordinated, more in relation to the surroundings, and from the fact that dementia is not traceable early, at all events, and that memory is preserved. In this we are unable to hold with him, for memory is constantly lost during attacks of acute congestive mania, the somatic troubles are usually wanting, and the patients, instead of being docile and tractable, are boisterous and resisting.

There are some careless mistakes here in arrangement. Thus, we have seen at the beginning of this chapter, the three groups the author intended examining, and at page 270 we have group 2 not this time the diagnosis from *ordinary paralysis*, but from *dementia*. In separating from dementia, he treats acute dementia and melancholy with stupor, as one and the same; this is rather startling. The greatest care is necessary in separting some cases of dementia from some of general paralysis, and no general rules can be laid down: irregular pupils or a congestive seizure will do more to settle the question than aught else.

A few practical points are noteworthy here. In senile dementia somatic troubles are wanting, and pupils are not irregular; even general paralytic dements have at times

delirious ideas, which are wanting in the senile dement. Dementia, following "lésions en foyer," differs but slightly from paralytic dementia, but M. Voisin thinks there is a greater tendency to emotional display; in this we do not agree.

Multiple cerebral tumours may make the diagnosis impossible. Paralytic and epileptic dementia are nearly allied, but are separated by the history and aspect, the epileptic being generally dull and brutal-looking. Again, we meet M. Voisin's objections to general paralysis without mental symptoms, in the treatment of the group in which somatic troubles predominate.

In the diagnosis of this disease from hysterical paralysis, no mention is made of the defined hemi-anæsthesia.

In cerebellar disease, too, there may be difficulty. Andral thinks people with this are pusillanimous; at any rate, the gait is staggering, there are more distinct eye-troubles and occipital headache, with vomiting. There is also difficulty in diagnosing secondary and tertiary syphilitic brain disease, but there is no definition of what the author understands by secondary. In all cases of doubt, it is well to remember that real muscular wasting is not common in general paralysis. Local palsies and improvement by treatment greatly aid in the diagnosis of syphilitic troubles, and besides this, absence of special speech-troubles, gradual development of the symptoms, and the localised nature of the trouble complete the syphilitic picture. This chapter concludes with several fanciful cases, such as diagnoses from atropinism, brominism, &c., while lead general paralysis is spoken of as a mistake of the past. Our experience of these latter is not large enough, but we consider that lead and alcohol may both be credited with producing symptoms indistinguishable from ordinary general paralysis.

An important paragraph considers the symptoms of alcoholism and their resemblance to general paralysis. M. Voisin thinks dreams and hallucinations occur most with alcohol, loss of smell and irregular pupils with general paralysis, alcohol producing more rapid "abrutissement" than dementia.

Acute general paralysis may be confounded with almost any fever and inflammatory disease; our author would think it might rather be confounded with typhoid, in which, we suppose, he would starve or reduce the patient.

The whole disease is looked upon as an inflammation, the com-

plications being explained by congestions, by the success of anti-phlogistic remedies and the general consensus of the nomenclature. Vaso-motor influence also has its effect. As far as heredity goes, Voisin thinks that many cases belong to insane inheritance, but he does not discuss the question that is very important, *i.e.*, whether general paralysis runs the same course in cases with as without neurotic inheritance.

Much is made of bad moral hygiene, which includes all bad education, and want of control. Our author considers that the striving after riches, power, and the like, being greater than formerly, helps to increase the disease at the present time; in all cases it is the repetition that does the harm, as the repeated congestions, later on, lead to rapid progress of the disease.

The same causes may set up simple insanity or general paralysis. The explanation given of this—not to us satisfactory—is that in simple madness, the vessels are contracted, and in general paralysis they are dilated, age and temperament assisting.

In referring to over-work as a cause, M. Voisin thinks unbalanced work is most disastrous, *i.e.*, mental work of one kind, or mental work without bodily exercise. We are inclined to think, however, that we have seen diastrous results from severe mental labour when combined with a full amount of bodily exercise.

Sleeping after meals, again, is referred to, and of tobacco he says, "et la cause du tabac ne peut aujourd'hui trouver que les défenseurs intéressés." One statement astonished us much, viz., that the disease occurs mostly in the single and widowed; he says general paralysis is more common among the officers than among the privates in the army. Our author does not, in our opinion, make enough of injuries to the head or back. Sunstroke, pellagra and epilepsy are considered as causes, as also general acute diseases, such as erysipelas, pneumonia and fevers, as well as suppressions of secretions.

M. Voisin thinks that anæmic states may lead to local congestions, that end in general paralysis; congestions, again, are said to follow child birth and its troubles, and cases of this kind are described as general paralysis, in fact, the one cry is "Congestion." He opposes some of our English authorities, in his not considering "abus de coït" as a very potent cause.

The disease may follow neuralgia, and the term "mad

with pain" is suggestive; our author would subdue the pain at any cost, "il faut calmer la douleur parce que d'abord c'est là le rôle du médecin, ensuite parce que la douleur mène à la folie." This gives M. Voisin the opportunity of praising morphia, his sledge-hammer, the drug that, whatever else it does, never produces general paralysis. In most cases we should prefer to place neuralgia among the earlier symptoms of the disease, as our author himself did in discussing prodromata.

He distinctly maintains that simple insanity may pass into general paralysis, but his arbitrary time-division of the stages makes this a matter of necessity for him. The difficulties that arise in considering the relationship of acute mania and general paralysis are pointed out, and time is claimed before deciding on a case, for, says M. Voisin, the general physician hesitates between typhoid and acute tuberculosis, and has greater difficulty when pneumonia and acute tuberculosis are concerned. How much greater then must be the task when similar processes are going on in one and the same organ. He will not allow general paralysis to be an evolved mania, but something quite distinct growing from it. We must say we do not leave this part of the subject much enlightened.

Cases are given of occurrences of simple mania ending in general paralysis; some of these cases, as reported, are not conclusive. The ideas about puerperal insanity are contrary to ours. M. Voisin thinks the symptoms to be rather congestive than anæmic, or he would give opium; hence he prefers to treat these cases antiphlogistically. The disease is "general," because the congestions are general or diffused. We should think it is "general" because the whole nervous system is altered. Mental degradation is the one result of disease of the anterior lobe; this is not always true. Again, M. Voisin says atheroma of the arteries is more common in women than in men. We fancied the reverse of this was taught in England. He also thinks exaltation is due to free blood supply, just as the afflux of blood to the full stomach imparts a feeling of satisfaction. Melancholia and hypochondriacal symptoms result, according to him, from swollen membranes pressing on nerves. Lunier points out that during the trouble in France, in 1870-71, the general paralytics were just as grand as ever, but Voisin thinks the effects are now becoming visible. Some of the hypochondriacal ideas are due to changes in special or visceral nerves.

What causes the feeling of the loss of Self is an interesting question. Does analgesia produce it, or does the removal or reduction of visceral impressions produce the changed idea, as the removal of the water-wheel's monotonous sound prevented the miller sleeping. In considering the histological changes of this disease, little that is new is advanced; the ordinary changes in vessels and their sheaths are described. Pachymeningitis is again discussed, and the thickness of membranes, granulations, and other new formations of the arachnoid are noticed. Then follows, of course, a description of congestions of the membrane, especially of the anterior, and the alterations in the various elements are also noticed, quite enough importance being given to leucocytes, colloid, and other changes. The author looks upon the neuroglia as true nervous tissue, and not packing material, and spends much time in proving this to his own satisfaction. He finds the insula early affected, and seems to lay some stress on the changes in the ependyma. No special changes are described in the cerebellum, but the olfactory nerves are said to have been softened; some of the cranial nerves have disease at their roots.

The cord undergoes similar changes to the brain. Notice is taken of the frequency of changes in the posterior part of the cord, and of the vessels near the central canal. We quite agree with M. Voisin here, and are glad to find account taken of changes in the other viscera, as enough has not hitherto been said about visceral changes in general paralysis.

We have omitted notice of many well-recognised facts, such as the relationship of adhesions of the membrane to changes in the cortex, as these are so well known.

A short useful chapter follows, in which are discussed the medico-legal relationships of general paralysis, the responsibility and capacity of such patients, and the validity of their acts.

The last chapter of this book almost requires to be printed here entire; it is so full of ardent earnest faith, and of so high a moral tone, besides being so utterly unlike the scepticism of our English physicians. Therapeutic scepticism he holds to be immoral, and to retard science; it has always been injurious to mental science.

General paralysis is connected in one way or another with a cerebral lesion, says M. Voisin. This we must combat; the prophylactic treatment must be educational, and then good is done to those even who inherit neuroses. If intel-

lectual overwork has produced sleeplessness, exercise other parts of the mind and body, using great caution in exercising a delicate or predisposed brain, and, still more, if there has been an attack of insanity. Great care must be taken that the cure is complete before mental labour is renewed. Activity of intellect, affections and body is healthful, and dreamless sleep the criterion.

We can attack the cerebral lesion, though it be deeply seated. General paralysis is not beyond our resources, for we see it cured, and often it improves spontaneously. Of the means hitherto made use of, some have been injurious, and only some useful. Opium and morphia must not be used. Arsenic, ergot, digitalis, veratrum viride, sulphate of quinine, bromide of potassium, the latter alone, or combined with the iodide, should be given in all cases, and may be used in any stage of the disease. Blood-letting is indicated in robust patients, at the outset, and in apoplectic attacks. Leeches to the arms and mastoids may be frequently repeated in the early stages, but rarely in the second and third periods; purgatives are then more useful.

Blisters to the head, setons, even cauteries, are recommended. Cold baths, if carefully used, are of great service; considerable care is given to the details of the bath, as we might expect from a French physician. M. Voisin says cold baths are sure to act as antiphlogistics, tonics and derivatives. He recommends them in cases of stupor and in cases of intellectual weakness. They are also preventives of congestive attacks and bedsores, and are useful during remissions, as well as when all the symptoms have disappeared. The special uses of baths during the second and third period are discussed, and the contra-indications given. Baths are not to be used during menstrual periods, nor when they cannot be carefully watched, nor if the patients offer much resistance.

And now our work is ended, and though we began with some dread from the mass before us, and, at times, were almost weary of the careful repetition of well-known symptoms, we yet leave the book with regret, for it is the most masterly collection of facts that has yet been collected in reference to this most painfully interesting disease.

The book closes with such devout faith in treatment, that all the past weariness is absorbed into a transformation scene of hope.