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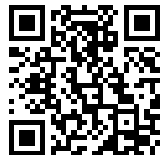
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" "
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EDITED BY

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"Nos vero intellectum longius a rebus non abstrahimus quam ut rerum imagines et
radii (ut in sensu sit) coire possint."

FRANCIS BACON, *Proleg. Instaurat. Mag.*

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"In adopting our title of the *Journal of Mental Science*, published by authority of the *Medico-Psychological Association*, we profess that we cultivate in our pages mental science of a particular kind, namely, such mental science as appertains to medical men who are engaged in the treatment of the insane. But it has been objected that the term mental science is inapplicable, and that the terms, mental physiology, or mental pathology, or psychology, or psychiatry (a term much affected by our German brethren), would have been more correct and appropriate; and that, moreover, we do not deal in mental science, which is properly the sphere of the aspiring metaphysical intellect. If mental science is strictly synonymous with metaphysics, these objections are certainly valid, for although we do not eschew metaphysical discussion, the aim of this Journal is certainly bent upon more attainable objects than the pursuit of those recondite inquiries which have occupied the most ambitious intellects from the time of Plato to the present, with so much labour and so little result. But while we admit that metaphysics may be called one department of mental science, we maintain that mental physiology and mental pathology are also mental science under a different aspect. While metaphysics may be called speculative mental science, mental physiology and pathology, with their vast range of inquiry into insanity, education, crime, and all things which tend to preserve mental health, or to produce mental disease, are not less questions of mental science in its practical, that is, in its sociological point of view. If it were not unjust to high mathematics to compare it in any way with abstruse metaphysics, it would illustrate our meaning to say that our practical mental science would fairly bear the same relation to the mental science of the metaphysicians as applied mathematics bears to the pure science. In both instances the aim of the pure science is the attainment of abstract truth; its utility, however, frequently going no further than to serve as a gymnasium for the intellect. In both instances the mixed science aims at, and, to a certain extent, attains immediate practical results of the greatest utility to the welfare of mankind; we therefore maintain that our Journal is not inaptly called the *Journal of Mental Science*, although the science may only attempt to deal with sociological and medical inquiries, relating either to the preservation of the health of the mind or to the amelioration or cure of its diseases; and although not soaring to the height of abstruse metaphysics, we only aim at such metaphysical knowledge as may be available to our purposes, as the mechanician uses the formularies of mathematics. This is our view of the kind of mental science which physicians engaged in the grave responsibility of caring for the mental health of their fellow men, may, in all modesty, pretend to cultivate; and while we cannot doubt that all additions to our certain knowledge in the speculative department of the science will be great gain, the necessities of duty and of danger must ever compel us to pursue that knowledge which is to be obtained in the practical departments of science, with the earnestness of real workmen. The captain of a ship would be none the worse for being well acquainted with the higher branches of astronomical science, but it is the practical part of that science as it is applicable to navigation which he is compelled to study."—*J. C. Bucknill, M.D., F.R.S.*

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PART 1.—ORIGINAL ARTICLES. ♦

Contribution to the Study of the Death-rate of Persons in Asylums. By ARTHUR MITCHELL, M.D., LL.D., Commissioner in Lunacy for Scotland.

In the population of Scotch Asylums, there are so few persons below the age of 10 years that, for practical purposes, it may be correctly said there are none. Of the general community, on the other hand, 25·6 per cent. are persons below that age. It is clear, therefore, that the death-rate of the population of asylums cannot properly be compared with the death-rate of the general population. To make such a comparison it is necessary to deal only with the deaths occurring among the 74·4 per cent. of the general community who are above the age of 10 years. When this is done, it appears that the mean annual death-rate for the general population is 1·7 per cent. as compared with 8·3 per cent. for the population of asylums. These figures refer to the whole population of asylums, and to the whole of the general population above the age of 10 years; but in order to show the rates at which persons of different ages die in asylums, and the rates at which persons of corresponding ages die in the general community, the following table has been prepared. It is founded on 3,800 deaths occurring during the seven years, 1870-1876, in the Asylums of Scotland, which had a mean population of 6,421 during those years.

This table shows that the inmates of asylums, at all the quinquennia between the ages of 10 and 50, die pretty nearly at the same rate, with the exception of those whose ages fall in quinquennium 25-30, among whom a distinctly lower death-rate occurs.

In the general population, on the other hand, the death-rates for all the quinquennia between 10 and 50 increase in geometrical progression as the ages rise.

Age in Year.	Mean annual mortality per 100 persons resident in asylums at different ages.	Mean annual mortality per 100 of the general population at different ages.	Number of deaths in Asylums to one death in the population at different ages.	One death annually in persons living of the general population at different ages.	One death annually in persons living in asylums at different ages.
From					
10 to 15.....	6·2	·58	10·7	172·71	16·1
15 to 20.....	6·8	·79	8·6	126·74	14·7
20 to 25.....	6·3	·99	6·4	101·11	16·0
25 to 30.....	5·1	1·05	4·9	94·88	19·5
30 to 35.....	6·2	1·09	5·7	91·82	16·1
35 to 40.....	6·4	1·29	5·0	77·34	15·6
40 to 45.....	6·8	1·33	5·1	75·36	14·8
45 to 50.....	6·8	1·66	4·1	60·13	14·7
50 to 55.....	7·9	1·97	4·0	50·84	12·6
55 to 60.....	9·1	2·47	3·7	40·49	11·0
60 to 65.....	11·7	3·32	3·5	30·09	8·5
65 to 70.....	15·0	4·72	3·2	21·20	6·7
70 to 75.....	18·7	6·91	2·7	14·47	5·3
75 to 80.....	26·7	10·89	2·5	9·18	3·7
80 to 90.....	39·6	20·63	1·9	5·13	2·5
90 to 100 ...	20·4	38·41	0·5	2·63	4·9

After the age of 50, that is, when the working period of life is over, the death-rates in asylums rise from quinquennium to quinquennium by a considerable but irregular progress.

In the general population again, after the age of 50, the rise is rapid and steady.

The third column of the table shows the proportions which the asylum death-rates at different ages bear to the death-rates at corresponding ages in the general population. For example, it shows that for every death yielded by 100 persons of the general population whose age falls between 10 and 15 years, 10·7 deaths are yielded by 100 persons in asylums whose age falls between the same years; and so in like manner with the other quinquennia. It will be seen that the figures in this column steadily fall as the ages rise: the asylum death-rate for the quinquennium 10-15 being 10½

90
to
100

1·0

·286

28·6

—
·286

1·0

·143

14·3

0·5

1·0

3·5

·714

0·4

times the death-rate for that quinquennium in the general population, while the asylum death-rate for the quinquennium 75-80, is only $2\frac{1}{4}$ times the death-rate for that quinquennium in the general community.

The fourth and fifth columns are intended to exhibit the figures of the third column in a different aspect. The figures in these are read in the following way:—172·7 persons in the general community between the age of 10 and 15 yield one death annually, while 16·1 persons in asylums between the age of 10 and 15 yield one death annually; and so on in like manner with the other figure of the two columns.

It is scarcely necessary to point out that little reliance can be placed on the figures relating to ages from 80 to 100.

The annexed table shows—(1) the mean numbers resident in the different classes of establishments, and in all establishments, in Scotland, at different ages, for the period 1870-1876; (2) the mean yearly number of deaths at corresponding ages which occurred in these different classes of establishments, and in all establishments, during the same period; and (3) the mean yearly deaths per 100 of the mean numbers resident at the different ages.

This table exhibits in detail the material which was employed in constructing the first table; but its chief use lies in this, that it shows the progress of the death-rate for different ages in asylum communities to be substantially the same in the Royal, District, and Parochial Asylums when they are taken separately, as it is in all kinds of asylums when they are taken in mass. It will be observed that even the exceptional character of the death-rate for the quinquennium 25-30, which was seen in the figures relating to all asylums, appears also, more or less distinctly, in the figures relating to these three classes of asylums when they are dealt with separately.

The population of Private Asylums and also of the Lunatic Wards of Poorhouses, is too small to yield useful results in this matter when these establishments are dealt with apart from others.

The following table is added for the convenience of those who may be interested in this research. No explanation of it is needed :—

Ages in Years.	Proportion of persons at different ages in 1,000 of the whole population of Scotland above ten years of age.	Proportion of persons in asylum at different ages in 1,000 of the whole population of Scotch Asylums.
From		
10 to 15	148·9	1·8
15 to 20	134·3	18·3
20 to 25	117·0	50·8
25 to 30	101·9	87·2
30 to 35	88·1	116·7
35 to 40	75·7	127·0
40 to 45	70·3	127·8
45 to 50	59·0	116·6
50 to 55	53·9	105·2
55 to 60	42·0	83·6
60 to 65	39·4	68·3
65 to 70	27·0	45·0
70 to 75	21·8	31·7
75 to 80	11·5	16·3
80 to 90	8·5	3·1
90 to 100.....	0·7	0·5
100 and upwards.	0·03	

Uses and Abuses of Chloral Hydrate.—By GEO. H. SAVAGE, M.D., London.

In a short paper like the present I cannot pretend to exhaust the chloral subject, but I hope very definitely to express my opinions, and also to give the grounds on which I have formed them.

A remedy like chloral has to pass through two periods of trial before its real value is determined.

It was announced as a grand sleep-giver, a drug that gave perfectly natural sleep, and produced no evil effects, did not require an increasing dose, in fact, was what half those earning their bread by their brains required.

In my opinion the drug has signally failed in every one of the promises made for it, but, perhaps, I represent the second

period of trial, the period of unbelief, if so I shall be glad of facts that will adjust the balance.

I should begin by saying that, as a sleep producer, it is powerful, but sleep is not the one thing needful to cure insanity, and sleep may be obtained at too dear a price. A recent writer said we had passed from a time of physical restraint to one of medical restraint. I do not think the profession has passed, but I confess to believing that great risk has been run, and that without energetic protest the harm will be done.

We must not quiet our patients for the sake of quiet. If they get well more rapidly without chloral, I prefer to have them noisy and sleepless.

There is a great difference in treating patients, whether at their homes or in asylums. It may be both necessary and judicious to quiet in the former, and not in the latter, and if quiet is essential, chloral is no worse than some other drugs.

In asylums for acute cases chloral is not necessary—in my opinion—and often is harmful.

I shall consider chloral, first as a possible cause of insanity, and next as a remedy.

As a cause, I have seen its constant use for one or two years produce melancholia, associated with great prostration, loss of flesh and strength, a sallow, worn aspect, great irritability and nervousness, with strongly suicidal tendencies. I have the experience of several personal friends, men who were working hard with their brains, and who suffered from sleeplessness. These found chloral a boon at first, but by continuing its use they lost in physical health, and the sleeplessness became more unbearable.

It is rather difficult to explain this more active sleeplessness, but, doubtless, many of my readers know the less distressing stages of it. The chloral-taker often on going to bed, after a hard day's work, feels not only unable to sleep, but actively, restlessly wakeful, so that he is unable to remain more than a minute in one posture. There is no special or pleasing flow of thought, no equal brain activity, but often a feeling of depression, and a dreadful impulse to injure oneself without any object or any cause of woe.

This impulse was described rather as a feeling like the one impelling people to throw themselves from heights.

In assuming that chloral was a cause of insanity, I must admit that often it was only one cause. The chloral-taker was sleepless from brain exhaustion, or brain irritation, from

over-work or over-stimulation, and in some cases had insane inheritance, but this is true of many other causes. A shock or a blow may only produce insanity under similar circumstances. I have seen one case of insanity follow the suicidal taking of an enormous dose (two ounces), by a person used to excess of stimulants and the habitual use of chloral. This case became slowly weak-minded, and did not recover. In this case there was doubt expressed by at least one authority on the part played by the chloral, as there were added other serious causes of trouble, but the fact remains that till the large and almost fatal dose was taken, marked insanity was absent.

In several other cases the prolonged use of increasing doses of chloral seemed slowly to develop ill health and melancholia, accompanied by refusal to take food. In one the husband took a fatal dose, and his wife, who was also chloral-taker, became insane.

In another, an elderly woman exhibited, in an exaggerated form, the dread and agitation common to those using the drug, and had to be fed by the stomach pump. She slowly lost strength in mind and body, and was discharged uncured.

Though these are in no way peculiar in their form of insanity, I am convinced the cause was chloral. Of course I do not believe that patients are made insane in asylums by the use of the drug, as the outside world has supposed, but I am convinced that many cases of acute insanity are injuriously affected, and, in some instances, allowed to die through the use of chloral. A large proportion of the cases of puerperal insanity that are now admitted into Bethlem have passed through a course of chloral treatment, which means that they have been dosed into quietness, till they have refused food. Such cases take longer in recovering, and are more troublesome to treat, from their physical exhaustion and their refusing food.

Having so far only expressed my dislike to the drug, or, in other words, spoken of its abuse, I would pass on to say what I believe to be its uses.

It has been used in—1st, sleeplessness; 2nd, in various forms of insanity; 3rd, in several stages of epilepsy. In reference to the first, I have seen sleep produced by chloral, when the wakefulness was not due to pain, but if this sleeplessness were the initial stage of insanity, I have not seen the attack warded off by the sleep. In a few cases where over-work or anxiety is affecting the health, a single dose of

twenty-five grains at bedtime is of service, but I should rarely give it regularly.

For simple sleeplessness in the brain-worker, who has little or no bodily exercise, sleep may be induced, and work got through that could not have been done without some sleep, but, in my experience, this is done by drawing on the capital of energy, and if pursued will end disastrously.

In a few sleepless persons chloral seems to act uniformly well, and does not require increasing doses, and does not affect the appetite or general functions. In such cases it may be of great service.

I believe, however, that simple sleeplessness is much better treated by other general measures before chloral is tried.

2nd. In some cases of maniacal excitement the patients are controlled and made manageable. According to some authorities the sleep induced in some of the most violent of such cases saves them from death by exhaustion. This seems probable, but in practice I find stimulants and abundant light food act just as well.

In some cases of recurrent mania with great violence, the drug has been given in large and repeated doses, gradually increasing, till at length we have reached two drachms every four hours, and no beneficial result has followed.

In melancholia one does not get good results by either occasional or regular administration.

In general paralysis I have not dared to give the drug any long trial, as I felt that I was running the danger of removing one stone from the tottering structure.

In cases of insanity following blows, shocks, and the like, I believe excitement is produced much like that produced by alcohol in cases of injury to the head.

In acute insanity with intemperance, a few cases were relieved by chloral.

In speaking above of the treatment, I refer to my experience of chloral alone. In some future papers I may speak of its combination with other drugs.

In the third group I place epileptics, and with these I have greater faith but less experience.

I know of no good results following the use of the drug in simple epilepsy, but in patients who have furor associated with the fits, the benefit is very great and very certain.

I have frequently seen a case that without chloral was dangerously maniacal, for several days sleep quietly, after thirty grains of chloral, and wake up sane, having had an

epileptic fit but no furor. Every fit that was not followed by a dose of chloral was followed by a fit of mania.

I have now expressed my belief, which may be summed up to be that chloral may produce physical ill health, hypochondriasis and insanity. It may relieve epileptic furor, but cannot cure epilepsy. It may produce sleep in some cases with advantage, but more commonly disadvantageously. It may be used as restraint rather than as treatment in violent cases.

Five Years of Statistics.—By P. MAURY DEAS, M.B. Lond.,
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Macclesfield.*

The object which I propose to myself in this paper is twofold. The first is to lay before you briefly the general statistical results of five years, in regard to those who have been sent for treatment from the districts of Cheshire, to which the asylum is allotted; and the second is to give the results of some further experience, as bearing on the question of "Local Differences in the Distribution of Insanity," of which I adduced some illustrations in my Annual Report for 1873, and which were subsequently published in a separate form in the "Journal of Mental Science" for April, 1875.

In regard to the first division of my subject, that of the general statistics, I wish to explain at the outset that the plan on which I have drawn them up has special reference to the question of the increase of insanity.

In the address which I delivered on the Prevention of Insanity, on assuming the chair as President of the Society in November last, I said, while discussing the great and steady *apparent* increase of insanity, that "there are, at present, I believe, no reliable data for determining the important point whether the *incidence* of insanity is on the increase; that is to say, whether the number of *new* cases arising each year is increasing in a greater ratio than the population, although I think that it would not be difficult to set on foot a statistical enquiry in relation to the classes, at any rate, from which our County Asylums are fed, which would go far to settle the point."

At present there are very great divergencies of opinion in regard to this question of the increase of insanity; and if

* Read at a Meeting of the East Cheshire Medical Society, April, 1878.

there is not much accurate knowledge on the subject, there are, at all events, strong assertions and dogmatic statements on both sides. It is not, I think, very creditable that such an important question should continue indefinitely to be at the mercy of vague impressions and inferences, and it is time, surely, to attempt to subject these to the test of numerical enquiry.

Imbued with this idea, I would venture, though with considerable diffidence, to suggest a method of drawing up asylum statistics, which, while possessing, in my opinion, other advantages as well, would afford, in time, fairly reliable grounds for answering the question—Is insanity on the increase in any particular district? At present there is a great mass and variety of statistics published every year in regard to insanity and the working of our asylums, but it is very questionable, I think, whether the general interest of these is at all equivalent to the labour bestowed on their preparation, or whether any safe and reliable conclusions could be drawn from them.

The principle which I wish to advocate is that the statistics should embody the history of the cases placed under treatment during a certain given period, so that all the facts and all the conclusions drawn from them may refer to the same set of cases. Each period would then stand by itself, and the results could fairly be compared. At present the total statistics are given for each year, but there is no unity running through them. The admissions, for instance, are those of the year, but the discharges and deaths include those admitted in previous years. In the same way the various statistical information given as to causes, duration of the disease, ages, &c., does not refer throughout to the same individual cases.

If statistics are framed on the principle indicated, and if, at the same time, the particular asylum is so situated as to receive *all* the cases from a certain defined district, we may then, I think, draw fairly reliable inferences from the figures.

The practical method which I would suggest, and which I shall presently illustrate, is that five years should be taken as the unit of statistical enquiry, and that at the end of twelve months after the termination of the five years, stock should be taken, as it were, and the results of treatment, along with other statistical particulars, summed up, as far as the cases admitted during the five years are concerned. Each quinquennial stock-taking would then not only afford grounds of

comparison much more reliable than are attainable at present, but the actual statistics would possess an interest and value impossible under the existing hap-hazard system.

Five years I have selected as the unit, as being a convenient space of time; on the one hand not too extended, and on the other long enough to do away with some of the sources of fallacy attaching to short periods. The object of allowing twelve months to elapse before the figures are made up is that thereby the results of treatment in regard to recovery can be given almost absolutely, and the death rate will also thus pretty accurately represent the mortality from the direct effects of diseases of the nervous system, as well as from other diseases existing at the time of admission. Of course both these limits of time are open to criticism, and are merely suggested as "convenient."

Another point I would just mention: At the end of every five years there would, of course, be a certain balance remaining—a residuum—which would represent the amount of the tendency of chronic cases to accumulate in the asylum; and the natural check to this tendency, viz., the mortality among this residuum, during the next quinquennial period, would be the truest test of the *general* sanitary condition of the population. This death-rate could be kept distinct from the death-rate among the cases admitted during each five years, and by this means there is no doubt that a much truer standard of comparison would be obtained in regard to the mortality among the insane in different districts, and also in regard to the sanitary condition of different asylums.

In turning now to the statistics of five years in this asylum, treated in this way, I may say that we are very favourably situated here, inasmuch as all the pauper insane of one division of Cheshire, comprising a small number of large unions, are sent to us; and also from the asylum accommodation being ample, no cases are sent elsewhere for treatment, as is so frequently the case in other districts. In fact, there is but one source of fallacy; and that is the cases who may be detained for treatment in the workhouses, without ever being sent to the asylum at all.

If we are favourably situated in regard to this enquiry, as far as its completeness and accuracy are concerned, we are by no means so in regard to the preparing of the statistics, owing to the very large number of cases which we have from other counties, which renders the work of isolating those of our own county one of considerable time and trouble.

The period embraced is from 1872 to 1876 inclusive.

The total number of admissions in these five years was 505, viz., 274 men and 231 women.

The first step necessary is to deduct from these the cases re-admitted during the period, amounting to 30 in all; 19 of the instances referring to men, and 11 to women.

These 30 include each *instance* of re-admission; the individuals being only 23. This matter of the re-admissions or relapses, is a very important one; want of due regard to it may cause quite an erroneous estimate of the actual *production* of insanity going on in a district. Seventeen men and six women were admitted twice during the five years; one man and one woman three times, and one woman no less than four times.

The net number of individuals under treatment is thus reduced to 475—255 men and 220 women.

But even this does not fairly represent the production of insanity in the district. To get at the number of strictly new cases, those must further be deducted who are reported to have had "previous attacks," in addition to those actually admitted more than once in the five years.

This number amounts to 55—18 men and 37 women.

Thus, out of 475 patients, it may be said that 78 had had more than one attack, or one-sixth of the whole number.

The actual number of entirely new cases is thus brought down to 421—237 men and 183 women. A noticeable point here is the large preponderance of the men over the women, the former exceeding the latter by almost 30 per cent.

There is also rather a singular point in regard to the relapsing cases. It is usually recognised that women are more liable to relapses, or to have subsequent attacks, than men. Now of the 23 patients who relapsed during the five years, 15 were men and only eight women. But, on the other hand, of the 55 patients who had had attacks at some former period, 18 were men and 37 women.

Taking both together, 33 men and 45 women had shown a tendency to relapse, which is in accordance with ordinary experience.

Perhaps an explanation of the apparent anomaly, if more than accidental, may be found in the fact that the majority of the relapsing cases among the men were due to drink: these recovering once, were admitted again, labouring under general paralysis or permanent insanity. In women, on the other hand, although there is a greater tendency to relapse, the attacks being more due to functional or moral causes, the

prospect of recovery is greater, even after two or more attacks; and the attacks themselves may be separated by considerable intervals of time.

Before tracing how these 475 cases became disposed of in the course of six years, or by the end of twelve months after the last case was received, a few statistics may be given as to the types of insanity from which they suffered, and the causes of the disease, so far as they could be ascertained. In regard to the nature of the cases, 159, or exactly one-third, suffered from forms of insanity which practically must be regarded as forbidding all hope of recovery from the outset. The following table classifies these cases under four heads:—

	M.	F.	T.
General paralysis	50	6	56
Epileptic insanity	28	23	51
Insanity, associated with other organic } brain diseases, or senile decay ... }	22	13	35
Congenital insanity (idiocy or imbecility) ...	15	2	17
	<hr/>	<hr/>	<hr/>
	115	44	159

The most striking point in these figures is the great excess of hopeless forms of insanity among the men, as compared with the women, caused largely, but not entirely, by the very large amount of general paralysis among our male patients, amounting to no less than one-fifth of the whole number admitted. For better comparison the above figures are thrown, in the following tables, into percentages on the total number of men and women respectively:—

	M.	F.
General paralysis... ..	20	3
Epileptic insanity... ..	11	10
Insanity associated with other organic } brain diseases or senile decay ... }	9	5
Congenital insanity	6	1
	<hr/>	<hr/>
	46	19

To the above may be added cases of ordinary insanity, but in whom the disease was in such a chronic state on admission as to preclude all hope of recovery. These amounted to 30—10 men and 20 women.

The total number of cases, therefore, who admitted of treatment with a view to recovery is thus reduced to 286—130 men and 156 women; or, in the case of the men, about

50 per cent. ; in that of the women about 70 per cent. of the total number.

In regard to the important question of the probable causes of the malady, this is often a very difficult matter to ascertain with anything like certainty. Often the needful information is wanting, it may be from ignorance, or it may be intentionally suppressed. On the other hand, trivial and insufficient circumstances are not unfrequently alleged as the cause, or a fact is stated as the cause, which is really a symptom of the disease. Then again, more than one genuine cause may have co-operated in producing the attack. All this renders great caution necessary in drawing conclusions from statistics under this head. Still, with care, the potential cause can be assigned with tolerable accuracy in a very considerable number of cases ; and results are thereby evolved possessing considerable general interest.

I have been able to assign causes, with a fair amount of accuracy, in 368 cases—195 men and 173 women.

The following Table exhibits the causes, arranged in certain natural groups :—

	M.	F.
Moral causes, including business anxiety } and overwork }	47	41
Intemperance... ..	46	19
Impaired health, or accidental injury ...	27	34
Puerperal and other conditions arising from } disordered female health ... }	—	29
Epilepsy	28	23
Other diseases of the brain and old age ...	22	13
Congenital defect, or hereditary predis- } position }	25	14

It will be observed that about one-fourth of the cases were due to moral causes, and three-fourths to physical, or constitutional causes.

The proportion due to the former class of agency is about equal in the two sexes ; but among the physical causes it will be seen that intemperance was the cause in 46 men, but only in 19 women, while, on the other hand, impaired health, including disorders peculiar to their sex, was the cause in 63 women ; but only 27 cases among the men appeared to be due to affections of the general health.

And now to follow out the history of the cases admitted during the five years.

The following statement shows how they had been disposed of by Dec. 31st, 1877:—

	M.	F.	T.
Cases admitted	255	220	475
Discharged			
Recovered	98	119	217
But deduct for relapses	16	9	25
	82	110	192
Not recovered... ..	15	9	24
Died	93	47	140
Total removals	190	166	356
Balance remaining	65	54	119

The general result is that three-fourths of those admitted were removed by discharge or death, and one-fourth remained as a residuum. Of the 119 remaining 70 belonged from the outset to the incurable class, from some of the causes mentioned before; in the others amounting to 50—30 men and 20 women, the disease had developed into chronic, intractable forms of insanity. In only three did there still remain some faint hope of recovery.

I stated before that the numbers practically admitting of curative treatment were 130 men and 156 women. Out of these, therefore, about 23 per cent. of the men and 12 per cent. of the women resisted treatment, and passed into a chronic, incurable state. Of the remaining 100 men and 136 women, 82 men and 110 women actually recovered, the remainder having died or been discharged unrecovered.

The percentage of recoveries on the total number of cases is 40, that for the men being 32, for the women, 50, showing a great preponderance in favour of the women; but if we calculate the rate, after deducting the cases incurable from organic disease, &c., the percentage in the sexes is much more equal, being 63 for the men and 70 for the women.

The much less favourable nature of the types of insanity among the men than among the women is shown still more strikingly by the relative death-rate. Of the 255 men admitted during the five years, 93 had died by the end of 1877, while only 47 had died out of the 220 women; the rates per cent. being 36 and 21 respectively.

The causes of death may be classified as under:—

	M.	F.	T.
Cerebral affections	66	20	86
Respiratory diseases	5	3	8
Cardiac „	4	3	7
Phthisis pulmonalis	8	8	16
Other diseases, including senile decay	10	13	23

Upwards of 60 per cent. of the mortality is thus seen to have been due to cerebral affections. The great difference, too, between the death-rates of the men and women is seen to be due solely to the fact that 46 more men than women died from brain disease, which, singularly enough, is precisely the excess of the male over the female deaths, the number from ordinary causes being exactly the same in the two sexes, and amounting to about 11 per cent. on the total number of cases.

It may be noticed, finally, that the inequalities in the recovery and death rates of the two sexes seem to compensate each other, from a numerical point of view; for the proportion which the cases remaining bears to the total number, is precisely the same among the men and the women, namely, 25 per cent.

In concluding this part of my subject, I think I may claim that in the plan of statistics which I have exemplified are embodied the main points of medical and general interest, arranged on a consistent and intelligible basis, and well adapted for purposes of comparison, not only in regard to different institutions and districts, but what is equally important in regard to different periods in the same district. In particular it affords an easy and fairly reliable means of gauging what, if any, increase is taking place in the production of insanity, and how far an apparent increase is due to re-admitted cases, or to the accumulation of a chronic residuum.

The second subject on which I wish to lay before you some statistics is with regard to some remarkable differences which I had been led a few years ago to observe in the amount and types of insanity in different divisions of our district, as illustrated by the cases sent for treatment to the asylum. My object was to correct and check by the results of further experience the conclusions which I then arrived at, and by an analysis of the cases sent from the different unions during the five years already referred to, to see if any further support is given to the theory advanced, that “within very narrow limits, as regards locality, great differences may be observed in the distribution of insanity.”

In the following table the first column shows the total number of cases received from each of our five unions during the years 1872-76 inclusive, and the second table shows the number which would fall to each union if the total number received were divided *pro rata* in proportion to the population:—

		Actual Number Received.		Proportion according to the Population.
Altrincham...	...	90	...	89
Ashton ...	...	43	...	84
Congleton ...	...	65	...	61
Macclesfield ...	...	137	...	103
Stockport ...	...	134	...	131

In three of the unions the actual numbers and the proportional numbers correspond very closely, but in Ashton the actual number is much below the estimated, and in Macclesfield it is very considerably above it. Perhaps it will put this more clearly if it is stated that while in the cases of Altrincham, Congleton, and Stockport the admissions amounted to 18 to each 10,000 of the population, the number from Ashton only represented 9 to each 10,000; while in the case of Macclesfield it amounted to 23. Now, on examining the relative proportion of the sexes among the admissions from the different unions, I find that while in the three first named unions the men and women are pretty evenly divided, the percentage of men being respectively 55, 57, and 45, in the case of Ashton the proportion of men is only 40 per cent.; while in the case of Macclesfield it amounts to 62 per cent. of the admissions.

In regard, now, to the prevailing types of the disease in the different unions, the following table shows in juxtaposition the total numbers, the number of cases depending on organic cerebral disease, including general paralysis, epilepsy, softening of the brain, &c., and the percentages of the latter on the total number:—

	Total Number.		Number of Organic Cases.		Percentage of Ditto.
Altrincham ...	90	...	25	...	28
Ashton ...	43	...	5	...	12
Congleton ...	65	...	17	...	26
Macclesfield ...	137	...	66	...	47
Stockport ...	134	...	30	...	22

This brings out the striking fact that while among the Ashton cases only 12 per cent. were of the unfavourable type indicated, no less than 47 per cent., or nearly one-half of the Macclesfield cases, were affected with organic disease of the brain. As I have indicated before, much the larger proportion of these cases occurred amongst the men; but it may be remarked that the proportion among the women from the Macclesfield district was also much higher than in the other districts.

I may further add in regard to the special disease, general paralysis, that the cases sent from the Macclesfield Union exceeded in number those sent from all the other unions put together, there having been 30 such from Macclesfield and 27 from the other four unions. As to cases of softening of the brain and other allied affections, there were 20 such from Macclesfield and 16 from all the other unions. On the other hand, the union which appears at the opposite end of the scale is only credited with one case of general paralysis and one depending upon softening of the brain, a state of matters equally happy and rare. In regard to epilepsy, the same great disparity does not appear to exist; the 51 cases of insanity depending upon this disease being pretty evenly distributed amongst the different unions.

In order further to illustrate the subject, in the following table are given the results of treatment in the cases belonging to the different unions, in the shape of the percentages of recoveries, deaths, and residuum remaining under treatment:—

		Recovered.		Died.		Remaining.
Altrincham	...	44	...	28	...	20
Ashton	...	53	...	16	...	28
Congleton	...	52	...	30	...	12
Macclesfield	...	29	...	40	...	25
Stockport	...	39	...	25	...	30

This shows, what would be expected from what has gone before, that a very small percentage of the Macclesfield cases recovered, and a very large percentage died; while in the Ashton cases the highest percentage of recoveries coincided with a very low death-rate. The proportion remaining under treatment is, however, pretty equal, the total removals, though from different causes, balancing each other.

The smallest residuum occurs in the case of Congleton, where a high rate of recovery coincided with a high death-

rate, a conjunction favourable for the ratepayers if in no other way.

Without wishing to press the matter too strongly, I think I may fairly say that the result of the above analysis of the cases received from the different unions during a period of five years tends to support the thesis with which I started, and to a large extent is in accordance with the conclusions formerly drawn from a less extended period of observation.

Nothing, I think, could well be more striking than the figures in relation to the Macclesfield Union on the one hand and to the Ashton Union on the other. Even if the conditions giving rise to the state of matters indicated in reference to Macclesfield should only be temporary, and pass away again, there can be, I think, little doubt that during the period referred to a wave has at any rate passed over Macclesfield, carrying with it an increased production of insanity, and insanity of a very bad type. Possibly the great depression of trade coming after a period of great prosperity and high wages might tend to produce such an effect. But I ought to say that I have examined very carefully into the admissions from the different unions in regard to the causation of the disease, but I have been quite unable to elucidate any facts throwing light on the matter in hand. In particular, as to the question of intemperance, the number of cases from the Macclesfield Union in which this was assigned as a cause was not excessive, and considerably less, as it happens, than among the Stockport cases. But it must be admitted that the data for enabling one to come to any conclusion on the matter of causation are very imperfect, as may be gathered from the fact that in at least one half of the Macclesfield cases I have been unable to assign any cause at all.

In spite of the difficulties and uncertainties, however, which beset the question of the local varieties and distribution of insanity, I nevertheless think that it is a subject well deserving of more attention than it has yet received, and one a careful study of which might yield important results. It is with this object in view that I have thought it advisable again to refer to the facts bearing on this matter which have so far come under my observation in this district, and I should feel glad if any others with means and opportunity, and where the conditions are favourable, should think it worth while to examine if similar variations do or do not exist in other districts as well.

In conclusion, as lending a certain *à priori* probability to

the existence of such local variations, I would just allude to the wider geographical differences which are well known to exist in regard to the distribution of insanity or of particular forms of brain disease. One of the most remarkable of these is the undoubted fact that general paralysis is all but unknown in Ireland. It is again more common in the northern and midland districts of England than in the southern, and more frequent in England generally than in Scotland. Similar remarkable differences exist in regard to the insanity associated with epilepsy. For one case of that form of insanity to be seen in a Scotch asylum, there are, I suppose, ten or more to be seen in English asylums; and it is more common in the south of England than in the north—the reverse of what holds as to general paralysis. Analogy, therefore, rather favours the idea that the factors which give rise to insanity may vary greatly, even within narrow limits, as to locality, and that differences may exist in regard to particular forms of the disease in places quite close to each other, but separated, it may be, by endemic differences in reference to the causation of disease, whether in relation to hygienic conditions, prevailing occupations, the social habits of the people, or other circumstances.

On Forced Alimentation. By FREDERICK NEEDHAM, M.D.,
Medical Superintendent of the Hospital for the Insane,
Barnwood, near Gloucester.

No part of the treatment of certain conditions of insanity is more important than that which relates to the administration of food when from any cause there is inability to take it, or persistent refusal of it.

To decide when to feed, and when it is safe to abstain from doing so, one can follow no fixed rule, but must, of course, be determined by the physical state of the patient and by his antecedents; but it may be definitely assumed that if we err in any direction we shall do so with least detriment to our patient's prospects of recovery in the forcible administration of food at a very early period after its first persistent refusal.

The method of feeding, as I need scarcely say, must depend largely upon the cause to which the indisposition to take food appears to be due, no less than upon the possibilities of the manner of feeding itself. From a somewhat lengthened experience in a mixed asylum, I venture to think that per-

sistent refusal of food is a much more frequent concomitant of the insane condition in private patients than in those of the pauper class, and I should say that in them it is both more obstinately maintained and more largely dependent upon delusion as to the bodily condition of the patient, and the character of the food itself.

Where the cause of refusal is delusion of this kind, it is commonly sufficient to feed in the usual way by means of the œsophagus tube and pump, but where it depends upon a disordered state of the digestive organs, this mode of feeding is frequently rendered impossible by the irritable condition of the stomach and œsophagus, and the consequent rejection of the food immediately it reaches the stomach. Sometimes the mere introduction of the tube renders subsequent feeding an impossibility, either by causing retching, or by impeding the free entrance of air into the trachea; and in such cases we have no option but to adopt measures which shall give rest to the irritable membrane while we maintain the strength and nutrition of the patient. For this purpose the regular and prolonged administration of nutritive enemata has been attended in my practice by the best results.

I can, of course, claim no novelty for a method of treatment which is both old and commonplace. My only object in making this contribution to the literature of the subject is to direct renewed attention to its value, by placing upon record a short series of cases in which it has been adopted during more or less prolonged periods, not only safely, but with marked benefit to patients, to whom the administration of food by the stomach was, so far as I could see, obviously impossible.

CASE I.—W. P. Male, aged about 50. Admitted into the York Lunatic Hospital on the 10th August, 1860. He was in an extremely feeble state of health, and the subject of general paralysis. The right arm was nearly powerless, and the power of articulation almost gone. Both lower extremities were very feeble, but he was not decidedly paraplegic. Head very small and narrow, and mental condition that of advanced dementia. He had been persistently intemperate, and the mental attack had lasted 16 years. There was hereditary predisposition to insanity.

The following entries in the case book record the progress of the case :—

Sept. 24.—Physical condition better. Takes food freely. Mental condition unaltered.

Oct. 18.—Better in many respects, and stronger.

Nov. 3.—Not nearly so well in any respect. Begins to refuse food, and repeated attempts to feed by means of the tube and pump produce symptoms of suffocation and choking. Ordered enemata of four ounces of strong beef tea (one pound to half a pint) and half an ounce of brandy four times a day.

Dec. 4.—The muscular feebleness has increased. Still fed with the enemata, of which he has five daily. Has taken no food since November 3rd.

He was regularly supported by means of the enemata, gradually becoming more and more feeble, until the 2nd February, when he died from paralytic exhaustion. He was thus constantly fed by means of the enemata for twelve weeks, no food whatever being taken into the stomach, and, during that time, his strength and nutrition were as fully maintained as, judging from experience in other similar cases, they would have been by the administration of food by the pump in the ordinary way.

CASE II.—M. A. S. Female, aged 35, who had been an inmate of Barnwood House since August, 1871, was attacked with severe tonsillitis, accompanied by diphtheritic symptoms on the 17th November, 1876. She was able to take food fairly up to the 21st, when her ability to swallow ceased, and four enemata of strong beef tea and brandy were given to her. On the next day she had six, and these were repeated daily until the 25th, when she was again able to take food, and continued to do so up to the date of her convalescence.

CASE III.—A. R. Female, aged 47, was admitted into Barnwood House on the 18th May, 1877, suffering from a first attack of acute mania with the ordinary symptoms. Apparent cause, climacteric. On the 22nd she absolutely refused food, and on the morning of the 23rd she was fed by means of the tube and pump and again in the evening. But on the last occasion only a very limited quantity of food could be given to her on account of the violent retching which was induced by the mere introduction of the tube. The bowels were confined, and the tongue was coated. She was ordered to have a drop of croton oil, which procured free action of the bowels.

May 24.—Feeding by means of the tube had to be finally discontinued, in consequence of sickness and difficulty of breathing, which all attempts at its employment immediately induced. Four injections of strong beef tea and brandy were given in the course of the day, and were all retained.

May 27.—The enemata have been continued to the number of six each day, other food being persistently refused. To have two grains of calomel.

May 31.—Is better and quieter. Takes a very small quantity of cold milk at intervals. The strength is greater, and the tongue begin-

ning to clean, and the patient's general appearance is much more satisfactory.

June 1.—Much more excitable. Has taken three pints of milk. To have four injections in place of six.

June 5.—Has been induced to take but a very small quantity of milk, and the enemata have been again increased to six daily.

June 9.—Has not varied since the last entry. Has had the six injections daily.

June 13.—Has taken no food until to-day, when she drank $2\frac{1}{2}$ pints of milk. Is fairly strong, and has a good pulse, and a clean tongue. She is a little thinner, but otherwise in a satisfactory state. To have four injections, and to be constantly tried with varied food.

June 21.—Better in all respects. Is quieter and more rational. Takes her food well, and has ceased to have the enemata.

On the 1st August she was in excellent health, and was discharged on two months' trial.

In this case the enemata were continued for three weeks, small quantities only of milk being taken at infrequent intervals.

CASE IV.—L. J. S. B. Female, aged 19, was admitted into Barnwood House, March 8, 1878, suffering from a first attack of acute mania, with the ordinary symptoms. Apparent cause retrocedent eczema. Had persistently refused food prior to her admission. Tongue coated, bowels constipated, otherwise in fair physical health. To have one drop of croton oil.

March 10.—The bowels have acted freely, and she has taken a little nourishment, but only after continued persuasion by the Assistant Medical Officer, Mr Townsend, and myself.

March 11.—Refused food entirely, and was fed with the tube and pump.

March 12.—Still refuses food, and all attempts at feeding make her violently sick, and induce symptoms of impending suffocation, although the tube was introduced very gently and gradually, and to varying extents, down the œsophagus. To have six injections daily of strong beef tea and brandy.

March 15.—No food has been taken until to-day, when she drank a pint-and-a-half of cold milk.

March 20.—Has taken very small quantities of milk up to this date, and continued the enemata. The strength and nutrition are perfectly maintained. Tongue clean, bowels regular.

March 27.—Has taken food well since the last entry, and her mental condition is improved.

August 9.—Is in a greatly improved state of mental and physical health, and takes her food without difficulty.

These cases, occurring as they did in various mental and physical conditions, show that in the method of feeding

which was adopted, we have an important means of treatment which may, if necessary, be maintained during long periods, while rest is being afforded to part of the digestive apparatus, without danger to the general strength and nutrition of the patient.

It may of course be assumed that in some at least of the cases which I have recorded, there were defects in the method of feeding in the ordinary way, or that sufficient efforts were not made to induce the patients to take food voluntarily. To this I can only reply that I should not have ventured to take up space in these pages unless I had, at all events, satisfied myself that no alternative existed in any of the cases between suffering the patients to die from inanition, and adopting the measures which are here set forth.

On the Influence of Age, Sex and Marriage on the Liability to Insanity: being an Analysis of some Statistical Tables in the Thirty-Second Report of the Commissioners in Lunacy (England). By T. ALGERNON CHAPMAN, M.D.

I have been disappointed rather than surprised that no one has given us a full and useful analysis of the Statistics of the Causes of Insanity and of the Occupations of the Patients admitted into Asylums during the year 1876, in the Thirty-First Report of the Commissioners in Lunacy; at present they are a mere *rudis indigestaque moles*, and I must say that the effort to extract much valuable meaning from them appears to be an arduous one. Thinking that the Tables given in continuation of the same series in the Thirty-Second Report may meet a similar fate of neglect, I somewhat rashly propose to endeavour, if not to extract their full meaning, at least to state what are the facts they most clearly enounce, and, if possible, to suggest a meaning for them. I do this the more readily that they are not an extensive series, and are, therefore, somewhat manageable, and may admit that they have a certain attraction for me, as the most remarkable novelty they demonstrate happens to be a circumstance that on a small scale I have been aware of for some years, and had frequently thought it desirable to have tested on larger numbers, and yet is one to which I do not recollect ever to have seen attention directed. This circumstance is the frequency with which, in comparison with other lunatics, the general paralytic is married.

These Tables show "the ages of all patients admitted into asylums, their condition as to marriage, together with the ratios deduced from a comparison of the statistics of age and marriage condition for the entire population of England. The number and proportion will also appear of admissions where the unsoundness of mind was attributable to congenital defect, and where insanity arose later in life, distinguishing between the 'first,' and 'not the first attack.' Special information on most of these points has also, as far as possible, been tabulated as regards the patients affected with general paralysis of the insane, and admitted during 1876; together with a summary of the causes or influences which were deemed to have mainly contributed in producing insanity in the cases of those suffering from that particular form of mental and physical disorder" (Commissioners' Report, p. 4).

I believe I am correct in setting a very high value on these statistics, on the ground that we have not hitherto had from any source a tabulation of so many cases in which age and marriage conditions are tabulated together.

In analysing such Tables, it is important to endeavour to bear in mind what the Tables really mean, and not to run away with some apparently *prima facie* meaning. There are several errors of this kind that one is apt to make as regards all these Tables (except 19, which does not, however, enable me to correct the others); one of these errors consists in forgetting that these Tables refer to the ages, &c., of the patients on their admission in the year 1876, and do not inform us of the similar yet different (and all different in one direction) figures which would show their ages, &c., at the date of their first becoming insane, which is the really important figure. Since, however, we have not this latter figure, we must treat those given us as if they were such, but remember that our conclusions are vitiated throughout by this fallacy.

An equally important fact to bear in mind is that these are admissions, not patients, and to the extent to which they are re-admissions are in excess of the actual number of individuals. In so far as they are transfers they do not truly represent the occurring insanity of the year. And above all, it is necessary to remember that these are not all the cases of insanity that occur for the year, but only those that are sent to asylums. As such they have very considerable value; but since their greatest interest lies in their approximation to the total cases of insanity occurring for the

year, and though all the above and some other corrections must be remembered, it may sometimes save circumlocution to speak of them as if they were the whole cases occurring for the year. In one sense, indeed, they are so—that is, they are all the cases that reach so pronounced a form as to require removal to an asylum. What the total number of really occurring cases, apart from an asylum standard, may be, I am quite unable to guess—instead of 14,154, the figures before us, it may, for aught I know, be 20,000 or 30,000.

Ages of the patients admitted during the year 1876. Tables 13, 14 and 15 (A),* show the ages (and condition as to marriage) of the population of England 1871, and of the admissions for 1876, and the ratios of these figures per 10,000. Tables 20, 21 and 22 show the same facts as to the admissions, divided into three sections, viz. : 1, the County and Borough Asylums ; 2, the five largest licensed houses ; and 3, all the other asylums. These latter Tables show that the distribution of patients on admissions as to ages is almost precisely the same in the five large licensed houses as in the County Asylums, the only exception being a proportionate deficiency of patients under 15 years of age, the actual deficiency being, however, only 8 in quite within the limits of accidental periodical variations. The figures for the registered hospitals and other asylums, however, show a very remarkable deviation ; the patients under 15 are nine times as numerous as in the other asylums, 185 instead of 21, and those from 20 to 30 are 485 instead of 420 ; the other figures are within the limits of accidental variation. The result is that the average age is much lower than in the other asylums. This is associated with a much larger proportion of cases of congenital insanity in this section, 10·4 per cent. instead of 4·0 per cent., and no doubt is largely, if not entirely due to this section, containing several idiot asylums, the Albert and Earlswood Asylums accounting for 153 admissions. The remarkable agreement between Tables 20 and 21 (County Asylums and five licensed houses), the figures in the one being about ten times as large as those in the other, is a valuable indication that Table 14 (ages and conditions as to marriage of all admissions) may be regarded as an average one which would come out nearly the same in any other year, the year 1876 being, further, one that we know not to have been much affected by an unusual proportion of transfers and other disturbing causes.

Of the 14,154 admissions of 1876, whose ages are given in

* The figures refer to the numbering of the Tables in the Report of the Commissioners.

Table 14, the precise distribution amongst the several ages gives us no information until it is compared with numbers at the same age existing in the general population, and this comparison is calculated out for us in Table 15 (A), which contains, therefore, the essence of the two preceding Tables. The figures given are per 10,000. The proportion under 15 years, .3, is evanescent, when we remember that the figures of the Idiot Asylum are here included. From 15 to 20 the figure is 3.0; from 20 to 30 it is 7.6. From 30 onwards the figures are very nearly uniform, viz., for each decade 11.9, 12.5, 11.9, 11.8, and 10.6. It appears, therefore, very probable that if the correction could be made for the fact that these ages are not on first attack but on admission, which would increase the earlier at the expense of the later ages, the maximum ratio would be placed not at 40-50, but at 30 to 40, and that the slight but gradual decline in the ratio would commence from thence onwards.

We shall see reason further on to believe that the admission of idiots and imbeciles, and others presenting slighter but distinct defects, dating from birth or youth, follows, only to a more marked degree, the same gradient, *i.e.*, as age increases, these quasi congenital cases are gradually less abundant, not only actually but relatively to the population living at these ages, so that were the above figures corrected in accordance with this circumstance, it would appear that the liability to insanity strictly belonging to each age is extremely uniform throughout the whole of life.

This fact has never before, I believe, been shown statistically, and various different views may be found on it in different authorities.

The difference in the liability of the sexes to insanity at different ages is slight, except between 30 and 40, when males are more liable to insanity than females in the ratio of 13.1 to 10.9; they are also somewhat more liable in the preceding decade. This probably points to the wear and tear of this active period of life, telling more severely on the male sex than puerperal and other concomitants of childbearing do on the female.

From 40 to 60 there is a slightly greater liability in the female than the male sex; if this is more than accidental (due to insufficiently extensive data) it points to the more trying effect of the climacteric period on the female organism. The slight excess of male proclivity from 60 upwards probably depends on the greater liability to atheromatous changes in the male.

TABLE A. (XV of Commissioners' Report).

Showing the Ratio per 10,000 of the Patients Admitted into County and Borough Asylums, Registered Hospitals, Naval and Military Hospitals, State Asylums, and Licensed Houses, in England and Wales during the year 1876, to the whole Population at the time of the Census of 1871, arranged according to their Ages and Condition as to Marriage.

CONDITION AS TO MARRIAGE.	AGES.												AGES.				TOTAL.											
	Under 16.						15—						20—		30—		40—		50—		60—		70 & Upwards.		M.	F.	T.	
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.				
	
Single	4	2	3	27	33	30	11.3	9.2	10.3	27.6	21.9	24.6	30.9	30.3	30.5	22.1	25.8	24.2	22.4	24.6	23.7	18.9	18.6	16.8	4.5	4.4	4.4	
Married .....	...	...	...	...	4.0	3.4	3.0	5.1	4.2	9.0	7.7	8.4	9.7	9.0	9.4	9.9	9.1	9.5	10.4	8.8	9.7	10.4	10.7	10.5	8.4	7.7	8.0
Widowed	9.8	6.2	7.4	18.8	13.1	14.8	13.9	14.7	14.5	15.1	13.8	14.2	13.0	11.3	11.8	9.8	9.3	9.5	13.0	11.9	12.2
Unknown .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	4	2	3	27	33	30	8.0	7.3	7.6	13.1	10.9	11.9	12.4	12.6	12.5	11.7	12.2	11.9	12.1	11.6	11.8	10.5	10.6	10.6	6.3	6.1	6.2	

NOTE.—It will be observed that in nearly all the above periods the proportions of the “single” considerably exceed those of the married and “widowed;” while in the total of all ages these ratios are reversed. This is due to the facts that nearly all the persons in the population under 20 years of age were “single,” that three-quarters of the “single” population were composed of persons under 20 years of age; and that the numbers of patients under that age who were admitted into asylums, &c., during 1876, were relatively few.

TABLE B.

Showing for each age the number of admissions that 1,000 living at that age will afford during the remainder of their lives.

AGES.

Under 15.	15—	20—	30—	40—	50—	60—	70—
M. F. T. 25·5 26·8 25·9	M. F. T. 32·2 32·2 32·2	M. F. T. 36·6 33·6 35·1	M. F. T. 36·6 34·6 35·4	M. F. T. 29·3 30·2 29·8	M. F. T. 23·1 24·1 23·5	M. F. T. 18·0 18·2 18·2	M. F. T. 10·5 10·6 10·6

If general paralytics be eliminated before calculating these ratios, then the relative liability of the two sexes is almost identical from 30 to 40 and from 60 upwards, but the female is much more liable from 40-60.

I have prepared from these data the annexed Table B to show what is the actual proportion of the population that are at one period or another of their lives sent to an asylum. It shows for each period of life, how many per 1000 then living would, according to the practice obtaining in 1876, be sent to asylums during the remainder of their lives. The numbers are not, however, persons, but admissions.

These figures are only approximately true, the data not supplying material for absolute accuracy. They show that those who die before 20 years of age do not afford their fair proportion of admissions, and this is especially marked in males under 15; that of those who reach the age of 20, 3·5 per cent. ultimately become inmates of asylums. This figure will bear a slight deduction on account of re-admissions, and transfers (from 3·5 to about 3·2 per cent.). Among the remaining corrections required by these figures the only one of any size is due, on the one hand, to the population on which it is calculated, being that of 1871 instead of 1876, and on the other to the fact that the population at the greater ages in 1876 are derived from smaller populations of previous decades, *e.g.*, the 3¼ millions of 1871 aged 20-30, will fifty years hence yield a larger number from 70 upwards than 633,505, which are the residuum of that age now living from the smaller population of 50 years ago. I have assumed that these 3¼ millions will yield at 70 upwards the same number of admissions that 633,505 yield; really, as there will be a larger residuum at that age they will yield a larger number of lunatics. Nor have we any detailed account of how the population at each age is diminished by emigration. I have not the data for accurately making these corrections, and if I had, the labour would be very considerable; but I have made an approximation for the age 20-30, which comes out 39·0 per mille instead of 35·1, or with the corrections for re-admissions and transfers almost exactly 3¼ per cent.; indeed the correction for re-admissions so closely balances that for increase of population, that the above Table may be taken as very nearly correct. That in the course of their lives 1 in 30 of the adult population are (according to present practice) sent to asylums is a fact that will be startling to some, what the proportion is of those who become in-

sane I cannot say, but it must be larger than this, probably nearly double.

Similar calculations cannot be made for the married and single separately, since the married are constantly being recruited at the expense of the single, and therefore each cannot be treated as a constant quantity from age to age as the totals can.

Condition as to marriage of the admissions of 1876, simply, and at different ages. Again, Table 15 (A) is the one that gives the facts in a form ready for discussion. In the first place, as the Commissioners point out in a note, the proportions for all ages taken together are wholly misleading, since nearly half the population is under 20 years of age, and nearly all this half is single; yet it affords hardly any admissions. The remainder of the table is trustworthy, and gives greater definiteness than has hitherto been attainable to the well-known but somewhat vexed fact that the single afford a much larger percentage of lunatics than the married. From 20-70 the single population is about three times as liable to insanity as the married, whilst the widowed occupy an intermediate position, their liability as compared with that of the married being as 3-2 nearly. Over 70 the figures approximate; the tendency to approximation, indeed, begins to show itself at 40, but makes but little way up till 70. Under 20, curiously, the married (a very small proportion of the population, however) are more prone to insanity than the single.

It is curious that the actual number of single and married among the admissions should be so nearly alike as 6,120 and 6,340—a circumstance which has probably led to the real disparity in the proportion of these to the population at different ages, though known, not being known to be so great as it really is, since it led to a *primâ facie* idea that the proportions were identical, and those who had compared them with the population numbers had not had them tabulated according to ages to assist them in coming to a just conclusion. It therefore happens that whilst between the ages of 30 and 60 the single are more liable to insanity than the married in the proportion of 2·83 to 1, the largest estimate that I can find in published statistics puts the proportion at 2·3 to 1.

What significance are we to attach to these facts? Is widowhood a cause of insanity? Is celibacy a still more

effective one? As regards the single, it is unquestionable that many persons who become insane have always presented grave defects or peculiarities which would have prevented their marrying, so that the celibacy is a result of the insanity instead of the cause. When we observe that from 30-40 the single are only a fifth of the population, and from 40-60 only a seventh, it is clear that a small numerical addition will tell largely on the percentages. The liability to insanity among the single culminates at the 40-50 decade; possibly if age on first attack were given, instead of age on admission, in the 30-40 decade, and thereafter steadily declines, this certainly looks very much as if during the marrying age—20-40—the more healthy were being selected, leaving a cranky residuum.

There is one statistical item to help us here, if only roughly. In Table 18 of the 31st Report we find that 1,816 patients are entered of no occupation and unknown. Deducting from this the 306 patients under 15, we have a rough figure of 1,510, as showing the number who were of no occupation, chiefly because too defective mentally to have any, and *à fortiori* too defective to have been married. When this deduction is made from the number of the single insane, we find the ratio of liability in single to married is reduced from 2·83-1 to 1·98 to 1, rendering it very probable that if those whose mental deficiency, though not so great as to prevent their having a nominal occupation, was still sufficient to be an impediment to marriage, could be allowed for, the ratio would be reduced very nearly to an equality. On taking Table 14—31st Report—772 are stated to have suffered insanity from congenital causes, and in 2,223 heredity was ascertained. We may fairly assume that congenital deficiency was an absolute bar to marriage in the 772 cases, but it is difficult to say how far known hereditary tendency would be so in the 2,223 cases. If we assume half to have been so hindered from marriage, and take a fair proportion of the 3,008 in which the causation was unknown, the figures will be more favourable to the single than those just given—thus $772 + 1,111 + (3,008 \div 6) - 306 = 2,076$ as the number of persons ascertainably hindered from marriage by obvious mental taint, and reducing the ratio from 2·83 to 1·68 to 1.

If we assume that the excess of insanity among the single is due to mental defect preventing marriage, the amount of that assumption may be shown in the following form :—

TABLE E.

Number of persons admitted at each age who had suffered previous mental defects preventing their marriage, and the percentages which such persons formed of the whole admissions at that age :—

	20—	30—	40—	50—	60—	70—
Number of persons	560	722	515	210	124	39
Percentage	19·3	20·7	17·9	10·5	9·9	5·8

That is taking the ages 20-50 as giving the most pronounced figures, and taking these roundly, one-fifth of the admissions was of persons who had previously been sufficiently defective mentally to prevent their marrying.

As a test how far this assumption agrees with the facts, I have gone carefully over five years' admissions of the Hereford Asylum, tabulating them from this point of view.

The total admissions were 152 males, 165 females; total, 317. Of these, 73 males and 66 females were single, and of these 33 of each sex had always been unmarriageable by reason of mental defect; whilst 5 males and 16 females were doubtful chiefly because their histories were imperfect, several of them recurrent cases beginning early in life, and though probably not rendering marriage impossible, vastly diminishing its chances.

The distribution of the 66 cases among the several ages was as under :—

Under 20		20—		30—		40—		50—		60—		70—	
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
9	8	11	12	5	6	4	5	1	1	2	1	1	0

Deducting the 17 under 20, both from the admissions and those who were unmarriageable, and adding to the latter half the doubtful, and comparing them with the figures deduced by assumption from the Commissioners' tables, the result is as below :—

	Com. Table.	Hereford Asylum.
Total admissions (over 20 years) -	13186	300
Of whom single -	5168	122
Of whom unmarriageable -	2170*	59†

* By assumption.

† By observation.

Throwing these into percentages, they read thus :—

	Com. Table.	Hereford Asylum.
Total admissions (aged over 20 years)-	100·0	100·0
Of whom single - - - -	39·2	40·6
Of whom unmarriageable {	p.c. on single	41·9
	p. c. on total	15·7
	admissions-	15·7

So that the figures of the Hereford Asylum more than bear out the assumption with which we started, that the excess of proportion of the admissions of single over married persons is entirely due, not to celibacy causing insanity, but precisely to the contrary, that insanity and a tendency to it causes celibacy. The excess in the Hereford figures over the assumed figures may be due to either of several causes—1st, Hereford figures too small to give more than a generally accurate result ; 2nd, Hereford probably has a rather larger proportion of idiots among the admissions than the average ; 3rd, to the contrary of the *prima facie* aspect of the figures, the married are really most prone to insanity ; 4th, I may have unconsciously strained the figures in tabulating. I can only say that seeing how the figures were going, and conscious of such a possibility, I decided all doubts in the contrary direction.

One-sixth (15·7 per cent.) of the admissions does not appear, after all, a large proportion to have been always sufficiently defective in mental constitution to have prevented their marrying. The figures look even less pronounced when stated as below.

TABLE F.

Table showing the number of single persons at each age in the general population, and the number of such persons who were single in consequence of mental defect, ultimately leading to their being sent to an asylum, and the percentage which the latter bear to the former :—

	20—	30—	40—	50—	60—	70—
Single persons ...	2080918	568055	280088	171680	104439	56286
Defective persons	21700	16100	8880	3780	1630	390
Percentage	1·04	2·83	3·17	2·17	1·57	0·69

It will not, perhaps, be profitable to follow this further, since its foundation is to some extent hypothetical ; other-

wise it might have been of interest to compare the two sexes in these particulars.

The comparative tendency in the two sexes amongst the single is the same as in the whole admissions, greatest in males from 20-40 when the male celibate is supposed to give way to drink and dissipation; greatest in females from 50-73 when the vagaries of old-maidism may be expected. Whether this distribution affords any ground to enter celibacy as predisposing to insanity must be left an open question.

Among the married the tendency to insanity rises rapidly until 40, when it reaches 9·4 per 10,000, and continues to increase, but hardly appreciably. Married females are much more liable than males; as 51 to 30 from 20-30; afterwards the male tendency is distinctly the more marked.

With regard to the widowed, it is very difficult to guess (I see no way of actually ascertaining) why they should be so much more liable than the married, unless widowhood be an efficient cause of insanity, directly as a moral cause, indirectly as adding to the intensity of the struggle for existence on the part of the survivor. I can only make two suggestions in modification of this conclusion:—1st, that not a few of those entered as widowed are so entered in error, being really merely deserted by their spouses, and so deserted on account of mental peculiarity or disorder. The other is that the cause of the death of one of a married pair may often have been the cause of ill-health leading to insanity in the other—such causes, for example, as poverty, privation, unhealthy residence, contagious fevers, intemperance, &c.

It may be noted that the excess of widowed above the ratio obtaining among the married, are only 3·5 per cent. of the total admissions, and that an analysis of second marriages might show similar causes for the higher ratio among widowed to be at work as among the single.

The Tables concerning the General Paralytics show, first (Table 16), the total numbers distributed as to ages, and conditions as to marriage. Second (Table 17) C, the percentages which these numbers bear to the total admissions, similarly distributed. I have calculated another Table, D, similar to Table A, giving the admissions of general paralytics per 100,000 of population, for each age, and condition as to marriage.

Table C shows the prevalence of general paralysis in comparison with lunacy on a whole. The latter shows its actual distribution.

These Tables abundantly confirm the sufficiently known fact that general paralysis is most common between 30 and 50 years of age, and is much more common in the male;

TABLE C. (XVII of Commissioners' Report).

Showing the Proportion per Cent. of the General Paralytics Admitted to the Total Number of Patients Admitted into County and Borough Asylums, Registered Hospitals, Naval and Military Hospitals, State Asylums, and Licensed Houses in England and Wales during the year 1876, arranged according to their Ages and Conditions as to Marriage.

CONDITION AS TO MARRIAGE.	AGES.																		TOTAL.									
	Under 15.						15—			20—			30—			40—			50—			60—			70 & Upwards.			
	M. F.		T.		M. F.		T.		M. F.		T.		M. F.		T.		M. F.		T.		M. F.		T.		M. F.		T.	
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	
Single
Married
Widowed
Unknown
Total

TABLE D.

Showing the Ratio per 100,000 of the General Paralytics admitted into Asylums during 1876, to the whole Population at the time of the Census of 1871, arranged according to their Ages and Condition as to Marriage.

	Under 15.	15—	20—	30—	40—	50—	60—	70—	Total.—
S.	...	·1 ·1 '1	28 ·7 1·8	26·8 5·0 15·3	41·5 7·2 21·8	25·6 2·0 18·3	6·9 1·6 2·8	... 8·0 1·8	2·14 ·55 1·57
M.	5·2 0·6 2·7	26·4 5·6 15·6	27·5 7·7 17·8	17·4 2·9 10·8	10·9 1·4 6·7	1·3 ... '8	18·83 4·03 11·37
W. 8·0 6·0	60·0 10·0 25·3	30·8 9·9 15·4	27·0 4·2 10·8	7·0 0·9 2·8	2·5 '4 1·2	17·80 3·86 8·06
Total.	...	·1 '1 '1	38 ·8 2·2	27·6 5·7 16·2	29·3 7·9 18·0	19·8 3·2 11·0	10·0 1·3 5·4	1·7 '6 1·1	8·92 2·00 5·37

but they also give greater clearness and definiteness to these facts than we had before, by the strict comparison with the number of the general population, and of ordinary insane.

The following shows the relative prevalence of general paralysis in the sexes, according to age and condition as to marriage :—

TABLE G.

Number of General Paralytics that would occur at each age and condition as to marriage among the number of males living, that among females yielding one general paralytic.

AGES.

CONDITION AS TO MARRIAGES.	Under 20.	20.	30.	40.	50.	60.	70.
S.	1	4	5·3	5·8	12·8	4·8	...
M.	...	9	4·8	3·6	6·0	7·8	...
W.	...	...	6·0	3·0	6·4	7·9	6·0
Total.	1	4·7	4·9	3·7	6·0	7·8	3·0

This shows that amongst the single the proportionately greater frequency of general paralysis amongst males increases with age, whilst among the married and widowed it is at a minimum between 40 and 50, the age of greatest prevalence of general paralysis in both sexes.

General paralysis is most frequent between 40 and 50, next between 30 and 40, then between 50 and 60. Its occurrence per 100,000 of population at these three decades, taken together, is as under. The actual numbers are seven-eighths of all the general paralytics, only one-eighth occurring over 60 and under 30 :—

TABLE H.

Ratio per 100,000 of the General Paralytics, between 30 and 60 years of age, admitted into Asylums during 1876 to the whole population of those ages, at the time of the census of 1871, arranged according to condition as to marriage :—

	Males.	Females.	Total.
Single - - -	30·4	5·4	16·5
Married - - -	24·6	5·7	15·3
Widowed - - -	29·1	7·0	15·4
Total - - -	26·2	5·8	15·6

The most remarkable point in the distribution of these figures, which this short table exhibits, perhaps even more clearly than the more extended one above (Table D), is the very slight difference in the frequency of the disease, according to the condition as to marriage, whilst among the ordinary insane the single are to the married as 3 to 1. Amongst the males the single are more frequently attacked in the proportion of 5 to 4, the widowed being almost as liable as the single, whilst among females the single are least liable.

What is the cause of this difference between general paralysis and ordinary insanity? We found the explanation of the state of the figures in the ordinary insane to reside largely, if not entirely, in the circumstance that a tendency to insanity was a cause of celibacy. We must, therefore, suppose that a tendency to general paralysis has not this effect, and a consideration of a large proportion of cases of general paralysis will support this conclusion, and so far tend to confirm the explanation of the figures of the ordinary insane. The general paralytic is sometimes hereditarily defective, and I have known a father and son both subjects of general paralysis. But it is notorious that heredity is comparatively rare among general paralytics, that the subject of this disease is very rarely defective mentally, previous to the appearance of the disease, but is much more frequently a most active, pushing, energetic capable man. The general paralytic, instead of, like the ordinary insane, being a weakling, succumbing to the average pressure of existence, is usually a strong man, who has presumed in his strength, and prematurely worn himself out.

A comparison of Table 18, showing the assigned causes in the general paralytics, compared with Table 14 of the previous year's report, showing the causes in all the admissions, tends to confirm this conclusion. These must be examined separately for each sex, as the excess of male general paralytics makes the figures of the totals misleading, when the causation in the two sexes differs to any degree. Moral causes are less frequent among general paralytics, yet two of these, adverse circumstances (including business anxieties and pecuniary difficulties) and mental anxiety, "worry," are slightly more so, corresponding to the frequency with which the general paralytic has been an active business man.

Of physical causes, heredity, which is predicated of 15.6 per cent. of ordinary insane, accounts for little more than half that proportion of general paralytics, whilst congenital

causes are evanescent. Heredity fails most among female general paralytics.

Self-abuse is only one-fifth as common as a cause, and bodily disorders, including old age, is one-fifth less common. On the other hand, intemperance in drink is a considerably more frequent cause of general paralysis, especially in females, viz., as 25-23 in males, and as 10-7 in females. Intemperance (sexual) is three times as frequent; in females five times as frequent. Overwork is more frequent as 8-5; sunstroke as 3-2, and injury as 7-6.

Table 19 will be of value for various statistical purposes, but, taken by itself, is suggestive of little interest. The proportion of cases of congenital insanity seems to me very small—4 per cent. The few asylums whose admissions (not statistics) I have examined, have a much larger proportion of congenital cases of various classes than this, and I am inclined to suspect that many of the compilers of these statistics have been content to enter such cases with the duration of the mania (if the unmanageableness of idiots and imbeciles in workhouses and at home amounts to mania), which is often the immediate occasion of their being sent to the Asylum, as is so frequently done by the Relieving Officer in the "statement," instead of statistically recognising the imbecility or idiocy, which usually renders the patient a permanent inmate of the Asylum, and is the keynote of his condition.

Summary.

1. These Tables deal with sufficiently large numbers to give satisfactory results.

2. The numbers sent to Asylums increase up to 35 years of age, when 12 per 10,000 living are annually sent, thereafter the numbers diminish steadily to 10 per 10,000 in old age; that if the age on first attack were given, instead of age on admission, and those always more or less congenitally defective were tabulated separately, the result would show a remarkably uniform proclivity to insanity throughout life, from 30 upwards, if not from 20.

3. Insanity affects males more largely than females, from 20-40; again slightly more from 60 upwards; from 40-60 females are slightly more prone. If general paralysis be treated separately, then females are much more affected from 40-60; at other ages there is an equality.

4. 3·5 per cent. (1 in 30) of those who attain the age of 20 ultimately become inmates of Asylums.

5. The single are sent to Asylums in proportion greater than the married as 2·83-1 ; the widowed as 3-2, *i.e.*, in proportion to the numbers of each in the general population above 20 years of age, though the actual numbers of single and married admissions are nearly identical.

6. It is almost certain that in the excess of single above married, the excess is due, not to celibacy causing insanity, but to insanity or a tendency thereto preventing marriage. If this be so, about 1 per cent. of the single among the general population, aged 20-30, and about 3 per cent. of those aged 30-40, are so from mental defect ultimately causing their admission to an asylum.

7. General paralysis is more frequent among males than females, but at the age 40-50, when the disease is most frequent, this relative frequency is least marked.

8. Unlike insanity in the mass, general paralysis is hardly more frequent in the single than in the married, a circumstance probably traceable to the comparative rarity of congenital defect in general paralytics.

9. General paralysis results much more frequently than ordinary insanity from causes implying business energy, and the use (and abuse) of the activities of life ; much less frequently from defects inherent in the individual.

Notes of a Visit to the Idiot School at the Hague. By
FLETCHER BEACH, M.B. Lond., M.R.C.P., Medical
Superintendent of the Darenth (late Clapton) Asylum.

While on a trip through Holland in the year 1877, I visited the well-known School for Idiots at the Hague, and, thinking that my observations might perhaps prove interesting to others as well as myself, I have put together the following notes:—

The Institution owes its origin to three public-spirited men, who in the autumn of 1854 met at the Hague to endeavour to found a School for Idiots. These were the Minister, C. E. van Koetsveld, the Doctor, J. Brouwer Stark, and the Schoolmaster, H. van den Heuvel, Professor Schroeder van der Kolk assisting them with his advice. Subscriptions were raised, the Queen of Holland alone putting 2,000 florins at their disposal, a house was hired, and on the 15th of May, 1855 a school was opened with eleven out-

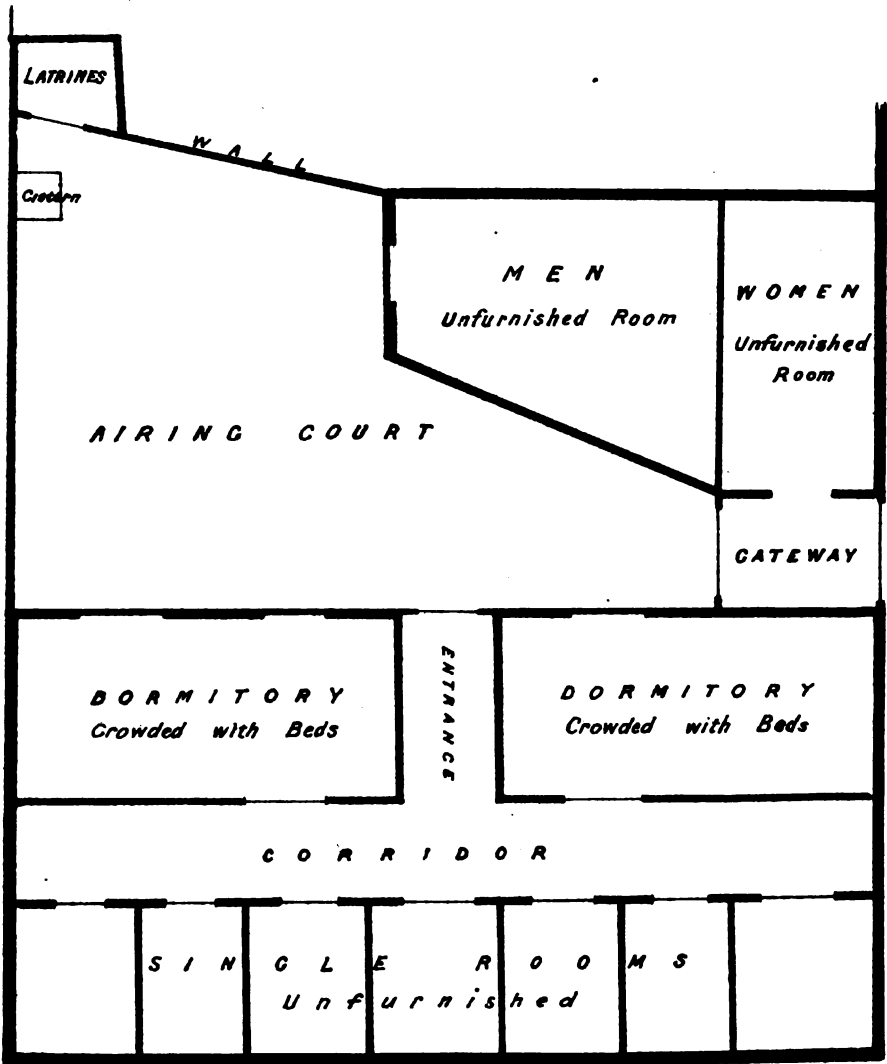
door pupils. The experiment proved a success, subscriptions and donations flowed in freely, and a large house with a garden at the back was bought for 20,736 florins. The house was re-modelled in view of its future purpose for the sum of 7,795 florins, and on the 1st of January, 1858 the present Institution was opened. The pupils increased in number, and additions were made to it from time to time, more especially in 1867, when a building adjacent to the garden was bought, and schoolrooms, workshops, and a gymnasium were constructed.

The school accommodates 16 day scholars, who daily go to and from school (a feature new to institutions of a similar character in England), and who pay 100 florins a year for their tuition. There are also 44 boarders, who are divided into two classes, the first paying 600 and the second 300 florins a year. Voluntary and State contributions added to this provide the requisite amount of money for carrying on the work. Exteriorly the edifice is very plain, being simply one of a row of houses in the centre of the town, opposite to the cathedral. Entering the hall, and passing by the reception-room, we find on the right-hand side of the ground floor a dormitory and dining-hall, destined for the first class of pupils. In the hall are found a library and play-things for their use when out of school. From the corridor which conducts us into this hall proceed two passages, one situated at the front, the other at the back of the building. Between the two is found the apartment of the director and the kitchen. The left side of the building has two rooms, provided with all the necessary apparatus for hot and cold water baths, &c., and, in addition, a dormitory. From the corridor first mentioned a large staircase conducts us to the first floor, where the children of the second class, who are the most numerous, are placed. Here they sleep, and have their meals, the greater part of the day, however, being spent by them in the school or in the open air. One of the rooms is used as an infirmary, but there is little sickness, and epidemics of all kinds have spared the Institution. The dormitories are clean and airy, the bedsteads separated from one another by curtains, and above each bedstead is placed the name of the patient occupying it. The mattresses of the wet and dirty cases are divided into three parts, so that the middle portion can be easily removed and re-filled with straw, dry cabbage leaves, and other similar material. In each bedroom sleeps an attendant. At the back of the house is

a court, paved with bricks, where the children play. It was formerly a garden, but has been altered to suit its present purpose. On the left-hand side of this court are the schools, workshops and gymnasium, communicating with one another. The Institution is under the judicious direction of M. Moesveld, and employs for purposes of teaching a schoolmaster and two assistants, a schoolmistress and five assistants, a work-mistress, two teachers of gymnastics, one of mat making and one of cigar making, a somewhat novel employment for imbeciles. A medical man, non-resident, attends to the general health of the inmates.

In the first of the schoolrooms, that nearest the main building, are the three lowest classes, who are placed under the care of female teachers. These children are taught elementary notions of objects, such as form, colour, size, weight, &c. Great pains are also taken to improve the defective articulation so common in patients of this class, while the faculty of imitation is not neglected. Ideas of number are also inculcated. A noteworthy feature in this schoolroom is a desk of horse-shoe form, on the concave side of which sits the teacher, who is thus able to give individual as well as collective teaching to the children standing round the convex side of it. At times, the children form a circle, and sing simple melodies, or play games on the Kindergarten system. Passing on, we find ourselves in a second room, where instruction of a higher order is given. Here, among others, are found the day scholars. The children are divided into classes, and are taught reading, writing, arithmetic, geography, drawing, history, &c., by easy stages. Moral and religious instruction is not neglected. The pupils sit at desks, accommodating at most only two or three scholars, an obvious advantage to the long desks and forms formerly so commonly used. Desks of this and the horse-shoe shape, I found in the American Idiot schools, and, indeed, the ones in use here were made from an American pattern. In this room are two cabinets, one containing stuffed animals, the other objects of natural history. By this means the children are taught a practical knowledge of nature. Next we enter a room in which patients of a very low type are placed. Some of these, having improved, are at times sent to the schoolroom, others, after many unsuccessful efforts to impart instruction, are sent home, and others to a lunatic asylum. Adjoining this room is the gymnasium, fitted up with all necessary appliances. In the rear are two workshops, one

LUNATIC ASYLUM, CAIRO.
EGYPT.



Sketch of Ground Plan

for the making of mats, the other of cigars, 4,000 of these being produced annually.

Patients are discharged (1) when they attain the age of 28 years ; (2) after being in the school for five years ; (3) when the state of their health requires it ; (4) if there is no hope of progress and improvement.

In conclusion I must acknowledge M. Moesveld's kindness in showing me everything which I expressed a wish to see.

Two Visits to the Cairo Asylum, 1877 and 1878.

I. By A. R. URQUHART, M.D., Warwick County Asylum.

It has been pointed out that, however potent Islam has proved in the history of civilisation, progress within its narrow boundaries is unknown—its development is at once full-blown. And especially is this true with regard to the treatment of its lunatics ; for whatever credit may be due to the pioneers of Mohammedanism in originating the idea of the separation of the insane from the sane, it is sadly marred by the fact that in thus caring for the welfare of the community at large they have quite overlooked that of the luckless minority.

It may be that the improvement of the condition of the insane of Grand Cairo is relegated to the golden age—the every-day dream of the modern Egyptian—that is to be inaugurated “when England annexes Egypt.” Manifold indeed are the changes to be consummated then—divers in their aims as the interests of the missionaries, the magazine writers, the stockbrokers or the statesmen that propose them. But as it is, in the matter-of-fact present, amid all the wonders of Cairo, amid the Mosques and Bazaars, amid the gaities of the Oriental Paris sprung up under the fostering care of the Khedive, amid the gigantic relics of that wondrous civilisation of Ancient Egypt, there is no more melancholy, degrading fact than their common madhouse.

Doré with pencil among the noisome alleys of London, Dickens with pen in the horrors of the Fleet, have made us familiar with miseries and loathsomeness that would be comforts and cleanliness to *Les Miserables* of Cairo ; and though travellers' tales and special correspondents' telegrams are looked on with suspicious eyes in these latter days, an unvarnished statement of the condition of lunatics in

Egypt in the year 1877 may show that the Conolly of that country has still his work to do.

By the kindness of Dr. Grant, who has been for many years in practice in Cairo, we were enabled to pay a visit to what must be termed a Lunatic *Asylum* by courtesy only. It is hidden away in a remote and unfrequented part of the City—far from the haunts of the European, and in fact known but to few of the natives, if one may judge by the difficulty experienced by our dragoman in finding it. It is entirely under native control, being visited at uncertain intervals by an Arab physician.

Arrived, by the inevitable donkey, at a great closed gateway, we dismounted, and entered through a jealously guarded wicket. This gateway led into a court-yard, a rickety barrier excluding the lunatics who swarmed on the farther side; and it was occupied by a small group of Arabs gathered round a solemn-looking semi-European-clad youth, who seemed to be devoting all his energies to the hookah by his side. The advent of Europeans here was evidently rather an exceptional event, and was certainly the cause of a good deal of noisy talk, in which our dragoman joined freely.

Dr. Grant's card of introduction was handed about, and carefully read upside down by the solemn-faced youth who, we were assured, was the physician in charge. A judicious administration of "backsheesh" cleared our way wonderfully, and with a small crowd of attendants and donkey boys we were admitted into the court-yard of the asylum among the "patients." A tall, powerful Arab, who seemed to exercise supreme power, showed us round. He was armed with a stout rattan cane, with which he laid about him unsparingly and impartially—clearing a way for us through the crowd of excited gesticulating lunatics.

The asylum seemed to have been adapted from an ordinary house—a court-yard surrounded by lofty walls on two sides, while along the third ran a range of dormitories one storey high. It might be about forty yards long by thirty wide at the farther end, narrowing to the gateway by which we had just entered. And sprawling on its uneven, hard-trodden surface, furiously treading its limited space, crouching in its filthy recesses, or surrounding us with entreaties and menaces, were some two hundred hopeless lunatics in various stages of nudity. The sun was beating down fiercely, and the stench of the place almost unbearable. In one corner of the court was a large stone cistern in close proximity to the

only apology for a latrine, and attached to this was a battered old drinking cup, the solitary vestige of the "cooking animal" the place was guilty of.

While standing by, one of those unhappy creatures committed an act of indescribable filthiness in this cup, rinsed it out with the dirty water in the cistern, and drank it off, much to the amusement of the men in charge. The state of the closet can be better imagined than described, innocent as it was of Condy or carbolic—of even the most primitive fittings. We could not discover, indeed, what arrangements were made for the cleansing of it; but it was evident from the horrible stream that flowed from it that its periodic emptyings were of the rarest.

Entering the building described as running along one side of the court, we were at once saluted by a still more overpowering odour than we had left in the open air, the only advantage of staying indoors being the escape from the blinding rays of the tropical sun. Here a fairly wide corridor separated a row of single rooms from two large dormitories looking on the court. There were eight or ten of those single rooms ranged along the back wall—the more remote, used as lumber rooms, filled with decaying bedding and odds and ends of timber that cried aloud for burning. Each cell was guarded by a strong barred door, lighted by a high, small window, paved with stones, and contained no vestige of furniture. The central one was better lighted than those on either side; that only opened on the dark corridor, as its doorway was opposite the entrance from the court; and in it were some six or eight lunatics, two of whom were engaged in a sanguinary quarrel as we approached—a quarrel that promptly subsided on the offer of a few opportune cigarettes. These poor creatures were perfectly naked, and pressed eagerly against the bars of their cage, stretching out their hands for a cigarette in pitiful resemblance to so many wild beasts in a menagerie. The resemblance was heightened, too, by a prompt caution we had to keep, as it were, outside the bars—a caution enforced by a cut of the rattan across the poor naked arms. A display of English feeling on the subject was *not* well received, and our attempted descriptions of English modes of treatment created the evident impression that they might do very well for England, but would hardly be efficacious in Egypt. The sanitary condition of those unfortunates, who were described as "Very wild men, Sar!" was truly distressing to witness; the floor and walls were

smearred with filth and steaming with urine, and the atmosphere perfectly pestilential.

The adjoining cell had been placed *hors de combat* by an energetic occupant, who had devoted himself to digging up the paving stones; but we could get no information as to when it would be repaired, nor did our attendant give himself the slightest concern about the matter.

Two roomy dormitories lay on either side of the entrance, and in these beds were placed in close proximity—so close that one could hardly make his way between them. The filthiness of the motley bed covering, (nearly all were in use on our visit), effectually prevented us from making a long stay among them. And whether the men stayed in bed by day to insure one at night, whether they were in bed by day, not having been so fortunate by night, or whether they remained there for lack of clothes, we could not determine. None were reported in bed from sickness; in fact, it seemed to be regarded by the man in charge as an amiable weakness to prefer the filth indoors to the filth out of doors—a weakness which did not affect him in the slightest degree.

In one bed a tiny Frenchman crouched, with long unkempt hair swarming with pediculi. He was labouring under monomania of suspicion, looked in wretched physical health, was said to have been there five years, though we have grave doubts as to the possibility of a European surviving five years of such a life. In conversation he stated that he had *Soupe maigre* and bread for breakfast and dinner, and *that* only; that he had no clothes, but that he was King of Egypt, and kept there by his enemies. Being of an uncommunicative nature, we could get him to say no more, but were soon engaged in conversation with a highly delusional and loudly loquacious man, who spoke English very well, and declared himself to be a fellow countryman, though in truth his appearance did not justify his assertions. This individual was standing on his bed, leaning on the window-sill, contemplating the crowded court-yard, when we entered, and was airily attired in a long night shirt, with a cotton handkerchief twisted round his head. He had a great bundle of old letters carefully tied up with certain curious eatables, which he seemed most anxious to conceal from us. These letters were written in English, demanding his immediate liberation, and full of delusions (?) as to his property, etc. He told us his clothes had been taken from him, and he had

been detained there fifteen months, (he named the date of our visit pretty accurately); that he wished to get away to see about various telegrams as to his money he had had from the English Consul. The supposed telegrams he treasured so carefully were worthless scraps of paper, and he was generally incoherent and delusional—such a case as one might see in any English asylum. But he did not complain of his food, of his clothes, of his treatment, of the miserable and filthy surroundings, as might have been expected. Though he had a little tobacco, he would not be bribed into saying where he got it, nor would he give any opinion about the place, but ran on incoherently about his claims on the Government, about his letters and telegrams, and about his money matters in general. Through our dragoman we learnt that he was not an Englishman; but a drunken courier, and had been brought there by the police in consequence of having attacked people in the streets.

As we crossed the court on our way out, we were struck by the apparent absence of attendants or discipline of any kind, save, indeed, the free use of the rattan, wielded by the ready and powerful arm of our guide. Several of the men were entirely naked, and one of those was a rough, noisy, bullying lunatic, for whom the more timid made way right quickly. Another was loaded with heavy chains on waist and ankles that had evidently been long accustomed to their embrace. The heat, the glare, the stench, the noise and the crowding, rendered an escape into the sheltering gateway a grateful change, though even there the pandemonium beyond the tumble-down barrier was overpowering enough, and several pairs of gleaming eyes were discernible through the cracks.

As to female patients, the custom of the country rendered it impossible for us to do more than glance into a great, bare, unfurnished room, opening off the gateway, where a few women were squatting. As in other Eastern countries, there is a great prejudice against sending women to a public hospital of any sort; so the fate of the female lunatic is wrapped in Egyptian mystery, yet it may be that they are to be counted more fortunate than their brethren condemned to drag out a miserable existence in this fearful Bedlam.

On our enquiry for the physician in charge, we found that he and his hookah had disappeared, and we could get no reliable information as to admission, deaths, discharges, diet, or the thousand-and-one things that interest the specialist on such a voyage of discovery. We could not

even get a satisfactory account of the population of the place—of the actual number resident. Wild guesses were indulged in by our dragoman that there were a thousand—or perhaps five hundred; but we certainly did not see more than about two hundred and fifty. We were told that the police brought the “patients” there; but our knowledge of the Cairo police regulations was too limited to furnish us with any idea as to the correctness of this statement. With regard to deaths there was an ominous silence, and the phrase, discharge of a lunatic, seemed to have absolutely no Egyptian equivalent. But the whole place is so utterly beyond the ken of civilization, that it remains as hideous a blot on the earth’s surface as is to be found even in the Dark Continent.

II.—By WILLIAM SAMUEL TUKE, M.R.C.S.

In one visit to an asylum, during which all conversation has to be carried on through the medium of a dragoman, it is not easy, however intelligent he may be, to gain all the facts which one desires bearing on the many questions which arise in reference to the insane in a land placed under such different conditions from our own, as is Egypt. Hence no further excuse is needed for the insufficiency of my observations on the Cairo Asylum, which I visited on Dec. 11, 1878.

Dr. Mahommed Tagroi is the principal medical officer, and I am indebted to him for the obliging manner in which he showed me over the institution, and facilitated my inquiries. The asylum is a Government establishment, and the doctor finds his superiors the reverse of liberal in affording him the means to effect improvements. He was anxious that I should understand that the dirt and miserable squalor which at once strike any one familiar with the condition of an English County Asylum, are not in accordance with his own wishes, but are due to the impecuniosity of the Government. Let us hope that with the expected revival of Egyptian finance, this asylum may participate in the advantage.

The building dates from the time of Mohammad Ali (1805-48), but at that period it was used as a dock warehouse, and was only converted into an asylum about two-and-twenty years ago. Having such an origin as this, it can easily be imagined that it is not strikingly comfortable, or structurally adapted to its present functions. It must be remembered,

however, that in an Egyptian atmosphere good houses are not so absolutely necessary as in our own variable clime. It is situated in the suburbs of Bulak, close to the Nile, and one enters at once from the road, through a large door-way into a small court, from which are entrances leading directly into the wards. The inmates number about 200, in the proportion of three men to one woman. This, of course, seems a small number of resident insane, but it is explained by the fact that only such as are dangerous to society are confined here, harmless lunatics being allowed to go at large. And here it may be remarked that in Egypt, as a rule, the insane, especially idiots, are regarded as holy men, for the Mussulmans entertain with regard to them the plausible hypothesis that their souls are in heaven, and their bodies are consequently left without mental guidance. I only recognised one distinctly idiotic patient in the asylum, and he would not have been there but for being violent.

We first entered a large square room devoted to women; the contrast to an English ward was certainly rather appalling. It was paved with rough flags, and was quite innocent of any furniture with the exception of the mean truckle-beds, arranged round the wall. Crouching upon these, or upon the bare floor, were a number of female patients, mostly wrapped in a rough cloth, which appeared to be their only garment. The place looked intensely squalid, though I cannot say it was strikingly dirty or foul. Most of the women seemed quiet enough, though here and there I saw one with a wild expression, and sometimes with a look of sullen lethargy. None of them were employed or amused in any way. In some small, perfectly bare rooms near, excited or newly-arrived patients are confined.

As to mechanical restraint, the only means employed, as I was informed, is the strait waistcoat. I was assured that no chains or anything answering thereto are now used.

Beyond the cells just mentioned we entered a small and bare court-yard, in which the latrine is placed. Most of the women were squatting on the ground or standing against the walls. In the centre we found a woman who had set a bundle of rags on fire, and was sitting on the smouldering heap. The attendants, however, prevented her self-immolation by speedily removing the funereal pile. One patient here presented very typically the classical picture of a maniac—wild vacant eyes; dishevelled hair, along with the expression of mental storm and utter shipwreck.

The cause of insanity in nearly all the female cases was matrimonial unhappiness. In many it was in consequence of divorce, which in this country the husband can effect at pleasure. In others, it was said to be due to disappointment in not having a family. I found it impossible to find out clearly what form the disorder usually takes in such cases, but all the patients here are subject to fits of violent excitement at times. Hashish, which I shall presently mention in describing the male patients, figures with comparative rarity in the ætiology of female insanity.

The male wards are small rooms opening out of a corridor. Each holds eight or ten beds. They do not look so squalid as the large female ward, because they are smaller, but in reality they are equally devoid of comforts; there is no trace of furniture except the low truckle-beds upon which the men crouched or lay. There is no glass in the windows, which, however, is, I dare say, rather a boon than otherwise; they are guarded by iron cross bars, and can be closed by wooden shutters outside. They are large enough to admit a very fair amount of light and air, and it was doubtless owing to these free openings, and to some perfume which an attendant carried before us on some burning charcoal, that I noticed no particularly bad smell or closeness. On entering each ward, some one or two patients began relating their grievances or giving expression to their delusions. None of them were under any mechanical restraint, although I was informed that they were all subject to fits of violence at times. With the men, the attack of insanity was attributed in nearly all cases to one of three causes—the use of hashish, some disappointment or grief, and religious excitement. Of these the first is by far the most frequent, quite taking the place of alcohol in our own country. The craving for the drug after it has been taken away is very great, and in the large majority of instances the “hashshashin” revert to their bad habits on their release, so that there are many re-admissions. The use of hashish is extremely common among the lower classes, and its importation is no longer forbidden by the Government, which reaps a rich harvest from the duty. The number of cases in which the insanity is attributed to this drug is simply enormous. Cases due to alcohol are rare, although I believe they do occur. It is interesting to notice to what an extent the injunction of the Prophet* has checked

* “O, true believers, surely wine and lots (games of chance), and images, and divining arrows are an abomination, and the work of Satan; therefore avoid

the abuse and even the use of alcoholic beverages, but at the same time it is not a little melancholy to observe that it has after all only changed the outward face of the evil, which shows itself in the use of *Cannabis Indica* instead of alcohol.

The following two instances of grief acting as the cause of insanity were pointed out to me in my round. In one, a man had had his cow taken away from him, because he could not pay eight pounds instead of two, as a tax; so "being a religious man," the sense of injustice and of his great loss had upset his mental balance. The second was that of a young officer who had married a wife much older than himself, and the lady not coming up to his expectations, his disappointment was so intense that he became insane. I may mention, in passing, that he was the best specimen I have observed at Cairo of the old Egyptian physiognomy; indeed, he might have served as a model for one of the sculptured profiles of this ancient race. Those whose attacks of insanity were connected with religion were for the most part men who had devoted their time and energy to pondering over the Koran and other theological works, and who desired to be *santons*, or fancied themselves heaven-sent prophets. The men, like the women, had no employment or amusement whatever; they appeared much more desirous than the latter to relate their experience and grievances.

With regard to the delusions which I heard mentioned, the majority were of the ordinary character; the patient imagined himself possessed of boundless wealth, or fancied that people wanted to hang him, or that he had received messages from a Deity. One aged individual who considered himself a prophet, thought that his wife was married to 3,000 men, and that whenever she visited him, she hit his head with stones.

I was told that suicide was never attempted; occasionally patients endeavour to commit homicide.

With regard to the means employed in Egypt for the cure of insanity, I find that bleeding is the chief therapeutic remedy. It is resorted to when an attack of violent excitement comes on, and I was assured it was very efficacious. Drugs are scarcely used at all. Opium is sometimes given in cases of religious excitement, but it is considered to resemble hashish too closely in its effects to make it desirable to

them that ye may prosper. Satan seeketh to sow dissension and hatred among you by means of wine and lots, &c. Will you not, therefore, abstain from them?" (*Al Koran*, chap. v.).

employ it largely. Necropsies are occasionally performed. Dr. Mahommad informs me that in those cases in which the patient dies during insanity caused by Indian hemp, the brain is found smaller and drier than usual.

Patients are brought to the asylum by the police, and are then examined by the doctor. In the first instance, a new comer is kept separate from the other patients until it has been ascertained whether he is sufficiently docile to be placed in the common ward.

On inquiring to what extent heredity seemed to operate as a predisposing cause, Dr. Mohammad said that he had not been able to trace its effects.

In regard to the staff of the asylum there are two Medical Superintendents, and male and female attendants. These attendants—the women especially—are sorry specimens of humanity. So much for the Cairo Asylum. Before concluding my paper I will briefly add one or two points of interest to the medical psychologist travelling in Egypt.

At the Coptic Church of St. George, at Old Cairo, the visitor is shown a pillar to which a chain is attached. To this pillar a person labouring under acute mania is fastened for three days without food—a procedure which is regarded as almost a certain cure of the malady. Unfortunately for me, no one was undergoing the course of treatment when I visited St. George's, but my excellent dragoman tells me that on the last occasion on which he visited the Church, six months before, he saw a man actually chained there.

Since leaving Cairo to ascend the Nile in a dahabieh, I have made various enquiries as to the existence of insane people. I shall be better able to form an opinion on this question at a later period of my travels, but I may here mention that at Assiut I saw in the streets two "lunatics." Both were idiots apparently—one unquestionably so. He was going about clothed in a rough cloth, asking for bread. He had a very defective head, an internal squint, and general ill-formation. We gave him a copper, but he said he wanted bread, so we bought a cake for him, which he put under his garment, and then shuffled away. He seemed to excite the amusement of the natives rather than their awe, notwithstanding what I have said of the notion that the minds of idiots are in heaven, or, at any rate, holy and absorbed in devotion. The other man had various delusions, said he had a thousand buffaloes, but they would not give birth. When I asked him why he did not work, he said seven children were too many to work

for. Sometimes he barked like a dog, which was said to be merely for the purpose of making us laugh.

At a place near Korusco I saw an imbecile with a curiously distorted head. Almost all the imbeciles I have seen have been ill-developed generally, with small heads, narrow chests and weak legs.

CLINICAL NOTES AND CASES.

Two Cases of Temporary Aphasia from Shock after a Series of Severe Epileptic Fits. By FLETCHER BEACH, M.B., M.R.C.P., Medical Superintendent of the Darenth (late Clapton) Asylum.

(Read before the Medico-Psychological Association, November, 1878.)

It will be impossible for me to discuss this evening the different theories that have been brought forward to account for the production of aphasia (including under this term all forms of affections of speech), and I limit myself therefore to a few remarks upon one of them.

It is held by some authors in this country, and more especially by Drs. Bastian and Broadbent, that there is a special "perceptive centre" in relation with each sense, and that these "perceptive centres" are situated in convolutions which receive radiating fibres. Ferrier's researches have located the centres for vision, hearing, smell, taste, and touch in some of the convolutions into which these fibres have been traced, more particularly fibres from the extraventricular portion of the optic thalamus. It has been considered probable that the formation of a complete idea of external objects would be represented structurally by the convergence of commissural fibres from each perceptive centre to some part of the cortex not in direct relation with the basal ganglia. This formation of a complete idea is of course not present in the young infant, but is gradually attained, the perceptive centres also being more highly developed as the child grows up. A part of the intellectual process above mentioned would be the association of a name with the idea, so that ideas may be expressed in language. If a breach were made in the channel of communication between one of the perceptive centres and the "idea centre," or "naming centre," say the "visual

perceptive centre" and the "naming centre," the patient could not name the simplest object at sight, and such a case has really been observed. So if a lesion occurred between the "auditory perceptive centre" and the "naming centre" he would not only fail to understand spoken words, but fail to know what he was saying. A case of this kind has been related by Dr. Broadbent. If again a lesion were to occur between the "naming centre" and the "centre for articulation," which is generally understood to be in the medulla, since in that region are the nuclei of the various nerves supplying the parts employed in articulation, the patient would be unable to express his thoughts in words. If a question were addressed to him, and his "auditory" and "naming centres," and the channel between them were intact, he might be able to name mentally his ideas, but the communication between his "naming centre" and the "centre for articulation" being cut off, he would be unable to communicate them to the outside world.*

Adopting this theory for the present, I will attempt to show how it may be applied to my two cases, the particulars of which I will presently give. In the first of the two the communication between the "auditory" and "idea" centres was intact, since the patient on recovering from her unconscious condition showed by her expression that she understood what was said. In the second this was not at first the case. The communication between the "idea" and "naming centres" and the "centre for articulation" was, I think, temporarily injured. That for articulation certainly was, for although the lips, which are supplied by the facial nerve, moved, no sound could be heard. It may perhaps be said that the lesion was only in the "centre for articulation," but I am inclined to think from my observation of the cases that there was one higher up.

The lesions which ordinarily occur in aphasia are organic, but those to which I now refer being only temporary, are functional in character. "There probably exists in these cases (functional) an altered molecular state in the brain tissue of the affected region, which for a time renders it unfit to discharge its proper functions; although if we could examine the part at the time there might be no change visible to the naked eye, or even by the aid of the microscope."† Many cases of temporary hemiplegia after epilepsy may be

* I do not enter into the question of his ability to *write* his ideas.

† Bastian—"Paralysis from Brain Disease."

placed in this category. "A patient will suffer from unilateral convulsions from time to time, and after one of these attacks more severe than usual he is found to be paralysed on the side which was previously affected with the convulsion. The hemiplegia is of the ordinary kind, except that it is temporary in its duration. It may last only for a few hours, or a few days, and then the patient rapidly gains power in the paralysed limbs."* This we have all of us seen over and over again. Occasionally hemiplegia, too, follows where the convulsive condition has been general, though most marked on the side which subsequently became paralysed. By some the condition has been associated with "spasm of vessels," producing and keeping up anæmia of the brain. We all know the pallor which occurs in many cases before the commencement of an epileptic fit, and I have seen with the ophthalmoscope the arteries of the retina contracting at its commencement. It is difficult, however, to suppose that this spasm of vessels could be continued for many hours. It is more probable that the abnormal discharge of nervous energy causes molecular damage, and a state of nervous exhaustion which is of a recoverable kind; a damage which hinders the proper nutrition of the nerve fibres for a time, and so prevents them from exercising their functions in a proper manner. So no doubt it is in the temporary loss of speech after severe epileptic fits. The abnormal discharge of unstable grey matter which, according to Dr. Hughlings Jackson, is the cause of the convulsions, occasions, when the convulsions are severe and numerous, a condition of shock, of temporary paralysis, not only of the parts concerned in movement of the body, but sometimes also of those concerned in speech. After a time molecular restoration occurs, and the patient slowly recovers.

CASE I.—About eight months ago I was called one evening to F. A., a stout, somewhat plethoric girl, aged 15, who was in the "status epilepticus." She had had upwards of 14 fits in a very short time, and when I saw her she was having them about every five minutes. Both sides of the body were affected. It being impossible to give any medicine by the mouth, I at once injected bromide of potassium into the rectum. A fit came on while this was being done, and the injection returned. Four times an injection was returned, but the fifth remained. Two more fits occurred in the night, but no more for some days after. Next morning the girl was unconscious, and remained so for some hours. On the following morning, however, con-

* Opus cit.

sciousness had completely returned, but she was unable to answer questions. Her facial expression showed that she understood what was said, and her lips moved, but no sound escaped. Next day words came slowly in answer to questions.

CASE II.—About two months after the occurrence of the preceding case I was called to J. S., aged 15, a stout and well-proportioned boy, who had had 19 severe fits in a comparatively short time. His breathing was affected by their severity. Bromide of potassium in large doses was given in the intervals between the fits, which in the course of the night ceased. The convulsive movements, as in the preceding case, were general. The next morning he was in an unconscious state, but during the day consciousness partially returned. Next day, when spoken to, he only put out his tongue. Gradually, but slowly, speech returned.*

Now in both these cases we are at liberty to suppose that molecular damage of the nervous tissue resulted, so that it could not for a time discharge its functions. This damage was soon repaired, and the parts affected regained their normal condition more slowly in the second, quickly in the first case. The "auditory," "visual," and "idea" centres recovered quickly in the girl, since 24 hours after the fits her facial expression showed that questions addressed to her were understood. There was, however, a breach between the "naming centre" and the "centre for articulation," the latter also being weakened. The patient could not make use of words, and though her lips moved slowly no sound was produced. Finally all the centres regained their previous power. In the second case all the perceptive centres recovered more slowly. The fits were more severe and continued longer, and the exhaustion of nervous tissue was more complete. The "visual" and "idea centres" first recovered, the "auditory centre" being at fault for a longer time. When asked the question "How are you?" he put out his tongue. His "visual" and "idea centres" told him that the movement of my lips was probably due to my asking a question, and as a common request of mine is to ask patients to put out their tongue, there was a probability that that was the question I was asking. Had his "auditory centre" been in a normal condition it would have told him differently. There was also a breach between the "naming centre" and the "centre for articulation," no attempt at speech being at first made. Complete recovery, however, took place. In Dr. Broadbent's case, before referred to, post mortem examination

* I do not now enter into the condition of the limbs, further than to state that no permanent loss of power has resulted in either case.

showed softening of the brain between what may be supposed to be the "auditory perceptive centre" and the higher one in which the "name centre" is associated with the idea. This patient made use of what was really a jargon, but it was obvious from his gestures that he thought he was giving expression to ideas present in his mind. He did not recognise the fact that his language did not convey these ideas. In my cases, although the lesion was a less serious one, yet during the time of molecular exhaustion and unconsciousness, all the centres were paralysed, and no speech was possible, but as this exhaustion was recovered from, they regained their normal condition.

The theory referred to in this paper, perhaps, requires further proof before it is fully accepted; but as all theories are useful for stringing facts together, I determined to make use of it, in order that I might possibly throw some further light on the causation of temporary aphasia.

Two Cases of Recovery from Insanity, after many years in an Asylum. By GEO. H. SAVAGE, M.D.

The subjoined cases are of most interest from the duration of the symptoms which were finally recovered from.

Such cases open up very difficult questions both on their practical and their scientific sides. To me, now, it seems possible that both cases might have recovered if they had been sent home sooner. But the terrible risk of sending out an intensely suicidal, and an intensely homicidal case, was hardly to be accepted.

Many insane people seem to be specially plastic mentally, and readily suit themselves to their surroundings; they may thus fit themselves only for insane surroundings, and by residence in an asylum be rendered unfit for the outer world; this is to be acknowledged and avoided where possible. In the next place these cases of late recovery make us again consider the relationship between diseased mind and diseased brain. How are we to have a mind depressed and acting feebly and painfully for many years recover completely? Can a diseased process go on in the brain for twenty years, and then be healed?

I, for one, cannot admit the possibility of a functional brain disease apart from organic changes, but as yet we know so little of brain action that there may be many changes that

we cannot yet gauge and measure, for want of some yet undiscovered standard.

In the cases narrated, some other organic force may be transmuted into nerve force, and may thus have re-established a balance. This is a fanciful theory, but I have once, at least, seen a quiet dement pass through a stage—lasting some days—of apparent sanity before he became acutely maniacal. So that a balance was reached on the level of sanity between the ranges of depression and excitement.

The cases are sufficiently interesting in my mind to require reporting, and I hope others will contribute similar ones, to help us in our judgment and prognosis.

John B., admitted to the curable establishment, September, 1844, aged 25. This was the second attack, the first, which lasted nine months, being in 1839. His grandmother and aunt were both insane. The cause of this attack was said to be grief at a sister's death.

On admission he was suffering from melancholia, with ideas that he was the worst man living. He was restless, constantly moaning. Appetite bad. Soon after admission he attempted suicide by strangulation. He improved in general health, but was desponding, and distrusted himself, till about 1851 or 1852, when he became more cheerful, and was allowed much liberty, and was found quite trustworthy. At times he was depressed, and he feared to be left to himself. He remained in this state till December 22, 1862, when he again became profoundly melancholy. He was quite preoccupied, sat alone with his head bowed forward, and took no notice of any one. If addressed he only shook his head. He neither read nor smoked as before. Nothing could be found to rouse or interest him. Now and then he would look up in a quiet enquiring way, and look more cheerful, but these were only momentary improvements.

This state continued unchanged from 1863 to 1878. In the summer of this year he began to move about more actively, and took interest in his surroundings, though he shook his head when told he would now recover. Steady improvement continued, and he was sent to our Convalescent Hospital, where he was cheerful and gay; in fact, for a time we feared that he would pass into a stage of maniacal excitement; as the attendants expressed it, he seemed "above himself."

On his return to London he remained well, and went on short leave to his friends in the country, and behaved perfectly sanely, and returned to us, only now wanting to be discharged.

Since the summer of 1878 he has had no single fit of depression, and therefore we may consider him fit for his liberty.

George G., married, 66. Admitted to curable establishment 1860. He was then melancholic, dirty in his habits, and had a strong desire to kill his wife, whom he once attempted to strangle.

Business worry and anxiety abroad, were said to be the causes of his insanity.

He believed it was revealed to him that he must commit murder.

Progress.—He slowly improved, and became useful in the gardens, but when he saw his friends the old ideas returned that he must murder them.

He confessed that he had no confidence in himself. At times he was distinctly melancholy for weeks together. About 18 months after admission he refused food, became suicidal, and refused to dress himself. He soon recovered from this attack.

He was made a Chancery case, and though he was quiet and well-behaved, both the resident physician and the visitors did not consider him free from the desire to injure his wife.

In the hospital the only thing noticeable was some tremulousness of facial muscles and constant restlessness.

Neither of these symptoms were of much importance, but his wife and family, whom he saw at intervals, did not consider him free from his delusions, and he himself was wanting in confidence.

He appeared to have quietly settled into his position as an incurable patient at Bethlem, till, in 1878, his wife became ill and died. He then expressed a desire to be allowed to go home, and this trial proving satisfactory, a "*supersedeas*" was applied for and obtained, and he is now at large, and as well and active as possible.

About three years after admission, he still said he was sure he should kill his wife if allowed to go home, and throughout his long stay in Bethlem, the various physicians under whose care he was, could not decide that he was of sound mind with sufficient power of self-control to be trusted at large.

OCCASIONAL NOTES OF THE QUARTER.

Insanity associated with an Abscess connected with the Ear ; cured by opening the Abscess. By W. RHYS WILLIAMS, M.D., late Resident Physician, Bethlem Hospital.

For the notes on this case I am indebted to my colleague, Dr. Savage.

Charles D. C., twenty-six, married. No insane relations. Has enjoyed good health. Industrious and sober. Thirteen days before admission he became depressed, and rambling in his conversation. In a few days he became excited, noisy, violent, and incoherent. He believed he was firing rockets at Edinburgh Castle. He was continually swearing and screaming out violent language, said he saw devils, and believed that all his actions were influenced by electricity. He was noisy and sleepless at night.

On admission, February 24th, 1876, he was violent and noisy; in a few days he became quiet, but was very sullen, refusing to answer questions. A fortnight after admission he was again excited, talking to himself incoherently, and striking attitudes. General health good, but he was sallow and thin. In November we noticed that he had a profuse purulent discharge from the left ear. He said he had had this for months past. Hearing seemed unaffected; slowly a large puffy swelling formed over left mastoid process, and spread up over squamous portion of temporal. On pressing this the discharge ran freely from the meatus. The swelling steadily increased for a month, but the patient was sullen and dangerous, and would not allow any one to examine him. He had not been noisy after the first ten days in the-hospital, but was very insane, keeping to himself and fancying we wanted to influence or injure him. He was abusive at times.

On December 13th, the abscess was opened under ether spray, and he became sane at once. No further discharge took place from the ear.

A fortnight later, under chloroform, a free incision and careful exploration were made. No cause for the discharge was found.

On January 29th a second exploration was made because of the wounds having healed, and there being no discharge from the ear. He complained of severe frontal headache and general malaise.

Mr. Wagstaffe had operated on all these occasions, and has kindly supplied his notes. From this time the wounds steadily healed, and the patient improved in every way, and after watching him for six weeks we discharged him well.

The first opening of this abscess was simply at the most dependent point about three inches below the mastoid process, and behind the sterno-mastoid, and owing to the patient being troublesome it was impossible to examine carefully through the incision by a probe.

The second operation, January 9th, was undertaken because the lower wound had a tendency to close, and it was evident that the main part of the abscess was in relation to the mastoid process, and might be due to some moveable sequestrum. An incision was made, under chloroform, behind and below the mastoid process, and therefore through part of the attachment of the sterno-mastoid. When this had been enlarged sufficiently to admit the finger, it was found that the abscess cavity passed backwards and downwards for fully two inches under the sterno-mastoid, and inwards along the base of the skull for apparently about an inch beyond the mastoid process, while forwards it also extended about an inch. It seemed to be limited, therefore,

in front by the parotid, which was not affected as far as one could judge, and internally by the rectus lateralis and the internal jugular vein. No bare bone could be felt in any direction, nor could any be found in front of the mastoid by a probe. It appeared as if the abscess had arisen beneath the mastoid process, but from what source was not at all clear. The discharge from the ear points to the front of this process as the original seat of disease, and it was about this region that the greatest tenderness was at first experienced. There was no deafness resulting, and the mischief was apparently external to the position of the *membrana tympani*.

We have had several cases recently in Bethlem Hospital, in which mental symptoms have abated on the onset of acute maladies, or painful affections, especially when these have implicated cranial nerves. We also had a woman suffering from violent puerperal mania who recovered almost instantaneously on the opening of symmetrical abscesses in the calves. In the case now reported the interest is in the seat of the disease, and its near relation to the brain. We cannot say whether there was distinct propagation of inflammation to the brain, or, what is more probable, if there was merely some conducted disease along a cranial nerve.—*Lancet*, April 28th, 1877.

The Poet Keats.

London Hospital Medical Society.

At a meeting of the London Hospital Medical Society, held on January 10, 1879, at the house of Mr. Hutchinson, Cavendish Square, a very able and interesting paper was read by the host on the medical poet, Keats, which was followed by a lively discussion. The Poet's chief composition, "*Endymion*," was of course discussed by the essayist, who made various discriminative remarks upon its meaning. The question might have been asked whether Keats himself caught the psychological belief hidden in the ancient myth upon which this remarkable work of genius is founded? As no reference was made to this aspect of the question, we may say that Keats makes no allusion to the idea which we suggest underlies the fable. We beg to supply the omission. Every one knows that the Greeks regarded Selene as the cause of madness. It was under this influence *Endymion*

fell. The form of his unwisdom for which he suffered need not be a matter for conjecture. Young and ardent he had gained a giddy height. Ambition beckoned him thither. Success turned his head. The kiss of Selene shadowed forth his fate. The Premier has made in his eulogy on the death of the Princess Alice the expression "the kiss of death," a familiar phrase; and a physician, whose modesty does not permit us to mention his name, contributes some lines entitled "The Kiss of Madness," suggested by the story of Endymion:—

Beware, ambitious youth, lest thou be found
 Sleeping, unguarded, on enchanted ground,
 Else thine the fate which mythic poets tell,
 A beauteous youth, one moonlight night, befell,
 Who clomb Mount Latmos—symbol fit of fame,
 A niche to find, whereon to carve his name.
 The summit gained, his wearied limbs he threw
 Upon the ground, Heaven's radiant Queen in view.
 He slept, so soundly slept, how should he tell
 Selene o'er his being cast her spell,
 And fir'd with jealous love within her breast,
 The Kiss of Madness on his brow imprest?
 Thus did the Goddess of the silver ray,
 And moon-struck, in her power, Endymion lay.

Judging from the host's love of poetry, it is more than possible that he sometimes woos the Muse himself, when in his charming hebdominal retreat among the woods and glades of Haslemere he escapes from the arduous duties of his profession. If so, we are sure we are only expressing a sentiment which would be shared by all who had the pleasure of being present on the occasion which has called forth these remarks, when we say that nothing would be more delightful to his auditors than to re-assemble at no distant day, under the same hospitable roof, to hear Mr. Jonathan Hutchinson recite his own compositions with the same dramatic power as he recited those of John Keats.

Statistics and Causes of Suicide of India. By Surgeon-Major
 KENNETH M'LEOD, M.A., M.D.

We have received a very interesting and able paper on the above subjects, read by the author (formerly a member of the Medico-Psychological Association) at a meeting of the Bengal Social Science Association, on the 13th of June last.

After some remarks on the regularity with which social phenomena repeat themselves from time to time, the author proceeds to describe the nature and extent of the statistics he had collected. The five years 1872-76 were selected as a period from which his tables were compiled. These years were chosen as being a convenient period for reference and comparison, and because the estimates of population and the mortality returns of recent years were the most correct hitherto available. Death registration is still very imperfect in India, but the author considers his figures—the only ones obtainable—in the main correct. The difficulty of determining whether some of the deaths were due to suicide, accident, or homicide, also interferes with the accuracy of the statistics. The returns are collected from the reports of the various Sanitary and Police Commissioners. Appended to the paper is a series of 22 tables. Generally, the conclusions derivable from the tables were—

That the number of deaths from suicide varies in different Provinces and Presidencies ranging from 12·7 *per* million of estimated population in the Punjab to 17·5 in the Central Provinces.

That the average or yearly rates of any Province or Presidency, whether high or low, were found to be closely maintained and repeated in the series.

That in each Province in certain districts there is a remarkable difference in the relative numbers of suicidal deaths, some indicating high, others low, rates. These rates are also repeated with serial uniformity. In the Province of Bengal the average yearly number of deaths by suicide is 31·3 *per* million of population. In five of its districts, *viz.*, Pooree, Cuttack, Nuddea, Patna and Gya, the rates are highest, and differ most widely. They give a mean rate *per* million of 66·4, individually 100·7, 85·2, 71, 56·7, and 49·5.

That towns show higher rates than country districts. Not only in larger towns are there more suicides, but the occurrence of instances of self-destruction is more frequent in smaller towns than in the surrounding districts. In Bengal the mean rate for selected urban districts is 62·4, while that for rural areas is 41·7 *per* million. The author considers that though the excess observable may be due to a more perfect death registration in towns, yet it is a fact beyond question and attributable to the greater poverty and vice

of towns and the severer pressure of social influences on individuals.

SUMMARY OF TABLES A. B. AND TABLES 1 TO 19 REFERRING TO THE YEARS 1872-76.

Locality.	Ratio of deaths from suicide per million of population.			Males.	Females.
	M.	F.	T.		
England and Wales ...	100·5	38·4	66·2	100	33·2
London	127·0	43·9	82·8	100	34·6
Calcutta	64·2	104·4	77·6	100	163
Province of Bengal.....	23·9	38·7	31·3	100	162
Ditto Selected Areas ...	37·8	57·5	47·5	100	152
Ditto Selected Districts	41·2	90·7	66·4	100	220
North West Provinces	27·8	71·6	48·2	100	253
Ditto Selected Districts	43·8	151·0	93·5	100	345
Punjab	10·7	15·2	12·7	100	142
Ditto Selected Districts	19·8	36·0	27·3	100	182
Oudh	37·8	66·1	51·4	100	175
Ditto Selected Districts	47·8	89·0	67·2	100	186
Central Provinces	64·2	77·1	70·5	100	120
Ditto Selected Districts	80·4	117·2	98·4	100	146
Town of Madras	95·5	92·8	94·0	100	97
Madras Presidency.....	62·6	68·5	65·6	100	109
Ditto Selected Districts	85·5	103·2	93·7	100	121
Town of Bombay.....	90·1	89·9	90·1	100	99·7
Bombay Presidency ..	41·7	56·9	49·0	100	136
Ditto Selected Districts	65·1	96·	80·2	100	147

Statistics as to the age at which suicides are most common could not be obtained.

In India the excess of suicidal deaths among females, as compared with males, is most striking. Taking 100 males as

the standard of comparison, in round numbers the proportion is 100 to 150. In England it is 100 to 33. In this respect, also, the returns from different Provinces and districts in Provinces vary, and where the general suicidal rate is high the proportion of suicide by females also rises. The excess of cases of self-murder among females may be accepted as an undoubted fact, though the figures probably rather fall short of the truth than otherwise.

Different methods of committing suicide prevail in different parts of the country. In India, shooting and wounding are everywhere less common than in England, and less so among women than men. In Lower Bengal hanging is the most frequent mode, especially among women. The presence of the means of self-murder often determines the manner. In Behar and other poppy-growing districts, poisoning by opium is the prevalent method. Where wells and tanks abound, they are used. In the Punjab, Bombay, and Madras, drowning increases progressively, while cases of hanging, wounding, and poisoning decline in frequency. In the British Army, gunshot accounts for 53·2 *per cent.* of the suicides.

The determining causes of suicide in India are then discussed under the heads of physical and moral, the latter including religious, political, and domestic influences.

A marked excess of suicides takes place in the hot months of the year as compared with the cool.

Famine and disease stimulate the suicidal propensity. Dr. Cornish, Sanitary Commissioner for Madras, states that the number of deaths by suicide in Madras for 1875 was 2,575, as against an average of 1,970 for the five preceding years. "The explanation of that increase," Dr. Cornish adds, "is easy enough when we think how many millions were pinched for daily food." Bodily pain, especially abdominal pain, is a very common cause of suicide, chiefly among women. "On this point there is a great deal of evidence." "Severe pain, caused by bad rice, inflamed spleen, worms, &c., is very often the evident motive to suicide." Disease of the brain is not a frequent cause in India. Intoxicants, except in districts where opium is taken, rarely lead to self-destruction.

Many of the social and religious customs and rites of the natives of India tend to promote the increase of suicides.

The practices of self-torture by the *Fakeers*, of widow-burning or *sati*, of lying under the wheels of Juggernath's car, though now forbidden, have still their influence in perpetuating the suicidal idea. *Sumajh*, or the self-burial of Lepers,

is an allied cause into which the element of physical suffering also enters. The Agent of the Governor-General for Rajpootána, writing in 1868, thus describes the latter custom—

A poor suffering wretch—influenced, perhaps, by Priests, by relatives, glad to get rid of him, and by consciousness of his own noxious condition—expresses a desire to bury himself alive. The relatives for two or three days remonstrate and endeavour to dissuade, but he is firm; some of the nearest relatives then get up a procession, dig a pit; the doomed man voluntarily enters it, his friends heap up and beat down the soil, and the whole villagers witness the sacrifice. A few days subsequently the mob visits the afflicted house, opium water is drunk, and the taint is removed.

Suicides for revenge are very common in all Oriental countries, the idea being that the responsibility for the death rests on the person giving the provocation to the act.

Suicides are more common among Hindoos than Mahomedans. Self-murder is, however, an offence against the religion and laws of both.

The rigid application of the laws of *caste* is alleged to act as a cause of suicide.

The survival of the *sati* feeling in the country, the low social position of women in the country, their ignorance and want of education, render them more prone to commit suicide than men.

The social position which women hold in this country is one of depreciation and subjection, and must powerfully encourage a feeling of self-depreciation, which is the initial stage of self-destruction. A man esteems it a misfortune when a female child is born to him. The education of females is neglected, and their social value is accounted very low. They remain ignorant and childish throughout life. They are deprived to a great extent of liberty, and thus are rendered incapable of exercising intelligent self-control. They live an instinctive, emotional, impulsive life, into which the intellectual element does not enter. They possess no rational power over their own social destinies—no choice in the selection of their partners in life. They are strangers to the feelings of refined love, respect, esteem which ought to precede marriage. They may be mated to men who fail to awaken these feelings. Nay, their young hearts may be broken by a forced alliance with an aged churl, and, as widows, their young lives may be permanently blighted, and what they have been taught to count sweetest in life turned to sourness before they have tasted it. Such being the case, is it surprising that they often seek in suicide a release from a life which means to them contempt, annoyance, disappointed hopes, lacerated feelings, and general despair?

The author concludes by suggesting the following as the lines upon which the question of remedying the various social defects which tend to suicidal promptings must lie:—

1. Efforts to improve the value of life.
2. To purify and refine the religious and moral sense.
3. To educate the intellect, and enhance the usefulness of existence, so that it may become a settled conviction that the very worst solution of the problem of life is its destruction; and
4. Specially and prominently to raise the social value and status of woman, by education, by a judicious cultivation of the intellect, and by a gradual social emancipation as she becomes more and more fitted by these means to assume a more independent and substantial place in the social organisation.

Dr. Russell Reynolds on Mental and Nervous Disturbances of Gouty Origin.

I.—*Mental Disturbances.*

Many cases have come before me in which there was great restlessness; the patient could not be still for a moment; was alternately excited and depressed; slept badly, or not at all; was intensely hysterical, and could not attend to business; while others have complained of failing memory; of want of power of attention; of suicidal thoughts; of intense melancholy; others of sounds in the ears; voices, sometimes distinct, sometimes not; and some or all of these of long continuance; but yet all disappearing under treatment upon the hypothesis I have mentioned. These symptoms often alternate with, or accompany, those which I mention next.

II.—*Pain in the Head.*

Some of the most intense head-pain that I have met with has been of this character, and been relieved by treatment of an anti-gouty description. The special features are pain on one side of the head, usually parietal, or occipital; "grinding" habitually; but forced into almost intolerable severity by movement, such as the jar of carriage riding, or running down the stairs of a house; and this without any oversensitive nerve-points; without tenderness of scalp; and without any aggravation by mental exertion. It is not affected by posture or by food; it is relieved by physical rest, and may disappear entirely after treatment of the kind that

I have mentioned. It is not anæmic, nor neuralgic, nor dyspeptic (in the ordinary sense of that word), and it yields to nothing in the way of treatment that may be directed against those common varieties of headaches. It is very often associated with some of the other symptoms that I have mentioned, and they must be taken into account when making a diagnosis of the malady.

III.—*Modified Sensations.*

1. Of these, vertigo is one of the most common, and it may exist alone. It takes sometimes the form of objective movement, but more frequently that of subjective movements, such as the sense of "swimming" or "floating" away. This vertiginous sensation is sometimes determined by posture, and occurs only when the patient lies on one side; it may be the left or the right; the apparent movement of external objects being from that side towards the other.

2. With vertigo is often associated "noise in the ears," not the sound of "voices," but drumming, hissing, singing sounds, recognised to be in the ears, or in one ear, or in the head, and not appearing to come from outside. There is not, or need not be, any mental delusion with regard to these; the patient knowing well that they are inside his organism.

3. Associated with such vertigo and tinnitus there is frequently deafness, and the feeling of "beating in the ear;" and the symptoms are like those described by Ménière; but I have found them in the vast majority of instances associated with a gouty habit. With vertigo and tinnitus there may be much mental depression, or attacks of bewilderment, amounting sometimes to those of *le petit mal*.

4. Modified sensations in the limbs may occur. A large number of people complain of "numbness," "tingling," "creeping," "deadness," or some other altered state of sensibility in the limbs, which, sometimes taking a paraplegic, sometimes a hemiplegic distribution, have caused much anxiety; and the more so, because the suggestion of organic disease of brain or spinal cord has sometimes been conveyed, and yet all these troubles pass away. That which I have observed to be in them the most characteristic of their gouty origin is their variability in kind and locality. To-day, for example, there is "coldness" in the left leg; to-morrow, "a sense of heat;" last week, a "pricking" in the right hand; the week before, a "stinging" feeling

on the side of the head, or in the tongue. This wide distribution and variability, so alarming to the patient, is much less alarming to the physician, who recognises in these very facts the elements for a favourable prognosis.—*British Medical Journal*, Dec. 15th, 1877.

Professor Gairdner on Spiritualism.

Mr. W. Irving Bishop, an educated and able young American gentleman, who is now visiting Scotland, has, at the request of many of the Professors of the Universities of Edinburgh and Glasgow, and many other influential citizens of these towns, been giving several "Exposures of Spiritualism" before very large audiences. By means of a careful study of the mode in which the most famous professional conjurors amuse and deceive their audiences, through a knowledge of the automatic and reflex action of the brain, and by great perseverance and practice in performing the "tricks," he has been able to rival the most celebrated mediums in befooling an audience. His peculiar anatomical construction enables him to do feats which no ordinary man could do. He offers to pay one hundred pounds, and a well-known American physician adds a thousand to this, if Mr. Bishop cannot do any "manifestation" whatsoever done by any medium, or Spiritualist, after he has been allowed twice to see it done by such a "medium." His offer has not yet been accepted, either in America or Europe. Dr. W. B. Carpenter has been greatly interested in Mr. Bishop's performances, considering that they confirm many of his views in regard to the action of the brain. Professor Gairdner, in a lecture to his class, on the subject of Spiritualism in connection with Mr. Bishop's "Exposures," of which this is the concluding part, says—

I have never gone into this matter professionally, or even as a scientific man, but have always on the other hand held that the duty of a physician towards these things was to have as little as possible to do with them. But, still, in my career instances have come to my knowledge, and it was in consideration of all these that I was led to attempt to formulate a few nights ago the state of my mind upon the subject by saying—and it is something like a distinct, and I think not an untrue and unintelligible definition—that I call the state of mind of people inclined to Spiritualism a *diseased condition of the faculty of wonder*. I hold that the faculty of wonder, or reverence, if you like to call it so, is an innate and necessary part

of the human mind. Nay more, it is one of the most essential, one of the most beneficial of all our endowments—that faculty by which we grasp, by which we strive to a certain extent to comprehend, and, if we do not comprehend, submit ourselves to, and even delight in the unknown—by which we strive to apprehend that which we cannot comprehend. You will easily see that the higher aspect of this faculty of wonder is the basis of the whole of our religious aspirations. Therefore it cannot be that I mean to denounce it—to speak ill of it. But like all our other faculties, this part of our mental constitution is liable to abnormal action—in fact, to get into a state of disease. What I said of this faculty is, that when it is rightly applied by a thoroughly healthy mind to the connection between the spiritual and the material world, it does or should find abundant opportunity for its exercise within the realms of strict law. I do not mean here to touch or raise the question whether there are what are called miracles connected with the spiritual world any more than in the physical world. That is beside my argument. My argument at present is simply this, that within the realm of law, clearly understood as such, there is food for the faculty of wonder in all its legitimate aspirations far more enduring, far greater, and far grander than anything that can be developed in the way of those communications of table-turning, table-rapping, or anything of that kind. And the instance I gave was just one out of endless instances—to try and conceive of the manner in which the spirit of man, that which he knows to exist, and, in fact, to be himself—his *ego*—communicates through his nerves with his muscles—how it is capable of being so minutely directed that along the lines of nervous communication it will arrive at a particular muscle or particular group of muscles, and perform all the complicated muscular acts which we know to be the physical and tangible results of the manifestations of our spirit. In other words, the most commonplace appearance of a spirit that you can name—the most every-day manifestation in the world, and that which we are most certain of in our own consciousness—is, when you come to think of it, an absolute and perfect mystery, which only becomes comprehensible to us because we know it to be a fact, and because it lies within the divine order of things. It is physiological. What Spiritism or Spiritualism appears to require of us is, that having got our every-day consciousness of this matter for wonder—having got all this marvellous adaptation of spirit to matter—having a set of thoroughly organised and thoroughly known channels by which the spiritual world is revealed in the material, and by which the Great and Supreme Spirit is enabled to reveal Himself to every one of us—having, I say, got the absolute proof and evidence in our own souls and our own bodies, of a set of laws appertaining to this matter, what Spiritualism requires of us to do is to cast aside the whole of these laws, and to admit a set of interferences, not exceptional, not for grand and very, very exceptional objects, but a set of every-day constant interferences with the law of the action of spirit and matter

—as such, known to all of us—interferences which are not only not in accordance with that law, but which are absolutely subversive of the ordinary results of that law. Just let us suppose this:—Suppose it proved, once for all, that the spirit of a departed person—a disembodied spirit, a spirit that is wandering in space, a spirit which is not limited by the conditions of material investment—has the power to appear to you, and to reveal to you what is being done or written, or has been done by some friend of yours on the other side of the globe, or who has passed beyond the grave, and that it has had access to documents no mortal could have seen, what appears to be the necessary consequence of this doctrine? This, among others, that no scrap of writing—that no single act that a man does could be concealed, or at least could be perfectly sure of being concealed, from his neighbour—from any man who may have the greatest possible interest in knowing it, perhaps for a nefarious purpose. You write a document of the most private character; you shut it up in a locked drawer; it affects the character of many persons; it would be treason to morality to publish that document in the newspapers. There is nothing to hinder, so far as we know the laws of this newly-invented spirit world*—there is nothing to hinder any disembodied spirits who are about from getting access to the paper, and having it published in the newspapers. But here I say on the other hand—and this is the result of experience—it has been shown that this cannot be done.” Having alluded to the incident of a £100 note being left in a sealed envelope in the Bank of England, the owner having promised to give it up to any Spiritualist who could tell the number, but for which no application was received, Professor Gairdner proceeded—“It was in some way or other impossible, apparently, for the spirits, greater or less, although it was asserted that they were able to reveal the secrets of one man’s heart to another, to read the number of that note in these circumstances. I say that it was not only, in fact, impossible, but I say this, that had it, in fact, been possible, it would have shown a state of matters which, humanly speaking, would have been subversive of the Divine order. It would have entirely destroyed that system of law by which we know that, in a way which is absolutely wonderful and absolutely inscrutable, spirit does communicate with matter, as we know, every day of our lives in this world. The state of mind of the persons who come prepared to believe these things—who come to the investigation of them with previously established ideas, who regard doubt or hesitation as I would say, a sin, but let us rather say an error, and a sure way of keeping manifestations back, while open-mouthed credulity is the only frame of mind in which to come to the

* The preceding portion of the lecture shows by extracts from the works of spiritualists, and especially of Allan Kardec, that according to these authorities lying, mischievous, and impish spirits everywhere abound, and are permitted to play their pranks freely for the delusion of those who are willing to be deluded; whereby the thorough-going spiritualist finds no difficulty in explaining, according to his theory, proved instances of absurdity or imposture.

investigation ; the state of mind of such persons—who, I believe, may be numbered in thousands, and possibly in millions, in this country and in America—is, to my idea, a diseased state of mind. I admit fully that many of these persons are apparently able to conduct their own affairs. I freely admit that many of them are very moral and well-intentioned persons. I am equally inclined to believe that this Mr. Allan Kardec, within certain limits which I cannot attempt to define, was a truthful man. But that does not hinder me from believing that there is disease at the bottom of these things, and it is a disease of the faculty of wonder, by which that faculty, intended for the noblest purposes in the organisation of the human mind, is perverted to some of the lowest of all purposes, and even to the abetting of trickery. One other thing I had on my lips to say the other night, but I did not say it then, and I am not quite sure that I should do so now ; therefore I can only indicate it very slightly. It is that this conclusion as to the diseased nature of these manifestations, so far as the mind of the recipient is concerned, was impressed upon me at a very early period during the epidemic of manifestations—of electro-biology as it was called then—in 1851 in Edinburgh. I had a dear friend, since dead, and dead under circumstances that no injury to him or any one else can be brought about by telling the story. He was of a bad constitution originally. He had entered on the study of medicine, and with such ardour had he taken up the branch of physiology that I regarded him as likely to be one of the greatest physiological inquirers of the day. I had not only respect for him as one of my pupils, but I felt for him a feeling of regard and love. He was drawn into the vortex of Dr. Gregory's drawing-room exhibitions, and his case appears in Dr. Gregory's book ; I knew it was disease ; I felt it was disease. He was made to go out of himself ; he was made to wander here, there, and everywhere ; he was made to converse with all the philosophers of ancient Greece—with Aristotle, with Socrates, and with Plato, and to tell what they said to him. He then took a somewhat serious illness, and I became his medical attendant, and for a time he was under my care alone. The persons who had obtained this strange influence over him still kept coming about him, but at last I had to forbid their presence. He got over his illness, and became so far better, and they then again attempted to catch him, but failed. Their power had gone, or almost gone, and only the poorer class of manifestations could be produced, and ultimately none of them could be produced, and for a considerable time after that he continued in better health. But the essentially diseased character of the whole thing was plain from this, that within a year or two he showed manifestations of actual insanity. The poor fellow excited my sympathy, and I made an effort to save him. I took him to London, got him to apply himself to histology, and tried to excite all his better and scientific predilections. But the morbid tendency was too strong, and ultimately he ended his days within the walls of an asylum. I do not mean to say that Dr. Gregory made him mad. That

would be wrong. I do not think that was so, because he was better for a good while after that, but I mean to say that the tendency of these things in a constitution hereditarily predisposed to insanity is to insanity, or as Shakespeare has put it in the mouth of *King Lear*, when conscious that he is himself upon the giddy verge, "That way madness lies."

Mrs. Weldon. The Same Patient of the "World" Newspaper.

During the last few months, the air has been rife with public clamour against private asylums and "mad doctors," or "body snatchers." Mrs. Weldon, who escaped between the signing of her certificates and her removal to an asylum, gave in an address, delivered in St. James's Hall, extending over two hours and a half, a detailed narrative of the attempt to place her in an asylum last April, her flight, and her determination not to rest until the Lunacy Laws are amended. A gentleman who had been in an asylum, placed there, he asserted, by his brother, an M.P., because they differed in politics, entered upon a tirade against the Russians, and was with difficulty brought back to the question by the meeting. Mrs. Weldon gave a song, and after a resolution had been passed, thanking her for her discourse and expressing the opinion that the Laws of Lunacy required amending, the audience separated. The meeting was orderly, and Mrs. Weldon had no occasion to use a rattle, with which she had provided herself, to call her audience to order.

Letters appeared in the "World" last autumn and have now been reprinted, from a gentleman well-known and respected as an author, endeavouring to cast ridicule on the present system of confining alleged lunatics. Having been one himself, and confined for some time in an asylum, he attempts to describe what he has seen and suffered, but it is relieving to find him able to say: "The especial experience which I have to tell has nothing especially painful. I have nothing to write of dark rooms, or strait-waistcoats, or whippings, or to reveal such secrets of the prison-house as will make each particular hair to stand on end by the telling. My lines were cast in pleasant places. The private asylum in which I was confined for many months, which in the retrospect seem like one dreary dream, is, I believe, highly recommended by Her Majesty's Commissioners as a delightful sanitary resort, quite a place to spend a happy life."

The charge which really underlies this series of papers is expressed in the following sentence:—"Villainous con-

spiracies for personal motives to see the Lunacy Law in motion are rare enough, I do not doubt. But the law favours them. What is *not* rare, I doubt even less, is the imprisonment in these fearful places of people who are perfectly sane, but suffering from some temporary disorder of the brain, the most intricate and delicate part of all the mechanism, and the least understood; and if asylums are a sad necessity for the really mad—and even that I cannot help doubting, for from what I have seen, I believe that they require a much more loving and more direct personal supervision than they can get, poor people—for the nervous sufferers who are not mad, they are terrible. The mad folk seem to me happy enough on the whole, perhaps. But the suffering of those conscious of being sound of mind, but very sick in body, yet treated as sound of body and sick in mind—the life of the sane among the mad, baffles description.”

The writer is candid, and gives several proofs of his having had delusions, &c., as when he says “some of my companions assumed for me the semblance of animals,” and speaks of “the dazed state of trance in which I contrived to live from hour to hour.”

That ex-patients should write to the papers, exposing what they deem unwarrantable confinement in an asylum, is natural enough. Of this we do not complain, but we protest against the insertion by an Editor of personal remarks and attacks upon Medical Superintendents. They are libellous, and advantage ought not to be taken of the consideration shown for the writer’s mental condition, which prevents those who are held up to ridicule taking action against the libeller.

The Pathology of Tetanus and Hydrophobia. By JOSEPH COATES, M.D., Glasgow.

The following are extracts from a very interesting and important paper by Dr. Coates in Vol. lxi. of the “*Medico-Chirurgical Transactions.*” They certainly show that if microscopic investigation is so fruitful in such “functional” diseases, we need not despair of yet demonstrating under the microscope the lesions of convolitional structure in acute mania or melancholia.

I. *The Conditions met with in Tetanus.*

The spinal cord.—As to the condition of the spinal cord, I am in

substantial agreement with the authors just mentioned. I find in my cases that every region of the cord presents, more or less, the following lesions :

1. There is great overfilling and distention of the blood-vessels, not uniformly, but at intervals. As the larger or medium sized nutritive vessels are situated mostly in the central parts of the cords and in the fissures, it is here, chiefly, that this condition is visible.

2. The most marked lesion is a granular condition around the vessels. This exists more or less in the neighbourhood of nearly all the larger and moderately-sized vessels ; and, as these are situated mostly in the central parts of the grey substance, and in the fissures, it is chiefly met with in these localities, although not confined to them. The characters of this lesion are best seen in specimens which have been mounted in glycerine. In these it is seen that the neighbourhood of the vessel is occupied by a mass of pretty coarse granules. It will be seen that in addition to the granules, there are a number of much larger bodies of various sizes and mostly roundish in shape. These are bounded by a well-marked double contour, and are probably drops of myeline, as I have only met with them where the vessel was related to the white substance of the cord, chiefly in connection with the vessels of the fissures. It is a matter of dispute whether this granular material is an exudation or the result of disintegration of the nervous tissue. The appearances presented, especially in glycerine preparations, are certainly very suggestive of an exudation ; it often looks as if there were a kind of pool in the neighbourhood of the vessel, as if the material had been fluid in the living body, and these little pools sometimes run off to some little distance from the vessels. This view is confirmed by the occurrence of the granular material in the neighbourhood of the vessels which sometimes run transversely in the fissures ; here there is sometimes a considerable gap between the granular material which sticks by the vessel and the neighbouring white columns. No doubt there is disintegration of nervous tissue, and the round bodies already mentioned and figured are most likely the myeline from nerve fibres which have been destroyed.

3. There is an appearance which hardly deserves to be separated from the last as a distinct lesion. In many of the sections the blood-vessels and surrounding granular material have fallen out, so that it is quite common to meet with gaps. These are usually round, but sometimes their outline is like the segments of two circles which have met, and it is as if two neighbouring lesions had coalesced. The gaps, like the lesions they represent, are mostly in the neighbourhood of the central canal, that is to say, to either side of it in the grey commissure.

In one case I have met with a peculiar appearance in the white columns, to which, as it is isolated, I do not attach much importance.

It is as if a cylindrical portion of white substance had become necrosed.

These lesions were present in the horse as well as in the man, although in the horse they were not so pronounced as in man.

Medulla oblongata.—Lockhart Clarke did not find any lesion in the medulla oblongata in his original case, and Dickinson did not examine it microscopically. In all my cases the medulla oblongata was examined, and I have found it no less affected than the spinal cord. The three lesions described above were all present, though they may have varied in degree in different parts. In addition to these three lesions there were in this part pretty frequent small hæmorrhages, in which the blood corpuscles were frequently insinuated among the nervous structures. These were not met with in the cord, although possibly they may have been present.

There is in the medulla oblongata a certain tendency to localisation of the lesions, to which I am inclined to attach considerable importance, as we shall see further on. We saw that in the cord the larger and moderately-sized vessels run chiefly in the grey commissure and the fissures, and that the lesions exist chiefly there. In the medulla oblongata one of the most important nutrient vessels runs longitudinally in the posterior parts of the cord, to either side of and slightly behind the central canal or the deepest part of the floor of the fourth ventricle. In nearly every section this vessel is affected, and often there is hæmorrhage from it. It is well known that the nuclei of certain of the cerebral nerves are situated in this neighbourhood. The hypoglossal nucleus is the most prominent and easily recognised of these, and it is remarkable how often this nucleus and the blood-vessel with its lesion are visible in the same field of the microscope. It is not to be understood that the lesions were not present in other regions of the medulla. I have frequently met with gaps in the olivary body and elsewhere, but they are not nearly so common as in the region specially indicated.

The *pons Varolii* was only examined in one case, and it was found that though the above lesions were present, they were much less abundant than in the cord and medulla oblongata.

Corpora quadrigemina.—These ganglia were only examined in one case, but the characteristic lesions were very abundantly present, at least in one region.

The *corpus striatum* was only examined in one case. There were a few gaps, but they were very infrequent, and the ganglion seemed to be involved in a very minor degree.

Convulsions.—These were examined in the last two cases which came under observation, and the parts chosen were the motor regions, as determined by Ferrier and Hitzig. In one of the cases the granular condition around the vessels was unmistakably present but to a very slight extent. This was not found, however, in the other case. In both, there was a lesion which was not observed in the

other regions of the nervous system, but which to a certain extent resembles the principal lesion found there. It consists of the exudation of a homogeneous yellow material outside many of the smaller blood-vessels. This condition was by no means homogeneously distributed, there being some parts of the convolutions where it did not seem to be present at all, and others in which it appeared to be present in connection with almost all the smaller vessels. It was only found in the grey matter of the convolutions; and in connection with vessels which were little if at all above capillary size. The exudation occurred in the form of little oval drops, and these retained their yellow colour in sections stained with carmine and mounted in the usual way in Canada balsam. . . . The other lesion consists of a homogeneous material, having an appearance strongly suggestive of its being formed of a drop of some fluid; it has an oval form, and in nearly every case it compresses the vessel more or less, in many cases seriously compromising its lumen. It was this which first attracted my attention, and it is exceedingly striking to find, within a limited area, quite a number of vessels occluded more or less completely.

Nerve.—The nerve proceeding from the injured part was only examined in one case, but no lesion was detected. There was no interstitial neuritis, such as some observers have found.

II. *The Conditions met with in Hydrophobia.*

It was with some difficulty that I obtained possession of the body of a dog which was said to have been affected with rabies, and only after it had been buried for a week. . . .

Of this dog I preserved the brain and spinal cord, the salivary glands, liver, kidneys, and spleen, and hardened them in alcohol and chromic acid. The other dog was seen during life by Dr. Klein, and he states that it was without doubt a case of rabies. The parts examined in it were the salivary glands, liver, spleen, kidneys, intestines, larynx, and trachea. I shall now proceed to describe the appearances presented in these various cases, and it is to be understood that, unless mention is made to the contrary, the appearances described appertained to the organs of all the cases which were examined.

The nervous system was examined in the two human cases, and in dog No. 1, and in all three the principal lesions were identical. *

The principal lesion concerned the blood-vessels primarily, although its effects were not absolutely limited to them. Around the vessels there is a collection of round cells or leucocytes. In some cases there are only a few lying in the perivascular space, but in others they form a thick mantle, in which the vessel is completely buried beneath layers twenty or thirty deep. This condition does not affect the vessels uniformly; there is no continuous clothing of the vessels with leucocytes, but there appear to be free intervals alternating with

spaces where the condition described is present. On the other hand, the lesion appears in some cases to occupy a considerable length of the vessel, as it is found that when a vessel happens to be exposed longitudinally, it is often seen to be clothed for a considerable distance with layers of leucocytes. In the dog's nervous system the vessels have often been torn out for some length in making the section, as the tissue was very brittle, and in these sections considerable lengths of blood-vessel are sometimes seen, clothed in a mantle of cells.

This condition is very abundantly present in the spinal cord and medulla oblongata. I am not convinced that any one region of the cord is more affected than another, but perhaps the dorsal region is less involved than the cervical. As the larger and medium-sized vessels of the cord run mostly in its central parts, and as it is chiefly these which are affected, we find that the lesion is most obvious in the grey commissure to either side of the central canal, but it is not confined to these parts, and may even be seen in the white substance. In the medulla oblongata it is present to a very marked extent, and indeed the most extreme aggregations of leucocytes which I have met with have been mostly here. In fact, it looks as if few of the vessels in the medulla oblongata had escaped. There does not seem to me to be so much localisation of the lesion in the posterior parts of the medulla as I found in tetanus, although to a certain extent a similar distribution is manifest.

In the pons Varolii the lesion is also present, and sometimes to a very marked degree, but it does not seem to be so frequent or so aggravated as in the medulla oblongata. In the corpora quadrigemina it was unequivocally present, but distinctly less frequent than even in the pons. The corpus striatum was, unfortunately, not preserved.

The convolutions were examined in one of the human cases and in the dog. There was here a marked contrast with the cord and medulla in respect that the larger and medium-sized vessels were nearly all unaffected, while in the case of those of nearly capillary size it was very common to meet with collections of leucocytes around them, and in some cases the vessel seemed to be buried in them and compressed.

Besides this lesion, which is the most constant and most noticeable in the central nervous system, there is a condition which seems closely related to it. The superabundant leucocytes are not confined to the neighbourhood of the blood-vessels, but in many parts of the nervous system they were seen to be present in unusual numbers in the tissue generally. The convolutions of the dog especially looked as if infiltrated with round cells. In some parts of the cord and elsewhere the leucocytes were aggregated around the ganglion cells, and occasionally they appeared to occupy the peri-ganglionic space in considerable numbers. It must be added that this latter is by no means a constant, or, indeed, a very frequent appearance.

The only other prominent abnormal condition observed in the central nervous system was an occasional great excess of amyloid bodies, chiefly near the surface of the corpora quadrigemina. As this, however, is not an unusual condition in other cases, I do not know that much importance is to be attached to it.

It may be added that I have not found any obvious hæmorrhages or areas of granular disintegration. . . .

The *salivary glands* excited most interest next to the nervous system. They were not preserved in the human cases, but in the two dogs they were examined, and in both the same conditions were observed. The glands were everywhere infiltrated with multitudes of round cells, but the infiltration was greater at some parts than others. They were insinuated in large numbers between the proper glandular structures, but they had accumulated especially in the spaces occupied by the ducts and vessels. In these spaces their numbers are frequently so great as to obscure the outline of the vessels, which appears, as it were, buried in them. . . .

It may be added that the pancreas was examined in one of the dogs, but no such lesion was found.

The *kidneys* were examined in both dogs. The most obvious condition here is a very marked but not uniform hyperæmia, existing both in the cortex and pyramids, but especially manifest in the veins which run between the cortex and pyramids. . . .

The *cicatrix* of the dog-bite, and the *nerve-branches* for some distance up from it, were examined in one of the men. In the neighbourhood of the cicatrix there were evidences of irritation in the form of leucocytes which infiltrated the skin and subcutaneous tissue. The blood-vessels in the neighbourhood contained, in some cases, a granular material, which was evidently disintegrated blood-corpuscles. In other cases the vessels were partially occupied by transparent, globular bodies, which are often yellow in colour, and are, I believe, red blood-corpuscles altered in some way. This alteration of the red corpuscles is met with in inflamed structures, and may also be taken as an evidence of irritation.

Such being the facts observed, it remains now to consider briefly the bearing which they may have on the two diseases before us. In the first place, as to hydrophobia, we found in the central nervous system certain lesions which I do not presume to regard as distinctive of that disease, but which may, I think, be fairly considered evidences of irritation. There were leucocytes aggregated around the vessels and infiltrated into the nervous tissue often in great numbers. But these evidences of irritation did not exist only in the nervous system. The salivary glands, in the cases in which these were investigated, presented appearances strictly analogous to those in the nervous system—leucocytes around the vessels and infiltrated between the glandular elements. The kidneys also presented changes, the vessels were much dilated, and, more important than this, there were

immense aggregations of leucocytes inside some of the veins, and also hæmorrhages. The existence of signs of irritation in all these organs, and the direct connection of these signs with the blood-vessels, is exceedingly suggestive of the existence of some irritant in the blood which has acted on the vessels primarily.

In the cases of tetanus subjected to examination, there were in the nervous system appearances which, though by no means identical with those in hydrophobia, are still to my mind strongly suggestive of irritation, and of irritation acting out from the blood-vessels. . . .

In regard to the symptoms in these two diseases, few will deny that in hydrophobia they are related to some poison circulating in the blood, and attacking specially the central nervous system. In the case of tetanus this view, though supported by very high authorities, is not generally received. Looking, however, to the fact, that on the one hand the symptoms in both these diseases have a closely analogous anatomical distribution, and that on the other hand the lesions though different in kind are so similar in distribution, it seems to me very natural to suppose that in tetanus also there may be some poison circulating in the blood and causing disturbance. In this connection it may be said that the high temperatures observed in tetanus, sometimes reaching a startling elevation, are more suggestive of a general disease, these temperatures not bearing any constant relation to the exaggerated muscular contraction.

PART II.—REVIEWS.

The Physiology of Mind. Being the first part of a Third Edition, revised, enlarged and in great part rewritten, of "The Physiology and Pathology of Mind." By HENRY MAUDSLEY, M.D., F.R.C.P.

In an age of new discoveries it is very hard to avoid narrowness. This may seem a paradox, but it is illustrated every day. In our own time, all manner of new knowledge has been acquired about all manner of things. Electricity, language, life, chemistry, geology, and a dozen other subjects, as we know them now, were half-unknown to our grandfathers. This is an immense gain, and the ultimate results of it, even if we could suppose it would cease presently, no man can foresee. But it brings with it a loss—or at the least a great danger. We have made the world so wide that we can only see it by little parts at a time. To comprehend the whole of knowledge, at least in outline and approximately, was possible to the great scholars not so long ago. For us it has become an absurdity. Therefore we

“specialize.” Like mechanics in a vast factory, we sit each at our own little machine and try to make perfect some one small portion of the great work. What the whole fabric may be like when all the contributions are combined and harmonized, we cannot easily know.

The application of the parable is not difficult; but before we go on to discuss Dr. Maudsley’s book in a more special way, we propose to clear the ground by defining as briefly as possible what we take to be meant by such a ‘view of the whole,’ as that to which we allude. The solution of the problem lies in the meanings we attach to those common but often misused words, Philosophy and Science.

Each Science has its own sphere of knowledge. The *Sciences*, in fact, as contrasted with *Philosophy*, would be defined as the investigation of limited groups of phenomena. Each Science is limited by all the others—except in so far as there are awkward cross-divisions, due to a former less developed period. Philosophy, in the proper use of the word, is the knowledge of things from the point of view of the whole. It is therefore—or it hopes to be—the “Science of Sciences,” the endeavour to unify and combine them, with whatever success, in one scheme, wherein each special science shall have its proper place in the hierarchy of knowledge, and shall be seen to be, as it must be, correlative to every other and only *intelligible* truly when read in the light of the universal knowledge towards which they all converge. “Philosophy,” then, in this sense of the word, has become less and less possible with the growth of science.

“One thing at a time,” is the motto of Science. “*Divide et impera.*” And its method, therefore is by preference analytical. Given a complex problem, it seeks to reduce it to a number of simpler ones, and sets a different Science to work on each, as the manufacturer sets a dozen trades to work on a needle. “To explain a watch,” it seems to say, “you would take it to pieces; therefore, to explain Man you dissect him—you take him down to the atoms. Thus you get at the bottom simple and easy laws of mere motion—by-and-by of chemical affinity—then of life.” And so they must in consistency go on to say also, as Bacon said, that they expect some day to be able by these simple laws to build up a man out of the atoms, as the Swiss builds up his watches.

And it is by reason of this same dissecting tendency also that Science is so prone to act as a solvent against all the great unities of life. Religion, morality, the Church, the

State, the family, law, art, and the rest are strangely apt to be explained away. What is the family but a convention long ago assumed as a decent cloak for a natural appetite? What is religion but a survival of the childish terrors of savages long dead, fomented and improved upon by the cunning of generations of priests, who live by it? And after the same manner the rest also are disintegrated and analysed out of existence; and we are given to understand that when Science has had time to develop a little further, Poetry, like the rest, will follow to the Limbo of illusions, and bare facts will stretch in endless series before the vision of the enlightened Man; "which" (if the scientist will pardon us for saying so) "is absurd."

It is against this excess of analysis that the "Philosophers" protest; and it is from this point of view that we now wish to consider Dr. Maudsley's book. For a book of this kind—a book of cardinal importance which sums up the past achievement of a Science and claims attention as a master-work—is especially fitted to be the text of a criticism of this wide scope. If, then, what we have to say appears in a measure antagonistic to the theories there put forth, we wish it to be plainly understood, once for all, that we choose this way of saying it, not in any sort of disrespect to the writer, but precisely because, on the contrary, we recognise in him the most powerful exponent of a doctrine which we hold to be mistaken.

Let us, therefore, hasten at once to congratulate Dr. Maudsley on his idea of rewriting and republishing in two distinct parts the admirable book on the "Physiology and Pathology of Mind," which he first put forth in 1867. When we try to realise the vast influence the book has exercised on all recent psychological study here and elsewhere, the time it has been in the hands of the public seems very short. But as it was entirely out of print, and as it is now undoubtedly a necessary part of every philosophical student's library, to whatever school or nation he may belong, it would have been unpardonable had the author allowed either the press of professional work, or such a "lack of enthusiasm" as he explains in the Preface, to hinder this reissue.

The new edition, as was to be expected, improves in many ways upon the old. The expansion of the "Physiology of Mind," from a kind of essay introductory to the "Pathology," into a treatise sufficiently complete to be a separate book, is a great gain. And in minor matters, also, the

revision has improved many things, both by its omissions and by its additions.

The physical side of mental problems, especially from the Pathological point of view, is a field which Dr. Maudsley has made peculiarly his own by that clear and popular method of treatment, that wealth of knowledge and illustration, and that keen polemic against all opponents, medical, metaphysical, or legal, which is well known, especially to readers of this Journal. He never leaves one in any doubt of his meaning. His trenchant and even violent phrases fix themselves on the dullest mind—until even that most unphilosophic animal, “the British Philistine,” has come to think about Dr. Maudsley and to take account of what he says.

In the preface he tells us that much has been cut out which was once written “in the vehemence of youthful enthusiasm,” but seemed objectionable now. If we may make a suggestion, which will occur to most impartial critics of the book, we would say that such omissions and modifications might have been carried further with advantage. The trenchant phrase does sometimes verge on declamatory violence. The keen critic sometimes slides into a rather indiscriminate belabouring of his opponents and their tenets—never discourteous, indeed, but still offending somewhat against the ideal which he himself describes as “the level of a more sober style.” And this defect—if we should so call a quality which in reality serves to make the book only the more lively and entertaining—is especially connected with the point which we have already stated as the basis of our criticism of the work as a whole. Dr. Maudsley tends to lose his patience whenever he comes across what he calls “Metaphysics.” One might compile quite a vocabulary of abuse from the hard things he says of it.

“Philosophy has been not unlike one of those barren women who would fain have the rumbling of wind to be the motion of offspring.” It “engenders moral errors which vitiate man’s whole habit of thought.” It is the “vainest word juggling with which a tenacious perseverance has ever vexed a long-suffering world.” “Every philosopher and every lunatic has his own rules.” Or, in a more concentrated vein, “Metaphysics” is described as an “ecstasy of conceit,” “an attack of measles,” and a “*manie de grandeur*.”

And why all this? Because it believes in a Self which is

more than the product and function of the mechanical and chemical forces of the organism—because it asserts a free-will which is more than a conscious automaton—because it claims for man “not only a rank infinitely higher than, and a destiny wholly different from, that of anything else in the universe, but to be the end and purpose of creation.”*

Now we venture to deprecate all this strong language. Dr. Maudsley, no doubt, believes that these “Metaphysical” opinions are incorrect; but he must also be aware that they are still the cherished beliefs of most of his readers, and that very many of the foremost minds of this and every other time hold them to be most certain and most wholesome truths, without which the intellectual world would be inexplicable, and the moral world would collapse. They may be wrong, of course; but he should handle them very gently. We are tempted to accuse a writer of either unwisdom or a little unfairness, when he writes thus:—

“One of the two facts which come out very distinctly from a candid observation of the state of thought at the present day, is the little favour in which metaphysics is held and the general conviction that there is no profit in it, the consequence of which firmly-fixed belief is, that it is cultivated as a science only by those whose particular business it is to do so, who are engaged not in action, wherein the true balance of life is maintained, but in speculating in professional chairs, or in other positions where there are little occasion for hard observation and much leisure for introspective contemplation; or if by any others, by the ambitious youth who goes through an attack of metaphysics as a child goes through an attack of measles, getting haply an immunity from a similar affection for the rest of his life; or lastly, by philosophers who, never having been trained in the method and work of a scientific study of Nature, have not submitted their understandings to facts, but live in a more or less ideal world of thought.”†

This is infinitely amusing, but it is scarcely convincing, unless to those who are convinced already. If there be any philosophy that is true, however scientific or inductive it may turn out to be, the men who cultivate and advance it will scarcely be the busiest men in London. “The true balance of life” is hard to find anywhere, but it is certainly not to be sought for in Lombard Street or even at Westminster. It is a true saying that “the best work of the world is often done

* “Physiology of Mind,” ch. vii., p. 458.

† “Phys. of Mind,” ch. i., p. 13.

by those who live in solitude." Action is an excellent thing, but it has always tended, and now tends more than ever, to prevent men from calm thinking and "sweet reasonableness." To say, then, that merchants, and lawyers, and doctors, and scientific discoverers care little for speculation is merely to say that they are engrossed in their own work, even as the occupants of professorial chairs are doubtless absorbed in theirs. The world has always neglected and often stoned the prophets and teachers who brought it a message hard to be understood. If Science, on the contrary, is as popular now, as it, too, was unpopular once, it is in part at least because it *pays*. Electric light, and the telegraph, and better hygiene are benefits not likely to be ignored. "Philosophy" has not, and by its very nature cannot have, any such results. It aims only at gaining a profound knowledge of which few men have ever felt the need; but which is yet "the master light of all our seeing." Therefore it is unpopular, as it has been from the days when Socrates was condemned to death, to the days when Spinoza died in a garret.

But why is Dr. Maudsley so hard upon Metaphysics? Apparently because he has constructed a theory of his own about the progress or "evolution" of knowledge, which appears to correspond, in the main, to Comte's "Law of the Three Stages." First of all, say the Positivists, the world was in the theological stage. Then came the metaphysical. Now, in the fulness of time, we have Comte and Positivism. Dr. Maudsley does not use these terms much, but he sketches the history of philosophy in the same spirit. "Thales of Miletus is said to have been the first who laid aside the priestly character, and stood forth as a pure philosopher." He and his first followers had an instinctive aspiration after positivism, but they soon gave up—

"This slow and tedious method for the easier and quicker method of deduction from consciousness; abstractions were made from the concrete by the active mind; and the abstractions, being then projected out of the mind into objective realities, were looked upon and applied as actual entities in nature." "Thus it was that man, forgetful of his early humility, rose by degrees to the Creation of a God after his own image, and to the construction of the laws of an external world after the pattern of his own thoughts." "Natural phenomena were explained by sympathies, loves, discords, hates. As the child attributes life to the dead objects around it, speaking to them and thinking to receive answers from them, so mankind, in the

childhood of thought, assigned its subjective feelings to objective nature, entirely subordinating the physical to the metaphysical." "The assertion that man was the measure of the universe was the definite expression of this metaphysical stage of human development. But it was a state that must plainly be fruitless of real knowledge. There could be no general agreement among men when each one looked into his own mind, and, arbitrarily framing the principles of external nature out of what he thought he found there, evoked the laws of the world out of the depths of his own consciousness. Disputes must continually arise about words, when words have not definite meanings, and the unavoidable issue must be Sophistry and Pyrrhonism. This has been so. The history of the human mind shows that systems of Scepticism have alternated regularly with systems of Philosophy. Convinced of the vanity of its ambitious attempts, Socrates endeavoured to bring philosophy down from the clouds, introduced it into the cities, and applied it to the conduct of human life; while Plato and Aristotle, opposite as were their professed methods, were both alive to the vagueness of the common disputations, and both laboured hard to fix definitely the meanings of words." "How should this onesided method, which entirely ignored the examination of nature, do more than repeat the same thing over and over again in words which, though they might be different, were, yet, not less indefinite? The results have answered to the absurdity of the method; for after being in fashion for more than two thousand years, nothing has been established by it; 'not only what was asserted once is asserted still, but what was a question once, is a question still, and instead of being resolved by discussion, is only fixed and fed.'"*

We have quoted this at some length, because it is a full and fair specimen of the way in which Dr. Maudsley thinks of "Philosophy," and "Metaphysics," and the kind of views he holds about it. Whether he would say, "that this is one of the passages once thrown off in youthful vehemence," we do not know. But unless it is so, it is hard to explain how so able and so logical a writer could so strangely travesty the history of philosophy in Greece and elsewhere. This is not a place to draw a rival sketch, though it would not be hard to make one which would contrast oddly with that just quoted. Let us take up only the salient points. That the Greeks had crude and vague notions about philosophy is true, for they were the first philosophers. They began by seeking some unity that should underlie and explain the perplexing variety of phenomena. Thales guessed it to be water; Pythagoras number (or rather measure, proportion, harmony), Anaxagoras mind. These were not "abstractions

* "Phys. of Mind," Ch. i., pp. 3-4.

projected out of the mind"—they were only hasty hypotheses, such as rash scientific inquirers make every day. "Sympathies and discords" were invoked by a few, but they were, like Empedocles and Parmenides, for the most part poets, and adopted an intentionally imaginative language, hardly meant to be pressed literally. Whereas there were many Atomists, on the other hand, who were as eager for facts and matter as any one could wish, although they, too, were guilty of hasty generalization, and had not the patience to wait for verifications of their sweeping theories—an error, however, which is to be found in all ages and all schools.

It was only afterwards, when the Sophists appeared, and with them a wholly new age and line of thought, that the maxim, "Man is the measure of the universe" arose—meaning to be not an "expression of this metaphysical stage," but rather the reverse. For it was a denial of all systematic or fixed truth, intellectual and moral. It asserted, as against such philosophy as that which Socrates, and Plato, and Aristotle founded, that nothing is true or right, except only "that which appears to me to be so at the time." Surely this is the flat denial of every sort of metaphysics. Again, to class Plato* with those who made man the measure of the universe, as if he had any sympathy with that view, would be a huge misconception. He did talk of "Ideas" as if they constituted some strange world, apart from which our common world drew all its reality. But this was, for the most part, a poetic metaphor, such as the many others he used when his thoughts were not clear, as at that early stage of thinking they could hardly be. What he did assert, and what Aristotle and most deep thinkers since have equally asserted, is that when we talk of "things" or "phenomena" as if they were simply entities external to our minds, in the vulgar sense of the "external world," we talk superficially. He held that such appearances are not "the really existent" or "the true." They are only passing shadows, through which, if we read them rightly, we shall come to see the truth as it is. This may appear to some physiologists to be a mystical absurdity; but we will return to that question by-and-by.

Dr. Maudsley, in fact, is misled by a confusion, which Comte's terminology perhaps suggested, between the "metaphysical stage," the "introspective method," and speculative philosophy in general. If one heard a student of philosophy

* "Phys. of Mind," Ch. i., p. 8.

say that Locke and Hamilton, and all our English and Scotch introspective school, with their "method of interrogating self-consciousness" to obtain answers to psychological questions, were following the same method which Plato tried, one would think he was joking. Yet, Dr. Maudsley says roundly—"It surely argues no little conceit in any one to believe that what Plato and Descartes have not done, he, following the same method, will do. Plato interrogated his own mind, and set forth its answers with a clearness, subtilty, and elegance of style that is unsurpassed and unsurpassable. . . . His system, then, may well remain as the adequate representation of what the metaphysical method can accomplish."* This sounds oddly. The method of Plato, so far as he had any, was to seek to define the deeper meaning of the words and corresponding ideas, by which we regulate our life; and that by means of a sort of induction of many examples, and collation of different senses in which they were employed. Plato had, of course, many faults. He lived in a world of pregnant imagery and Utopian theories, which he never thinks of submitting to any tests in the way of verification. This, unfortunately, makes his particular statements rather suggestive than directly useful. He reasons subjectively—rather than objectively—and to that extent the criticism is true. But so far from working by the "introspection of consciousness," Plato has not even a word for consciousness, or for introspection. He and Aristotle—whose system is very much more identical with Platonism than is often supposed—had not by any means advanced far enough in power of abstraction to talk of consciousness, or of the self, or even of freewill. They observed, more or less systematically, the facts of our experience, mental and bodily; they strove hard to think out all that is implied in saying, for instance, that we *know a thing* or *perceive a fact*, or *conceive an idea*: and by such studies they were led to pregnant results, which modern thinkers, by the advance of philosophic power and distinctness, have been enabled to develop and systematize, but which are, undeniably, very different from the distinctive tenets of modern scientific or materialistic schools.

For it is not at all true to say that philosophy has made no progress. Discoveries of the scientific sort it obviously has not made, and never will make. Its move-

* "Phys. of Mind," Ch. i., pp. 14-15.

ment is from vague and half-conscious treatment of the great problems of life and knowledge to clearer and deeper views. It eliminates at every step some error or obscurity. It takes up into each new system all that was of permanent value in the old. Stages of analysis and definition, which cost the Greeks or others a generation of discussion, may seem, perhaps, to be lost; but in reality their results are stones in the basement of the modern building. It is true that there are men in every age who insist on "thrashing old straw," and vainly believe themselves to be overturning results which were, indeed, established long ago, if they could only understand them. Such, says one of the ablest of English metaphysicians, are the modern followers of Hume among ourselves.* Whether this be so or not, it is at least desirable that they who theorize on such hard questions, should first be sure they have grasped the other point of view. Dr. Maudsley's comparison of Hamilton to Plato leads one to doubt if he has fully succeeded in doing so.

We insist on this difference with the author of the "Physiology of Mind," not, certainly, for the sake of criticizing, but because, as we have said, we feel the importance of the book. It is a work from which many have taken, and many more will take, their cue in such matters. It is a book unimpeachable on its own physiological ground. We deny, however, that its wholesale denunciation of what it nicknames "Metaphysics"—but what we should call Philosophy—is just, and we fear it is calculated to mislead. Englishmen are too little apt to look at what they deride as the *a priori* and ideal side of things. But there is such a side; and the recent wondrous growth of our scientific knowledge of *facts* makes it only the more needful to insist upon and develop our grasp of *ideas*. Let us explain what we mean.

People tell us that we must keep to "facts," and refer everything to that test. Induction and verification is their battle cry. Anything that goes beyond, and, above all, anything that seems *a priori* is a "hypothesis"—"a mere hypothesis"—or "an unwarrantable hypothesis," according to the violence of the discussion. We would ask, in all humility, "*what then is a fact?*" Waiving the question of the necessity of basing your logical methods on some metaphysical theory (which even Mill confessed, though he certainly failed to establish his own foundations), we wish to know

* See Prof. Green's Introduction to "Hume's Treatise on Human Nature," Vol. i., pp. 2 sq.

what we have to rest on? Why is a "fact" better than a "hypothesis," or an "idea?" Hume, whom they all affect to follow, proved to his own satisfaction that there is hardly anything which is not a "fiction of the mind," and, then, as he said, and as even Locke hinted, *no real scientific knowledge is possible at all!* "A consistent sensationalism must be dumb."

"What, then, is a fact?" It is a thing which I know—a phenomenon or a relation of phenomena which I know to exist, to be true. The question then comes to be, "*What is knowledge?*" and "*What is truth,*" or real existence? What is a phenomenon, and "*What am I?*" Now every possible answer to all or any of these questions involves a complete metaphysic; that is to say, it involves a systematic theory as to what is implied in knowledge—into the necessary conditions of experience. After all, as Descartes said, I can doubt of the external world—and yet not be, *pace* Dr. Maudsley, a madman. I can doubt of all received sciences and philosophies too; but I cannot doubt that I *think*, that I am *conscious*, that I *am*. These seem very scanty and simple residua; yet they contain implicitly all the metaphysics that ever were written. For consciousness, thought, knowledge, perception, or whatever else you call it, does imply certain truths, which can by just study be deduced and analysed out of it; and that is the work Philosophy has been doing, from Socrates to Kant.

Of course no one succeeds in ultimately doubting that *in some sense* most of these facts, and external phenomena, and scientific laws, and the rest, are true and most valuable. The whole question is, in *what sense?* Nobody doubts that what we call "the external world," is some really existent cosmos of phenomena, independent of our individual wishes and fancies, and guided in a stable order by its own laws. What many doubt is that that fact need necessarily lead us to Materialism. Nobody doubts that there are manifold bodily correlatives to what we call the action of the mind: that, for instance, when light affects our retina, a molecular disturbance is transmitted by the optic nerve to a definite cerebral organ, having connections with, and probably influencing and influenced by, other organs of various function. What is doubted is the assumption that such "vibrations" (as Dr. Maudsley is not afraid to call them, after Hartley) "*are ideas*"—or, to put it less paradoxically, that ideas are *nothing more* than such vibrations of nerve matter.

In a word, there are many, not hostile to Science, but its warmest friends, who hold that it will achieve most if, while following out its own researches with the uttermost enthusiasm, it can still remember that there is another side—a reverse line of inquiry, which starts, not from the “introspection,” which Dr. Maudsley is always demolishing, but from a philosophical analysis of the meaning and prior conceptions of knowledge—and if, recognising this, it abstains from wild “hypotheses” as to the way in which mechanical or chemical forces might, by some inconceivable manipulation, amount to Consciousness, Thought, Will and Self.

Dr. Maudsley will not indeed say that Psychology—meaning thereby the method of Introspection only—is quite useless. He will let it “observe the associations and sequences of mental states,” because there is no other means of doing so. From any inquiry into the nature and meaning of these mental states he interdicts it absolutely. An “experimental physics of the mind” is almost too high a title for it. Its business is merely to record (and that it does badly) the reflections in the mirror of consciousness. What these are, or why or how they are there, is a question of “physical antecedents” he says—*i.e.*, of physiology pure and simple—and “therefore no psychology can endure, except it be based upon its investigations.” It is true physiology cannot yet explain any of these problems. The physical data are not ready. All it can do is “to overthrow the data of a false psychology.” We are bidden to wait patiently for the rest. If we will only abstain from metaphysics and such other vanities of deep thinking for a century or two, a physical explanation will be provided. But we fear that men will not abstain from “thinking upon thought” for all the destructive physiologies can say. People will still ask, “What is a fact?”—and that is a question antecedent to all physics. For it is the question that must be answered by that “Philosophy” which is the basis, the logical *prius*, and, therefore, as we said, the unity of all the Sciences. It is this, whether we are to style it Metaphysics or by any other name, that we are concerned to vindicate against Dr. Maudsley’s attack—and this only. The name does not matter, except that the thing is too often mistaken. Introspective Psychology, for instance—the school of Locke, Berkeley, and Hume, of Reid and Hamilton, perhaps of the Associationists also—we are not here concerned to defend. It is an inadequate method, and it has not a few weak points, which

Dr. Maudsley's criticism does well to vindicate and expose; though even to it he is, we think, sometimes unjust. But even though it were demolished utterly, this other Metaphysics or Philosophy, which rests not on Introspection, but on the consideration of the conditions precedent of all knowledge, would not thereby be touched. You may hold that Hume reduced Locke to absurdity, and that Mill refuted Hamilton, but neither of these touch Kant or any of his following. To prove to demonstration that the verdict of consciousness is hard to read, and little use when you have read it, would not advance the writer one step towards the removal of the deeper difficulty implied in the question, "What is a fact?"

It seems a simple thing to say that there can be no perceiving unless there is first a Mind, a Self, which perceives. Even on Locke's theory, which gave the Mind wonderfully little to do, there was at least a *tabula rasa* which was not given us by experience; and it had all manner of strange properties besides. A brain well mapped out, and nerve tracks with "vibratiuncles," are very well; but where does the consciousness come in? Who or what "*attends to*" all this recording machinery? Not to speak of *Will*, for Dr. Maudsley is frankly a fatalist, and compares one, after Spinoza, to a "stone conscious of its law of gravitation." To that question we will return; but in the meantime, what of "*Attention?*"

Dr. Maudsley, like most of the physiological school, bases his explanation of mental facts on the assumption of association of nerve motions, which is a kind of Humist "Association of Ideas" theory, translated into terms of physiology; though in justice we must say that he introduces a distinction of great value, by practically showing that Hume's Law requires some unifying principle to make it work, such as Dr. Maudsley finds in the organism itself. If it were reasoned out, this, as we have said, might very possibly prove to be a self-destructive position. Associated Ideas would never give us science or scientific truth. But let that pass, for we will return to it later on. It follows in any case that all our mental processes are streams of associated modes of mind, each of which is, Hume would say, "a copy of a past impression made on us through the senses." Dr. Maudsley has no trouble in translating this into physiological language. The "impressions" are the original excitations of the nerve-molecules, transmitted on to the brain, and there preserved

in the form of "vibratiuncles," or at all events in a constant tendency to repetition of the same molecular series of changes. Consequently our brain, and the other nervous organs too, are seething always with chains of kaleidoscopic "ideas" or vibrations, crossing and meeting and interwoven in endless ways.

Suppose, then, that we accept this statement of the case, there remain grave questions to be answered; and the answers force us, we submit, to recognise even here the paramount and unique importance of consciousness, or in other words, the existence of a Self in the metaphysical sense. Let us ask, for example, how it comes that we are not dazed and drowned in this hopeless swirl and chaos of suggestions? Because, they are not all in "*Consciousness*." The vast majority, whirl on in a silent meteoric shower, unnoticed by us, and unknown, except that we catch a glimpse now and then by accident. What then, we ask, is the principle of selection among these "ideas?" How comes it that one is in the light and others in the darkness? Because we *attend* to them. They go on wildly in all directions, and the conscious mind is hardly concerned in them; but let one train emerge which excites its interest, and it is pounced upon—it is "*attended to*"—"the transformation of energy is arrested for a moment," as Dr. Maudsley says*—and straightway we are vividly conscious of this new idea, which may perhaps in the end alter our whole life.

Such a Consciousness, therefore, is a selective power. It "reinforces," so to speak, a certain nerve-change till that becomes dominant over all the rest. It brings order and purpose into what would otherwise be only a rich confusion. This, we submit, is an intelligible account of the actual facts of our experience. It explains the function of Attention, of Consciousness in our existence. But Dr. Maudsley would hardly agree with it. His view practically amounts to an automatism, in which Consciousness is an absurdity altogether. The jostling and clashing of vibrations, if we understand his position aright, is not ruled or made orderly at all. It is its own policeman. Somehow, by the eccentricities of the circulation in the brain, one train of vibrations, or one particular "idea," *becomes conscious* (whatever that may mean). But this does not alter the sequence: no new power is introduced: the "consciousness" is itself only

* Dr. Maudsley allows that it "is arrested," but he does not say by whom.

a transformation of energy, a kind of mental flower, so to speak, chiefly ornamental. How that "manie de grandeur," the consciousness of Self, arises, Dr. Maudsley hardly explains—but whatever it be, that pale illusion has no power over the march of events along the mazy nerve-tracks. It is, as some one wittily said, "a passenger suffered to remain on board ship, on condition that it never lays a finger on ropes or rudder." What is the use of it, then? we are tempted to ask. Is it not useless absorption of energy, and should it not be cast out again, like Jonah? No, say its advocates, for though it has no selective power, and indeed no power at all, yet it is the condition of our feeling pleasure. To this we have a choice of many answers. On the one hand, we remember that a great physiologist said that men might have dissected brains for centuries, and yet they would never have suspected the existence or known the meaning of pleasure, unless they had experienced it themselves. From which we gather that there may be other powers also, besides this of feeling pleasure, which do not appear under the scalpel. Or, again, we may remind our friends that the condition of our conscious pleasures is also that which makes possible our pains; and therefore seeing there are many worthy men who hold that on the whole there is more pain than pleasure in our life, this gift of Consciousness may be a loss rather than a gain. Or, finally, we may go at once to the root of the whole matter, and ask them what they mean by our *feeling* pleasure? or even by *our pleasure* itself, if that phrase seems less ambiguous? If we are nothing more than the suggestions that arise and pass, from moment to moment, along the nerves—if there is no unity behind and above them, to which they "appear," and by whose synthetic, unifying action they become more than passing phases, more than ever-changing elements of an undistinguished flux—if there is no Self to which each sensation, as it arises, becomes related, and through which therefore each moment of pleasant feeling is fixed and defined by being set in relation to all other feelings and perceptions before and after—then life (even supposing it could be imagined as endowed with such "consciousness") could never be anything but an unmeaning blur, undistinguished, unremembered, unknowable, and certainly incapable of being talked about at all. When you say, "I feel pleasure," you postulate a whole volume of metaphysics. It is sometimes confusedly supposed to be only the same thing with the

bare sensation of heat, when one stands before a fire and is *not unaware* of the warm sensation. That is one thing—as near as we can get perhaps, to “mere consciousness.” But when one awakes from the reverie and *notices, attends to, perceives* the sensation in question, in that moment an immense difference has been introduced. A veritable salto mortale has taken place. The warmth of the fire is no longer a *mere sensation*, a half-conscious blur of evanescent feeling—it is a *perceived sensation*, a fixed point with all sorts of relations to everything else in our experience. It has become a *fact*.

This, then, may serve for an illustration of what we mean when we challenge Dr. Maudsley and his school to explain what they mean by “our pleasure.” We hold that any real explanation of that phrase cannot fail to imply, in some form, a Self, which is more than a function of nerve vibrations—which is a unity beyond and above them—related to them actively and relating them to one another and to itself—and thereby giving to them all the meaning they have as facts of our experience. Even among the nerve-tracks themselves, therefore, and from the bare consideration of Dr. Maudsley’s own theory of knowledge, we find support for this ubiquitous “*manie de grandeur*,” the metaphysical ego. We shall find further necessity for it, when we come to consider the Ethics of Physiology.

OXON.

(To be continued.)

Visions: A Study of False Sight. By EDWARD H. CLARKE, M.D. Boston, 1878.

The circumstances under which this work was written, as well as Dr. Clarke’s repute as the author of the clever books on “Sex in Education” and “The Building of a Brain,” strongly enlist the prejudices of a reviewer in his favour. He was found to be labouring under malignant disease of the rectum. In the interval between his knowledge of his fate and his death, he resolutely set to work to study the phenomena of false sight. Thus carried out in the midst of intense bodily suffering, increased by the grief of losing his wife, who acted as his amanuensis, the result is itself a remarkable illustration of the influence of the mind over the body, a determined will over the usual effects of physical

pain. "At length the pen dropped from his hand," says the Editor, Wendell Holmes, "the mind ceased from its labours, he lingered a little longer in a state of being that was divided between anguish and stupor, and the end, long wished for, came at last." Truly it is "a lesson of manhood too precious to be forgotten."

A posthumous work, it labours under one disadvantage from which it would have probably been freer had the author been able to revise it with his own hand. There is too much repetition. Another fault is that the writer speaks too much as if he thought that the leading ideas of the treatise were new and his alone, instead of being long known and acknowledged by physiologists. This remark does not apply to the details of the process by which morbid visual phenomena are produced. Here questions arise which admit of some difference of opinion, and the author has taken great pains in endeavouring to unravel the successive physical events, his ability and ingenuity giving an intelligent completeness to the whole *modus operandi* which constitutes the value of the book. The style is also singularly charming, and many of the cases of pseudopia very interesting.

Every one who has paid the slightest attention to the pathology of hallucinations knows that the fundamental principle upon which their explanation rests is that there is no sensorial phenomenon excited by the presence of external objects upon the peripheral terminations of a sense-organ which cannot be produced by excitation of its encephalic centre; that is subjectively. The terms "objective" and "subjective" have been found fault with, but we know of none so convenient, and cannot admit that they are open to any serious objection. To say that in order to come within the range of consciousness, all objective phenomena must ultimately become subjective, does not carry any weight with us. Whenever a sensation is produced by something without, we call it objective; whenever it is produced from within, subjective. The course pursued by the one is from without inwards—centripetal; that by the other is from within outwards, centrifugal; the former is eccentric, the latter centric. This elementary principle applies, of course, to all the senses, but in considering Dr. Clarke's book, our attention will be mainly confined to the visual organs. Taking the ordinary course of phenomena in healthy sight—the physiology of vision—we know that rays of light reflected from an external object upon the eye stimulate the retina to exercise its

appropriate function—an image is formed—and this is conveyed through the optic nerve to the corpora quadrigemina, and from thence, after the co-ordination in this centre of the image on the retina with the correlated movements of the iris and delicate adjustment of the eye, to the angular gyrus, where the image comes within the range of conscious vision, and is in some way, no word which we can employ adequately describes, recorded or registered, so as to constitute organic memory. However we may explain in detail the stages of this process, it is roughly thus, that visual images of external objects are in the vast majority of instances formed in the mind.

Then, commencing from the cerebral or mental centre, excitation of the central cells without any object in the outer world having been brought into relation with and excited the retina, sets the same apparatus in motion in a reverse order, with the result of a representation of the object, either in idea only, or under certain exceptional conditions with such vividness as apparently to project it into space, thus constituting “visions”—the subject of the work before us.

All, so far, is in accord with generally received modern physiology, and we think, as already intimated, that a reader of this book, not acquainted with the works of Bain, Spencer and Ferrier, would suppose that the doctrine of subjective sensations, as laid down by Dr. Clarke, was so taught by him for the first time.

Then further questions arise, as what are the parts of the brain engaged in health in the mental operations which succeed conscious visual perception in the angular convolution? And what really constitutes the difference between the representation of an image in idea only and in perceptible form? Is the whole channel from centre to circumference as necessary in actual hallucination, as it is from circumference to centre in healthy sight? On the first question, Dr. Clarke speaks with considerable certainty of the processes carried on in the frontal lobes. Here, according to him, vision is transformed into ideas, and perception recognises the transformation. Perception also recognises the intellectual and emotional activity to which the transformation leads.

“ Perception in the frontal lobes is therefore something more than perception in the angular gyri; it is sensation and intellection ” (p. 130). In the frontal lobes, perception “ becomes what Leibnitz

called *apperception*, or perception that reflects upon itself. When sensory ideas, whether visual, auditory, tactile or other, enter the domain of self-consciousness, they are studied in all their relations to the external world and to the *ego*. Thus, investigation, which is *apperception*, is a function of the frontal lobes. It is clearly different from the simple perception of the existence of an object, without regard to its details, such as occurs in the tubercula quadrigemina, and to which perception in that centre is limited; it is equally distinct from the perception of the existence of an object, with a comprehension of details, but without regard to the relations which the object sustains to other things, or to attendant conditions, such as occurs in the angular gyri, and to which perception in that centre is limited" (p. 132).

Thus if, for instance, a horse is consciously seen by the angular convolution, the picture of the horse is according to this view transmitted to the frontal lobes. Thereupon these lobes "look" at the horse, ascertain its significance, determine its probable action, communicate with the emotions, and decide the will to act.

Into this description, when we get beyond the visual functions of the angular gyri, a considerable amount of theory enters. But whether the frontal lobes have or have not the functions here assigned them, the second question remains, whether there is a difference in the part of the cerebro-retinal track excited, according as there is or is not a distinct image of an absent object formed not only in "the mind's eye," but projected into space? While it will be admitted that the representation of an object in the angular gyrus excites the activity of the same cells as were originally called into play when they were impressed by an external object, and that thus the form is mentally recalled, it is more difficult to realize that the mere intensifying this recollection in the same locality is sufficient to cause the appearance of a figure outside the person—in short, a vision.

It is interesting to recur here to the past history of the discussion in regard to the parts affected in the visual apparatus, when subjective vision occurs. Müller, although he was well aware that amaurosis does not prevent the presence of phantasms, and that in such an instance his position could not be maintained, held that "the idea in the sensorium excites the active state of corresponding particles of the retina or optic nerve." That an idea, by acting on the retina should produce an image was, he said, no more extra-

ordinary than that an external object should be reflected there. Sir David Brewster discussed this question half a century ago, and in reviewing Abercrombie's "Intellectual Powers," endeavoured to rebut the opinion that, in the act of memory, the "organs of perception" are not required. He held that memory depends upon a faint excitement of the original impression on the retina, while the appearance of a spectre arises from a very powerful revivication of the retinal impression. The late Dr. Symonds discussed the subject of the probability of the retina being essential to optical illusions and hallucinations with his usual acuteness, and arrived at the conclusion that transmission to the retina is possible, but that the reproduction of a sensation as in seeing phantasmas takes place independently. The position of Bain and Spencer, that the same nervous tracks are travelled in thinking of or remembering an object and seeing it has reference to the encephalic visual centre, and not the part taken by the peripheral expansion of the optic nerve in hallucinations. Recent researches into the functions of the brain, have added to our knowledge of the apparatus of vision by the discovery of a visual centre in the hemispheres. At the same time it has not been shown that there is any improbability in the back wave of sensation being carried as far as the retina in certain cases of hallucination of sight, while it allows us to believe that in this hemispherical centre, subjective sensations of sufficient intensity to cause distinct visions may have their seat. Simply thinking of an object—*e.g.*, a flower—may be a mental operation carried on in another hemispherical centre—but mentally picturing its form, colour, &c., requires the visual centre.

It is probable that in different cases of hallucination different lengths or stages of the sensorial track, so to speak, are involved. Recently we carefully interrogated a patient who was doing singular acts, the consequence, he said, of hearing voices commanding him to do them. We found, however, on questioning him, that these voices sounded to him quite different from those he heard with the external ear. He said they were heard internally, and were not accompanied by sound. Here, whatever part of the central organs was affected, the peripheral terminations of the auditory nerve were certainly not reached by the current originating in the brain centre. In other cases the patient distinctly hears a voice; as distinctly as Cowper did, who, when words of comfort were spoken to him through a tube

into his bedroom, did not detect the difference between them and the voices he was accustomed to hear uttering notes of woe. Then the periphery may have been reached so entirely that sounds were heard quite as clearly as if vibrations had been set in motion by an external, instead of an internal force.

It must be remembered that visual impressions may be so stored up in the cerebral centre that although when the retina is intact hallucinations of sight have their seat there, they may, when the retina ceases to perform its functions, be manufactured out of the reserve fund, so to speak, in the angular gyrus. It is probable that in proportion to the length of time the retina has had its function destroyed, hallucinations would not be likely to occur, or be very faint.

In the following case, recently communicated to us by a gentleman to whom the incident occurred, the explanation is transparent enough. Being a Liberal in politics, the auditory hallucination took the particular form which it did. Had he been a Conservative, the ex-Premier would have been substituted for the Premier, and Mr. Lowe for the present Chancellor of the Exchequer. Our correspondent's experience does not, therefore, ruffle our political susceptibilities in the least.

On the 24th Jan. I noticed in the papers that the Government had had two or three Cabinet Councils. I was very little excited about it, but merely felt a slight curiosity to know the cause of these consultations. Next morning, about 5.30 a.m., being in bed, I woke with my mind empty, as it ought to be after a sound, refreshing, and dreamless sleep of about four hours. Immediately I heard the voice of a man making a speech, addressed, as it seemed, confidentially to some of his friends. I listened with great interest and attention to a well-composed political speech from a Conservative, in the mild, bland style of Sir Stafford Northcote, complaining of the extreme difficulty and embarrassment which afflicted the Cabinet from the frequent and extraordinary variations of mood and temper in the Premier—sometimes positive, wilful, and arbitrary; at other times, no one could be more indulgent and forbearing towards those of the Cabinet who differed from him. "So sudden and unexpected are these variations," said the invisible visitor, "that we are continually kept in a state of suspense, anxiety, and apprehension as to what proceedings we may be committed to. These are the causes which have necessitated so many recent consultations of Ministers." While the long speech, which would have occupied two columns of the *Times*, was gliding through my brain, I felt a desire to rise, light my lamp, and take down the words and sentiments so totally dif-

ferent from anything that I could write or think. But this desire was immediately extinguished by the conviction that if I did not remain perfectly passive, and refrain from every thought or act of my own, the whole would vanish from me like a dream. I remained passive to the conclusion of the oration. Unfortunately I was then utterly incapable of dragging from my memory more than a single sentence in the speaker's own words. Nothing remained but a general impression of the effect the speech produced in my mind as I listened and admired its admirable composition. One thought was, If all this be true, I ought certainly to view the conduct of the Premier with more charitable extenuation than I have hitherto done; the other, Do not all these details I have listened to betray symptoms of incipient insanity? This experience, and many similar ones, prove to me most exactly the condition of so-called "writing or speaking Mediums," the only difference with me being that the attempt to write would have brought me out of the subjective into the objective state directly.

Returning to Cowper's case, we do not maintain that the periphery of the auditory nerve was necessarily reached, because inasmuch as people can see spectral figures when their eyes are removed, solely from the resuscitation of the images which have been registered on the visual centre (or combinations of the same), Cowper may have heard what appeared to be distinct sounds simply in consequence of the intense action of the auditory centre acted upon by the ideational and emotional centres. The fact that a man whose eyes no longer exist can see visions is parallel to the case of the man with an amputated leg, who feels pain in his foot. To most people it is more difficult to credit the one fact than the other, on account, we presume, of the apparently greater complexity of the operation by which an image is formed than that by which the sensation of pain is felt.

A medical friend, not disposed to be imaginative, once had a vision which he thus describes :—

A patient in whom I was very much interested was sinking under a fatal disease. I had seen her in the morning, and found her getting worse, though apparently not likely to die within a few days. On retiring to bed that evening as usual, I slept well till about three o'clock in the morning, when I awoke and saw at the foot of my bed a light like a luminous cloud, which at first made me think it was the reflection of a fire outside my window. As I looked and wondered what it could be (rubbing my eyes to be quite sure I was awake), I saw distinctly the form of my patient, with her features clear and defined, float across the foot of my bed from the door towards the window and

disappear. She looked very earnestly at me as she passed. The "vision" occupied fully five or six minutes, and I was so struck with the circumstance that I got up, and ascertained that it was a quarter past three by my watch. I then went to bed again, and slept soundly till morning. At half-past seven o'clock, when my water was brought, the maid informed me that a messenger had just arrived to say that Miss —— had died at a quarter past three that morning.

This is as remarkable a vision as any recorded by Dr. Clarke.

Another medical man, who had the most vivid "optical illusions," he being perfectly well aware of their true nature—the coincident occurrence of a vision and a death not forming part of the interest of the case—was induced by us to draw the portraits of his visitants, and, being a facile draughtsman, he produced an interesting series. In some instances they were faces with which he had once been familiar; in others, they were entirely new combinations of features. They appeared to him to be in his retina, but whether the tests he employed to ascertain this were sufficiently accurate we are unable to say.

Ferrier fully allows that the peripheral extremity of the nerve, as well as the sense-centre, may be excited by internal stimuli, where he observes that "The molecular thrill of present sensation extending from the peripheral organs of sense, is in the ideal sensation revived, but, as a rule, not so powerfully as to extend to the periphery; though in rare instances the central revivication may be so intense as actually to re-induce the peripheral impression. This occurs in certain morbid states, such as are described under the name of 'fixed ideas,' or, in sensory hallucinations, from diseased conditions of the brain, as in epilepsy and insanity." ("The Functions of the Brain," p. 259.)

It is very certain that although if a lunatic labouring under an hallucination of sight had his eyes removed, he might still believe he saw an external object, he would immediately cease to see it if his angular gyri were destroyed. Some ideational centre in the hemispheres must no doubt have been diseased, to render him unable to recognise the nature of the phantom (or he would not be a lunatic, but only the healthily mental subject of an "optical illusion"), and this would remain diseased after the ablation of the angular convolution; but while he might have "fixed ideas," he would no longer have subjective visual sensations.

We suppose that a man in mental health, but without his

angular gyri, could not do more than think of an object he had once known, as, for example, a rose. He could not any longer recall its form. If organic memory of an object resides only in the visual centre, it is difficult to suppose he would ever be able to do this. Speaking of an animal in whom the visual centre has been removed, Dr. Ferrier observes that this not only makes it blind presentatively, but blind representatively, or ideally, and all cognitions into which visual characters enter in part or whole become mangled and imperfect, *or are utterly rooted out of consciousness*" (p. 261).

Subsequently, Dr. Ferrier speaks of "visual memory and visual ideation," but we do not suppose he intends it to be understood that he would refer these functions to different centres, as Dr. Clarke would do—one, namely, being seated in the angular convolutions, and the other in the frontal lobes.

We must not conclude this review without adding that Dr. Clarke was not so sure that his plummet had sounded the depths of all the mysteries either of life or death, that he could positively assert the impossibility of a real "vision." The physiological explanation which he adopted sufficed him in 99 cases out of 100, but he felt some misgivings as to the hundredth. He thus writes of a case he witnessed:—

It was night. The departing one was a lady of middle age. Her death, though momentarily expected from heart disease, was not announced or preceded by the usual anæsthesia of the dying. During the night, when awake, her mental action was perfect. She conversed a few minutes before dying as pleasantly and intelligently as ever. There was no stupor, delirium, strangeness, or moribund symptom indicating cerebral disturbance. Her cardiac symptoms alone foreshadowed the great change. After saying a few words, she turned her head upon her pillow as if to sleep; then unexpectedly turning it back, a glow, brilliant and beautiful exceedingly, came into her features, her eyes, opening, sparkled with singular vivacity. At the same moment, with a tone of emphatic surprise and delight, she pronounced the name of the earthly being nearest and dearest to her, and then, dropping her head upon her pillow as unexpectedly as she had looked up, her spirit departed to God who gave it. The conviction forced upon my mind that something departed from her body, at that instant rupturing the bonds of flesh, was stronger than language can express. . . . If ever a scene like this occurs, who will dare say that the explanation of it may not come from a height inaccessible to our imperfect physiology? (p. 279.)

As the whole current of the teaching of this book is in the direction of a purely material explanation of phenomena of this description, we have thought it due to the author and to the reader to cite this exceptional observation. It is probable that the latter, not having been, like Dr. Clarke, in actual contact with the case, will not be impressed in the same forcible manner; for it is scarcely possible to convey to another the same impression as we ourselves have received, and to produce, therefore, the same conviction of its meaning.

Aus meiner Psychiatrischen Wirksamkeit, Eine Adresse an die Practischen Aerzte. Von Dr. C. M. BROSIUS. Berlin: 1878.

Die Asyle Bendorf und Sayn bei Coblenz und die damit verbundene Colonie für Gehirn, und Nervenkrankte nebst Bemerkungen über Curmittel bei Irren. Von Dr. C. M. BROSIUS, Director der Asyle, &c. Berlin: 1875.

Dr. Brosius, the editor of "Der Irrenfreund," has written a short account of an institution which derives part of its interest from its situation in the most beautiful part of the Rhine scenery, the unrivalled panorama of Coblenz; as the doctor says, "ein Stück Gegend voll Anmuth und Lieblichkeit." It is a private institution for a small number of patients, to whom Dr. Brosius has devoted his time and skill during the last two-and-twenty years.

The chief interest, however, arises from the carrying out of Dr. Brosius's leading idea, which is to place suitable cases in private dwellings in the neighbourhood of the asylum; the latter being always ready in the event of a patient becoming unmanageable. The patients are all of the opulent class. There is also a small house in which some patients sleep, but take their meals in the asylum. During 1870-74 twenty-two patients were admitted to this miniature colony, apart from the asylum. On a small scale such a system answers admirably. It is when the size is large, and anything like a real Gheel is approached, that difficulties and abuses are encountered. "Looking at the fact," says the author, "that many of the insane live, and also are cured, partly in their own families and partly at a distance from them, out of an asylum, no one will contend that the latter is the only possible mode of

providing for the insane. Even the worst cases in some instances may be successfully treated out of an asylum. It is only necessary that the house possesses special arrangements, the personal service special qualifications, and that the insane inmate and his attendant be subjected to special oversight. Although the distinction between a single house and an asylum may be one of name, it is a satisfaction to the friends of the patient that it is not *called* an asylum, and that there are no other lunatics under the same roof. The possibility of greater rest is also a real advantage. Apart from the question of cost, then, "if the physician has a quiet house properly arranged, and with all the requisite arrangements for possible occurrences, and a skilful person in charge, he has a little asylum in that house which possesses its peculiar advantages. And yet it is a part of the asylum apparatus. We cannot any longer speak of it as 'free' care; the private house is not in opposition to the asylum." Well carried out, the asylum and cottage system in combination, possesses doubtless immense advantages; always, assuming, however, that if the patients are placed in families, the latter are not allowed to suffer from the language or conduct of their charge—a point too often overlooked in discussing this question or carrying it out into practice.

Dr. Brosius's remarks on treatment are judicious. On non-restraint he says, "Without well-ordered single rooms and a good kitchen the personal restraint formerly in vogue cannot be abolished. Restraint or no restraint is a question of the management and resources of the asylum; hence in the last instance it becomes a money question . . . In a few cases only can I attribute the improvement of the mental disorder, which usually, after some months, gradually takes place, to the action of physic. The physician of an asylum, in which many different influences act upon the patients, may not ascribe the result in a case of recovery to pharmaceutical means alone. If we possessed a sovereign suddenly operating remedy against mental diseases, asylums for the cure of the insane would be almost superfluous. Their value lies not in the dispenser of drugs, but in the complexity of the various resources which are not usually at our disposal outside the asylum."

Dr. Brosius has a right to speak of non-restraint, seeing that he translated, in 1860, Dr. Conolly's work on "Mechanical Restraints" into German; a fact which has not, we believe, been chronicled in this Journal.

This oversight we now repair, and give the title of the work "*Die Behandlung der Irren ohne Mechanischen Zwang, von John Conolly; Deutsch mitgetheilt, von Dr. C. M. Brosius.* Lahr: 1860.

In the preface to this translation Dr. Brosius says, "In addition to being the translator, I myself stand in a friendly relation to the book. Although not yet in the position, through a large decisive experience, to defend the English system, I find myself induced, both by my own observations in my private asylum and by the declarations of various alienists, to pursue the experiments of abolishing mechanical restraint in the treatment of the insane. Time will decide whether this abolition can be regarded as absolute, and as a principle. In large and small asylums on the Continent the experiment of non-restraint is scarcely made extensively enough, so that its results give a factitious support to the almost general opposition and mistrust which exist in regard to it among us. People will never solve the question of restraint or non-restraint by phrases and theoretical criticisms; that will only be effectively done by decided facts, and by a wide experience extending over many years. To that end may the German alienists make an earnest trial to dispense with mechanical restraints in their treatment of the insane. It would be sad if prejudice and the practice of centuries should hinder us, now in the last half of the nineteenth century, forsaking an old way for one which appears to have been found in England to be a better one. Even a negative result, even a failure of the experiment, must be a lasting profit to science . . . So long as this book, then, attains its object—the bettering the condition of the insane, in fact, of asylums—I shall be amply rewarded for the trouble which the translation has cost me."

This desire of our author has been granted. At a meeting of the German physicians in Carlsruhe, in 1858, Dr. Brosius was alone in defending non-restraint in the section for Psychiatry. Twenty years have seen an entire change in the feeling of the alienists in Germany, and it is even said that some among them are warmer defenders of the system than ourselves.

There are several points of interest in the "*Aus meiner Wirksamkeit*" to which we should like to refer, but the limits of space forbid.

Schüle. Handbuck der Geisteskrankheiten. Specieller Theil.

(Continued from p. 664.)

After an historical review of the progress of our knowledge of mental diseases, and the different classifications adopted, Schüle advances his own system of classification, which is as follows :—

I.—Conditions of Mental Deficiency and Degeneration, including—

1. Deficiency (*sensu strictiori*). (a) Microcephalism; and (b) Idiocy.
2. Degeneration, termination, or development of (a) hereditary insanity, or of (b) the graver neuroses.

The forms which come under these headings are—under (a) Impulsive and moral insanity, and under (b) Epileptic, hysterical and hypochondriacal, and periodical and circular insanity.

II.—Mental Diseases founded on full Organo-Psychical Development.

(A) Psychical cerebral neuroses (psycho-neuroses).

1st Sub-group.—Acute or subacute typical cerebral neuroses on a well-developed neurotic basis, and of vasomotor origin. (a) Primary forms; (a) Melancholia; (β) Mania, with the transition stage of melancholia agitata; and (b) Secondary forms; (a) Delusional insanity, and (β) Dementia.

2nd Sub-group.—Chronic psychical cerebral neuroses on a degenerative basis, and of primary neurotic origin—monomania, including (a) Primary monomania of persecution of (α) purely depressional nature, or (β) accompanied with ideas of grandeur; and (b) Delusional insanity, including (a) the psycho-cataleptic, and (β) the psycho-convulsional forms.

(B) The Cerebro-psychoes.

- (1) With symptoms of motor excitement, including (a) Mania furiosa; (b) Mania gravis; and (c) Delirium acutum. (2) With loss of motor tension, as in the following forms—(a) Melancholia attonita; (b) Katatonic delusional insanity; and (c) Primary dementia (stupor), acute and subacute. (3) With progressive paresis—the typical general paralysis.

- (C) The psychological cerebral affections, or modified paralyzes, *i.e.*, mental diseases in the clinical form of idiocy with paralysis.
- (a) Meningo-periencephalitis chronica and subacuta; (b) Pachymeningitis and hæmatoma; (c) Diffuse sclerotic encephalitis, with or without symptoms of irritation; (d) Diffuse encephalitis, with accompanying local disease (local softening, apoplexy, capillary dilatations, with miliary centres; multiple sclerosis); (e) Diffuse encephalitis resulting from neoplasmata in the brain; (f) Chronic periencephalitis preceded by locomotor ataxy; tabetic paralysis; (g) Primary cerebral atrophy, accompanied by locomotor ataxy: tabetic dementia; (h) Encephalitis syphilitica, with psychical disorders.

Proceeding to Idiocy, Schüle declines any classification on account of the great variety and individuality of this class. He puts the microcephalic in close relation to the idiots, and gives a very interesting summary of the views of Vogt on the one side and Aeby on the other, adhering to the side of Aeby, however, and regarding the microcephalic brain as pathological, and discarding the idea of its being a form corresponding to that of an ape. In discussing the pathological anatomy of idiocy and microcephalism he attributes the greatest influence to "poverty of brain substance."

The next heading includes impulsive (or instinctive) insanity, which Schüle regards as almost unexceptionally hereditary. In his definition he follows Morel. Moral insanity he likewise regards as a further development of an inherited neuropathic disposition.

Schüle adopts Falret's classification of Epileptic insanity into (a) *petit mal* and (b) *grand mal*, admitting, however, in addition, Krafft-Ebing's (c) somnolent state or psychical equivalent.

Hysterical insanity is well sketched, and its likeness to moral insanity pointed out, and is followed by a description of hypochondriacal insanity.

The next section includes periodic insanity and *folie circulaire*. The former is a recurrent attack of mania or melancholia, with an interval in which the patient is always slightly mentally affected. In *folie circulaire* or Baillarger's "*folie à double forme*" is the regular alternation of mania and melancholia, and is characterised by (1) Partial lucidity

(and consequently folie raisonnante); (2) "Photographic" resemblance of the corresponding phases; and (3) "The continuation of the mental affection through even the most favourable period of the interval."

In his clinical analysis of pure melancholia there is nothing new. The next section is on Mania (*Tobsucht Ger.*, *Manie Fr.*), which is distinguished as a "condition of general mental excitement, with hyperæsthesia," from rage or furor (*Manie Ger.*, *fureur Fr.*), which he classes amongst his cerebro-psychozes as a condition of anatomical cerebral irritation. In his description of mania he does not vary from other authors. The morbid anatomy of melancholia and mania is summed up in Meynert's unsatisfactory researches.

Next in order we have primary delusional insanity. There is a very interesting section on the monomania of persecution, considered both in its purely depressive form, and in combination with ideas of grandeur. The other and smaller division of delusional insanity is subdivided into the *Maladie du Doute* and psycho-catalepsy. For the former Schüle accepts Legrand du Saule's description in full. The class of psycho-cataleptic insanity includes those cases in which sensations are directly converted into delusions and at once fixed, in fact a psychical *flexibilitas cerea*.

The next chapter, headed "Cerebro-psychozes," contains: Furor, conditions of atonicity, and typical general paralysis. These are defined as "psychozes, which, though arising primarily from disease of psychical centres, yet far exceed the bounds of natural psychical mechanism, or encroach extensively on motor and sensory parts, and thus introduce certain new clinical symptoms, which are not purely psychical, but still keep pace more or less with the psychopathic symptoms."

Beginning with furor, or "the psychozes with symptoms of irritation," he divides into—(a) *Mania furiosa* (*la fureur* of Esquirol); (b) *Mania gravis, subacuta*; and (c) *Delirium acutum*. *Mania furiosa* he subdivides into the ordinary remittent form, and *mania transitoria* (described by Krafft-Ebing), which consists of a single attack of a few hours, with extremely sudden onset, most commonly met with in young recruits. As characteristic of *mania gravis*, he points out the loss of weight, and fall of temperature—in some instances to 97°F. While in the maniacal form of *delirium acutum* (*délire aigu*) it rises to 103°-107°. *Delirium acutum*

he divides clinically into the maniacal and melancholic forms. These forms are distinguished from another by the great muscular energy and high temperature of the maniacal, and the adynamic condition and slight feverishness of the melancholic. In the first he finds intense hyperæmia of the brain, and often the condition described by Popoff and the Duke of Bavaria in typhoid fever.

Passing over the next section of the Cerebro-psychoses, which includes melancholia attonita, dementia acuta, and katatonic delusional insanity, and which follows Kahlbaum, we come to typical General Paralysis. In his general description of the disease Schüle does not vary from the usually received views. He regards impairment of memory and a certain moral indifference as amongst the first symptoms, and along with these the motor changes in the tone and mechanism of articulation. The characteristic ideas of grandeur such as fall under Clouston's definition of a "weakness of mind and facility" he considers pathognomonic. According to Meschede these may be defined by the formula $ego=\infty$ —Succeeding this stage comes the "silent glow, the warmth of which fills the patient with an unbounded feeling of happiness, and lets his fancy swim in an ocean of universal harmony." After this soon comes rapid degeneration—the third stage. Inequality of the pupils Schüle finds in over 50 p.c. of his cases. Of the special senses the sight is most frequently affected, and next in order the olfactory and glossopharyngeal functions. Vasomotor and trophical disorders he considers are never absent in a case of general paralysis. Three-fourths of his cases die within two years, and nine-tenths within five.

As regards pathological anatomy, under the head of microscopic appearances he includes—(1) Thickening of the skull; (2) Diffuse opacity and thickening of the pia mater; (3) Atrophy of the brain; and (4) Myelitis, the form described by Westphal (Virchow, "Archiv," xxxviii.). Microscopically, at the beginning of the disease, he finds—(1) Hyperæmia, especially of the internal layer of the cortex; (2) Dilatation of the vascular lumen; (3) Thickening of the vascular wall, and (4) increased number of nuclei; and (5) increased number of Boll's "pencil-cells." In the terminal stage—(1) the vessels are blocked by external processes, and external sclerosis and proliferation of the neuroglia; 2) the dilated lymph canals give rise to the appearance of *état cribré*, and (3) degeneration of the

ganglion cells. Bayle's view, which lays chief stress on adhesions of the pia mater, and which was supported by Foville (1823) and Calmeil (1824), and lately brought up again by Crichton Browne, is not accepted.

The proportion of female to male paralytics in Schüle's asylum is 2.5, and the females, as a class, are characterised by a greater predisposition to primary weakness of mind, and a more silent and gentle form of grandeur ideas. In two-third of the cases he traces excess (not merely in vino et venere) and the "struggle for existence."

The next chapter contains the "*psychische cerebro-pathieen*," or psychological complications arising in organic diseases of the brain. They are primarily divided into—(1) Modified paralysis, and (2) psychological disease dependant on encephalitis syphilitica. The first of the modified paralysees is meningo-periencephalitis chronica and subacuta, of which a very interesting description is given based on cases of the author's own practice. (For a distinction between this and general paralysis, cp. Mickle, "Journal of Mental Science," April, 1872.) The second modified paralysis is Pachymeningitis with hæmorrhage, two forms of which may be distinguished—(a) When the hæmorrhage occurs first and the pachymeningitis later, and (b) *vice versa*.

Then we have primary cerebral atrophy—(a) without, and (b) with intercurrent symptoms of inflammatory irritation.

Fourthly comes cerebral atrophy as a complication of local softenings and apoplexies, or with multiple sclerosis. To this class, as Wille remarks, belong most of the worst forms of senile dementia.

The list is closed by (5) Progressive dementia with paralysis, produced by neoplasmata; (6) Tabetic paralysis (Westphal); and (7) Tabetic dementia (Simon).

In describing syphilitic mental diseases he regards primary dementia as the most usual onset, but quotes Erlenmeyer's observation that there is almost always a total loss of some one or more intellectual accomplishments as if they had never been learned. [And generally a loss of some muscular skill; thus a patient in Morningside, who before he contracted syphilis was an excellent billiard-player, now seldom hits the ball he aims at.]

This terminates the description of the special forms of mental disease, and the next subject is their development. Here he points out the diagnostic and prognostic value of prodromal melancholia, as he finds that the more purely

functional the disease is, the more surely is it preceded by a melancholic stage. In the same chapter we have his "theory of mental diseases."

The work concludes with a chapter on therapeutics, which contains nothing new.

We have thought fit to devote so much space to this work, as it is the volume of Ziemssen's great encyclopædia belonging to our branch, and as it bears the name of the Superintendent of the Illenau Asylum. But the text-book can scarcely be regarded as a success. In the first place the style is quite enough to frighten away the most enthusiastic student, it is so "high-flown" and obscure. He translates the simplest remarks into psycho-physical and molecular language, and introduces such terms as "co-efficient of expansion" for a psychological process, till one begins to think the book is written by an imaginative psychologist, and not by a medical man. As will be seen from the analysis we have given, his classification rests on a very theoretical basis, and many groups are distinguished by the merest hair-splitting. It is not a volume that should be placed beside Kussmaul's "Pathology of the Speech," or Bartel's "Disease of the Kidneys."

EDWARD G. GEOGHEGAN.

Cyclopædia of the Practice of Medicine. Edited by Dr. H. VON ZIEMSEN. Vol. xii.: *Diseases of the Brain and its Membranes.* By Professors NOTHNAGEL, HITZIG, OBERNIER, HEUBNER, and HUGUENIN.

Nothnagel begins this volume with an exhaustive article or treatise on anæmia, hyperæmia, hemorrhage, thrombosis, and embolism of the brain, extending to 228 pages. This is well worthy of study by those engaged in psychiatric practice. As a matter of fact we believe that in no class of diseases is cerebral (convolutional) hyperæmia more common than in maniacal conditions. Whatever may be the result of further studies into the *vasomotor* innervation of the brain itself, no one can doubt that the supply of blood to the various parts of the brain is regulated by different vasomotor nerves, and no one who has carefully studied even the naked eye appearances in sections of the brain of those who have died during recent acute insanity can doubt that the blood supply of the various portions of the brain had been most seriously deranged during life in

those cases. The great characteristic of the blood supply in these cases seems to be its irregularity. Sections of such brains look marbled, some portions being perfectly anæmic, while others are intensely congested; those anæmic and congested portions respectively being in *areas* often very clearly defined from each other. There is no doubt also that in many cases dying insane, while the anterior lobes or portions of them may be intensely hyperæmic, the posterior lobes may be very pale and bloodless. Then the different layers of grey substance may contain very different quantities of blood. We have seen the outer layer quite pale and bloodless, while the inner layers and the white substance next them was most intensely congested. In those patients who have died after many hours of convulsions in general paralysis or epilepsy the congestion of the whole brain is such as we have never witnessed in any other disease. Nothnagel points out that the psychical symptoms of cerebral anæmia are nearly always of an excited type, often with hallucinations of sight and hearing and delusions of persecution, the collective symptoms being, therefore, those of *melancholia agitata*. This is instructive to the student of the psychoses, for if there is any pathogenetic fact that he is accustomed to hold, it is that melancholic states or those of mental pain are connected with and probably result from deficient nourishment of the convolutions of the brain. One is apt to be puzzled at first by the occurrence of excitement or motor restlessness in such cases, not remembering that this may occur equally in melancholia as in mania. We believe that there may be hyperæmia by stasis in a very ill-nourished brain indeed, especially if there is some atrophy of the organ. The author gives a needed warning, which he puts indeed in an exaggerated form when he warns his readers "against the fashion of referring permanent states of mental excitement or depression of every kind to anæmia and hyperæmia of the brain." He means of course that the *ordinary* anæmias and hyperæmias don't cause typical insanity. The transitory psychical conditions that result from such states have scarcely been sufficiently studied.

In treating of hemorrhage he does not notice the fact that such hemorrhages, microscopic and naked eye, occur with far greater frequency in the pia mater and outside the brain in those who have suffered from insanity before death than in ordinary cases. It is not true, for instance, among the insane that hemorrhages in the brain are most common in the *capsula*

interna of the left corpus striatum. They are far more frequent in the pia mater. He omits to mention as a psychical symptom of the softenings that follow hemorrhages, especially if they are situated near the pons, the emotionalism or loss of inhibitory power over the muscles that express the affective states.

Obernier, in his chapter on Tumours of the Brain, makes special mention of the disturbances of its psychical functions, rightly pointing out that in many cases where they seemed to be absent this was merely because they were not carefully looked for, and no pains taken to compare the former mental condition of the patient with the present. He thinks that the patients with tumour are, as a general rule, depressed, their power of mental application is diminished, their memory impaired, and frequently there is aphasia. He scarcely alludes to a very marked symptom indeed in most cases of tumour, and that is the mental irritability of the patient.

Heubner treats of syphilis of the brain. This is a subject he has made his own by original observation, and his now well-known work on the arteries of the brain. He thinks that syphilis of the nervous system "almost invariably appears at a late period—in fact, when the syphilis has lasted for several or often many years." He considers that hereditary predisposition to nervous disease and psychical influences, such as severe mental labour and fright, are important predisposing causes. He describes that form of syphilitic disease of the brain which is similar to general paralysis in its symptoms, but gives no diagnostic signs. A practised eye can usually detect the difference, but it is difficult to put it down. In the first place the expression of the face is different, and especially the expression of the eyes, as well as the state of the pupils. The paralysis is always more localised in the syphilitic diseases, and its course is not so uniform.

Huguenin gives an admirable description of *Pachymeningitis Interna Hæmorrhagica*, or false membranes under the dura mater. This is more commonly found in certain of the varieties of insanity, notoriously general paralysis, than in any other class of nervous diseases. The weak point in Huguenin's account is the pathogenesis of this affection. This has always seemed to us most interesting and suggestive. The mere description of the pathological appearances, naked eye and microscopic, is easy though important. The explanation of how this cross between an inflammation, a hemorrhage, and

an œdema should take place where it does, is very difficult indeed. Its name is a misnomer. It has almost nothing in common with a meningitis proper. We believe its great interest lies in what it indicates as to the state of circulation and malnutritions of the pia mater and the convolutions, and not in what it is itself. Its existence we believe to be an accident of the physical conditions under which the brain is supplied with blood. That organ lying in a shut box, when its blood supply suddenly changes, in amount from intense hyperæmia of the pia mater—this being the result of morbid calls for blood in malnutritions of the convolutions—is yet almost loose as it were in its case, with a space filled with the cerebro-spinal fluid round it. We think that when the conditions of the blood-supply alter, which means that the bulk of the organ changes, and there are sudden shrinkages and expansions from the causes we have mentioned, and especially if, with this there is degeneration of the arterioles, then we may have these false membranes forming under the dura mater. An imperfect analogy uniting some of the physical conditions, but not the congested pia mater, is found when we put a cupping glass on a delicate skin and cause œdema, irritation, and capillary ecchymoses; and when a false membrane is once begun, we have a condition of matters that makes its advance and recurrence certain, for we have a multitude of small vessels with badly formed walls and no compact surroundings, which are ready to burst whenever there is a suction-pressure on them. The first layer of membrane formed is a new pia mater, with all its vessels fragile, and on fibrous matrix to support them.

Concerning the other affections of the brain which Huguenin so exhaustively treats of in the 400 pages which he fills, we have no time to speak. We can only refer our readers to the volume for the accounts of the diseases of the pia mater, the tubercular, and other meningitis, encephalitis, abscess of brain, and chronic affections of the internal ear.

Hitzig concludes the volume by articles on Hypertrophy and Atrophy of the Brain and General Paralysis of the insane. The last thirty pages are devoted to general paralysis, and we must say at once that its treatment disappoints us exceedingly. The article on this most interesting of all cerebral disease is not worthy of the reputation of the rest of the work. He professes at the beginning that the article is not intended for alienists, and his experience of the disease would need to be

small indeed who could learn anything from it. Hitzig very clearly wrote his article from book knowledge rather than from observation in the wards and dead-house. He strings together lists of symptoms and post-mortem appearances of monstrous length, making no attempt to tell which are the essential and the important, and which are infrequent and of no real consequence. We, on the whole, agree with the following "formulation of the view which at present seems the most probable, viz., that general paralysis in the more restricted sense, and, so far as concerns the brain, is a chronic, or sometimes, rather, a subacute interstitial (peri) encephalitis, which in course of time leads to the destruction of the ganglion-cells and to atrophy of the brain." We accept "peri-encephalitis," as expressing a pathological process more like a subacute inflammation than anything else. In reality we believe the pathological process in this disease to be one *per se*, one conditioned by the unique conditions of the blood supply in the brain, together with the extraordinarily delicate and highly organised parenchyma of the brain convolutions. We know enough even now of the constitution of the "workshop of the mind" to enable us to say that its complexity and delicacy as far transcends any other organised substance in nature as mental energy exceeds all other forms of energy in importance; and we believe general paralysis is one of the special diseases of this marvellous structure, peculiar to it, and unlike any morbid process to be found elsewhere. We have a sense of keen disappointment when an able man like Hitzig seems to have no real notion of the interest and importance of the disease he is describing, nor any feeling of enthusiasm in thinking that here at last we have a mental disease where the organism is always disorganised, and where every true idea of the disorganisation we get helps us to understand better the mysterious connection between "mind and matter."

PART III.—PSYCHOLOGICAL RETROSPECT.

1.—*German Retrospect.*

BY W. W. IRELAND, M.D.

The State of the Eye During Sleep.—Dr. W. Sander ("Archiv," ix. Band, 1 Heft), observes that with some care and practice the eye may be opened during sleep, and its condition examined. The view commonly given in the text books is that during sleep the eyeballs are turned inwards and upwards. This, I think, was first taught by Sir Charles Bell. According to Sander's experiments, the eyes are in a middle position, the axes parallel to one another, as when looking at a far object. In falling asleep, the eyeballs are converged and turned upwards, and the same thing takes place when the sleep is disturbed through raising of the lids. We then can see the eyes slowly moving upwards and inwards, as if to avoid the light, and seek protection from the covering eyelids. It is this condition which has been mistaken for the permanent one during disturbed sleep. Divergent positions of the eyes were seldom observed, and Dr. Sander is inclined to regard them as the result of disease, or deep stupor.

In profound sleep the pupils are contracted to the size of a pin head, and this condition varies with the deepness of the sleep. Anything which tends to awaken the person, causes a rapid dilatation of the pupil, which narrows again more slowly as the sleep becomes deeper. When the sleeper is suddenly awakened, the pupil becomes much dilated, even if a light be thrown upon it at the time. When the man has become thoroughly awake, the pupil gradually adapts itself to the state of light of the situation.

If we open the eyes after a good sleep, it will be found that the cornea has lost the lustre which it had in the waking condition. The cause of this is a thin deposit of mucous upon the surface. In some cases there is an apparent increase of the vessels of the conjunctiva, which Dr. Langlet believed, perhaps erroneously, to be owing to a congestive condition of the brain during sleep.

Dr. Sander remarks that the state of the pupil varies with the changes in the mental condition and emotions of the individual. The condition of the brain, as a psychical organ, has an influence upon the changes in the condition of the eye. The channels of this influence are the oculo-motor nerves and the sympathetic.

In acute delirium, Dr. Sander finds, as in the dying, an alteration in the secretion which moistens the conjunctiva. In this disease, which depends upon an alteration of the cortex of the brain, the eyes are less widely opened than usual, and the pupils are contracted. The wearied-

out appearance of the eye is in striking contrast to the unquiet state of the patient, and this generally gives a bad prognosis.

Dr. Sander thinks that contraction of the pupils in the beginning of the mental disease, shows a decided affection of the functions of the cortex, and is a symptom ominous of mischief. He is disposed to agree with Leifert in holding that we ought to be very careful of considering insane patients as completely recovered as long as there is an abnormal motility of the iris.

Dr. Sander has also found that the physiological condition of the pupil during sleep, as described by him, is altered by disease of the brain. In some cases the contraction does not take place, in others, pupils which are dilated in one eye during the waking state, are still further dilated during sleep; the other eye either contracting as much or somewhat less than usual. This was observed in eleven general paralytics, and in two patients affected with brain disease, but in no patient affected with simple insanity. In some cases of general paralysis with extreme contraction of the pupil, there was a dilatation during sleep. Sometimes this was very slight.

Drs. Kühlmann and Witkowsky ("Centralblatt für Nervenheilkunde," No. 9), whilst agreeing as to the condition of the pupil during sleep, differ from Dr. Sander as to the direction of the eyeballs. According to these observers, the eyes have no fixed position, but shift in an un-coordinated and often unsymmetrical manner.

The stimulus of light has no perceptible effect on those irregular movements of the eyeballs, which are supposed to depend upon the influence of certain portions of the brain, as Hitzig found that stimulus applied to some portions of the superficies of the brain of dogs caused movements of the eyes in the opposite side.

Progressive Muscular Atrophy without Spinal Disease.—Professor Lichtheim ("Archiv," viii. Band, 3 Heft) publishes a case of this nature which tends to throw doubt upon the views of Charcot and others, who hold that progressive muscular atrophy is dependent upon disease of the anterior horns of the spinal cord, taking its place as "amyotrophie spinale protopathique chronique," or as the Germans call it, "Poliomyelitis chronica." In the case published by Dr. Lichtheim, the disease was of fifteen years' duration, beginning after the woman was grown up. He is convinced that there was real muscular atrophy, while the peripheral nerves and nervous centres were quite healthy; from which he concludes that a diseased condition of the ganglion cells of the anterior columns of the spinal cord is no necessary prelude to the symptoms of progressive muscular atrophy, and that we cannot any longer hold such an alteration to be the exclusive cause of the myopathic degeneration. Dr. Lichtheim holds with Friedreich that progressive muscular atrophy is no poliomyelitis any more than pseudo hypertrophic paralysis is so, though he is not prepared to say that the inflammatory action is propagated from the muscles backwards through the nerves to the spinal cord.

The degeneration may, he thinks, be owing to the diminution of the functional activity of the cord. The observations of Dickinson, Vulpian and others upon the condition of the cord after amputations and sections of nerves are, he admits, not in favour of this explanation, but there is a wide difference between an amputation and muscular atrophy.

Pathological Anatomy of Progressive Muscular Atrophy.—Dr. Arnold Pick made a careful microscopic investigation, after the method of Gerlach and Clarke, on the body of a man who had suffered from progressive muscular atrophy, and had died from failure of the respiratory muscles. The white substance showed nowhere any alteration. In the upper part of the neck the large ganglion cells of the anterior horns of the grey substance were almost wanting. Some which still showed a process and nucleus were degenerated to brownish yellow lumps. In the surrounding grey substance there was much degeneration of the nervous cells. The vessels were not much altered.

The degeneration of the "spider" cells is most marked in the middle of the cervical enlargement. The processes thrown out by the cells may be observed as running along with the vessels, and sometimes one sees a thicker prolongation than usual sinking into the vascular wall without passing through it. This has already been described by Alexander Lubimoff as occurring in the brains of paralytics, and regarded by him as the beginning of neoplasms in the vessels. In the dorsal parts of the cord the destruction of the great ganglion cells of the anterior horns, as well as the degeneration of the spider cells, is not so marked.

The cells in the tractus intermediolaris, as well as those in Clarke's pillars, are not atrophied, but in the lumbar part of the cord the contraction of the great ganglion cells and the degeneration of the spider cells is again made out. It goes against Friedreich's views that a process of degeneration beginning in the muscles creeps backwards along the motor nerves to the anterior roots and thence to the cells of the anterior horn, and in this case the atrophy of the anterior roots is very marked, but the author thinks that the affection of the ganglion cells is the primary one, as from a comparison of the stages of degeneration which the different tissues had reached, the morbid action would have commenced in the grey substance.

The muscles were also examined, and showed increase of the areolar and fatty tissues and fatty atrophy of the muscular fibres with development and accumulation of pigment, as described by Friedreich.

A New Type of Insanity.—At a meeting of the Verein of German physicians, who occupy themselves with the treatment of insanity, held at Nuremberg, in September, 1877, there was a good deal of debating about the different forms of insanity, and the following resolution, proposed by Dr. Meynert, was unanimously adopted:—

"The members of the German Verein of Psychiatrie agree in recognising, besides melancholia and mania, a third original form of mental disease, primary craziness, or insanity (primäre Verrücktheit), what Tigges described as Walmsinn."

As it would not do to treat with disrespect this creation of so many learned physicians, it is incumbent on me to introduce our new friend to English readers as he is exhibited in the "Psychiatrisches Centralblatt" for December, 1877.

In these subjects there is a hereditary neurotic tendency, and something strange about the disposition from infancy. They are quiet, soft children, the delight of their mothers, and, at a later time, their bitterest sorrow. They shun the society of other children, and indulge in day dreams. Their bodily growth is normal, but even trifling diseases take on cerebral symptoms. Some of them towards the end of the period of development have illusions or hallucinations of the senses, indulge in false ideas, and sink rapidly into mental weakness. Others reach their twentieth year without any marked derangement. They may show talent in special directions, but their intelligence never passes out of the puerile stage.

They become morbidly sensitive; often they brood over some feminine ideal, generally a girl with whom, perhaps, they have never exchanged a word, though fancying they have had tokens of encouragement. They are apt to endeavour to attract the attention of others by an affected carriage. They want energy to resist bold opposition, though they get rapidly into a state of theatrical exaltation. spasmodic weeping and hysterical fits. There is a greater or lesser degree of hypochondria.

They are always thinking of the conduct of strangers towards them, hear their names called in the street, find referenee to themselves in everything, and notice allusions to their doings in the newspapers. A young man of this sort imagines that a secret society persecutes him, because he is in their way, not because he is unworthy, and deserves punishment, as a melancholiac would put it.

The friends of the object of his affection put impediments in his way, slander and persecute him, on which account his own family look upon him with dislike. Often he disguises his feelings, his conduct passes as incomprehensible eccentricity, and, from his softness of disposition, violent outbursts are rare, though sometimes an accident brings out the morbid condition. At a later time illusions of the senses falsify the whole relations of the patient with the outer world. This or that person of distinction has looked at him in a meaning manner. A portrait of the ruling prince resembles him. Every change in the outer world has something to do with him. Political events, natural appearances and calamities are sent to punish his persecutors, or serve for his final triumph. God Almighty takes him under His protection, and has a blessed mission in store for him. People have had dealings with him under other names.

The progress of the disease is gradual; sometimes symptoms take a lull, again suddenly to break out. Sometimes the lunatics are very shy of bringing out their delusions, which are only shown in some unwonted state of excitement.

Dr. Meynert remarks that this form of alienation is not confined to males alone, and Dr. Fritsch ("Psychiatrisches Centralblatt," October, 1877) gives an example of it in a woman who had been married, although the vagina ended in a blind sack, and she was believed to have neither uterus nor ovaries. She, however, had undoubted sexual feelings, which, indeed, were very marked, was hysterical, and had the delusion of suspicion.

Any physician of experience must know cases which might very well be included under this new form. It cannot be confounded with mania or dementia, and is distinguished from melancholia by the conceited deportment of the patient, and his want of self-accusation or depreciation, as well as by the character of the delusions. Primary insanity may be combined with imbecility. It would appear that in the Vienna Asylum the cases classed under this new type were as numerous as those of mania and melancholia put together. Often it remains in the initial stage, or retrocedes, and the patient never reaches an asylum.

Psychic Epilepsy and Colour Blindness.—Dr. Weiss ("Zeitschrift für Psychiatrie," xxxv. Band, 1 Heft), amongst some examples of psychic epilepsy, mentions the case of a sailor, who did extravagant things, of which the recollection soon passed away. In the hospital he remained in a stupid, apathetic state, but one day he woke up suddenly, gesticulating and talking. He thought himself the captain of a ship, called one patient the steersman, another the cook; said he was sailing to Jerusalem in the "Novara." He correctly indicated the directions of the wind, and called the sparrows sea-gulls. It was observed that he exaggerated the size of objects and distances, and was colour blind. He called all dark colours dark blue, and bright colours bright blue. Black was complete dark blue, white strong light blue. As usual, he passed out of this state, forgetting everything he had done in it. On another occasion he saw a black figure standing before him, and thought he was close by the sea, although, as was next day ascertained, he was three thousand paces from the shore.

Singular Cure of Epilepsy.—The "Centralblatt für Nervenheilkunde," quotes the case of a young sailor, who was much troubled with epilepsy. The fits returned every day, and were preceded by an aura, consisting in an abnormal sensation in the stomach. He was treated for 134 days, and many different medicines were used, quinine in large doses (the fits being periodical), bromide of potassium, strychnine, nitrate of silver, morphia and chloral, all without effect. At last he took a teaspoonful of salt when the aura commenced, washing it down with a little water. This was followed by a burning feeling in the stomach, the abnormal sensation disappeared, and no epileptic fit came on. This remedy was used for eight days, at the end of which the aura itself ceased.

Curare used against Epilepsy.—At the Assembly of German Scientific and Medical Men, at Cassel (reported in the "Centralblatt für Nervenheilkunde," Nr. 10, 1878), Dr. Kunze, of Halle, stated that he

had found no success with the remedies usually employed for epilepsy. Bromide of potassium and bromide of ammonium retarded the attacks for a while, at most for six months, after which they returned in greater force than ever. He had tried curare, and had found, to his astonishment, that one could go on, without danger, using doses up to 0.08 of a gramme (?) in sub-cutaneous injection.

The first appearance of intoxication is a dimness of sight, so that near objects are only seen in faint outline. Eighty cases of epilepsy were treated, of which six cases were cured. Dr. Kunge considers this too small a number to settle the question.

The injections were made every fifth day for three weeks, and then a pause was made, and the next attack was expected. The preparation used was aquæ distillatæ, 5; curare, 0.3, to be used for from 6 to 8 injections.

Professor Binz remarked that we can heal convulsions generally fatal with curare. A case of hydrophobia was successfully treated at Münster with that drug. Professor Binz had made experiments on animals poisoned with brucin. In five instances he had saved their lives with curare, whilst the other animals who got no curare died. In three cases the dose of curare was too small. He thought that in using curare we might lay aside the groundless fear of asphyxia. In using it against hydrophobia, artificial respiration might be employed.

Cure of Progressive Muscular Atrophy by Electricity.—In the "Centralblatt für Nervenheilkunde" (Probe Nummer), there is quoted from an Italian medical journal, a report by Dr. Gannini, of a female patient, twenty-two years of age, who had, for two years, weakness in the right arm, and for one year weakness in the left hand and legs, and the right hand. In the arm the muscles were reduced to thin layers, the hand was like a claw. The other limbs were much less reduced. After 110 sittings with the induced current, the patient was almost completely restored. The muscles had well-nigh recovered their former size and strength. The author hopes that the improvement will endure. This case is worthy of notice, as showing the advantage of the Duchenne method of applying the electricity to the muscles affected, instead of passing a galvanic current along the spinal column and the sympathetic nerve, which, even when the cathode is applied to the atrophied muscles, is not often of any efficacy.

Two Cases of Pulmonary Disease with Hemiplegia Developing by Stages. Prof. H. SENATOR, Berliner Klinische Wochenschrift. Nos. 4, 5, and 6. 1879.

The first case was one of putrid bronchitis, with chronic ulcerating pneumonia. The first paralytic symptom was weakness, with increase of temperature and sweating in the right arm, followed next day by almost complete motor paralysis of this limb. On the third day the arm was convulsed, and subsequently the whole body was seized with tetanic spasms, causing opisthotonism (three attacks). In a few days

the inferior branches of the facial became paralysed on the right side. Next the speech was affected, and lastly came motor paralysis of the right leg. The patient, without looking, had no idea in what position his right limbs lay. During this short time rapid atrophy of the right arm had taken place.

The autopsy revealed an abscess involving the second frontal convolution, more especially on its posterior aspect; the first and third frontals were slightly flattened and decolorized. The gyrus centralis was hardly affected at all.

The second case was also one of chronic ulcerating pneumonia, in which the progress of the paralysis followed the same course as in the first, except that there were no convulsions and no speech affection. The same anatomical diagnosis was made, but nothing further found than diffuse passive hyperæmia.

In concluding his remarks on these two instructive cases, the Professor points out the importance of paying attention to the state of the lungs in the frequent cases of idiopathic abscess of the brain.

EDWARD G. GEOGHEGAN.

Italian Psychological Literature.

By J. R. GASQUET, M.B.

Professor Verga has collected the statistics for all the asylums in continental Italy (excluding, therefore, Sardinia and Sicily), taken on the night of December 31, 1874. There were then 170,79 lunatics to every 100,000 inhabitants, a proportion somewhat higher than in England, Ireland, and France, but lower than in Scotland. In the province of Naples, where the ratio was lowest, it was 1 to 908; while in Lombardy, where it was highest, it was 1 to 485. In Umbria the proportion of insane persons had doubled in 15 years, and in Lombardy nearly tripled in 10 years.

Italy seems to be an exception to the general rule of the greater frequency of insanity in females; for, while in the population at large there are 100 males to 99 females, there are 100 male lunatics to 91 females. Dr. Verga considers that the total number of the insane is greater by one-third than those confined in asylums; while scarcely one-thirtieth of all idiots and imbeciles are thus accounted for, 24 per cent. of all patients in asylums are returned as demented. Among the remainder mania is more common than melancholia.

The *Archivio* contains a number of interesting papers, of which (as usual) I can only notice the most important. Dr. Michetti, of Pesaro, contributes an elaborate paper on the relations between *Insanity and "Herpetism"* (using the word, in Bazin's sense, for any chronic cutaneous eruption). He gives cases illustrating the co-existence of these conditions, and of the prevalence of chronic eczema or impetigo

in the families of his insane patients. His view is that such eruptions are evidences of some abnormal blood state analogous to rheumatism and gout, which, like these dyscrasie, may produce insanity.

Dr. Bonfigli gives an elaborate account of the *method of feeding* the insane, preferred by him, when food is refused. He uses the œsophageal sound, generally without a stilet, but seems to have found it difficult to avoid the air passages, for which purpose he recommends that the patient should be made to speak before injecting food, and that a little water should be first injected. He recommends that, in case artificial feeding has to be continued for a long time, the food should be varied as much as possible, which he has found to improve the patient's condition more than when the same was given. Beyond this, there is not much that would be new to English readers, though Dr. Bonfigli is under the impression that in England we do not feed patients who refuse their food, as a part of the non-restraint system.

Dr. G. B. Verga gives an account of 32 cases of *pyrexial diseases* (erysipelas, pneumonia, rheumatic fever, acute tuberculosis, &c.), occurring in the course of chronic insanity, in which the temperature was regularly taken, and found to be the same as in ordinary cases, the other symptoms being, of course, more or less masked. In six of his cases the symptoms of insanity became more acute during the pyrexial stage, and temporary improvement was only noted once or twice. When it does occur he is inclined to ascribe it, not to the heightened temperature, but to the momentary sensory stimulus of pain.

Much has been written of late years in Italy on the curative influence of an attack of *variola* on insanity. The physicians of the Reggio-Emilia Asylum call attention to another side of the influence of small-pox, the frequency with which it is followed by insanity. Of the 13 cases of the kind which they have collected, nine occurred in women; and most of them had suffered from violent delirium during the disease. Melancholia was the ordinary form which the insanity assumed; and it was accompanied with all the evidences of malnutrition and anæmia. Most of the cases recovered.

There has been an interesting controversy between Lussana and Dr. Stefani, one of his pupils, on the interpretation of experiments performed on pigeons to study the *physiology of the cerebellum*. The former adheres to his view that the cerebellum is the centre for the muscular sense; while Stefani points out that this is inconsistent with the power of standing, retained by birds from whom the greater part of the cerebellum has been removed. He is led to conclude that there is a very close relation between this organ and the semi-circular canals, the symptoms produced by the destruction of either being the same, and the destruction of the latter being followed by degeneration of Purkinje's cells in the cerebellum. He suggests, therefore, that the proper office of the cerebellum is to combine the sensations derived from the auditory apparatus, so as to elaborate ideas connected with space.

Dr. Funaioli has made a somewhat extensive trial of the *monobromide of camphor* in the asylum at Sienna, with somewhat different results from those obtained elsewhere. It appeared to have no effect on epilepsy; on the contrary, the number of the fits often increased during its administration. In the hysterical forms of insanity it was very beneficial, and was less markedly so in a few cases of intermittent mania and melancholia when it was tried.

Dr. Toselli has administered *ergot* to 30 patients suffering from various forms of insanity, but all more or less maniacal. He gave from seven to 60 grains, or more, of ergotine in 24 hours; usually, by the mouth, but sometimes hypodermically. In most cases he found it relieve excitement, and produce sleep, from which the patients awoke calm and refreshed. Where there was obvious cerebral anæmia it rather increased violence and sleeplessness, as might be expected.

In the *Rivista Sperimentale*, of which there is only one number to review, there are several papers of the highest interest and value. Dr. Seppilli relates four cases of chronic insanity with defective cerebral nutrition, in which the temperature was below the normal, and fell lower and lower until death. On the other hand, Riva fully confirms Dr. J. Mickle's observations of the rise of temperature during the epileptiform attacks in general paralysis; and he suggests that the "thermic centre" is then affected.

There is a well-sustained discussion on the subject of *Moral Insanity*. Dr. Bonfigli, analysing our idea of the "moral sense," and finding it not a simple and primary faculty, but the resultant of many sensations and judgments which are mutually controlled and co-ordinated, is led to maintain that "moral insanity" is not the result of any single diseased condition, but may be produced by many different causes. In practice he considers that, when we can exclude ordinary vice, we may suppose it due to a partial mental weakness, by which the normal comparison and correction of each judgment by others are rendered impossible. The practical importance of this view is that, if moral insanity is a form of partial mental weakness, much may be done to check its development in those affected, by reformatory or asylum treatment.

On the other hand, Dr. Tamassia holds to the view that there may be an insanity of action without any intellectual weakness whatever, and he looks upon such cases as incapable of improvement. He has another opportunity of examining the subject when reviewing the various answers given by the medical jurists of Italy to the Government, who had taken their opinion as to that section in the new penal code, which treats of the *criminal responsibility* of the insane.

The sentence now runs thus: "He is not responsible for any crime, who, at the time he committed it, was in a state of insanity, or, from any other reason, was not aware that he was committing a crime; or was impelled to it by some impulse which he could not resist."

Dr. Adriani has forwarded a very elaborate report of the asylum at

Perugia for the years 1874-1876. In this I may note a singular case of *absence of the corpus callosum, septum lucidum, and fornix* in a man 38 years of age, who had been of feeble intelligence, but not an idiot; and who had suffered from epilepsy for 20 years. The anterior white commissure was unusually large in this patient, and, probably, was an imperfect substitute for the corpus callosum.

He has given *arsenic* an extensive trial, with the result of greatly diminishing the anæmia and malnutrition of pellagrous, and other patients, and so improving their mental condition. He also found it of use in general paralysis, rendering the course of the disease slower and more tranquil, with fewer attacks of cerebral hyperæmia.

The *Rivista Clinica di Bologna* maintains its former high character, but has no original articles on subjects connected with insanity. The same may be said of the *Rivista delle Discipline Carcerarie*, and of a new periodical, *La Medicina Contemporanea*, which is a good summary of the journals of Italy and other countries.

3. American Psychological Literature.

By D. HACK TUKE, M.D., F.R.C.P.

The Journal of Nervous and Mental Diseases. New Series. Vol. 1.

October, 1876. No. 4. *Progressive Facial Hemiatrophy*, by Dr. Bannister. *Herpes Zoster Frontalis*, by Dr. Tucker. *Hemiplegia with Lesion on the same side of Brain*, by Dr. Hay. *Periodical Amnesia or Double Consciousness*, by Dr. Azam. *Neurological Matters in New York, &c.*

January, 1877. Vol. ii. No. 1. *A New Theory of Trance and its Bearings on Human Testimony*, by Dr. Beard. *Hysterical Muscular Contractions*, by Dr. Hammond. *Cervical Paraplegia*, by Prof. Rosenthal, &c.

April, 1877. No. 2. *Neuralgia*, by Dr. Jewell. *Reflex Motor Symptoms*, by Dr. Dupuy. *Psychological Pathology of Progressive Paresis*, by Dr. Spitzka. *Pathology of Chronic Insanity*, by Dr. Mann. *Cases of Injury of Brain involving Speech*, by Dr. Hay. *Cerebral Hyperæmia*, by Dr. Teed. *Traumatic Tetanus, &c.*

July, 1877. No. 3. *The Development of the Nervous Tissues of the Human Embryo*, by Dr. Schmidt. *The Abuse and Use of Bromides*, by Dr. E. C. Seguin. *Menstrual Neuroses*, by Dr. Paller. American Neurological Association; *Noise as a Disturber of Health, &c.*

October, 1877. No. 4. *Moral Insanity*, by Dr. Bannister. *Contributions to Encephalic Anatomy*, by Dr. Spitzka. *Case of Unilateral Cerebellar Abscess, &c., without Persistence of Symptoms*, by Dr. Hughes. *Dr. Ray On Testamentary Capacity. On Mind*, by Dr. Teed.

Facial Hemiatrophy.—Dr. Bannister reports two interesting cases ; one in an early, the other in a later stage. He concludes that progressive facial hemiatrophy is a neurosis, that the essential lesion is not in the vaso-motor system, but in the trophic functions of other nerves, especially the fifth. In some cases there is evidence of other nerves being implicated, as the sympathetic, the abduceus, auditory and glosso-pharyngeal. The symptoms indicate a chronic trophic asthenia or paralysis, rather than any irritative action. The affection is not one merely of arrest of development as in congenital facial atrophy, but bears more resemblance to the atrophy of old age.

Periodical Amnesia.—This is a translation from the *Revue Scientifique* of a remarkable case observed by Dr. Azam. A *résumé* of it has already appeared in this Journal (April, 1878).

Neurological Matters in New York.—Under this head are reported several discussions which have taken place at the New York Neurological Society. One is on Dr. Hammond's theory that "the brain is not the sole organ of the mind." Dr. Ralf Parsons justly observed that the question turned on the definition of *mind*. Hammond's definition is "a force developed by nervous action," and he adds, "wherever there is grey nervous tissue in action, there is mind." Clearly, with such a definition in view, the spinal cord must be admitted to be an organ of "mind" as well as the brain. Hammond holds, however, that perception and volition may be exercised when the brain is absent, and certainly if this can be established, the presence of what is understood as mind in a much more legitimate sense than that implied by the expression "force developed by nervous action," must be allowed to pervade other parts of the nervous system than the encephalon. This position is contested by Dr. Parsons, and the acts which follow irritation of the cord are referred to reflex action, the cord doing that at the bidding of distal excitation which it has been in the habit of doing at the ordering of the Will. Dr. Parsons maintained that perception and volition pre-supposed consciousness ; Dr. Hammond denied that we could prove the existence of consciousness in any case. The brainless frog who tries to get rid of acetic acid could not be acting in accordance with previous habit, for it had never before been subjected to it. The definite course it pursues proves, in Hammond's opinion, that there remains, in spite of loss of brain, "a certain amount of *intelligence*, of *perception*, and of *will*." The frog appeared to be conscious ; if not, Dr. Hammond did not know what consciousness is. By no other proof could he be sure that men are conscious. At the very least, the frog's conduct showed perception and will, if not intellect ; so that of the four grand attributes of mind, Perception, Emotion, Intellect and Will, the frog possessed, when deprived of its brain, three. Of emotion there is no proof, but assuredly if froggy has consciousness and intellect, it is difficult to believe that he has no emotion when he perceives his tormentors. Another speaker, Dr. Clark, contended that mental

characteristics were manifested in the lowest forms of animal life in which no nervous system at all existed; that, for example, the amœba was influenced in its movements by perception, judgment and volition. Why then, he asks, limit mind even to the grey matter of the nervous system, as Hammond does? Why not extend it to the sympathetic? Nay, further, why not extend it to the whole body, even in man? No reply appears to this trenchant argument by which Dr. Clark hoists Dr. Hammond with his own petard, and carries him further than he appears to have intended to travel. We cannot see that anything brought forward in this discussion changes the usually accepted doctrine that the acts of a brainless animal are performed independently of consciousness and feeling. We have not much faith in the "judgment" of the amœba; but even were it proved that it is a very judicious reasoning animal, it would not follow that such a function is not, in vertebrate animals, lodged in the brain only.

Under this section is given the main points of a paper read at the Medico-legal Society, by Dr. Parsons, on the *Testamentary Capacity of Monomaniacs*. He observes that so-called monomania is not separated from general insanity by any well-marked line of demarcation. If unsound in any particular direction, there is no certainty that unsoundness will not be manifested in some other direction. One delusion replaces another. The *faculty* of judging is itself affected. It is to be regretted that the author shirks the objection naturally arising to this view of the nature of monomania, instead of answering it. In our opinion, while not fond of the term, we think he loses the real practical truth which Esquirol, by its adoption, intended to convey, namely, that there are insane persons who do reason quite soundly upon a large number of subjects, and are only at fault on those which are related to one particular feeling or idea. Modern cerebral physiology goes far to warrant this view. According to the doctrine held on this important question, will be the conclusion arrived at in many cases of testamentary disposition of property. Thus the answer to the question: Can a person under a delusion be regarded as of sufficient mental capacity to make a will, so long as the will is in no way the offspring of the delusion under which he labours? depends upon the view which is taken in regard to partial insanity.

The highest legal authorities have decided this question in the affirmative. How, however, it is asked, can it be proved that the testament is not directly or indirectly the offspring of the delusion? and the reply given is that it is very difficult, if not impossible. That the difficulty exists, we do not dispute, but we cannot admit that it is impossible. Dr. Parsons throws the burden of proof on the person wishing to prove the validity of the will. We, on the contrary, should throw it on the person wishing to connect the testator's particular delusion with the will. It is ingeniously argued by Dr. Parsons that the character of the will must not be taken as an element in the case, on the ground that if this is to be the rule by which the validity

of the will is to be decided, the judge may as well decide for persons dying insane what the distribution of their property shall be without any will at all; and consistently, that a will which is at variance with the current opinion of what is proper, should be set aside on the presumption that the testator must have been incapable of making it. The truth is that there are very good reasons why every man should make his own will, and that nothing should be allowed to set it aside but the clearest proof that his mental disorder interfered with the mental process involved in making it. The nature of the will must necessarily form an element in judging whether this was or was not the case. We do not use it to prove he was insane on other points than those connected with the will, but solely those in relation with it. We believe that the legal view above expressed is a correct one, and that an insane man—a monomaniac as in the question under discussion—ought to be allowed to make a will; admitting, at the same time, that this very act might itself carry with it a proof that the distribution of his property came within the range of his delusions, and that he therefore did not possess testamentary capacity.

In the debate on Dr. Parsons' paper at the Medico-Legal Society of New York, several eminent lawyers expressed their sentiments, and, with one exception (Hon. Geo. H. Seaman), in opposition to his view. Mr. Courdert said it was a startling doctrine, and would, if accepted by courts of law, bring about a most dangerous revolution. Then, indeed, he observed, the practice of setting aside wills will be the rule, and their admission the exception, for very few persons possess minds equally well balanced on all subjects. He instanced the case of Judge Edmonds, who for 30 years laboured under what the doctors would call an insane delusion, and yet was a wise, prudent and sagacious adviser. No court, he was very sure, would hold this judge's will to be void because of such a delusion. If, however, the will showed signs of his delusion, and had been so influenced by it as to divest his property from its proper channel, the will must be declared the product of delusion, and therefore void. Lord Brougham had held the same opinion as Dr. Parsons, but his opinion had found no followers. The present legal rule is, on the whole, the safest and the most practical. Mr. Patterson said that if Dr. Parsons' view was correct, all the antecedent learning and experience of both professions must be so much error and waste paper, and there is no distinction between general and partial insanity. "If this is persisted in, you must lay down a rule which shall be as rigid in its exclusion of testamentary power as the old English rule was in its exclusiveness, and that would be merely to introduce chaos into the law again." The reasonable rule lies where truth generally does, in the mean between the two extremes.

The following case of human electricity is given by Dr. Leale:—
"A very strong man, æt. 38, who could with ease light the gas

by the electricity from his finger, was recommended as a therapeutical measure to rub his wife, who was and had been suffering from cerebral exhaustion for a long time. She was exceedingly hysterical, and medicines did not seem to benefit her. He rubbed her thoroughly every day for fifteen minutes at a time, morning and night, with dry hands. She gained strength rapidly—the treatment being continued for six months, at the end of which time she was restored to perfect health, and has remained so up to this time, now over a year. He, on the other hand, became mentally very feeble; would cry upon the slightest provocation, was restless, complained, if his wife ever touched him, of an unpleasant sensation—in fact, dreaded her presence. From a healthy and active business man, he lost all ambition, became forgetful, morose and sullen. This condition of affairs continued increasing for six months, at which time he threatened to commit suicide, and was examined with reference to being placed in an insane asylum. Instead of this, the doctor deemed it advisable to send him to the country, where he remained on his father's farm, leading a quiet life, and has wonderfully improved. Still he has not sufficiently improved to return to the bustle and turmoil of city activity." Having lost his electricity in the service of his wife, why was he not re-charged by the electrifying machine? This number contains a review of "Spiritualism and allied causes and conditions of Nervous Derangements," a work written by one of the Staff of the Journal—Dr. Hammond. The review observes; "We do not think the experiments of Mr. Crookes have been discussed with the thoroughness they deserve by Dr. Hammond, admitting as he does their correctness. For our own part, we are as far as Dr. Hammond or any one else can naturally be, from attributing them to spiritualistic agency without some actual proof, positive or negative, necessitating such a conclusion, but which was not produced in those experiments. But we do say—in the supposition that they are correctly reported—that they have not been considered by any one, so far as we know, as attentively as they should be. They, in common with many real and apparent facts, point to the probable existence of forms of force, to which we are, as yet, in a measure strangers." On alleged powers of healing it is observed, "while we see no more reason to believe in spirit agency in the cure of disease than Dr. Hammond has found, yet we have not been able to dispose of all the cases of influence of one person over another, for example, in the alleviation or cure of disease in the ways pointed out by him." Again, "the subject of hypnotism or somnambulism, spontaneous and artificial, is treated at length, chiefly in the way of instances in men and animals, with the design to show phenomena similar to, or identical with, various so-called spirit manifestations. But Dr. Hammond does not attempt at length, or with any considerable success, to explain the mode of occurrence of somnambulist phenomena."

Under the "Editorial Department," record is made of a meeting

of Superintendents of Asylums for Idiots, held at Media, Pa., at which a national "Association for the Relief of Idiots and the Feeble-minded" was organised, the President, Dr. E. Seguin; Vice-President, Dr. Wilbur. Surprise is expressed why it should not be united with the existing "Association of Medical Superintendents of Asylums for the Insane," as in England.

Hysterical Muscular Contractions.—This is a very valuable report of cases by Dr. Hammond. One patient had been previously regarded as labouring under Bell's paralysis of the face, but it was found to be due to strong contraction of some of the muscles of one side of the face. The aspect of the patient was striking; the angle of the mouth retracted and elevated to its fullest extent, exposing the teeth on the left side, impeding mastication, and preventing the patient drinking any fluid except by taking it into the mouth with a spoon. Beyond the contraction of the left levator anguli oris and zygomatic muscles, there does not appear to have been anything to justify the diagnosis of paralysis of the right side. The affection was caused by great emotional disturbance. The patient (male) was of a very impressionable and nervous organisation. Bromide of zinc in gradually increasing doses was prescribed (beginning with gr. ij. twice a day, and in a week the muscles relaxed, and the symmetry of the face was restored.

A sudden alarm of fire caused instant contraction of the left side of the face in a lady, who had once had hysterical hemiplegia. The eye was tightly closed, the angle of the mouth elevated to its utmost extent, and the other facial muscles contracted, except the masseter, pterygoid, and temporal. There was, therefore, no trismus. This case also had been mistaken for Bell's disease, and the muscles on the right side had been faradised for a month without effect. Bromide of sodium (gr. xxx. ad Aq. ℥j.) was given thrice a day, and in ten days the symmetry of the face returned. The next case was one of hysterical trismus, both masseter and temporal being rigid. Bromide of zinc (℥ij. Aq. ℥ij.; dose ℥x.) was administered three times a day, and in twelve days the patient was well.

A lady was treated for meningitis, and then for tumour—blistered, leeches, mercurialized, &c. Dr. Hammond found double vision, and contraction of both internal recti. A powerful emotional cause preceded the symptoms. There was no head affection. There were occasional contractions of the muscles of the angles of the mouth, and other hysterical signs, as the globus and fits of laughing and crying. An operation was recommended. The idea frightened her; she went to bed, thinking of what she would suffer next day, and on waking the next morning she found the diplopia had gone, and there was no longer a convergent squint.

Fright on being attacked by a dog caused wry neck in a lady. There was contraction of the right sterno-cleido-mastoid muscle. The muscle on the other side had been divided, of course without benefit.

The chin was drawn over to the left side, so as to approach the left clavicle. Sulphate of atropia was injected under the skin, gr. $\frac{1}{50}$ to $\frac{1}{40}$ for three weeks, when the muscle relaxed.

In another case of wry neck, tenotomy was practised with only temporary relief—other muscles became in turn affected, and only for a time relieved by tenotomy. She was regarded as incurable, but subsequently recovered without any treatment. In a third case, cutting the muscle gave relief, after the muscle on the wrong side had been cut.

For a girl, aged 16, suddenly seized with spasm of the right hand, and for which a medical man cut the palmar fascia without benefit, Dr. Hammond first tried galvanism unsuccessfully, and then Zinci bromid, gr. ij., Sodii bromid, gr. xxx., ter die. Bromism followed, and then the spasm relaxed. It was continued until she could scarcely stand, keep awake, or articulate distinctly. Voluntary motion having returned, the medicine was discontinued, and there was no return of the contraction.

Among cases of hysterical contraction of the lower extremities, the following may be cited. A girl, aged 14, lay for some weeks in bed with both heels elevated to the fullest possible extent by the contraction of the gastrocnemii and solei muscles. For some time before, she had walked about the house with both feet in the extreme position of talipes equinus. Before resorting to tenotomy, Dr. Hammond gave bromide of sodium to relax the spasm of the muscles, and as there were involuntary twitchings of the non-contracted muscles, it was combined with the fluid extract of ergot in full doses. In a month the heels were readily brought to the ground.

Reference is made to hysteric contraction of the œsophagus, urethra, stomach, intestines, bladder, vagina, muscles of the abdomen, glutei, &c., causing phantom tumours. In 10 cases of stricture of the œsophagus, the affection came on suddenly from fright, anxiety, or some other emotion. Dr. Hammond thinks it probable there is a central lesion, however slight, and points to the fact that in some cases in which the contraction has become permanent, the lateral columns of the cord have been found diseased. The success of the bromides in relaxing hysterical muscles has been indicated; at the same time the author is candid enough to allow that his drug treatment may admit of the same explanation as we are accustomed to apply to inert substances when followed by recovery. What is sauce for the goose is sauce for the gander. Expectant attention may be just as powerful in cases treated by the bromides as in metallotherapy.

Pathology and Treatment of Reflex Motor Symptoms—Paralysis, Contractions, &c.—In this discourse, read before the County Medical Society of New York, Dr. Dupuy maintains that paralyzes are reflex; some due to inhibition, and others to alteration of the blood-vessels (functional), but, nevertheless, reflex. A patch of sclerosis, a tumour, or a protruding bone causes paralysis by irritative, inhibitory, or

vascular irritation; the influence being exerted upon other parts of the cord, contractions are caused in the same, the only difference being the idiosyncrasy of the patient. He refers to a case which offered a fine opportunity of testing the reflex theory. A man had a superficial wound of the inner upper part of the thigh. During the granulation stage, every time a camel-hair brush, loaded with carbolised oil, was being passed over a certain granulation-area the patient at once became rigid for some time. This area was cut away, and no more rigidity was observed. In a case of empyema operated upon, every time a solution of carbolic acid was injected paralysis of the area on the other side ensued. The experiments made by Sir Wm. Gull and Dr. Pavy, which appeared to set aside the statements of Brown-Séquard, that while tying the hylus of the kidney he had seen the blood-vessels of the cord contract, are confirmed by Dupuy, who asserts that the English observers "carried on their experiments in a very expert manner." Referring to hemianæsthesia (including the special senses) and hemiplegia following destruction of the internal capsule, he believes them to be due, not to the destruction of a set of conductors or a centre, but to an inhibitory influence. The existence, disappearance, and return of these symptoms in the remarkable cases at the Salpêtrière treated *à la Burq* are quoted as proof that a lesion of some kind may apparently remain and yet the function be restored, as in the much more serious cases of motor paralysis Jackson holds that it may disappear although the destruction of tissue is unimpaired in the brain. It may here be mentioned that in a case of hysterical hemianæsthesia Dupuy found that while a pin could be passed to the depth of one millimetre into the skin, no pain was felt, and no blood oozed, yet that if a fold was made in the skin, and this was well squeezed several times, the pin caused pain and oozing of blood. Hence it is maintained that the contraction of the cutaneous blood-vessels caused the anæsthesia, and that they lost their functions through anæmia.

The Psychological Pathology of Progressive Paralysis.—An able article by Dr. Spitzka. The object is one of the greatest interest—to exhibit the physiological relation existing between the clinical symptoms of this disease and the lesions found *post-mortem*. We have not space for his varieties of general paralysis. The protein, or colloid bodies found in the neuroglia are passed over as having no psychological interest on account of their fatality. The rapid flight of ideas is attributed to hyperæmia of the cerebral capillaries, and its incoherent character to the fact that in certain areas of the cortex the engorgement reaches a higher degree than in others, producing an actual stasis, which renders certain recollections void. The vessels ill-supported by the peri-vascular spaces, and repeatedly strained by engorgements, lose their resisting power, and cannot forward their contents; stasis follows, and the blood corpuscles, no longer distinguishable, are passed into an opalescent hyaline cylinder. On reso-

lution taking place, the cylinder breaks up into fragments, which are carried inwards in the current, and are sub-divided at each bifurcation. The stasis corresponds to the stupor; its resolution to the lucid interval, or even temporary recovery which may follow. No region, it is held, is so liable to determination of blood as the lenticular nucleus, the vessels here being less supported than anywhere else. It is the very hot-bed of stasis and dilated and twisted vessels. Here the corresponding clinical symptom is considered to be the difficulty of articulation and expression. Where permanent destructive changes follow vascular stasis the flight of ideas is naturally replaced by slowness of ideas and speech, till at last dementia succeeds. The convolutions also become atrophied. When the disturbance of the articulation was extreme, Dr. Spitzka found the lesions concentrated about the island of Reil, the operculum, the Sylvian aspect of the temporal lobe, as well as the lenticular nucleus. Where paralysis of the extremities, especially the lower, was most marked, the most destructive lesions were found in the upper parts of the præ-central and post-central gyri, as well as the contiguous convolutions. In two cases which manifested no marked motor paresis, but well marked losses of certain recollections, there were lesions of the second and third frontal gyri. The whole tract of the hypoglossal and facial nerves was disorganised in one of these cases, and to this was attributed the disturbance in the articulation, and not to the hemispheric affection, for neither the stock of words nor the construction of sentences had suffered. Apoplectiform attacks in many instances were found not to differ from true apoplexies occurring in the sane, the stupor of pseudo-apoplectic attacks being due, as already said, to simple vascular stasis. As regards epileptiform attacks, Dr. Spitzka insists on their having nothing in common with true epilepsy. Nitrite of amyl has little effect on the former, much on the latter; there being cerebral hyperæmia in the convolutions of general paralysis, this remedy is not likely to benefit. There being cerebral anæmia in epilepsy, the amyl nitrite counteracts it. There is, according to Dr. Spitzka, vasomotor spasm in the vessels of the cornu ammonis in epilepsy; vasomotor paralysis in the same locality in parietic convulsions. Dr. Spitzka states that he has not made many observations on the optic nerve in general paralytics, but he has been struck with the unusually firm and small optic tracts, chiasm, and nerve. He has never met with complete amblyopia in a general paralytic, and dissents from Dr. Allbutt's conclusions on the state of the discs. To the question on what the delusions of grandeur depend, he replies that there is a loss of the patient's self-consciousness (contradictory as this seems), for a loss of his relations to himself and his surroundings alone permits the existence of such delusions. Paretics losing the power of comparison create vast projects without calculating the means of carrying them out. The fifth layer of grey matter becomes the seat of sclerosis; "it is made up of spindle cells, which are not connected with the projec-

tion fibres, but with the association band at their poles; and it is reasonable to suppose that they represent the aggregate compound of two impressions, and are the seat of ideas abstracted from the impressions on which these ideas were originally built up. We can here perceive why the more intricate processes, like the more delicate motor co-ordinations, should become impossible, while the simple registration of impressions and the recollection of isolated facts should still be well nigh perfect. On counting the number of spindle cells in a parietic's cortex, and comparing the result with the healthy average, they would be found diminished." It will be seen that no reference is made in this abstract to the motor tracts of Hitzig and Ferrier, the fact being that Dr. Spitzka hesitates as yet to accept their conclusions.

The Pathology and Morbid Histology of Chronic Insanity.—Dr. Mann having examined the blood in a number of insane, as well as sane persons, found more white corpuscles in the former than the latter. In the brains of the chronic insane, he has observed these corpuscles, or lymphoid cells, repeatedly in the substance of the brain tissue. He thinks that "under conditions of inflammatory irritation of the brain an emigration of lymphoid cells takes place on a large scale, the cells, or corpuscles, by virtue of their vital contractility, passing through the walls of the vessels and penetrating into the brain tissue. They obstruct the capillaries, as they move so much more slowly than the red corpuscles, giving as a result an impeded circulation, an increased pressure on the vascular coats, and dilatation of the vessels." Slight inflammation is set up by the escape of corpuscles into the brain, which become developed into a fibroid structure, resulting in the induration of brain and atrophy of the convolutions, found in chronic insanity. Such is Dr. Mann's theory of the order of events from mental health to brain wasting. We agree with Dr. Spitzka's criticism in the discussion which followed the reading of this paper before the Neurological Society of New York, when he says that this excess of white corpuscles, claimed by Dr. Mann to have been found in his patients, will be found due to the same causes which provoked the insanity, or to the circumstances attending the malnutrition and confinement of the patients. "The symptoms which attend the closing scene of leucocythæmia are sluggishness and a general phlegmatic disposition, and have nothing in common with the *essential* phenomena of insanity."

Abuse and Use of Bromides.—Dr. E. C. Seguin does not approve of producing bromism in any cases but those of epilepsy. He points out that insanity is often erroneously treated with this drug. He has seen melancholiacs made weak and wretched thereby, and, in mania, precious time wasted by attempts to procure sleep by it. He would employ it when there is a tendency to epileptiform attacks, abnormal sexual excitement, or great nervousness, not caused by delusions.

A paper on *Katatonía*, by Dr. Kiernan, was read before the Neurological Society. This form of mental disorder ("insanity of tension") has been described by Meynert as "a peculiar form of melancholia attonita, characterised by a series of fluxionary excitations, microscopic exudations, ventricular dropsy, and, perhaps, premature ossification of the sutures." There is a cycle of symptoms, melancholic, maniacal, and cataleptoid, with delusions of grandeur, rhythmical movements of the fingers, and a tendency to walk and talk theatrically. Our space will not allow of our giving the details of this paper, but we cannot omit the interesting effect, incidentally mentioned by Dr. Spitzka, of ten drops of amyl nitrite inhaled in a case of melancholia attonita. He suffered from extreme depression and delusions. He answered questions slowly. He assumed a puzzled look when asked to tell how long he had been in the asylum, and passed into a cataleptoid condition, exhibiting wax-like immobility of the highest degree, the pupils being widely dilated. On the amyl being administered his whole condition changed in an instant. His pupils became contracted, he became communicative and *perfectly rational*, spoke freely of his past condition, and expressed astonishment at the change which had come over him. He denied that depressing delusions had ever existed. The effects persisted many hours, and all that was necessary to ensure a continuous effect was to give the dose several times a day.

In Philadelphia, *Noise as a Disturber of Health* has been discussed, in consequence of an action having been brought against St. Mark's Church in that city, on account of the nuisance caused by the frequent, prolonged, overpowering noise, produced by these harsh, loud, high, sharp, clanging, discordant bells, amounting to an intolerable nuisance, shaking the houses, disturbing sleep, distracting the mind from any serious employment; positive harm being done to the ill, especially to those whose nervous systems are delicately organised. And not this only, but the *expectation* of the bells beginning to ring produces a nervousness and excitement, which is painful to all, and to some intolerable. Medical evidence was produced on both sides; some physicians maintaining that, invalids either became so accustomed to the sound as not to hear them, or enjoyed them. Psychologically the subject is an important one. It is certain that a *constant* sound is soon unobserved; it is an intermittent noise which disturbs. Again, the character of the sound is a very important element. In this case it appears to have been a horrible clang, which one physician described as "almost as intolerable a nuisance as could be produced by sound." The result of the trial is not given.

Moral Insanity.—In this article Dr. Bannister endeavours to prove the reasonableness of the doctrine of moral insanity. This being the case, the burden of proof is thrown upon its opponents. Dr. Bannister is successful in showing that cerebral physiology is not only in harmony with, but favours his position. Dreams also strongly suggest the distinction between intellect and moral feeling. We think, however,

that these arguments, valuable as they are in rebutting those based on the same ground, will not go so far in proving to unbelievers, whether psychologists or lawyers, that moral insanity exists, as the actual cases themselves. In truth, why has the question arisen at all, and why has its existence caused so much earnest support, but because cases have occurred in which men have been condemned to suffer for criminal acts, their intellect being apparently sound, while their emotions have been found to be diseased when examined by scientific experts? The fact came first. It necessitated a discussion as to whether it was possible, on psychological and physiological grounds. If the fact can be disproved, there will not be much interest felt in the abstract question of its probability or possibility. We regard Dr. Bannister's arguments as no substitutes for clinical cases, but as simply corroborating them from the physiological standpoint. We think that some cases of epilepsy may very fairly be taken as proofs of the existence of disorder of the moral faculties, apart from those of the intellect. It may be more convenient to call them instances of epileptic insanity, and, in a court of law, no doubt, they would be more readily admitted, if epilepsy could be established; but surely the fact of this disease does not take such cases out of the category of moral insanity. Dr. Bannister appears to us to weaken the force of his cause by not including these cases in his definition as proofs of moral insanity. This is, however, a fault on the safe side.

Contributions to Encephalic Anatomy.—This paper, by Dr. Spitzka, is a practical and useful contribution to the examination of the brain. It must be read. To analyse it with any advantage, would be to transfer most of it to our pages.

Testamentary Capacity.—Dr. Ray delivered an address on this subject before the Medico Legal Society of New York. Like everything else from this alienist, it is marked by strong good practical sense, as well as the special knowledge derived from his long experience of cases of mental disorder in which the question of testamentary capacity arises. He opposes the old law as expounded by Coke, that to prove the testator to be insane it is sufficient to show that he was *non compos* as regards making a will. He justly contends that we must not expect to find the rushlights of Coke and Hale sufficient to illuminate this subject and guide us on our path; but we must hold in our hands the torch of modern science—say, the electric light—the knowledge of our own century, “greater, far greater, indeed, than that of all other centuries together.” In the intermediate stage between the earliest and latest stage of senile dementia, a fruitful source of litigation arises. The powers necessary to make a will are defined by Ray to be these: Firstly, the memory must be active enough to bring up to mind all those who have natural claims on the testator; to make him aware of the nature of his property, its location, the incumbrances upon it, and his debts. If he makes bequests, he should know, with some degree of exactness, the value of his property; and if he has made previous

wills, he should be aware of their contents. Lapses of memory exhibited by all old people must be distinguished from that utter loss of memory that no effort can retrieve, even for a moment. The former is chiefly in regard to recent things, which are readily brought back to mind, and are retained for awhile. The latter embraces old as well as recent incidents, impressions customary as well as casual, ideas the most as well as the least familiar. The old man who is constantly mislaying his spectacles (alas, that this is not peculiar to age!), forgetting the face of the person to whom he was introduced the day before, and marching up the broad aisle of the church holding up the umbrella above his head, may be found, when his attention is specially directed to a subject, to remember its prominent points, understand them well, and govern himself accordingly. If, on the other hand, a person has utterly forgotten the events of his earlier age; if he cannot tell his own age, or the year of our national independence, is unable to tell how many six and six make, and has forgotten whether his estate is in lands, or houses, or stocks, he surely has lost his testamentary capacity. Of impaired judgment, Dr. Ray observes: The testator should be able to appreciate properly the nature of the claims of his relations, their present and prospective necessities and the favours they have already received. If bequests indicate any deficiency in these respects, there is ground for suspicion. Of imbeciles, it is observed that "the same person may be shrewd, even sharp in some transactions—dull and foolish in others; at one moment uttering a petty remark, at another leaving no doubt of his native simplicity." Hence it is not strange that different observers are differently impressed. As a test, it was formerly proposed that to make a valid will, one must have capacity sufficient to make a contract; but, as Dr. Ray remarks, until it is ascertained what amount of mind is required for this, the test is about parallel to the sage comparison, "as big as a piece of chalk." The only true rule is obvious, insufficient mind for the occasion. And a contract may involve complex contingencies, as well as a will. Then cases of "undue influence" brought to bear on a mind feeble by nature or by disease are considered. Mental deficiency must first be proved. "When we consider the enfeebling effect on body and mind of a long last illness, &c., we can scarcely conceive of conditions better fitted for the exercise of an undue influence over testamentary dispositions. The Courts of our time have become quite familiar with a certain class of cases presenting these traits. They are exceedingly embarrassing, for we are often left without any clue to guide us to a rightful conclusion. We are sure it is such a will as the testator would not have made in the vigour and flush of health, while we hesitate to say, under the conviction that a man has a right to do what he pleases with his own, how far a sense of gratitude for kindness and service may be allowed to shape his decision." Dr. Ray, passing on to partial insanity, points out that it was not till 1828 that its effect on testa-

mentary capacity was rightly decided, in the case of "Dew v. Clarke," adjudicated by Sir John Nicholl. The testator, a surgeon in London, practised successfully in London, and was not regarded as more than eccentric. He died, leaving his property to his nephews, with the exception of a small life interest to his daughter, an only child, whom he had treated with extraordinary cruelty without any cause. The will was set aside by Nicholl, "with a sagacity," as Ray observes, "never before witnessed in a Court of Law, reaching to the conclusion that the mental disorder was fatal to the validity of the will. Against the doctrine then announced, novel and unprecedented as it was, no voice of dissent has ever been raised." The testator's insanity was sufficient, it must be observed, to vitiate not any will, but the will in question. It would not have been set aside if he had left his property to his daughter. His insanity did not alone upset the will, and had he been perfectly sane, it would not have been set aside. But an unjust will like this can be annulled if the testator is proved insane. This is not one of those cases in which the intrinsic absurdity of the will would by itself suffice to prove, or help to prove the insanity of the testator, and thereby set it aside. It differs from cases to which we have referred in connection with Dr. Parsons' paper, in which this might fairly be the mode of regarding the subject.

On Mind.—Dr. Teed, in this paper, goes carefully through the correlations of mind and brain, but it is not one which admits of citation, and does not call for special remark.

4.—*French Retrospect.*

Further Contributions to the Study of Motor Localizations in the Cortex Cerebri. By CHARCOT and PITRES, in *Revue Mensuelle*. Nov., 1878, and Feb., 1879.

In an article of 50 pages the authors adduce 56 cases to confirm their former observations, and render their conclusion more precise. Many of these cases relate to patients in the Salpêtrière during the past year, and the rest are gathered from the literature of the same period.

The first 21 cases illustrate lesions occurring outside the motor zone, and causing no motor derangement. The deductions from them are—(1) "There exist in the cortex cerebri tracts which are independent of voluntary motion, and when lesions occur in these tracts there is no permanent affection of motor functions; and (2) these tracts comprise (a) the occipital; (b) sphenoidal; (c) the anterior part of the frontal; (d) the orbital; (e) the parietals (except perhaps their bases); (f) the quadrate; and (g) the cuneiform."

In the next section we have cases in which the lesion is seated

within the motor zone. These are divided into (1) total hemiplegia, where the muscles of one side of the body with the arm, leg, and inferior portion of the face on that side are paralysed; (2) associated monoplegia, where the arm and leg, or the arm and lower part of face alone are affected; and (3) pure monoplegia, affecting only the lower part of the face, or the arm, or the leg.

Thirteen cases are brought forward to illustrate destruction of the whole motor zone, the symptoms of which are permanent paralysis of the lower part of the face, the arm, and leg of one side; and if the patient lives, secondary contraction and descending degeneration of the spinal chord.

The succeeding 15 cases consist of lesions of part of the motor zone, causing associated monoplegia. Four of these are excluded as not containing sufficient detail (though all supporting the authors), and the remaining 11 are divided into six affecting the limbs, and five the arm and face together. The parts affected here were in the first group the paracentral (1), the superior extremity of the ascending convolutions (2), the centre of the ascending parietal (1), the fibres of the centrum ovale subjacent to ascending convolutions (2). In the second group we have one illustration of lesion in each of the following parts: inferior half of the ascending frontal, inferior half of the ascending parietal, the inferior two-thirds of the lips of the Rolando fissure, the middle of the ascending frontal, and the fibres of the centrum ovale subjacent to the inferior portion of the ascending frontal.

The article concludes with four cases of pure monoplegia. The conclusions drawn with regard to the motor zone are summed up as follows:—

(1) The centre for the movements of the tongue is situated in the base of the third frontal, and the contiguous portion of the ascending frontal.

(2) The centre for the inferior part of the face lies in the inferior extremity of the ascending convolutions.

(3) The centre for isolated movements of the arm is contained in the middle third of the ascending frontal.

(4) The paracentral, the upper third of the ascending frontal, and the upper two-thirds of the ascending parietal contain the centre for the joint movement of the two limbs.

EDWARD G. GEOGHEGAN.

PART IV.—NOTES AND NEWS.

TRIAL BY JURY, AS TO THE EXISTENCE OF INSANITY, IN ILLINOIS, AND THE USE OF CHLORAL, RESTRAINT, AND ASSAULT IN AN AMERICAN ASYLUM.

We have received a copy of a special report of the Board of State Commissioners of Public Charities of the State of Illinois, regarding the death of a Col. Hull, in the Asylum, at Elgin. In that State a trial by jury seems to be necessary to send a man to an asylum, however insane he may be; but the problem of doing this with safety, expedition, and without even the knowledge of the patient who is being tried, has been cleverly solved by the Americans.

The circumstances of this trial, as related to us by Messrs. Hall and Brown, impressed us as so peculiar as to deserve special notice. It was not deemed advisable to inform the patient of the intention of his friends.

In the words of Captain Brown, he thought it absurd to attempt to gain the consent of a man who had not a consenting mind. Colonel Hull was taken to his son's office, in the Vermont block. Dr. F. W. Kelly, the medical witness in the case, met him there, as if by accident. Captain Brown remarked, in a casual way, that he had business at the court-room on the north side, and, handing cigars to the two gentlemen, invited them to accompany him, which they did. The conversation in the street related to indifferent subjects. On entering the court-room, they found the jury already seated, and Judge Wallace upon the bench. What followed may be stated in Captain Brown's own words—"I suggested to the Colonel, who frequently spoke of the incidents of the late war, that Judge Wallace, of that Court, was a very gallant soldier, and I presumed the judge would be willing to hear some account of the battles in which he had participated. He saw the judge on the bench, and bowed very politely to him, and the judge returned it, knowing very well who he was, for we had apprised the judge of what was to occur. The Colonel took a seat beside me, and I suggested to him that these gentlemen were there to hear something about the nature of the injury he received in the battle of Stone River. Dr. F. W. Kelly, who had attended him, gave the jury an account of his injury, and of his mental condition at the time. When he came to state to the jury—or when it came to be stated by Walter, my partner—the scene of the Colonel dancing in the snow for quite a length of time, the evening before, the Colonel suggested that he ought not to tell that; but I said, that is nothing. So we got him through the trial."

The jury consisted of six men, of whom Dr. Charles E. Davis was one. Captain Brown acted as Colonel Hull's counsel, and put the necessary questions. There was little need for evidence, as the manner of the patient sufficiently indicated his condition. When the jury returned their verdict, Colonel Hull was not present; and after returning to the office he was sitting with a sponge in his hand, sponging his head, when all at once he looked up and said, "Walter, what did that mean? Was not that a Court?" His son replied, "Father, there were some physicians there, and they were merely inquiring about your troubles and wounds, and so on."

From the description of this trial, it would appear that the law, which requires a trial by jury in all cases prior to the commitment of any insane person to a hospital, is not so rigidly enforced as the public probably suppose. Here is a case in which, by common consent of the Court and the friends of the patient, all the forms of law were complied with, and the spirit of the law also, so far as the protection of persons whose insanity is doubtful is in question; and yet the trial itself was a solemn mockery; the party on trial having no knowledge whatever of his position before the Court, and the counsel for the defence interested, in a friendly way, in the obtaining of a conviction. That no injustice was done in the case does not invalidate the force of the general remark that a law which is susceptible of such palpable evasion, is either an improper law, and ought to be repealed, or it should be administered more in accordance with its obvious intention.

We give, at this point, some further extracts from the testimony:—

Q.—"Is it customary to have an examination of this character without the patient or the party who is alleged to be insane having a knowledge of it?"

A.—"That depends on circumstances. The simple object is to settle the question whether the party is sane or insane, and when the Court and jury are satisfied of that, that suffices. The manner is immaterial."

After he was sent to the Elgin Asylum, the Colonel had a scrimmage with his attendant one morning, probably receiving some severe internal injury, besides the dislocation of the right ankle and fracture of the tibia which were discovered.

The patient was treated with 150 grains of chloral, and one half-grain of morphia hypodermically, in addition to 20 minims and four ounces of whiskey, by the mouth, between 6.50 and 10.45 a.m. After the last dose, it is said, "within a few moments the patient fell into a quiet slumber," out of which he never came, dying at 9.40 p.m. There was no autopsy. The report says:—"The reply of another witness to the question, to which of these drugs, the morphia or the chloral, would you attribute the profound stupor of the patient? was quick and emphatic. 'I do not believe either had anything to do with it.' As to the propriety of the treatment adopted, the testimony was unanimous that it is abundantly justified by precedent, and by high medical authority, that the emergency was very great, and that no censure could attach to the adoption of heroic measures to save the life of the injured man." It concludes with the following remarks—

In the course of our inquiry, however, some other facts bearing upon the general management of the hospital came to our knowledge, to which we feel bound to allude.

The use of chloral-hydrate, to produce sleep at night, common, as we are informed, in the majority of hospitals, is carried to a considerable extent at Elgin. The night list of medicines administered, shows that about sixty patients, on an average, take chloral every night; the average dose being from thirty to thirty-five grains, in combination with whiskey, opium, or fluid extract of hyoscyamus.

Mechanical restraints are also employed, viz. :—The camisole, the muff, and the crib. The camisole is a stout jacket, with long sleeves, for confining the arms and hands; the muff is a leather contrivance for the same purpose; the crib is a strong bedstead, with mattresses and bedding, the same as in other beds, and enclosed on the sides and top by a stout open cover to prevent the patient from sitting up or making his escape from the bed. The camisoles and muffs are kept in the wards; but the attendants have instructions not to use them without the physician's orders. No record, however, is kept of individual instances of restraint, an omission which we think it advisable to remedy in future. The crib-bedstead is in use only in exceptional cases and at night, unless in acute delirium, or other illness requiring its employment in the day time, which is of rare occurrence. The night-watch has instructions to visit patients sleeping in cribs, and see that they are cared for properly, and if soiling of the bed should occur, it is his duty to attend to the cleaning of the bed, and of the patient who occupies it.

None of these mechanical restraints are used for purposes of punishment or discipline, but simply to prevent patients from injuring themselves or others.

Attendants are not allowed to strike patients, except in self-defence, and to protect other patients from dangerous assaults. In the violent and excited wards this is sometimes necessary, and cannot be avoided. The fact that striking does occasionally occur was admitted by all the attendants, and justified, in case of necessity, both by them, and by the officers of the hospital. One attendant admitted that he had struck patients without reporting the fact to the Superintendent, as he is required to do by the bye-law. We recommended his discharge, and also that of Mr. Crane. We understand that this has since been done.

As to the general efficiency, humanity, and success of the institution, nothing was developed by the testimony which would bring it into question.

THE LIABILITY OF A HUSBAND FOR DEBTS CONTRACTED BY HIS WIFE WHILE HE WAS INSANE.

SUPREME COURT OF JUDICATURE, NOVEMBER 23.

COURT OF APPEAL.

(Sittings at Westminster, before Lords Justices BRAMWELL, BRETT, and COTTON.)

SWIFT v. NUNN.

This action was against the same defendant as the case of "Drew v. Nunn," which came before the Court yesterday. It was an action by a butcher for the amount of his account for meat sold and delivered to the defendant's wife at the time when the defendant was in confinement as a lunatic. The defence was that the wife had no authority to pledge the husband's credit, and that she had a sufficient income during her husband's lunacy to prevent the necessity of

doing so. The answer to this allegation was that, though Mrs Nunn had an ample income for ordinary purposes, she had had various heavy expenses for the necessary purposes of setting her children out in the world, and, therefore, was under the necessity of pledging her husband's credit in various ways for the ordinary expenses of living. Mr. Nunn is a gentleman having landed property in Ireland to the value of something like £5,500 a year, the greater part of which was in the hands of his wife during his lunacy. Mr Nunn found means to escape from confinement, and cross to Ireland, where he has since been living. On his resuming the direction of his affairs he found that debts to the amount of about £2,700 had been incurred by his wife, which he objected to pay. At the trial it was shown that the manner in which the expenses of setting forward the children in life had been incurred was in obtaining for the eldest son the position of veterinary surgeon in a cavalry regiment (he had been accustomed to horses all his life, his father having kept a hunting and racing stud); for another son a situation in a coffee plantation in Ceylon, and for a daughter a situation as governess in Russia, and in sending another daughter to a convent in France. To these arrangements Mr. Nunn objected; and letters of a most disgraceful character written by him to his wife and the superior of the convent on the subject were put in at the trial. The jury found a verdict for the plaintiff, and the Common Pleas Division afterwards refused a rule for a new trial. On appeal, the Court of Appeal granted a rule returnable before themselves.

Mr. Murphy, Q.C., and Mr Turner now showed cause; Mr Day, Q.C., and Mr Horne Payne supported the rule.

It was admitted that Lord Coleridge had left proper questions to the jury; but it was alleged that he had allowed the disgraceful letters of the defendant to have an undue weight with the jury, and that the verdict was against the weight of evidence.

Their LORDSHIPS discharged the rule,

Lord Justice BRAMWELL observing that he could not feel quite satisfied with the manner in which the case had been conducted, and that he feared the letters had been used for the purpose of prejudice. At the same time, he could see no such obvious and urgent reason for thinking there had been a failure of justice as to induce him to think that the discretion of Lord Coleridge, who was satisfied with the verdict, and of the Common Pleas Division should be set aside.

Lords Justices BRETT and COTTON concurred.—*Times*.

LORD JUSTICE BRAMWELL ON "UNCONTROLLABLE IMPULSE,"
AND ON ITS BEING "TOO SHOCKING AND CRUEL," AS
WELL AS "IMPOSSIBLE," FOR AN EPILEPTIC
MURDERER TO BE EXECUTED.

NOVEMBER 6.

(*Before Lord Justice BRAMWELL.*)

Thomas Humphreys was indicted for the wilful murder of his wife at Shrewsbury on the 30th of August last.

Mr. Boughey prosecuted; Mr C. J. Darling, at the request of the learned Judge, defended the prisoner.

The prisoner, a clothweaver by trade, had been married to his wife 20 years, and had always lived with her on affectionate terms. For 17 years he had been subject to epileptic fits, and 12 years since had attempted suicide. On the morning in question, groans having been heard in his house, the door was opened, and the bodies of the prisoner and his wife were found lying at the foot of the staircase, the wife dead, and the prisoner stabbed in a number of places. Upon being taken to the infirmary, he, later in the day, made a statement to

the effect that he stabbed his wife while she was asleep, and afterwards wounded himself.

Dr. Whitwell, of Shrewsbury, in cross-examination, said the prisoner, in his opinion, was suffering from epileptic mania, of which an irresistible homicidal impulse was one of the features.

By Lord Justice BRAMWELL—By homicidal mania I mean a disposition to commit homicide. It is a kind of delusion.

Lord Justice BRAMWELL—You mean a morbid appetite to do wrong.

Witness—I think the prisoner was acting under real or fancied provocation.

Lord Justice BRAMWELL, in summing up, said everybody was presumed to be sane until proved to be the contrary. Nor was it enough that a man was mad to entitle him to an acquittal. If an insane man knew he was committing murder that man was responsible. It was not enough to have an homicidal mania. The object of the law was to guard against mischievous propensities and homicidal impulses. A man might be suffering under a just sense of some grievous wrong or outrage which would impel him to violence, but that strong impulse, sane or insane, would not entitle him to an acquittal. He said this to the jury in order to disabuse their minds of a mischievous impression which existed, and which he believed had reached mad people themselves. He did not believe in uncontrollable impulse at all, and had never heard of such an impulse leading to action where the means of prevention were present. Having made these observations on what would not be sufficient grounds for an acquittal for insanity, his Lordship proceeded to tell the jury what, in his judgment, would be good grounds. A person would be not guilty on the ground of insanity if he did not know the nature of the act he was committing, or, if he did know it, if he did not know he was doing what was wrong. If a man stabbed another, and did not know he was inflicting hurt, that was insanity which the law recognised; and a person would not know that he was doing wrong unless he knew he was doing what the law forbade, or that his act was injurious to the person he attacked. His Lordship then referred to the evidence, pointing out the want of motive, and the absence of any indication of ill-will on the part of the prisoner against his wife, and observed that, undoubtedly, there were many circumstances in the case which would warrant the conclusion that he was insane in the sense he had pointed out.

The jury, without leaving their box, said they found the prisoner not guilty on the ground of insanity.

Lord Justice BRAMWELL—It would have been impossible, gentlemen, for such a man to be executed—too shocking and cruel. It is a very sad case, and the man is deeply to be pitied. His Lordship then directed the prisoner to be retained during Her Majesty's pleasure, and the prisoner, who had preserved a calm, self-possessed manner throughout, was removed.—*Times*.

THE NEW COUNTY BOARDS BILL AS IT AFFECTS ASYLUMS.

In asking for leave to introduce the County Boards Bill in the House of Commons on the 18th March, Mr. Sclater-Booth made the following remarks in regard to how it would affect the Government of County Asylums. They show that the action of the Medico-Psychological Association last year has not been without result. "In the third place, the County Boards would have the very important power of reviewing the workhouse accommodation of each county, and of providing for the accommodation in the workhouses of imbecile and idiot paupers, whether children or adults. He wished this power had been granted long ago. He did not provide in this Bill for any direct power over the lunatic asylums, but the Boards would be empowered to inquire into the lunatic asylums and enabled by their influence to check their future enlargement. It was proposed last year to give the County Boards a considerable share in the

management of the lunatic asylums, and he had no doubt that before long some plan would be devised by which their management would be given to these County Boards. But long familiarity with the Public Lunatic Acts had convinced him of the very great difficulty of dealing with those Acts by means of a few clauses in a Bill of this kind. It would be most unsatisfactory, without a review of those Acts, to place the administration of the lunatic asylums in the hands of the County Boards."

HEREDITARY SUICIDE.

The son of M. Prevost Paradol, the eminent publicist and Minister of France to the United States, has committed suicide by blowing out his brains in the rooms of his tutor in the Rue Douai, Paris. No cause has been ascertained for the extraordinary act of the youth, who was only 17 years of age. It will be remembered that his father put an end to his life in the same manner some years ago.

Obituary.

DR. FOVILLE.

The death of this distinguished physician, at Toulouse, on the 22nd of July, 1878, demands a brief notice of his life and works. We feel this to be the more necessary because his pen has been so long sheathed that there is some danger of the present generation being ignorant of the good work which it once accomplished, and of the important position which he who wielded it, once occupied. As a man, also deservedly respected and beloved, his memory will long be cherished by those who knew him. For many years he was an Honorary Member of the Medico-Psychological Association.

Born at Pontoise, though of a Rouen family, Aug. 6, 1799, Achille Louis Foville was the only son of an only son, and was left an orphan at an early age. Having chosen the medical profession, he pursued his studies in the Paris Schools of Medicine. These completed, he soon distinguished himself by his original researches into the anatomy and physiology of the brain and cord, and the pathology of mental disorders. Thus, when he was only 21, he wrote a *mémoire*, entitled "Sur les Causes et le Siége des Maladies Mentales," which obtained the prize given by Esquirol. The substance of this treatise was used in the "Traité de Ramollissement du cerveau," of Rostan, and in the article "Folie," by Georget in the "Dictionnaire de Médecine."

The functions of the brain possessed a great attraction for young Foville, and so early as 1823 he published the "Recherches sur le siége spécial de différents fonctions du système nerveux," in conjunction with Pinel Grandchamp. If any one wrote now-a-days to establish the fact that the brain is the seat of the intelligence, he would be ridiculed for asserting a platitude, but it was not so 58 years ago, and we find the author's first position is that intelligence and motion are functions of the encephalon. Going further into detail in regard to the latter, he surmised that the corpus striatum presides over the movements of the leg, and the optic thalamus over those of the arm; also that the cerebellum is the centre of sensation.

If these conclusions show how much advance has been made in the physiology of the brain since this treatise was written, they show also how early an investigator Foville was in this field of inquiry.

How, one asks, came such views to be held in regard to the functions of these ganglia? Were they without foundation? Certainly not. In the light of more recent researches, and following Ferrier, the explanation may be thus expressed. Inasmuch as in cerebral paralysis the most volitional movements are most affected, the arm is more paralysed than the leg. Hence, in a lesion causing paralysis more by functional interference than direct destruction of the motor tracts, the arm would be more affected than the leg; but in a lesion directly invading the motor part of the internal capsule, the leg as well as the arm would be affected. Now a lesion in the optic thalamus would be more or less outside the motor tracts, and would, if causing paralysis, cause a greater degree of paralysis in the arm in accordance with the foregoing generalisation; while a lesion in the corpus striatum would be more likely to cause paralysis of the leg also. And if the lesion invaded both corpus striatum and optic thalamus, of course both would be affected. Apparently, then, the view entertained by Foville, that the corpus striatum is more connected with the leg, was grounded on the greater degree of paralysis of the leg in such cases, and not on the absence of paralysis of the arm. Foville would have said in such cases that both ganglia were affected, but that other facts would show that if the lesions were exactly confined to the corpus striatum, then we should have paralysis exactly limited to the arm—of which, however, proof has not been forthcoming. It is possible that in the lesions described by Foville there may have been many limited to the medullary fasciculi which have been shown to be differentiated, and to have each their own special connection with the motor apparatus, whether of arm, leg, face, &c.

The view that the cerebellum is the centre of sensation appears to have arisen, speculatively, from the relation in which it stands to the sensory tract as enunciated by Bell, rather than upon, as in the former instance, clinical and pathological research.

In 1824 Foville published his Thesis "Observations cliniques propres à éclairer certaines questions relatives à l'aliénation mentale."

In the following year, at the early age of 26, he was, on the recommendation of Esquirol, appointed Medical Superintendent of the Asylum at Rouen. This important post he held nine years, and was also Professor of Physiology in the Rouen School of Medicine. Nor were his scalp and pen idle. He pursued his favourite researches with great zeal, and published (in 1825) "L'Anatomie, la physiologie et la pathologie du Système nerveux cérébro-spinal," a Memoir crowned by the Academy of Medicine; then followed (in 1826) "Mémoire sur l'encéphale, adressé à l'Académie des Sciences;" many special articles in the "Dictionnaire de Médecine et de Chirurgie pratique" (1828); in 1833 "La Déformation du crâne par l'usage de certaines coiffures employées pour les nouveaux-nés;" a work which drew attention to a most remarkable custom in some parts of France, that, namely, of compressing and deforming the heads of children in their cradles, a custom which, as the author remarks, one would have supposed peculiar to savages. Now his health unfortunately broke down, and he was obliged to give up his appointment at St. Yon, and travel south in pursuit of health. For three years he lived either at Toulouse or in the Pyrénées, but with only partial restoration of his powers. Then he went a voyage, being appointed to accompany the Prince de Joinville, as a naturalist, to Africa, Brazil, and the United States. Happily, his health was restored, and on returning to France he settled in Paris, and practised as a physician. Several years afterwards, an opening occurred, which induced him to return to asylum work. Esquirol resigned his post at Charenton in 1840, and Foville succeeded him. Here he remained, and increased his reputation, until the year 1848. He published while at Charenton, "Mémoire sur le système cérébro-spinal et spécialement sur les connexions de la moelle avec le cerveau et sur les rapports entre le cerveau et le crâne" (1839). The Academy of Sciences and the Academy of Medicine decided to print this memoir in the reports of M. Blainville and Blandin. In 1841 and 1842 he presented three other memoirs to the Academy.

We have next to speak of his classic work on the brain—the last which he published, after being engaged in scientific research and in preparation for the press during a period of about a quarter of a century. The title of this work was "Traité complet de l'Anatomie, de la Physiologie, et de la Pathologie du Système nerveux cérébro-spinal." He says—and his remarks are autobiographically interesting—that among the parts whose lesion appeared to him to determine particular effects upon movement the cornu Ammonis figured with the corpus striatum and optic thalamus. "It was easy," he says, "with the anatomical knowledge introduced by Gall, which then prevailed, to conceive the influence of lesions of the corpus striatum and optic thalamus upon the spinal cord. There was no theory of this kind which was applicable to the cornu Ammonis, and it was with the object of recognising the connexions of this part with the cord that I undertook my first anatomical investigations. It is in the School of Gall that I have learnt to separate without the aid of a sharp instrument the delicate fibrous parts of the Encephalon. Commencing with the brain, my anatomical labours have been limited during many years to this organ. It was only after being able to separate distinctly the different elements of which it is composed, that I saw some unite, in a particular region of each hemisphere, with the prolongations of the posterior columns of the cord, and others with the anterior. A remarkable circumstance increased the importance of these conclusions. The region of the brain in which I saw a complete set of encephalic fibres join the posterior column of the cord, was the meeting-place of the optic and olfactory nerves. The first motor nerves arose from the other fibrous system prolonged into the anterior column of the cord. It was then that my own labours, united with those of Sir Charles Bell, derived thence a fresh importance. But we do not only find in the brain a system of fibres, of which some combine with the sensory nerves and the posterior column of the cord, and others with the anterior column and the motor nerves; between these two systems, the termination of the one and the origin of the other, exists on the surface of the hemispheres, a cortex whose lesions are indicated by intellectual disorders. This cortex, with the circumference of which the fibrous expansion of sensory nerves and the posterior column unite—on the deep surface of which arise the fibrous systems prolonged into the anterior column, and consequently the motor nerves—must be alone the material instrument of intelligence."

Foville proceeds to define his position in relation to materialism. "If," he says, "to arrive at a conclusion, this question only demanded the verification of the reasons upon which the materialists and the spiritualists (i.e. pneumatists) depend, it would be simply a problem of clinical observation and pathological anatomy. The solution would depend upon the presence or absence of cerebral maladies in the bodies of those who have manifested intellectual derangements. This mode of arguing may seem vicious. The materialists who deduce from the effect produced by lesions of the brain upon the intellectual manifestations, that the brain is the organ which produces the intelligence, reason as those would, who from the fact that the sense of light is injured or abolished by lesions of the eye, conclude that the eye is the organ which produces light and images.

"On the other hand, the pneumatists, who deny the influence of cerebral lesions upon intellectual manifestations, commit an error, the consequences of which appear to be equally dangerous. We may say, indeed, that from the moment we are able to prove the coincidence between the changes in the intelligence and those of the brain (and in my opinion this is not difficult to establish in the majority of cases) the cause of the pneumatists is lost. But it is precisely because the intellectual disorders find their explanation in the disorders of the organs necessary to the manifestations of the intelligence, that we are compelled to regard the principle of intelligence as unalterable in itself. If we refuse to explain these disorders by those of the instruments necessary to their manifestations, one of two things is necessary; either to deny its alterations, which is contrary to the evidence; or rather, while recognising them without explaining them by the derangement of the organs, to admit that the intelligence is directly alterable.

This is not, then, to rehabilitate the moral of man as it is pretended to do; to admit that the moral is in itself susceptible to alterations to which the substance of the brain remains a stranger. It is, on the contrary, to degrade and debase this moral. Thus, on both sides, the question is badly supported." Foville himself held "that the principle of the intelligence ought to be conceived as independent of matter. It is no more produced by the cerebral substance than light is developed by the substances of the eye. The manifestations of the intelligence require a bodily organ as the manifestations of light do; the brain in one case, the eye in the other." Foville maintained the same doctrine throughout life. He was a pneumatologist—opposed to exclusive spiritual or material views—a firm believer in the independent future existence of man after the destruction of the body. Foville's attitude towards the doctrine of Gall, which was the "burning question" during the period of his physiological and anatomical researches, is thus expressed. He held that "the theory which the genius of Gall, and which his disciples continue to profess under the name of phrenology, is not an indifferent conception which can be treated lightly, whether we adopt it or oppose it. It imposes as a duty upon all who are seriously occupied with the study, to seek to render an exact account of the relations between this organ and its bony envelope; and perhaps these relations have never been perfectly understood." Before leaving the work from which these citations have been made, it is impossible not to express admiration of the lucid manner in which the structure of the brain, and especially the disposition of the convolutions, are described, and also beautifully drawn in the plates which accompany the letter press. Up to the period when Gratiolet produced his remarkable work (1854), Foville's classification of the cerebral convolutions was the most distinct and useful.

Unfortunately this work was never finished, or rather the remainder, though written, was not published, and the MS. was destroyed in an inundation at Toulouse.

From the date of Foville's quitting Charenton he practised in Paris until 1869, when he went to reside at Toulouse, where he became the physician in a *Maison de Santé*. Here he spent the remainder of his lengthened life, dying at the age of 79, leaving, among other children, his son, Achille Foville, the well-known Superintendent of *Quatre Mares*, as his successor and representative—one who has already shown that the mantle has descended upon shoulders worthy of his father's name and fame.

In person, Dr. Foville was a large-made man, with cubical head, strongly-marked features, and remarkably blue and keen eyes. He was considered to have the Norman type of figure and features.

His character was marked by power rather than brilliancy, by good judgment and solid qualities rather than those which shine on the surface. The English poet who describes the Frenchman as "gay" would have found an exception in Foville, for he was eminently sober minded, and spoke little except to discuss important topics. He was simple in his tastes, and cared little for general society; and though much at the Court of Louis Philippe, being his physician, he was not exactly in his element as a fashionable Paris doctor. Much more to his taste was his domestic life, where, in the midst of his family, he could unbend and laugh heartily over the jokes of his children while watching their play. His passion for little children was, indeed, quite a feature in his character. His friendships were lasting when once made. His most intimate friend was an English physician, Dr. Hodgkin, whom he met first in the wards of the Paris hospital as a fellow-student. The friendship thus formed between the two young doctors was a lifelong and very cordial one. The ardent pursuit of pathology was common to both; and not less attractive to each were the sobriety and kindness of heart of the other, associated with a firm but liberal faith.

Requiescat in pace.

D. H. T.

Correspondence.

ERYSIPELAS AND POST-MORTEM EXAMINATIONS IN COUNTY ASYLUMS.

To the Editors of the Journal of Mental Science.

GENTLEMEN,

It is peculiarly fortunate for my argument that Dr. T. McDowall did not maintain his resolution expressed in your July number, wherein he says—"This is the only communication with which I shall trouble you on the subject." He now supplements his opinions by statistics, which corroborate in each respect my statement that erysipelas has been rife in several well-conducted county asylums, and that the increase of late years in the number of post-mortem examinations has been followed by an increase of that disease; thus strongly supporting my hypothesis that some close relation exists between the two.

(1.) With regard to the prevalence of erysipelas in county asylums in England and Wales, Dr. McDowall writes—"One gratifying result of this correspondence is the proof that asylums are exceedingly satisfactory in their general hygienic arrangements. In each 1,000 of their population, only one death per

annum is due to, or accelerated by, erysipelas." Let us test this jubilant assertion by the stern logic of facts. We all know from the Blue Books published by Parliament, that the death-rate in county asylums is 10 per cent. per annum on the resident lunatic population; and that a death-rate of one in a thousand of the population from Erysipelas means one death in a hundred from that disease.

Now let us turn to the last report, the 39th, p. 272 of the Registrar-General of births, deaths and marriages, and what do we find—that the deaths from erysipelas among the general population were only 2348 amongst 24 millions—244 thousand people, or at the rate of '096 per thousand per annum, or ten times less than in asylums—so that county asylums, provided and fortified with a medical staff, threefold greater than that serving the public at large, having an Act of Parliament prohibiting the introduction of infectious diseases, supplied with practically an unlimited amount of funds for promoting sanitary measures, and with a population less susceptible to epidemics than that outside, has a proportionate mortality from this one disease ten-fold in excess of that of the public in general, and more fatal than virulent small-pox in the same proportion. So far from being a matter of rejoicing, it seems to me to be one for expression of pain and regret, and that it becomes even a proper subject for enquiry whether the 14,276 post-mortems of lunatics during the last seven years recorded, has not had much to do with it, and whether the time taken up in their dissection would not have been better employed in the cure of the living; certain it is that the ratio of recoveries among the latter has gone down 5 per cent. during the last year reported, being the lowest for sixteen years past.

(2.) As to the increasing ratio of erysipelas—I stated that, upon referring to the 31st Annual Report of the Commissioners in Lunacy, published in 1877, an enormous increase of erysipelas was recorded, compared with the report seven or eight years previously. It must be borne in mind that these reports are printed in one year, whilst the events commented upon run back into the two years preceding it. We accordingly find the Commissioners' notices of the prevalence of erysipelas fully borne out by Dr. McDowall's own figures derived from other sources. He gives us tables for fifteen years of the annual death-rate per thousand of the population in asylums from erysipelas. Bearing in mind that the post-mortem crusade, commencing in 1870, we find from his table that the lowest rate from erysipelas was '536 in 1866, four years before the movement; whilst the highest was 2'104 in 1875, five years after it. Surely the epithet "enormous" is not misapplied to a development of four times the death-rate upon a comparison of the two years of these distinct periods.

Dr. McDowall's first table shows the increase of post-mortem examinations from 1871 to 1877. These are the post-mortem years *par excellence*, and referring to the column in his second table, which gives the ratio of deaths per thousand of the population in asylums, these years show an average of 1'074, whereas that of the previous eight years was only '892 per thousand. This makes a septennial increase of '182. If this should continue, the time will arrive when the necessity for post-mortems will cease altogether. Erysipelas will outrun the other causes of death, an external examination of the body will suffice, and there will be no excuse for making them on the grounds of faulty diagnosis or ignorance of the cause of death.

(3.) Of the dangers to the surviving population of hospitals by the wholesale system of post-mortem examinations. In order to be brief, I will take the most recent authorities. Mr. W. Gilbert, in the January number of the "Fortnightly Review," p. 60, says—"No dissecting-rooms or schools should be within the hospital building, a system which is most detrimental to the patients." At p. 61 he quotes from an article in "The British Medical Journal," October, 1876—"We find that in two hospitals alone, having dissecting-rooms on the ground-floor of the building, and with possibly a full third of the whole of the medical pupils within

the Metropolis between them, there were in that year alone no fewer than 114 cases of pyæmia and erysipelas, out of which no less than 34 proved fatal; while in the Poplar Hospital, for surgical cases alone, in which there is neither dissecting-room nor medical school, but which received more serious cases than the two hospitals alluded to put together, there was not a single case during the whole year." In the "Contemporary Review" for February, 1879, p. 586, Mr. B. B. Carter, while commenting on the following remark of Mr. Gilbert—"In the midwifery class of St. Bartholomew's Hospital pupils are prohibited from attending midwifery cases while engaged in their studies in the dissecting room. At many other hospitals this is not the case," says: "So far is the above passage from being accurate, either in what it states or what it implies, that as a matter of fact, the rule in question is strictly enforced in every hospital in London. There is not one at which the pupils who are attending midwifery are permitted to work either in the dissecting-room or in the post-mortem room. The latter would be a source of much greater danger than the former, because bodies for dissection are so prepared by injecting them with preservative solutions that no harm is to be apprehended from them; and injury to the students themselves, from the dissection wounds which were once so justly dreaded, is now unknown. None the less the rule is enforced."—Dr. Matthews Duncan, in the "British Medical Journal," February 22nd, 1879, writes in an article on Antiseptic Midwifery—"On the other hand, great danger is universally believed to attend examinations made in default of antiseptic precautions by practitioners who have recently been in contact with septicæmic patients, or who have made *post-mortem* examinations, and especially of cases of death in septicæmia or pyæmia."

After such evidence as this, few conscientious persons would deem it prudent for a practitioner who has been making post-mortem examinations to pay regular visits to lunatics suffering from wounds, bed-sores, and abrasions, or to lying-in women.

(4.) As to the right of a Superintendent of an asylum, whether a medical man or a layman, to perform post-mortem examinations as a rule upon deceased lunatics, Dr. McDowall says this question has been settled long ago, but I am not aware of any statute to this effect. I have taken counsel's opinion, and am advised that it is not settled whether *per se* the dissection of a human body is not an offence against decency, and indictable. That where the cause of death cannot otherwise be satisfactorily ascertained, it would seem very proper to make a *post-mortem*, but not so for the visitors to permit it for merely scientific purposes, and only after communication with the friends. This opinion is in accordance with the ruling of the Local Government Board, who have taken into consideration the natural dislike exhibited against this treatment of the dead. It would seem a most invidious prerogative to allow one section of the medical community to dissect the poor and not the other; and still more objectionable and inconsistent to compel one to perform these operations gratuitously, and to forbid the other. When some of the Poor-Law Medical Officers asked permission to make *post-mortem* examinations of bodies of paupers who died in Workhouses, they never intended it to be made compulsory on all, and deemed part of their duty.

(5.) Dr. McDowall, in his last letter, flatters the Commissioners, at the expense of his colleagues, for having "compelled some men," as he terms them, "to assume at least an appearance of interest in this part of their work." It occurs to me that it was hardly necessary for him to invoke the *odium tertii* in this delicate compliment.

He has also been pleased to encumber this controversy by indulging in personalities against myself on each occasion. On the last, he had recourse to French, and accused me of "orgueil," "opiniâtreté," and "petitesse de l'esprit." Upon this I shall only make one remark, that Professor Shairp, when giving his lecture as retiring president of the Educational Institute of Scotland,

must have had conduct of this sort in view, when he told his hearers "that a *Scotchman* never said a pleasant thing even to a friend." Lastly, I hold that the compulsory dissection of the whole, or of any one class of the community, as a rule, is repugnant to the sentiments of the public, that it is wasteful of medical services that would be better employed in treatment, a source of danger to the health of the surviving population, and that this new and gratuitous manual labour of so disagreeable a nature ought not to be cast upon the profession without general and individual assent.

I am, gentlemen,

Your obedient servant,

WM. P. PHILLIMORE, M.B.,
Superintendent.

Nottingham County Asylum,
February 24th, 1879.

Appointments.

BATEMAN, F., M.D., F.R.C.P., has been appointed Honorary Physician to the Norwich Lunatic Asylum.

BIRT, E., L.R.C.P.L., M.R.C.S.E., has been appointed Second Assistant Medical Officer to the West Riding Lunatic Asylum, Wakefield.

BUCK, J. S., M.R.C.S.E., has been appointed Junior Assistant Medical Officer to the Three Counties Asylum, Arlesey, Beds., vice Kebbell, resigned.

GAYTON, F. C., M.R.C.S.E., L.S.A.L., has been appointed Assistant Medical Officer to the Cornwall Lunatic Asylum, Bodmin, vice Neal, appointed Superintendent of the Wandsworth and Clapham Union Infirmary.

JONES, D. J., C.M., M.R.C.S.E., has been appointed Junior Assistant Medical Officer to the Gloucestershire Lunatic Asylum.

KEBBELL, W., L.R.C.P.L., M.R.C.S.E., has been appointed Senior Medical Officer to the Gloucestershire Lunatic Asylum.

MURRAY, P. M., M.D., has been appointed Consulting Physician to the Crichton Royal Institution, Dumfries, vice Borthwick, deceased.

OUTHWAITE, W., M.R.C.S.E., L.S.A.L., has been appointed Assistant Medical Officer to the Lancashire Lunatic Asylum, near Prestwich.

PACKER, W. H., L.R.C.P.L., M.R.C.S.E., L.S.A.L., has been appointed an Assistant Medical Officer to the Salop and Montgomery Lunatic Asylum, Bicton.

PENMAN, P. M., M.B., C.M., has been appointed Assistant Medical Superintendent, Stirling District Lunatic Asylum, vice Mann.

PLAYFAIR, D. T., M.B., C.M., has been appointed Assistant Medical Officer to the Royal Albert Asylum for Idiots and Imbeciles, Lancaster.

SANKEY, HERBERT R. O., M.B., has been appointed Senior Assistant Medical Officer to the Lancashire County Asylum, Prestwich.

THURNAM, F. W., M.B., C.M., has been appointed Assistant Medical Officer to the Metropolitan District Asylum, Caterham, Surrey.

URQUHART, A. R., M.D., has been appointed Assistant Medical Officer to the Warwickshire Lunatic Asylum, vice Sankey, resigned.

WOODS, J. F., M.R.C.S., L.S.A.L., has been appointed Second Assistant Medical Officer to the Somersetshire Lunatic Asylum, Wells.

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PART 1.—ORIGINAL ARTICLES.

Notes from the History of my Parrot, in reference to the Nature of Language. BY SAMUEL WILKS, M.D., F.R.S.

Of all the attributes of man which have been considered sufficiently distinctive to separate him from the lower animals, that of speech has been regarded as of the first importance. It has been looked upon as so essentially dependent upon human intelligence as in itself to constitute a sufficient line of separation between man and all living creatures below him. By none has this position been more strongly upheld than by Max Müller, who maintains that speech is a faculty of man which distinguishes him from all other creatures. This, of course, is true in a general sense; but as every attribute of man is at the present time undergoing a more complete analysis than has ever before been attempted, the dictum may be found not to be so absolutely correct, as at first sight appears; for it may be remembered that the subject of language has hitherto been treated by scholars and men of letters, who have discussed its various forms in relation to a given basis, whereas, at the present time, an endeavour is being made to proceed a step further towards the origin of language by its investigation from a physiological or scientific standpoint. If this be done, and we study the nature of language, as observed in the savage or the infant, we may perhaps discover that it is not altogether so different from what we may call the language of the lower animals. There is so much in man which is common to the creatures below him, that it is impossible to discuss rightly many of his propensities, affections and passions, without considering the form or character which these take in similar organisations. It is not surprising, therefore, that the

subject of language should have been made a debating ground for the discussion of the points of difference between man and animals.

If this were the place to undertake a thorough investigation of this interesting subject, one ought, in the first place, to define the meaning of the word language, or ask what is usually meant by the expression. If it indicates articulate language only, the subject is much narrowed, but neither those who regard language as peculiar to man nor their opponents, would, I apprehend, wish to limit the term to this definition, for if the object of the former be to prove, by the possession of language, man's superiority, the argument would be of no great value if it were found that animals had other and equally comprehensive methods of communicating knowledge to one another. But in no sense can language, or the mode of communication between animals be restricted to articulate language, for even with regard to the human family such a limited view is altogether inadequate, since knowledge and ideas are conveyed by various other means than by speech. The most obvious example—that of the deaf and dumb, enables us at once to see how ideas are conveyed by the movements of the fingers, or by gestures. These deaf mutes have not been endowed with what has been styled the distinctive faculty of man, yet they are intelligent beings,—certainly not idiots. Even amongst the most eloquent races movements and gesticulations materially assist in the use of language, in fact, form a part of it. The mere act of talking expresses often only half the speaker's sentiments, the other half is made up of manner and style. Amongst the French, gesticulation is of essential value in putting force into their argument; indeed, it is often equivalent, not only to various states of mind, but even to monosyllables and short phrases, so that the animated conversation of two Frenchmen in the dark would lose much of its brilliancy and force. Indeed, Captain Burton states that there is a tribe in North America which possesses so scanty a vocabulary that its people cannot converse in the dark. It wants, therefore, but a moment's consideration to see how much of the force and value of conversation, to say nothing of public speaking, depends upon gesticulation and various movements of the body. The look, the attitude, the gesture become often vastly more expressive than mere words, as poets have ever delighted to pourtray in their descriptions of the meetings of lovers speaking different languages, and in other scenes.

Titus Andronicus, in meeting with his daughter, whose hands had been lopped off and tongue cut out, exclaims—

“Speechless complainer, I will learn thy thought ;
 In thy dumb action will I be as perfect
 As begging hermits in their holy prayers :
 Thou shalt not sigh, nor hold thy stumps to heaven,
 Nor wink, nor nod, nor kneel, nor make a sign,
 But I of these will wrest an alphabet,
 And, by still practice, learn to know thy meaning.”

We all feel that language without the animated face and the various actions of the body would be as monotonous as the sound issuing from a phonograph. Indeed altogether different interpretations may be given to a speech by the manner of its deliverance. The movements of the hands themselves will express a variety of emotions, as is well described by Quintilian, in a passage quoted by Sir C. Bell:—“*Nam ceteræ partes loquentem adjuvant, hæ (the hands) prope est ut dicam, ipsæ loquuntur. His poscimus, pollicemur, vocamus, dimittimus, minamur, supplicamus, abominamur, timemus ; gaudium, tristitiam, dubitationem, confessionem, penitentiam, modum, copiam, numerum, tempus, ostendimus,*” &c. Must, then, the movement of the hand be regarded as a special gift of man, or not rather as a mere expression of the mind within him? I know a little girl, who is an epileptic, and who has never uttered a word, but her hearing is good, and she understands all that is said to her by her parents and the other children. The case may be contrasted with one sometimes witnessed in lunatic asylums—that of a demented person who will repeat any word or sentence after the speaker. The mere spoken words may have no corresponding ideas, whilst the dumb man, by the movements of his arms, may be truly eloquent. It seems clear, then, that speech and intelligence are by no means co-extensive in meaning, and that rational communication may be conducted between creatures by various methods. What language, indeed, is so expressive as laughing, crying, moaning, and various other noises, many of which also belong to the lower animals?

That the language of a civilised nation is the result of growth I believe is admitted by all, even by those who declare its basis or framework to have been implanted in man's nature, for they compare its richness in a cultivated people with its poverty in a savage race, whose vocabulary scarcely numbers a hundred words. I have no wish, however, to enter upon the question of the origin of language, although

I consider the arguments in favour of its beginning from the imitation of natural sounds to be based on truth, and I have always thought that the invention of words by infants and illiterate people tends to corroborate this view. I never hear, for example, an ignorant woman say she has been much "worreted" but I feel she is using a more expressive word than "worried;" or when a boy says he would like to "squench" his thirst that he is much more likely to satisfy his desire than if he only wanted to "quench" it.

It has often been asked whether animals have a different vocal apparatus from man. I believe there is no anatomical or physiological difference between them. There are vocal cords, muscles, and nerves of the same description in both; and as regards the nerve which stimulates the muscles of the larynx, it is composed of two elements having two different functions in animals as well as in man, the one nerve proceeding from the breathing centre of the spinal cord and the other from the talking centre in correspondence to the double function of the larynx, this being both a respiratory and vocal organ. This difference of function is seen in cases of disease, as in bulbar paralysis, where the larynx is opened during the respiratory act, though the patient has lost all voluntary power over it. He can breathe, but he cannot talk. This is also true of the lower animals, for physiologists inform us that on cutting a nerve which goes to form a part of the recurrent laryngeal, the animal at once ceases to cry, though continuing to breathe as usual. This proves therefore the existence of a voluntary nerve to the larynx in animals as well as in man. Of course there is some special organisation whereby one animal can utter one cry and another another, but whether this lies in the larynx itself, or in the higher nerve centre, or in both together, I cannot say. We know that the tone of the human voice differs in different nations and different individuals, and also that this quality is inherited. We need scarcely be told, however, that an animal has a special voluntary nerve for the larynx apart from the simply organic one used in breathing, since we know what power some birds have over their vocal apparatus. The starling, for example, will copy the note of every other bird with which it associates. Our belief moreover in the similarity of the animal to the human organization is confirmed, when we consider that so uniform is the cry uttered by animals, to express their feeling, that

the cry of a bird in distress or a dog suddenly injured appeals to the sympathies of all who hear it.

That the mechanism of the muscles and nerves is the same in all animals is shown by the acts of barking or braying, where a distinct rhythmical action may be perceived. Rhythm is a necessity of muscular action; contraction and relaxation must alternate. If any movement is to be produced by contraction of a muscle, the latter must again relax before it can undergo a second contraction. Therefore, in the mechanism of speech there must be constant movements of the chest, larynx, and mouth; and in consequence speech cannot consist of a continual flow of words, but must be broken up into syllables, with a certain definite accent and rhythm. The cries of animals display rhythm; and the movements of their bodies, when taught to follow the notes of music, show also that they can appreciate or are cognisable of muscular rhythm throughout the whole system. Then, again, I believe it has been said that in all animals sounds are produced in the larynx, but that articulate language in man is moulded by his tongue and mouth. This may be true in a measure, but is not absolutely correct, as may be observed by watching the movements of an animal's mouth when producing a sound, to say nothing of those of the imitative birds.

Now, if we take language as meaning the mode of communication by utterances produced in the vocal apparatus as well as by gestures, I think we can scarcely refrain from admitting that animals possess language. They communicate with one another by means of sounds intelligible to themselves, and in the case of the dog and his master an altogether new language grows up, which they both understand. Every one who has kept a dog knows how intimate is the understanding and intercourse between himself and the animal by means of words, looks, and gestures.

Then, again, it cannot but be remembered that in the human being language has been learned by imitation through the organ of hearing, and therefore all deaf children are necessarily dumb. Now, if language were a natural possession of man, and perfectly independent of other conditions, he ought to speak though he cannot hear. If it be said that hearing is a necessity for the sake of cadence and the regulation of the voice, even this statement shows that the larynx alone is not sufficient to cause speech in an intelligent being.

But arguments are superfluous to show that speech is learned by imitation through the organ of hearing; it is the method by which talking is acquired by all infants, for where they have been debarred from hearing the human voice, as in the case of the so-called wild children (if the stories are authentic) who have associated only with the beasts of the field, they have merely uttered cries and noises, notwithstanding that all their senses and appetites have retained their integrity. They do not speak because they have not heard the human voice.

A child hears a sound or a word in connection with a particular object; it imitates the sound, and afterwards uses it in association with that object. This seems to be the mode of acquiring language, and it is not unreasonable to suppose that in the infancy of the world, language came about also through the organ of hearing, thus tending to corroborate the doctrine of onomatopœia, or the origin of language by the imitation of natural sounds.

I have introduced these remarks before giving an illustration of speech in animals, because I think it is necessary to clear the ground to enable us to see in what direction our enquiries should be made and what is the real question before us. It is very certain that speech is not a simple process, but is dependent upon brain organisation, upon the perfection of a vocal apparatus, and also upon the integrity of hearing. It may also be asserted that language is not commensurate with speech, but we must include in it other modes of communication between animals by means of movements or gestures. Whilst, however, differences of opinion exist as to the wide difference between man and animals with regard to the faculty of language, it is better for the present to continue making observations, for it is only by facts and illustrations that the truth can be elucidated. I will, therefore, as briefly as possible, narrate some particulars respecting my parrot.

When my parrot first came into my possession, several years ago, it was quite unlettered, and I therefore had an opportunity of observing the mode in which it acquired the accomplishment of speech. I was very much struck with its manner of learning, and the causes for its speaking on special occasions. The first seemed to resemble very much the method of children in learning their lessons, and the second to be due to some association or suggestion—the usual provocative for set speeches at all periods of human life. A parrot is

well known to imitate sounds in a most perfect manner, even to the tone of the voice, besides having a compass which no human being can approach, ranging from the gravest to the most acute note. My bird, though possessing a good vocabulary of words and sentences, can only retain them for a few months unless kept constantly in practice by the suggestive recurrence of some circumstance which causes their continual utterance. If forgotten, however, they are soon revived in the memory by again repeating them a few times, and much more speedily than any new sentence can be acquired. In beginning to teach the parrot a sentence, it has to be repeated many times, the bird all the while listening most attentively by turning the opening of the ear as close as possible to the speaker. After a few hours it is heard attempting to say the phrase, or, I should say, trying to learn it. It evidently has the phrase somewhere in store, for eventually this is uttered perfectly, but at first the attempts are very poor and ludicrous. If the sentence be composed of a few words, the first two or three are said over and over again, and then another and another word added, until the sentence is complete, the pronunciation at first being very imperfect, and then becoming gradually more complete, until the task is accomplished. Thus hour after hour will the bird be indefatigably working at the sentence, and not until some days have elapsed will it be perfect. The mode of acquiring it seems to me exactly what I have observed in a child learning a French phrase; two or three words are constantly repeated, and then others added, until the whole is known, the pronunciation becoming more perfect as the repetition goes on. I found also on whistling a popular air to my parrot that she picked it up in the same way, taking note by note until the whole twenty-five notes were complete. Then the mode of forgetting, or the way in which phrases and airs pass from its recollection, may be worth remarking. The last words or notes are first forgotten, so that soon the sentence remains unfinished or the air only half whistled through. The first words are the best fixed in the memory; these suggest others which stand next to them, and so on to the last, which have the least hold on the brain. These, however, as I have before mentioned can be easily revived on repetition. This is also a very usual process in the human subject—for example, an Englishman speaking French will, in his own country, if no opportunity occur for conversation, apparently forget it; he no sooner, however, crosses the channel and

hears the language than it very soon comes back to him again. In trying to recall poems learned in childhood or in school days, although at that period hundreds of lines may have been known, it is found that in manhood we remember only the two or three first lines of the "Iliad," the "Æneid," or the "Paradise Lost."

Then again, the circumstances which excite the bird's utterance are important to notice in relation to human speech. These are the presence of some person or object with which the words were first associated, and therefore the speech is due to suggestion. When alone, a parrot will utter a long catalogue of its sayings, more especially if it hears talking at a distance, as if wishing to join in the conversation, but at other times a particular word or phrase is only spoken when suggested by a person or object. Thus, certain friends who have addressed the bird frequently by some peculiar expression, or the whistling of an air, will always be welcomed by the same words or tune, and as regards myself, when I enter the house—for my footstep is recognised—the bird will repeat one of my sayings. If the servants enter the room Poll will be ready with one of their expressions, and in their own tone of voice. It is clear that there is a close association in the bird's mind between certain phrases and certain persons or objects, for their presence or voice at once suggests some special word. For instance, my coachman, when coming for orders, has so often been told half-past two, that no sooner does he come to the door than Poll exclaims, "half-past two." Again, having at night found her awake, and having said, "go to sleep," if I have approached the cage after dark, the same words have been repeated. Then, as regards objects, if certain words have been spoken in connection with them, these are ever afterwards associated together. For example, at dinner time the parrot, having been accustomed to have savory morsels given to her, I taught her to say "give me a bit." This she now constantly repeats, but only and appropriately at dinner time. The bird associates the expression with something to eat, but, of course, knows no more than the infant the derivation of the words she is using. Again, being very fond of cheese, she easily picked up the word, and always asks for cheese towards the end of the dinner course, and at no other time. Whether the bird attaches the word to the true substance or not I cannot say, but the time of asking for it is always correct. She is also fond of nuts, and when these are on the table

she utters a peculiar squeak; this she has not been taught, but is Poll's own name for nuts, for the sound is never heard until the fruit is in sight. Some noises which she utters have been obtained from the objects themselves, as that of a corkscrew at the sight of a bottle of wine, or the noise of water poured into a tumbler on seeing a bottle of water. The passage of the servant down the hall to open the front door, suggests a noise of moving hinges followed by a loud whistle for a cab.

It will be seen that the bird associates words or sounds with objects, and where the right names have been taught it, she may be said to know their names; and more than this may be observed—the bird invents names and the names gathered from a particular sound. Thus Poll's name for water is a sound produced by the running fluid. If one of the lower animals has this faculty of imitating noises and utters these sounds when the substances which produces them are seen, there is no objection to the theory that human beings might have acquired language in the same way. The sight of a cat makes a parrot say "mew," as the sight of a train makes a child say "puff, puff." When the child grows older he discards the primitive word, but there was a time when the infant was naming objects after the same method as the savage or the parrot.

The meaningless character of words to the ignorant is on a par with what is seen in primitive races and children. They use a word or phrase in connection with a particular object, but know nothing of its root or true meaning. Moreover, one word suggests another, so that there are many instances where two words are so constantly used in association that one is rarely heard without the other. This constitutes a great difficulty with my parrot. If a fresh sentence be addressed to it, and this begins with a word or two with which it is familiar, a very long time is taken before it can master the new one, and even then the two sentences are often made to run into one another in a most ludicrous manner. It may be remembered how Barnaby Rudge's raven was not content to stoutly declare, during the Catholic Riots, "I'm a Protestant," or "I'm a devil," but, in a cynical manner, would sometimes say, "I'm a Protestant devil," or "I'm a Protestant tea-kettle." Just in the same way, a little boy commencing to talk, and who had acquired the phrases—"naughty aunt," and "naughty grandpapa," when one of his relatives displeased him, was heard in a momentary fit of

vexation to say, "naughty aunt grandpapa." This hasty association of words without meaning appeared to me exactly the same as that with which I was familiar in the case of my parrot. The association of certain words and their suggestion of others, is common enough in human society, and is the bane of all logical discussion. The result of my observation in respect to the parrot's faculty for acquiring language is—that it has a vocal apparatus of a most perfect kind, that it can gather through its ear the most delicate intonations of the human voice, that it can imitate these perfectly by continued labour, and finally hold them in its memory; also, that it associates these words with certain persons who have uttered them; also that it can invent sounds corresponding to those which have emanated from certain objects.

As my object is in this place to confine myself to the question of language, I will not enter into other subjects which tend to show how various phenomena observed in animals and children resemble one another, although different explanations are put upon them by assuming a distinction between instinct and reason. Thus, a noise or strange object would in an instant cause Poll to drop from her perch, and we style the effect reflex. In a child the start caused by the sudden appearance of his shadow before him would be attributed to fear. If the parrot be given a piece of bread and jam, and it eats the jam and drops the bread, we smile at its cunning; but when a child does the same we introduce a moral element into the case and call the child naughty. One fact has constantly thrust itself on my attention, and that is the force of habit and the pleasure of seeing or hearing a repetition of the same act or phrases. A child will never weary of hearing the same story over and over again, and in the same way a parrot seems never to tire of hearing a speech or song it knows, and if it have been taught some playful trick, seems anxious to continue it for an indefinite time.

I think, then, in endeavouring to define the nature of the attributes of man, and to see which are the faculties he possesses in common with the lower animals, and which are peculiar to his own exalted position, we must conclude that language, in its larger sense, has its rudimentary framework in the inferior creatures.

Considering that man is an animal, that many of his functions are common to all animal life, and that we have no

power of degrading him from the position he holds, it ought to make no difference whatever to our feelings whether or not the faculty of language has its rudiments amongst inferior creatures. It is very necessary in a physiological sense to make a comparison. For my own part I should rather expect to find the greater differences between man and animals by discovering how small is their knowledge of the fine arts.

Case of Paralytic Idiocy with Right-sided Hemiplegia; Epilepsy; Atrophy with Sclerosis of the Left Hemisphere of the Cerebrum and of the Right Lobe of the Cerebellum.
By HERBERT C. MAJOR, M.D., Wakefield.

Mary Ann C., æt. 23; single; was admitted into the West Riding Asylum on the 26th February, 1864. The patient had been previously an inmate of a Workhouse, but had to be removed from thence in consequence of her violent tendencies. It was stated that she was imbecile, and suffered from epileptic fits. No definite history or facts as to parentage and condition at birth were ascertained.

On admission the patient presented very decidedly the physical appearances, as also the mental characteristics of a congenital imbecile. She was fairly well grown and developed, but the forehead was small, the lower portion of the face large, and her expression generally heavy and unintelligent. There was atrophy and paralysis of the right arm and leg, the hand being also firmly flexed, and the fingers bent into the palm. The paralysis was less in the leg than in the arm, but locomotion was imperfect and difficult. Mentally the patient manifested decided weakness. She understood what was said to her, and could reply to simple questions reasonably and intelligibly, but her vocabulary was small, and her articulation rapid and imperfect. She could neither read nor write. She showed, however, a certain interest in her surroundings, and recognised those who had charge of her. She was negligent and degraded in her habits, and could employ herself but very slightly.

For several years succeeding her reception, the patient's state would appear to have undergone no material change, the various entries in the Case-book being to the effect that she had occasional epileptic fits and attacks of excitement and ill-temper, in which she was noisy, quarrelsome, and

abusive. In the intervals of these attacks, she was quiet and good-tempered, and would do a little knitting. In addition to her ordinary fits, the patient had slighter seizures, apparently of the nature of *petit mal*.

On the 18th March, 1873, the record was to the effect that the patient had rather frequent and severe fits, was becoming very stout, and more helpless; and in May, 1878, a similar state of things was again reported.

On November 29th, 1878, the attack of convulsions, which led to the fatal termination of the case, commenced, the patient passing rapidly into the *status epilepticus*, with quick pulse, elevated temperature and continuous coma. The convulsions were strong, and were confined to the *left* side. Again and again the seizures were checked, and for a time arrested by chloral, but only to recur when the controlling influence of the drug diminished in force. On December 5th, however, under the continuous use of chloral, aided by the cold bath to reduce pyrexia, the epileptic discharges finally ceased, and the patient emerged from her state of coma: but pulmonary congestion, which had been threatening, came on severely, and she sank on December 7th.

Autopsy 37 hours after death. Body very corpulent. Cadaveric rigidity was present in all the limbs. The right arm and leg (the former especially) were shorter and thinner than the left limbs.

The calvarium was small but fairly symmetrical, both with respect to form and thickness of the bones. The sutures presented nothing unusual.

The right hemisphere of the brain was somewhat simple as to convolutionary arrangement, but it appeared to be normal in every other respect.

The left hemisphere was less than half the volume of the right, both anterior and posterior extremities falling within the corresponding limits of the latter side. The convolutions nearly everywhere throughout the hemisphere were extremely narrow and wasted, and of densely hard consistence. The third frontal convolution, the commencement of the ascending frontal, and the gyri of the *insula*, were softer than the other parts, and evidently less involved in the sclerosed process. The pia-mater and arachnoid membranes covering the hemisphere, especially superiorly, were greatly thickened and opaque. Throughout the atrophied convolutions, the cortex was very thin, pale and dense, cutting almost like leather. The internal white matter was also greatly reduced in quantity,

and remarkably dense and tough, in some parts also presenting small holes filled with fluid. The lateral ventricle was immensely enlarged at the expense of the substance of the hemisphere, the wall of the ventricle in the parietal region, hardly exceeding the one-eighth of an inch in thickness, and the cortex in this region being a mere film. The corpus striatum and the thalamus were very much shrunk and atrophied. No irregularity of contour was observed in the pons varolii and medulla oblongata.

The right lobe of the cerebellum was considerably smaller than the left, and also much firmer to the touch. On section there appeared distinctly a condition of wasting and pallor of the leaflets as compared with the left, non-atrophied, lobe.

The brain-weights (which indicate very clearly the atrophied portions) were as follows:—

Whole brain	865	grammes.
Right hemisphere	507	„
Left ditto	217	„
Cerebellum { Right lobe	42	„
{ Left lobe	72	„
Pons varolii	14	„
Medulla oblongata	5.5	„

The spinal cord was not examined. The other organs presented no conditions of special interest.

Microscopical Examination of the Brain.—All parts of the right hemisphere presented appearances not to be distinguished from those of the normal cerebral structure. (Plate I., figs. 1 & 2.)

The left hemisphere, on the other hand, showed, in every respect, morbid histological conditions. The cortex of the convolutions showed a variable, but everywhere great, reduction of the normal thickness, and under a low magnifying power, seemed to be made up of small round cells of uniform size, here and there only a pyramidal corpuscle being observable (Plate II., fig. 3) in marked contrast with the appearances presented by the cortex of the other hemisphere under the same magnifying power. Close examination with higher powers made it evident that the nerve-cell elements were extremely few as well as small, ill developed, and deficient in branches. The round branchless bodies were seen to be corpuscles of the neuroglia enormously increased in number at the expense of the other elements. Hence the uniform appearance of sections of the cortex of this hemisphere, as compared with the well-

defined arrangement of layers evident on the right side. A few nerve fibrils (axis cylinders) could be traced traversing the cortex apparently to communicate with such few cells as existed. The intercellular matrix of the neuroglia was denser and coarser than in the right hemisphere, and under normal conditions. (Compare Plates I. and II., figs. 2 & 4.)

The capillary network of vessels was notably defective as compared with the sound hemisphere, but no structural alteration or degeneration of vessels was detected.

The internal white matter of the hemisphere showed an advanced state of morbid change. In some parts this was seen to consist mainly in an undue proportion of nuclei and Deiter's connective tissue cells; mingled with altered and numerically reduced nerve fibres. But in other places the nerve fibres were nearly absent, the whole tissue being represented by numerous Deiter's cells with their dense intercommunicating network, naked nuclei, and occasional vessels, as seen in Fig. 5 Plate II.

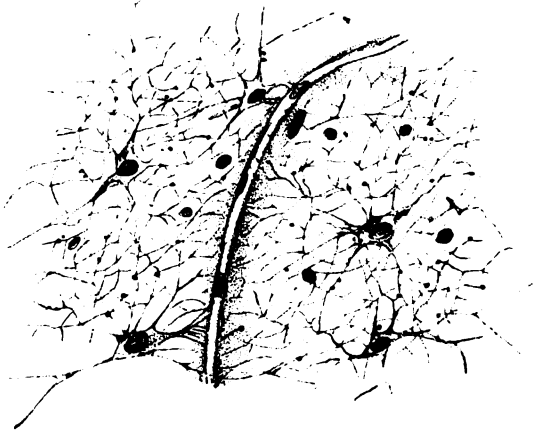
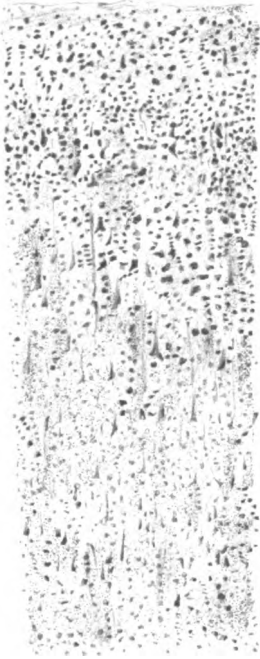
The left lobe of the cerebellum presented, histologically, no morbid change. The right lobe, atrophied as before stated, showed a condition of thinness and wasting of the outermost gray layer, few and ill-developed cells of Purkinje and excess of connective tissue corpuscles. The subjacent granular layer showed no change that could be detected.

Remarks.—Cases of unilateral atrophy of the brain, associated with mental defect and hemiplegia of the side opposite the lesion, have been described more or less fully by several authors, and can hardly be regarded as rare. Such a lesion, it is well known, may be set up before birth or shortly afterwards, in early infancy. But the interest and rarity of the case is increased when, as in the present instance, there is associated with atrophy of one side of the cerebrum an atrophy of the opposite side of the cerebellum. Probably the best account of this condition is to be found in the masterly record of Schroeder van der Kolk, who, in regard to the anatomical facts of the case he has placed on record, seems, histological details aside, to have left nothing unobserved.* I regret that I am unable to imitate the exhaustive accuracy of the great Dutch anatomist, many points having been omitted from the pathological account of the present case, which should have been noted. But, on the other hand, I have been able to furnish what I trust may be considered a fuller account than will be else-

* "Selected Monographs," New Sydenham Society, London, 1861.



Fig. 3



where found of the histological conditions, and it is mainly for this reason that the case is placed on record. The drawings have been made with care, and may, I think, be accepted as accurate, especially as they have been taken from sections of the fresh specimen, hardened by freezing, and without the intervention of chemical re-agents. Inspection and comparison of these drawings will bring out, better than can be done by any verbal description, the great structural differences between the non-atrophied and the atrophied, the working and the non-working hemisphere, and, it is hoped, will make clear the nature of the minute changes which underlie the coarser lesions in such cases.

EXPLANATION OF PLATES.

PLATE I.

Fig. 1. Section through portion of a frontal convolution of right (non-atrophied) hemisphere, showing normal structure (*freezing method*) $\times 50$ diams.

Fig. 2. Portion of the third cortical layer of same section, $\times 300$ diams.

PLATE II.

Fig. 3. Section through part of a frontal convolution of left (atrophied) hemisphere, showing deficiency of nerve cells and excess of neuroglia corpuscles (*freezing method*), $\times 50$ diams.

Fig. 4. Portion of same section (mid-cortex) $\times 300$ diams.

Fig. 5. White matter of left temporo-sphenoidal lobe, showing Deiter's cells, naked nuclei and a capillary. Ordinary nerve fibres absent, $\times 300$ diams.

Statistics of Insanity in Australia. By FREDERIC NORTON MANNING, M.D., Superintendent of the Gladesville Lunatic Asylum, near Sydney, and Inspector of the Insane, New South Wales.

The following letter, &c., in reply to recent inquiries, has been received from Dr. Manning, whose admirable "Report on Lunatic Asylums," undertaken at the request of the New South Wales Government, in 1868, is well known in this country. The information conveyed in the statistics now given cannot fail to be of interest to the readers of this Journal:—

Gladesville, near Sydney,
January 4th, 1879.

MY DEAR SIR,—

At last I fulfil my promise to send you some of the statistics of insanity in Australia. I forward you a few notes which will, I think, be interesting, and which are entirely at your service to do with as seems to you best. I know almost all the asylums personally, and

I have marked against each colony the name of the gentleman to whom I am indebted for the purely statistical matters. So far from having special facilities, as you hope, for getting at the causes of insanity, we are left to grope more hopelessly than our English compeers. The Colonies are so large that even where there *are* friends they cannot travel the long journeys, and we seldom get an opportunity of questioning them for ourselves. A large number of the friends know nothing of the family antecedents, and in quite $\frac{1}{3}$ of the total number admitted there are no friends nearer than the old countries, so that we have to trust to such information as can be extracted from the patients themselves. The police are an intelligent body, and give such information as they can, but such untutored testimony is not worth much. To crown all, we get a host of Chinese, East Indians, South Sea Islanders, Australian Aborigines, and other waifs and strays, many of whom speak little or no English, and the cause of whose alienation remains, in many cases, in the dimmest obscurity. I think all the causes of insanity which prevail in the older communities are operative here, except, perhaps, the grinding poverty and struggle for existence, which must be a potent cause in Great Britain and Ireland; and in addition we get other causes, some of which are not easily tabulated, and perhaps not easily explained to any one not conversant with the peculiarities of colonial life. One of these is the bad quality of food. Salt beef, inferior tea without milk, and damper (an indigestible cake of flour and water) are the diet of hundreds, without vegetables of any variety. They ruin the digestive powers, and not only cause a terrible craving for drink, but in my opinion are quite as much as the drink (which is set down by the unobservant as the sole cause) the real cause of the mental mischief. The system of drinking is no doubt a cause; the men being at a distance from temptation for weeks together, save money, which they dissipate in a few days of horrible intoxication on the vilest of adulterated compounds. Then comes isolation, in my mind a distinctively Australian cause, and one which is productive of an immense amount of mental mischief. There is not only this isolation of the shepherd's life, which has been long recognised as a cause of insanity, but the isolation of the emigrant in a new country—an isolation which in the peculiar character of life here often lasts for years. They wander from place to place, mining, sheep shearing, and following other occupations with the changing seasons; they have no fixed home, no settled friends, and none but the most immediate and selfish interests. There is no development of the finer instincts, and no family ties. Their companions constantly change; they are naturally suspicious of strangers, and after years of a wandering, homeless life, develop delusions of suspicion and fear, and hallucinations of hearing, which eventually, though sometimes not till after long intervals, land them in the asylums as thoroughly incurable patients. The sun here is responsible for much brain disturbance. The climate, especially in Queensland and New South Wales, is, for three parts of the year,

decidedly hot, and the popular costume differs very little, especially so far as head covering is concerned, from that in use in Great Britain. The inhabitants generally, and especially newly arrived emigrants, are not sufficiently alive to the dangers of exposure: and yet there is a large number of cases due to heat stroke in the New South Wales asylums, and this a common cause throughout the entire continent. Again, though there is little or no want, there is no lack of hard, rough living, and women, especially in the back districts, have very hard trying lives, unrelieved by neighbourly kindness even when most required.

I have indicated some of the special causes of insanity here, but it requires a knowledge of colonial life to realise the full extent of the action of these and others.

You will see that the proportion of insane to population is in the older colonies very nearly the same as in Great Britain. South Australia is a fortunate exception in this respect. Her population has increased more slowly. She has been spared the rush and excitement consequent on gold mining (which, by the way, I omitted when speaking of causation), and her system of land tenure and other things are more home-like than those of other Colonies. Speaking of mining, the gold excitement sent many persons to asylums in early colonial days, and this and the rapid ups and downs of colonial life are still operative in this direction. A man once imbued with the thorough spirit of the gold miner is half a lunatic already. He wanders from one digging to another; is sometimes rich and at others a pauper, but never hardly settles to other occupation, and too often ends his days in an asylum.

Believe me, yours very truly,
F. NORTON MANNING.

D. Hack Tuke, M.D.

The census is taken quinquennially in some of the Australian Colonies, and in the remainder at decennial periods. The registration of births and deaths is carried out with great care in all the colonies, and the arrivals and departures by sea are carefully noted.

Returns showing the population are published by the various Registrars-General at the close of every year, and may be taken as representing the number of inhabitants, with a degree of accuracy little short of that attained in Great Britain.

On December 31st, 1877, the population of the Australian Colonies was 2,096,732, and the number of insane persons under official cognizance was 5,876, giving a proportion of 1 in every 356, or 2.80 per thousand.

The proportion in the different colonies, arranged in the order of foundation, was as follows:—

Foundation of Colony.	Name.	Population.			Number of Insane.			Proportion of Insane to Population.		
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
1788	New South Wales	367,323	294,869	662,312	1151	678	1829	1 in 319	1 in 435	1 in 362 or 276 per 1,000.
1804	Tasmania	56,523	50,581	107,104	214	123	337	1 in 264	1 in 411	1 in 317 or 315 "
1836	South Australia	123,000	112,000	235,000	261	217	478	1 in 471	1 in 516	1 in 491 or 203 "
1851	Victoria	467,753	393,051	860,804	1588	1159	2747	1 in 294	1 in 339	1 in 313 or 319 "
1859	Queensland	124,924	78,171	203,095	254	163	417	1 in 491	1 in 479	1 in 487 or 205 "
1839	Western Australia	17,005	11,512	28,517	36	32	68	1 in 473	1 in 338	1 in 419 or 238 "
	Total	1,156,538	940,304	2,096,733	3,504	2,372	5,876	1 in 330	1 in 391	1 in 356 or 280 "

NEW SOUTH WALES.

The insane in this Colony, on December 31st, 1877, were classified as follows :—

	M.	F.	Total.
Imbeciles and Idiots (Adults) ...	60	28	88
" " " (Children) ...	51	34	85
Lunatics, Ordinary ...	969	606	1575
" Convict ...	21	6	27
" Criminal { Q. P. ...	26	4	30
{ Serving Sentence	15	—	15
{ Awaiting Trial ...	9	—	9
Total... ..	1151	678	1829

The imbeciles and idiots, both adults and children, are maintained in a separate institution at Newcastle (N.S.W.) The main buildings were originally erected for military barracks, but have been greatly altered to adapt them for their present use. The patients are trained in habits of order and cleanliness, but no scholastic teaching has yet been attempted. The institution has been six years in existence, the patients are all congenitally of weak intellect, or have become so in very early life, and the separation of this class from ordinary insane patients has resulted in a great improvement in their condition. The establishments for ordinary lunatic patients are five in number. 1st, Gladesville, the main Central Asylum, into which all the acute cases are received. 2nd, Parramatta, which is mainly devoted to chronic cases. 3rd, Cooma, a small institution for 60 men, in the interior of the Colony; and 4th, Callan Park, an old private mansion, containing 44 patients, standing in extensive grounds, and only recently devoted to Asylum purposes. It is managed in connection with Gladesville, from which it is distant about four miles. The above are public institutions, supported by Government funds, but paying patients are received into all. The 5th establishment is a licensed house at Cook's River, near Sydney, in which nine private and 125 Government patients were maintained at the close of 1878. The public patients are sent to this institution owing to the want of space in the Government establishments.

The Hospital at Gladesville contained 310 male and 277 female patients at the close of the year. The building, which was commenced so long ago as the year 1838, has been added to as occasion required, and is exceedingly faulty in architectural arrangement. It is, however, finely situated, and is surrounded by gardens and grounds of considerable extent and great beauty.

The main statistics for this institution for the past nine years are as follows:—

TABLE showing the Admissions, Discharges, and Deaths, with the Mean Annual Mortality, and the proportion of recoveries, &c., per cent., in the Hospital for the Insane at Gladesville from the year 1869 to 1877 inclusive.

Year.	Admitted.						Discharged.						Died.			Remaining in Hospital on 31st December in each year.			Average number resident on admissions.			Percentage of Patients relieved.			Percentage of Deaths on average numbers resident.																					
	Admitted for the first time.			Transferred.			Recovered.			Re-ceived.			Transferred.			Died.			M. F. Total.			M. F. Total.			M. F. Total.			M. F. Total.																		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.																
1869.....			143	75	218				56	32	88	20	9	29	13	40	53	53	7	60	429	223	652	435	215	650	39	16	42	66	40	36	13	98	12	00	13	30	12	18	3	25	9	23		
1870.....			131	66	197				41	35	76	7	3	10	233	1	234	25	4	29	254	246	500	263	231	493	31	29	53	03	38	57	5	34	4	54	5	07	9	54	1	73	5	88		
1871.....			172	105	277				53	40	93	6	7	13	111	40	151	27	8	35	229	256	485	265	248	513	30	80	38	01	33	57	3	49	6	06	4	09	10	18	3	22	6	82		
1872.....			161	104	265				70	49	119	11	4	15	68	39	107	29	9	38	215	259	474	231	256	457	42	68	47	11	44	44	6	70	3	84	5	56	12	55	3	51	7	80		
1873.....			189	107	296				64	36	100	12	10	22	41	16	57	20	10	30	267	294	561	246	279	525	33	86	33	64	33	78	6	35	9	34	9	43	8	13	3	59	5	71		
1874.....			186	126	312				51	41	92	9	13	22	49	104	153	40	15	55	304	347	551	280	301	581	27	44	32	53	29	48	4	84	10	32	7	05	14	28	4	98	9	46		
1875.....			203	134	337				44	53	97	7	5	12	56	34	90	37	10	47	363	279	642	327	264	591	21	67	39	55	28	78	3	44	3	73	3	56	11	31	3	78	7	95		
1876.....	169		108	277	387	60	1	2	3	81	69	150	14	18	32	97	43	140	26	17	43	319	297	616	342	268	610	40	09	51	11	44	51	6	93	13	33	9	49	7	60	6	34	7	05	
1877.....	247		97	344	60	24	84	4	1	5	129	64	193	13	17	30	125	21	146	38	10	48	354	277	631	343	263	606	42	01	52	89	45	00	4	23	14	04	7	00	11	07	3	80	7	92

The Lunatic Asylum, Parramatta, is devoted mainly to chronic cases, and among these are 27 convicts, a relic of by-gone days, and still at the charge of the Imperial Treasury. They are for the most part demented and aged persons, are scattered through the general wards, and no distinction is made in their treatment. Their status is, indeed, only known to the officers in charge of the records of the establishment. In connection with the Parramatta Asylum, but in a distinct building set apart under a special Act of Parliament, is a small establishment for male criminal lunatics. The females of this class, being few in number, are kept in the ordinary wards. This criminal asylum is the only special Institution of the kind in the Australian Colonies. It admits of a division of the inmates into two classes, but is badly arranged and inadequately fitted, bearing a much greater resemblance to a prison than an hospital for persons of disordered mind.

Many of the buildings at the main division of the Parramatta Asylum are very old, and were formerly used for penal purposes. The Institution altogether is not one of which the Colony can be proud, but steps are being taken for improving and modifying the arrangements, and for replacing the more objectionable buildings by others.

At the close of the year the total number of inmates of all classes was 805.

The two following Tables are interesting as showing the increase of Lunacy in the Colony :—

Year.	Population of New South Wales.	Total Number of Insane in New South Wales on 31st Dec.	Proportion of Insane to Population in New South Wales.	Proportion of Insane to Population in Victoria.	Proportion of Insane to Population in England.
			Per M.	Per M.	Per M.
1863	378,934	931	1 in 407 or 2'45	1 in 670 or 1'49	1 in 464 or 2'15
1864	392,589	984	1 in 399 or 2'50	1 in 604 or 1'65	1 in 457 or 2'19
1865	411,388	1,037	1 in 396 or 2'52	1 in 595 or 1'68	1 in 445 or 2'24
1866	431,412	1,114	1 in 387 or 2'58	1 in 541 or 1'84	1 in 436 or 2'29
1867	447,820	1,155	1 in 387 or 2'58	1 in 515 or 1'94	1 in 424 or 2'35
1868	466,765	1,230	1 in 379 or 2'63	1 in 439 or 2'27	1 in 411 or 2'43
1869	485,356	1,226	1 in 395 or 2'53	1 in 416 or 2'40	1 in 403 or 2'48
1870	502,861	1,289	1 in 389 or 2'57	1 in 392 or 2'55	1 in 400 or 2'50
1871	519,182	1,387	1 in 374 or 2'67	1 in 369 or 2'71	1 in 394 or 2'53
1872	539,190	1,440	1 in 374 or 2'67	1 in 340 or 2'94	1 in 387 or 2'56
1873	560,275	1,526	1 in 367 or 2'72	1 in 337 or 2'96	1 in 381 or 2'62
1874	584,278	1,588	1 in 367 or 2'72	1 in 329 or 3'04	1 in 375 or 2'66
1875	606,652	1,697	1 in 357 or 2'80	1 in 322 or 3'10	1 in 373 or 2'68
1876	629,776	1,740	1 in 361 or 2'77	1 in 318 or 3'14	1 in 368 or 2'71
1877	662,212	1,829	1 in 362 or 2'76	1 in 313 or 3'19	

TABLE showing the ratio of admissions to the population of the Colony from 1863 to 1877.

Year.	Admission.	Population.	Proportion to Population.
1863	187	378,934	1 in 2,028
1864	199	392,589	1 in 1,973
1865	182	411,388	1 in 2,260
1866	196	431,412	1 in 2,201
1867	181	447,620	1 in 2,473
1868	223	466,765	1 in 2,093
1869	265	485,356	1 in 1,831
1870	253	502,861	1 in 1,987
1871	340	519,182	1 in 1,527
1872	303	539,190	1 in 1,779
1873	342	560,275	1 in 1,638
1874	330	584,278	1 in 1,770
1875	356	606,652	1 in 1,704
1876	360	629,776	1 in 1,949
1877	457	662,212	1 in 1,449

TASMANIA.*

On the 31st of December, 1877, the insane in this Colony were classified thus:—

	M.	F.	Total.
Imbeciles and Idiots . . .	26	17	43
Lunatics, Ordinary . . .	111	106	217
„ Convict . . .	76	—	76
„ Criminal . . .	1	—	1
Total . . .	<u>214</u>	<u>123</u>	<u>337</u>

The only establishment specially set apart for the insane in this Colony is at New Norfolk, about 20 miles from Hobarton, the capital.

The ordinary patients, together with the imbeciles and idiots, and the single criminal patient are kept in this institution, which contained at the close of the year 261 patients. A number of the idiots are kept in a detached house. The institution is beautifully situated, and bears an excellent reputation. There is a special wing for better class and paying patients, and as the arrangements for this class are better than at any of the other public asylums in the Australian Colonies, patients are occasionally sent to this institution from the neighbouring Colonies.

* Information from Dr. G. F. Huston, Medical Superintendent Hospital for the Insane, New Norfolk.

The convict patients are rapidly dying out. They are kept in a wing of an old prison building at the Cascades, Hobarton, the remainder of which is devoted to invalid paupers.

SOUTH AUSTRALIA.*

	M.	F.	Total.
Idiots	9	6	15
Lunatics, Ordinary	226	204	430
" Criminal } Q. P.	1	—	1
} Serving Sentence	25	7	32
	<hr/>	<hr/>	<hr/>
	261	217	478
	<hr/>	<hr/>	<hr/>

There are two asylums in this Colony, one on the outskirts of the City and the other at Parkside, a distance of about two miles from Adelaide. The former is an old building, and contains 256 patients. The latter was erected about 10 years ago, and is only a part of the original design. This contains 222 patients. Both are admirably managed, and are among the most satisfactory institutions for the insane in Australia. The idiots are distributed through the wards, as are all the criminal women, but a separate ward has been recently erected for the criminal men.

VICTORIA†

Possesses the largest number of insane, both numerically and in proportion to the general population.

On December 31st, 1877, the total number under official cognizance was 2,747, and the classification was as follows:—

	M.	F.	Total.
Harmless Imbeciles	254	154	408
Idiots { Adult	33	28	61
{ Children	24	10	34
Lunatics, ordinary	1,230	958	2,188
Ditto criminal { Q. P.	15	3	18
{ Serving sentence	32	6	38
	<hr/>	<hr/>	<hr/>
Total	1,588	1,159	2,747
	<hr/>	<hr/>	<hr/>

* Information from Dr. Alexr. Paterson, Medical Superintendent of Asylums, and Colonial Surgeon, Adelaide.

† Information from Edward Paley, Esquire, Inspector of Asylums, Victoria.

Victoria possesses three new and well-arranged asylums at Kew, near Melbourne, and at Beechworth and Ararat in the country districts, which accommodate an aggregate of 1,800 patients, and also the original establishment at Yarra Bend, in the suburbs of Melbourne, and an Institution at Ballarat, which was formerly an Industrial School, but now contains idiots and harmless imbeciles. Besides these public institutions, there is a licensed house which accommodates about 30 private patients, and is reported to be well managed.

The Yarra Bend Asylum contained 736 patients at the close of the year 1877, a large proportion of whom were chronic cases, accommodated in cottages and detached block buildings, which have been erected at various times and spread over a large area, render the institution somewhat difficult to supervise. The new asylums, the largest of which at Kew, was designed for 800 patients, are built on a totally different plan, the buildings being closely massed, and resembling the English and foreign Asylums which were erected about 15 or 20 years ago, rather than the more modern structures.

The Asylum for Imbeciles and Idiots at Ballarat is occupied by males only, and will not accommodate the total number of this class and sex. The female idiots and imbeciles, and some of the males are distributed through the other asylums.

The criminal lunatics are not provided for in a separate asylum, nor are they kept in a separate division of the ordinary asylum, but are distributed in the wards according to their mental condition.

For some years after the separation from New South Wales, the proportion of insane to the general population was very small; the insane who had accumulated whilst it formed a part of the neighbouring Colony remaining in the New South Wales asylums, but the number has of late years greatly increased, having risen from 1 in 771 in 1861, to 1 in 313 in 1877.

The rates of admission to population has also increased from 1 in 1,350 in 1868, to 1 in 1,260 in 1877.

The Asylums of Victoria are all highly creditable to the Colony, and the following table shows that the results are very satisfactory:—

TABLE, showing the Admission, Discharges, and Deaths, with the Mean Annual Mortality, and Proportion of Recoveries, &c., per Cent. on the Admissions, for the Years 1868 to 1877, in Public Lunatic Asylums.

Year.	Admitted.			Discharged.						Died.			Remaining on the 31st December in each Year.			Average Numbers Resident.			Percentage of Cases Recovered and Relieved on Admission.			Percentage of Deaths on the Average Numbers Resident.					
	Males	Females	Total	Recovered.		Believed.		Transferred.		Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total			
				Males	Females	Total	Males	Females	Total																Males	Females	Total
1868	313	194	507	101	68	169	19	21	40	157	171	328	78	20	98	920	636	1556	868	572	1441	38.33	45.87	41.22	8.98	3.49	6.80
1869	310	225	535	121	104	225	12	17	29	21	15	36	94	34	128	989	706	1705	956	669	1626	42.90	53.77	47.47	9.83	5.08	7.87
1870	347	219	566	119	109	228	26	22	48	55	41	90	96	89	135	1094	755	1849	1025	720	1745	41.78	59.81	48.76	9.36	5.41	7.73
1871	333	213	546	115	76	191	16	17	33	33	1	34	101	31	132	1192	845	2037	1124	778	1902	39.33	43.66	41.02	8.98	3.98	6.94
1872	357	214	571	116	67	183	9	11	20	132	70	202	108	33	141	1314	949	2263	1260	845	2107	35.01	36.44	35.55	8.57	3.90	6.69
1873	360	235	595	149	135	284	18	22	40	175	205	380	128	40	168	1370	976	2346	1339	916	2255	46.38	69.77	55.37	9.55	4.36	7.45
1874	326	226	552	125	100	225	26	37	63	7	8	15	114	54	168	1427	1011	2438	1399	928	2270	46.31	60.62	52.17	8.50	5.81	7.40
1875	349	228	577	152	131	283	10	5	15	63	8	71	121	51	172	1487	1050	2537	1399	976	2377	46.42	59.65	51.64	8.06	5.22	7.23
1876	350	237	587	166	115	281	17	20	37	76	68	144	135	50	165	1513	1100	2613	1463	1006	2471	52.28	56.96	54.17	9.22	4.97	7.48
1877	345	225	570	142	116	258	2	1	3	35	37	72	134	63	197	1573	1146	2719	1484	1056	2541	41.74	52.00	45.79	9.03	5.96	7.75

QUEENSLAND.*

The number of insane in this Colony is at present small in comparison with that in the other Australian Colonies, but is rapidly increasing. A certain number of patients who became insane in the district before its formation as a distinct colony are still in the asylums of New South Wales, of which it formed a part up to 1859.

The number of idiots and imbeciles is small, and the only classification which is given is—

Lunatics, Ordinary	.	.	.	412
Ditto Criminal	.	.	.	5
				417

No separate provision is made for the criminal patients, who are treated in the ordinary wards and reported to be by no means the most troublesome cases.

With the exception of fifty patients of a chronic and demented class, who are kept in a building which was intended for a benevolent asylum at Ipswich, about twenty miles from Brisbane, the whole of the insane in Queensland are accommodated at the Central Asylum, situated at Woogaroo, a distance of about nine miles from the capital of the Colony. This Asylum has been erected at various dates, and is exceedingly faulty in arrangement. During the last one or two years the management has greatly improved, and the Asylum is now in good order.

In this Colony, owing to its vast extent and the difficulties of communication, it has been found advisable to establish "Reception Houses" for the temporary care and treatment of the insane, and five of these now exist in the inland towns and the northern seaports. The patients can by law be kept in them for a period of three months before transference to the Central Asylum, and a number are discharged as sane from these institutions.

WESTERN AUSTRALIA.†

This is still a Crown Colony, and until ten years ago was a depôt for Imperial convicts. The bond population numbered 679—all males—at the close of 1877, and of this

* Information from Dr. Patrick Smith, Medical Superintendent, Woogaroo, Queensland.

† Information from H. C. Barnett, Esquire, Colonial Surgeon and Medical Officer of the Asylum at Fremantle; and Dr. Alfred Waylen, Colonial Surgeon, Perth, W.A.

number 13 only were lunatics. The number of free lunatics is increasing. In 1865 there were 28, and the number had risen to 55 at the close of 1877, and with the convicts make a total of 68.

The only asylum is situated at the seaport town of Freemantle, and is a well-ordered establishment, standing in extensive grounds, and possessing abundant cubic space per inmate. Its chief drawback, inherent in almost all small asylums, is want of classification. The convict patients are, however, kept in a separate ward, and are subject to the visitation and treatment of a separate medical officer.

The rate of recovery is very high.

Hyoscyamine, and its Uses. By DR. GEORGE H. SAVAGE.

This being a paper read for the purpose of eliciting the experience of others, does not purport to be anything more than an account of my experiences of the drug, and my opinions as to its uses.

All those at all interested in the treatment of mental diseases by drugs are already familiar with the careful observations of Dr. R. Lawson, as recorded in the "West Riding Reports," Vols. v. and vi. He there records experiments on the lower animals, and also his experience of the drug in violent cases of mania.

Before proceeding further, I would like to point out a danger that I am sure is very real.

Dr. Lawson has carefully told his readers where the drug he used was obtained, but he has retained the name, "Hyoscyamine" which is, in my opinion, very misleading. There seem to be, at least, three bodies that claim this name. One an ash that I do not know myself, said to be inert; another a whitish granular material that in my hands has been very powerful; and a third, the extractive Hyoscyamine (of Merck), which Dr. Lawson has chiefly used.

I shall refer to treatment by the second and by the third bodies only. It may be that some other crystalline body deserves the name Hyoscyamine, and will in due time discover itself, but the granular form has, in many hands, exerted all the most powerful effects of henbane in a distinct way, and so I prefer still to consider that it has the best right to the name. I am not singular in mistaking the one

drug for the other. Dr. Farquharson, in his recently published book on "Therapeutics," speaks of giving grain does of Hyoscyamine, and Dr. Sidney Ringer, in his, "Hand-book of Therapeutics" (7th edition, 1879), page 516, says Dr. Lawson—"Gives Hyoscyamia in one grain and a half and a half doses." This is a mistake; the extractive may be given in such doses, but not the active principle.

My only other criticism of Dr. Lawson is that I altogether object to his very allopathic views, as expressed in the following sentence—"I started with the principle that the succussion produced in the mind already muddled with delusions and hallucinations by the antagonism of new forms of mental aberration, together with the subsequent deep and prolonged sleep," &c.

I cannot think such succussion likely to be beneficial, and the adding confusion to the confused is like dazing the dazed with a surprise bath. But Dr. Lawson has a right to his own ideas, though, if I believed his theory, I should cease to use Hyoscyamine.

The practical part of my paper divides itself into three sections, viz.—

- 1 The Treatment of Insane Cases by Hyoscyamia.
- 2 " " " " *Extractive* hyoscyamine (Merck)
—two varieties.
- 3 " " " " Tincture of Hyoscyamus.

1st—Hyoscyamia. This was dissolved in dilute acetic acid and spirits of wine, and given with syrup. I began with $\frac{1}{2}$ of a grain, and found that this was as much as I dare give, for even this small dose in several instances produced collapse. The symptoms produced were great dilatation of pupils, with inability to read. No very marked change in the optic discs; loss of power in the limbs, more especially the lower; staggering gait at first, then inability to stand; great mental depression, and dread, so that patients would struggle violently, rather than have a second dose.

The feeling is as if death were imminent; in smaller doses the feeling was like that in the later stages of drunkenness, a feeling of confusion. Hallucinations of sight were most common, and those of touch were also present. There was a dry, unpleasant feeling in the throat which drinking did not relieve. With this prepara-

tion of hyoscyamus the appetite always failed at once, the patient rarely taking anything after the dose of hyoscyamia was given. Sickness, vomiting, and collapse occurred in some cases soon after the administration. This drug was generally slow in its action, taking from one and a half to two hours before complete effects resulted, these effects lasted from twelve to eighteen hours, the moral effect often lasting much longer.

My modes of treatment were as follows:—A noisy maniac patient was selected after breakfast—so as to insure one good meal at least— $\frac{1}{2}$ grain of Hyoscyamia was given, and generally after two hours there was peace and quiet for the rest of the day, but the night was sometimes noisy if a second dose were not given.

If given to patients who got out of bed, or were dirty in their rooms, before going to bed, a quiet night and a clean room were the results. I increased the dose up to $\frac{1}{3}$ grain, but found this dose, as a rule, too large, and I did not find that any marked tolerance of the drug was established. In brief, I may say that I gave the drug regularly to a series of cases, and cannot say that I have any good opinion of it.

I may mention three typical cases, and their reactions. The first case was that of a girl who had had one previous attack of acute mania, which lasted nine months. For six weeks this patient was treated with daily doses of hyoscyamia, from one twenty-sixth to one-thirteenth of a grain at a dose, and no improvement followed, till at the end of this period she suddenly became well, and at the same time began to menstruate; menstruation having been some time absent. Dr. Crichton Browne has pointed out that other hæmorrhages occurred in cases treated by Hyoscyamine (extractive), so, possibly, the drug did some good in this case.

The second case had been in Bethlem thrice during the last 10 years, and we were used to her attacks, and I cannot say I saw any change in the one under notice. Quiet was produced by each dose, but great dread followed, and hatred of the doctors. She refused food, and lost flesh rapidly. The quiet in the ward was bought at too high a rate, and I gave up the treatment. The third was a case of most violent recurrent mania, who had been in Bethlem over eleven years, and whose attacks were always similar in character. With hyoscyamia she was rendered quiet by

$\frac{1}{8}$ grain, and collapsed by $\frac{1}{15}$; on recovery she was violent and vindictive against me as a "poisoner."

After two months' treatment, during which she had lost over a stone in weight, I discontinued the drug. In the end this patient had a more prolonged and severe attack than she had had for years.

In melancholia, harm and no good is done.

In one case of insanity, with chorea, very small doses ($\frac{1}{10}$ grain) produced alarming collapse.

In general paralytics I only tried it a few times and then discontinued it, as it seemed dangerous to use such a remedy in patients whose nervous systems were tottering to their fall.

In the second series of experiments I gave the extractive hyoscyamine prepared by Mr. Merck, of Darmstadt, and procured from Messrs. Harvey and Reynolds, of Leeds. This was dissolved, as Dr. A. Lawson recommends, in spirits of nitre. I began by giving one-eighth of grain doses once daily, and rapidly increased the dose to one grain. I found single doses seemed not only to have greater effects in quieting the patients, but also did not affect the appetite so much. On the whole I like the drug as a producer of quiet without much injury to the patient, as well as I can like any medicinal restraint. It produces less general disturbance than the alkaloid, and the collapse—if produced—was less intense. In one of the cases of mania treated by this drug great loss of appetite followed, and in three others the body weight decreased; but in the one, the most worn and exhausted, some increase followed its use. I have not had cases enough, nor watched those I have long enough, to be sure whether my impression that maniacal cases treated with this powerful drug tend to dementia more than those not treated by narcotics is true. In some particulars my experience differs from that of Dr. Lawson, as marked complaints of dryness of the throat were complained of. I prefer small increasing doses, as some patients re-act so violently to the drug. After a single dose, which produced full physiological effects, the patients were more quiet and self-controlled for from one to three days, and then were often as violent as ever, or even more violent than before the dose. This effect is repeated for several doses, but then seems to pass off to a great extent, leaving the patient like a whipped lion, only waiting a chance for violence and outrage.

I subjoin notes of a few cases that were tried with the drug for some time, and the results:—

Case 1.—First Attack of Acute Mania.

J. P., single, 38. No insane relations; said to have phthisical relations. Cause of present attack religious anxiety. At first she was depressed and melancholy, but early in December, 1878, she became excited. She thought the devil was near her, and possessed the domestic animals.

She said she was Queen of Glory. She had hallucinations, and was constantly talking to unseen persons.

For a month no medical treatment was followed, and she continued very maniacal. She was amorous, and mistook persons. She tore up her clothes, was noisy, dirty and violent, and at night was noisy and sleepless.

On February 14, $\frac{1}{8}$ grain of the extractive was given, and in less than an hour she was prostrate and sleepy, pupils widely dilated, and limbs relaxed. On the next day she was much better, properly dressed and contrite, regretting she had been "such a beast." No medicine was given her on that day, but on the next two doses of $\frac{1}{4}$ th grain were given, and she was unable to speak or stand. Complained of giddiness and sickness, with loss of appetite. On the next day (February 17th) she was civil and quiet, and spent most of the day on the sofa.

The medicine was discontinued on 18, 19 and 20, when she became as bad as ever. On resuming the medicine the quieting effect was reproduced, but was less marked with $\frac{1}{4}$ th grain. The dose was increased, and we gave her grain doses, which constantly produced the full physiological effects. The patient gained in weight, and slept much better, though her appetite was not so good, she took enough nourishment.

The drug has been continued with intervals of a day or two ever since, and now, in April, there are no signs of recovery, but some tendency to weak-mindedness. On February 27, instead of the extractive I gave her tincture of hyoscyamus in two-drachm doses three times daily, and in two days increased this to half-ounce doses as frequently. There was dilatation of the pupils, but the patient was rather more than less loquacious; in fact, the notes kindly taken by my clinical assistant, Mr B. Fox, state that she was more quiet on days when the tincture was not given.

By ophthalmic examination nothing could be made out abnormal, and no marked alteration was seen in retinal vessels before or after hyoscyamine (extractive).

The pulse tracing showed increase of volume and loss of tone.

Second Attack of Acute Mania.

A. M., single, 30. Maternal cousin insane. Mother and sister phthisical. First attack occurred nine years ago, and lasted between four and five months. The first symptoms of this attack began a

week before admission. She was excited, and said she had been married to our Saviour. She had hallucinations of sight, was noisy, violent, sleepless, and in a weak general health.

Appetite bad. Catamenia regular.

On February 4th half a grain of extractive was given, and in less than half an hour induced complete prostration, inability to stand, and sensation of discomfort, to judge by her groans, and of feeling of drunkenness. The desired calm followed with the full physiological effects.

On February 5 and 6 she was quiet—without medicine—and more reasonable. She complained of dryness of tongue. A second preparation of the extractive was tried for the next four days, and did not act so satisfactorily.

On February 14 a grain of the first sample was given, and acted rapidly and violently. For three days following she took grain doses, which subdued her for the time.

On February 19 and 20, when no medicine was given, she was more unmanageable. No real gain seemed to result, and as soon as the medicine was discontinued the mania was at least as violent as before.

On February 27 tincture of hyoscyamus in two drachm doses thrice daily was given, and on March 1st this was increased to half-ounce doses, the smaller doses seemed rather to excite than quiet; and though the larger doses induced some outward quiet, the incoherence was as marked as ever.

Since March the extractive has been given at intervals, but for a time was dropped, as the patient refused food, and looked weak and ill. I cannot see that any good was done to the patient. After a full dose of the drug her pulse increased in rapidity and lost tension, and resembled a genuine febrile pulse. No change visible in optic discs.

Acute Mania, with Intemperance.

M. H., married, 36; paternal uncle insane. Drink said to be the cause of this, her first attack, which has lasted six weeks. She first thought people were in the house, and that the house was on fire: that witches came down the chimney and struck her; that she had no food, and people robbed her. She had a very peculiar idea that a salt fish was under her bed biting her.

On January 23 we began with a quarter of a grain of the extractive. No quieting effect was produced, and as the dose was found too small, on 27th it was doubled. This produced full physiological effects, but the patient had her insane ideas as much as ever, and did her best to act on them. On January 31 a grain was given, and this completely prostrated her. After continuing the drug, sometimes in grain and at other times in half-grain doses, till February 27, it only produced temporary effects.

Tincture of hyoscyamus, in two drachm and half-ounce doses,

acted rather more satisfactorily on her, and she was more quiet, and instead of shrieking and avoiding us, she shook hands.

At intervals the drug has been continued, but as soon as discontinued she is as violent as ever. Towards the end of April she was more sleepy and dull.

Besides the above cases, I have given it in acute and chronic cases of mania, in patients who have long been under observation, and in those whose previous attacks I have witnessed, and with similar effects.

In one excessively violent and dangerous general paralytic I have prevented serious and dangerous violence by giving the drug, and in some cases have seemed to subdue the extreme libidinousness in such cases.

In one case of puerperal insanity with fits of violence and tendency to injuring herself by knocking her body and head about and tearing out her hair, one dose had a very good effect, and kept her quiet for over a week, and an occasional dose keeps her in control. In one or two acute cases smaller doses than one grain either did not act at all or else took very long in producing its effect.

In one very maniacal case the patient was not quiet after taking the dose till nine hours had passed, when he complained of drunkenness and inability to stand.

It is important to remember this instance, for danger might arise from giving additional doses if the effects may lie dormant so long.

The result, then, of my present experience, more especially in acute maniacal cases, is that the extractive is the most potent form of the drug, and is useful as a means of quiet restraint in violent and dangerous cases, especially those that are very homicidal, and those that, seeming to have lost common sensibility, dash themselves about and run serious risk of injuring themselves.

The effect of large doses, given as occasion requires, is better in every way than continued doses, as the continuance of the drug tends to refusal of food. I believe the drug to be useful in violent recurrent cases such as Dr. Lawson recommends it for. I dislike the crystalline hyoscyamia in many particular effects which it has, and I found the tincture of hyoscyamus to be nearly useless.

I do not consider any of the above-named drugs as curative in any sense, and my feeling is strongly against all narcotics and most so-called nervine drugs. I believe, with Dr. Wilks, that drugs that act directly on the nervous system will be

found in time to be more useful in inflammatory diseases and diseases of nutrition, and that we must rather seek nutrient remedies, general hygiene, and tonics as our powerful aids in nervous diseases.

I do not believe whipping a tired nervous system with strychnine is good, nor deranging an already deranged brain by belladonna, opium, chloral, or hyoscyamine will lead to happy results. We may make a desert and call it peace.

The History of the Hereditary Neurosis of the Royal Family of Spain. By WILLIAM W. IRELAND.

In enquiries upon the influence of heredity in the causation of insanity we rarely get back beyond the third generation. Few men either know, or care much about their great-grandfathers or great-grandmothers, and fewer are willing to keep in remembrance the existence of an ancestral taint. Nevertheless, in studying these subjects we ought to go back as far as we can, and the few pedigrees which have been traced of the genesis of insanity in families bring out deductions of the highest interest. In studying the fortunes of those ruling houses, whose lives are recorded by history, we occasionally trace the rise and extinction of a family through insanity, or we behold the wane and final extinction of the hereditary disease. There is no deficiency in the materials. Mental disease is very common in royal and noble families, and great disasters to nations have sometimes signalled the madness of their rulers.

Of the first great empires, two mighty monarchs of the Babylonian and Persian dynasties, Nebuchadnezzar and Cambyses, were both insane, and the neurotic tendency of the Julian and Claudian families reached its climax in the mad doings of Caligula and Nero. The insanity of Charles VI. of France gave an opportunity to the warlike encroachments of Henry V. of England. The conqueror of Agincourt compelled the French King to give him his daughter in marriage. The revival of the English claims to the throne brought a long and desolating war upon France. Unhappily Henry VI. inherited the malady transmitted through his French mother, and England, in her turn, was desolated by the wars of the Roses as a penalty for a dynastic marriage in which the laws of heredity were set at defiance.

One of the most interesting studies of the rise and progress of a hereditary neurosis may be found in the history of the first Kings of Spain. It arose, as far as we can trace it,* from the marriage of John II., of Castile, with Isabella of Portugal (1449), the mother of Queen Isabella of Castile, by whose union with Ferdinand of Aragon (1469), the Spanish Monarchy was formed. About 350 years after the direct line became extinct by the death of the imbecile Charles II. of Spain. From John II. to Charles II. we have eight generations.

We know a great deal about the different personages of this great house, where and how they lived, and with whom they married, what children they had, and what became of them. We know their creeds and opinions, their successes and disappointments, their hopes and their fears. Even their forms and features remain to us; their portraits painted by the greatest artists of Spain and Flanders, may be seen in the museum of Madrid, and gossiping chroniclers let us know their tempers, feelings, and minutest habits. It is difficult, therefore to imagine any case where the rise and course of a hereditary disease can be more fully studied or traced farther back.

John II. of Castile, though a man of some accomplishments and fond of literature, was in many things weak and easy to imbecility. He allowed all affairs of state to be managed by his favourites, and lamented on his death bed that he had not been born a mechanic, instead of a king. His long reign, "if reign it may be called, which was more properly one protracted minority" (Prescott) was a most disastrous one for Castile. He took for his second wife Isabella of Portugal. This Princess, towards the close of her life, was insane for many years. She was the mother of Queen Isabella, who, after the untimely death of her brother Alfonso, became heiress of Castile, and by marrying Ferdinand of Aragon, united the two kingdoms.

Neither Ferdinand nor Isabella showed any symptoms of insanity. They both possessed much bodily and mental vigour. Ferdinand was crafty and cold-hearted; Isabella

* Might we carry the neurosis back to Pedro I. of Portugal (1357-1367)? He was so whimsical, inconsistent, and cruel, that it is difficult to say whether he was "the incarnation of a demon" or insane. His son, Fernando, was a deplorably weak Prince. Fernando was succeeded by John I., a bastard son of Pedro. John married Philippa, daughter of John of Gaunt, by whom he had, amongst other children a daughter, Isabella. This Princess was wedded to Philip the Good, of Burgundy, and became the mother of Charles the Bold.

has been generally thought to have been naturally good and amiable; but both joined in the work of suppressing the free constitutions of their country, little dreaming that the great dynasty which they were founding would end in a line of weak-minded princes born to be tools in the hands of others. Of their four children, Don Juan died young (1497); Mary, Queen of Portugal, died in 1498, and her infant son in 1499, thus leaving the inheritance of her parents open to Juana. The youngest sister, Catherine, married Henry VIII. of England. Juana is generally described by historians as having become insane at the death of her husband, the Archduke Philip, and to have lingered over his dead body in the hope that he would come alive again. She kept all women away from it in the prosecution of her jealousy, for which he had given her too much cause during his life. She was put aside from the government of Spain, and confined for nearly fifty years in the Castle of Tordesillas, but her name was associated with that of her son Charles, in all public documents, until her death, which took place a few months before his own voluntary retirement from power.

Bergenroth,* who spent several years of his life in the study of the Spanish Archives at Simancas, has written a special essay to prove that the stories of the madness of the unfortunate lady were invented and kept up by her mother, her father, her husband, and, at a later time, by her son. He maintained that her seclusion and imprisonment were really due to the guilty ambition of her father, Ferdinand, and her son Charles to possess the kingdom which she inherited; for she was the heiress of Castile by the death of her mother, Queen Isabella, and ought to have reigned both over Castile and Aragon, on the death of her father. Bergenroth certainly proves that during her imprisonment at Tordesillas reports of her sanity were bruited about, and that when she was set free by the insurrection of the Commons (1520) her intellect was not observed to be disordered in any way, save that she was irregular in the times when she took her meals and went to sleep. It appears, however, that physicians were summoned to consult about her health, and had she been really sane, it is difficult to see why she did not join with her deliverers, and assume the power which they were so anxious to put into her hands.

* Gustave Bergenroth, a Memorial-Sketch, by W. C. Cartwright, M.P., Edinburgh, 1870. See Appendix.

Robertson* tells us that long before Juana was secluded she was "affected with deep and sullen melancholy," and Prescott† gives, from a well-informed contemporary witness, an early instance of her mental instability, which took place in the year 1503, about seven months after the birth of her second son, Ferdinand. Being very anxious to re-join her husband in Flanders, she sallied out one evening from the Castle of Medina Del Campo, "though in dishabille, without announcing her purpose to any of her attendants. They followed, however, and used every argument and entreaty to prevail on her to return, at least for the night, but without effect until the Bishop of Burgos, who had charge of her household, finding every other means ineffectual, was compelled to close the Castle gates, in order to prevent her departure.

"The Princess, thus thwarted in her purpose, gave way to the most violent indignation. She menaced the attendants with her utmost vengeance for their disobedience, and, taking her station on the barrier, she obstinately refused to re-enter the Castle, or even to put on any additional clothing, but remained cold and shivering on the spot till the following morning. The good Bishop, sorely embarrassed by the dilemma to which he found himself reduced, of offending the Queen by complying with the mad humour of the Princess, or, the latter, still more, by resisting it, despatched an express, in all haste, to Isabella, acquainting her with the affair, and begging instructions how to proceed.

"The Queen, who was staying, as has been said, at Segovia, about forty miles distant, alarmed at the intelligence, sent the King's cousin, the Admiral Henriquez, together with the Archbishop of Toledo, at once to Medina, and prepared to follow as fast as the feeble state of her health would permit. The efforts of these eminent persons, however, were not much more successful than those of the Bishop. All they could obtain from Juana was that she would retire to a miserable kitchen in the neighbourhood during the night, while she persisted in taking her station on the barrier as soon as it was light, and continued there, immovable as a statue, the whole day. In this deplorable state she was found by the Queen, on her arrival, and it was not without great difficulty that the latter, with all the deference habitually paid her by

* Robertson's "Charles V." London, 1857, vol. i, p. 178.

† "History of the Reign of Ferdinand and Isabella, the Catholic, of Spain." By William H. Prescott. London, 1867, vol. ii, pp. 271-272.

her daughter, succeeded in persuading her to return to her own apartments in the Castle. These were the first unequivocal symptoms of that hereditary taint of insanity which had clouded the latter days of Isabella's mother, and which, with a few brief intervals, was to shed a deeper gloom over the long protracted existence of her unfortunate daughter."

The obscurity of the question* is, probably, owing to the extreme dislike of the Castilians to pass such an indignity on the royal line as publicly to declare the Queen insane. If we are to believe that Juana was the victim of a plot so hideously wicked, the Cardinal Ximenes, and her youngest daughter, Catherine, who shared her imprisonment, must be classed as accomplices after the fact; nor would it be easy to explain why her pretensions were not brought forward after the death of her husband. The supporters of that prince were seriously alarmed at the prospect of Ferdinand again returning to rule over Castile, and had Juana been capable of governing, they would surely not have needed to call in the aid of Philip's father, the Emperor Maximilian.

Much of what Bergenroth advances might be explained by admitting that there were times when Juana's intellect was comparatively lucid; which, indeed, was the general statement. Moreover, he is compelled to acknowledge that towards the close of her life the poor Queen passed into a stage of dementia—an admission which, obviously, weakens his argument. "She lived," he writes, "five and thirty years in her second imprisonment. No wonder that by degrees her reason gave way. During the latter years of her life she believed that she was possessed by evil spirits, which prevented her from being good, and loving her children, or the rites of the Roman Church. She imagined that she saw a great cat lacerating the souls of her father and of her husband. But these wild fancies were not unfrequently interrupted by periods of calm and sound judgment. Physically she sank down to a deplorable state of almost brutish existence. For weeks and months sometimes she did not leave her bed, which received all the evacuations of her body, and was never cleaned. Two things she disliked until the close of her life. It was painful to her to receive a visit from any one of her family, and she wished not to be disturbed by religious ceremonies."

Her son, the Emperor Charles V., who thus reigned in his

* Bergenroth's theory is carefully examined and rejected in an able article in the "Edinburgh Review," No. 268, April 1870.

mother's stead, was one of the greatest monarchs of Europe. His life may justify the adage that madness and genius are something akin. He was, in his youth, a man of great physical strength and activity, and of extraordinary sagacity, mental power, and versatility of intellect. Almost perpetually engaged in wars and great enterprises, he was tried both by good and bad fortune. In some things he was mean and unscrupulous, was subject to fits of melancholy, and deeply religious. He had bad teeth,* and his lower jaw was longer than the other, so that the two rows of teeth did not well meet, which injured the power of mastication, and made his voice indistinct towards the close of his sentences. He is known to have had several fits of epilepsy. These attacks are said to have ceased after his marriage, but he remained much subject to headaches, which obliged him to cut his long hair in 1529. He was very fond of good eating, drank wine freely, and was much afflicted with gout, which came on when he was thirty years of age. His voluntary retirement at the age of fifty-six, though an extraordinary step, was by no means an unwise one. It was mainly owing to bad health. Charles' father, the Archduke Philip, was the son of Maximilian of Austria and Mary of Burgundy, the daughter of Charles the Bold. Mary of Burgundy died at the age of twenty-three. The assertion of a superficial French historiographer, that insanity was rife in the House of Burgundy, has cost me much enquiry. The only sign of derangement discovered was that the mind of Charles the Bold seems to have become unhinged by the ruinous defeats which he suffered from the Swiss, whom he so unjustly attacked.

The Emperor Charles had one brother, Ferdinand, who succeeded him as Emperor, and four sisters—Eleanor, who was first Queen of Portugal and then of France; Isabella, who became Queen of Denmark; Mary, Queen of Hungary; and Catherine, Queen of Portugal.

Ferdinand was the founder of the German branch of the House of Austria. His son, Maximilian, married his cousin Mary, daughter of Charles V. In two of their sixteen children the neurotic tendency appeared. Rhodolph II. pushed eccentricity and hypochondria to the verge of insanity. Inattentive to the affairs of State, and much given to scien-

* This description of the appearance and bodily condition of the Emperor is taken from the work of M. Mignet—"Charles-Quint, son abdication, son séjour, et sa mort au monastère de Juste." Paris, 1857.

tific pursuits, he was at last deposed by his brother Matthias. Coxe, the historian of the House of Austria, tells us that Maximilian's second son, Ernest, was cold and reserved, and such a prey to morbid melancholy that he was scarcely ever seen to smile. These are the only examples known to me of the hereditary neurosis following the Austrian House, which so often intermarried with the Spanish one. The natural son of the Emperor Charles V., Don John of Austria, by Barbara Blomberg, died at the age of twenty-nine, after gaining great distinction as a general. By a Flemish lady, Margaret Vangest, Charles had a daughter, Margaret of Austria, who became Regent of the Low Countries. She was a woman of masculine character, and inherited from the Emperor his love of power and gouty diathesis. She was married first to Alexander de Medici, and then to Octavio Farnese, by whom she became the mother of the celebrated Alexander of Parma, a man of astonishing but eccentric genius, and undoubtedly the greatest general of his time. But the talents of the Emperor did not pass to his legitimate descendants. He married his cousin, Isabella, daughter of Emanuel the Great, King of Portugal, by the infanta Maria, daughter of Ferdinand and Isabella. He had three sons and two daughters, none of whom were insane. His eldest son, Philip II., a man of weakly frame, and of a gloomy, severe, obstinate, and superstitious character, was four times married. His first wife was also his cousin Mary, daughter of John, King of Portugal, and of Catherine, the youngest daughter of the unfortunate Queen, Juana, who had been actually brought up in the Castle of Tordesillas with her mother. The heir of this splendid but unfortunate pedigree was Don Carlos, whom the genius of Otway and Schiller have done so much to make illustrious for gifts and virtues which he never possessed.

The Emperor Charles, on his way to his retirement in the Monastery of Yuste, saw Don Carlos at Valladolid when he was eleven years of age. Charles remarked to his sisters, "He seems to me of a very irritable disposition. His manners and dispositions do not please me, and I do not know what he may become through time."* We learn from several observers that he was of a fitful and turbulent character, and of a weak and unequal intelligence. He was five years old before he uttered a word (Gachard). He is described by different ambassadors as of low stature, with one leg shorter

* Mignet, p. 152.

and one shoulder lower than the other. He had a slight hump upon his back; his forehead was low, and he had the long protruding chin of his grandfather, the Emperor Charles, as may be seen from his portrait. He articulated with difficulty, especially the letters l and r. His beard was slight, and he was deficient in virility. He roasted hares and other animals taken in the chase, alive. His tutor, says Sir W. Stirling Maxwell, * "was compelled to acknowledge that he had failed to imbue him with the slightest love of learning, in which he consequently made but little progress; that he not only hated his books, but showed no inclination for cane-playing or the still more necessary accomplishment of fencing; and that he was so careless and awkward on horseback that they were afraid of letting him ride much for fear of accidents. To the Emperor, who had loved and practised all manly sports with the ardour and skill of a true Burgundian, it must have been a disappointment to learn that the prowess of Duke Charles and Kaiser Max, which had dwindled woefully in his son Philip, seemed altogether extinct in the next generation."

At the age of sixteen Don Carlos was sent to reside in the University town of Alcala, where he got a very severe fall on the head. This was followed by erysipelas; the doctors suspected fracture, and trepanned the skull. For some days his life was despaired of; amongst the symptoms were delirium and paralysis of the right leg.

It is not to be wondered at that some historians† attribute his subsequent strange doings to derangement of intellect following this accident, and it is likely enough the injury brought a fresh disorder in an already unhealthy brain, though his youth seemed but the natural continuation of his childhood and boyhood. He made violent and senseless assaults upon ecclesiastics and great noblemen of the court, and insulted women in the streets in a very indecent manner. Prescott tells us that he ordered a pair of boots to be made larger than usual to hold a pair of small pistols, but his father would not allow this to be done; and when Carlos found that his orders had not been executed, he beat

* "The Cloister Life of the Emperor Charles the Fifth," by William Stirling 1853, p. 145.

† See Coxe's "House of Austria." Vol. I. London, 1847, p. 487.

"History of the Reign of Philip II. King of Spain," by William H. Prescott. London, 1860. Vol. II., p. 470-471. A very full biography of this Prince will be found in the work of M. Gachard's "Don Carlos et Philippe II.," Bruxelles, 1863.

the poor bootmaker, and, ordering the leather to be cut in pieces and stewed, he forced the man to swallow as much of it as he could get down, on the spot. Another time a money lender having in the usual grandiloquent vein of the Castilian declared that all he had was at his disposal, Carlos took him at his word, and forced him to pay him 50,000 ducats, which he recklessly squandered.

His father spoke of him as being insane, and treated him as a criminal. He was willing to attribute the prince's excesses against others to madness, but he regarded his threats and disobedience against himself in the light of crimes. Don Carlos was put in very rigid confinement by his merciless father; he repeatedly tried to commit suicide, indulged in great excess in eating, and died in prison when twenty-three years of age.

By his second wife, Mary, Queen of England, his father's cousin, most fortunately for that country, Philip had no children; by his third wife, Elizabeth of France, he had two daughters, who were married into the houses of Austria and Savoy. His fourth wife was his own niece, the daughter of Maximilian II. by Mary, daughter of Charles V. But the Pope, who could grant a dispensation for such a marriage, could not save his descendants from the consequences. By this lady, Anne of Austria, Philip had three sons and one daughter, who all died young, and one son who succeeded him on the Spanish throne as Philip III. But with Philip II., bigoted tyrant as he was, the whole vigour of the Spanish line passed away. The people had been brought into servile dependence, had no voice in their own government, and now were under kings who could not govern. The power of Spain declined as rapidly as it had risen. Philip III., a man of feeble and indolent character, governed by worthless favourites, was succeeded by Philip IV., whose reign was a period of great misfortune. He was indolent and voluptuous, but of some natural abilities; he had a taste for the fine arts, and is said to have composed a tragedy himself.

He had a son named Prosper, afflicted from his birth with convulsion fits, who died early. A younger son succeeded him under the name of Charles II. Of this unfortunate prince, Lord Macaulay has given us the following description:—

From his birth a blight was on his body and on his mind. With difficulty his almost imperceptible spark of life had been screened and fanned into a dim and flickering flame. His childhood, except when

he could be rocked and sung into sickly sleep, was one long piteous wail. Till he was ten years old his days were passed on the laps of women, and he was never once suffered to stand on his ricketty legs. None of those tawny little urchins, clad in rags stolen from scarecrows, whom Murillo loved to paint begging or rolling in the sand, owed less to education than this despotic ruler of thirty millions of subjects. The most important events in the history of his own kingdom, the very names of provinces and cities which were among his most valuable possessions were unknown to him. It may well be doubted whether he was aware that Sicily was an island, that Christopher Columbus had discovered America, or that the English were not Mahometans. In his youth, however, though too imbecile for study or for business, he was not incapable of being amused. He shot, hawked and hunted. He enjoyed with the delight of a true Spaniard two delightful spectacles, a horse with its bowels gored out, and a Jew writhing in the fire. The time came when the mightiest of instincts ordinarily wakens from its repose. It was hoped that the young King would not prove invincible to female attractions, and that he would leave a Prince of Asturias to succeed him. A consort was found for him in the royal family of France, and her beauty and grace gave him a languid pleasure. He liked to adorn her with jewels, to see her dance, and to tell her what sport he had had with his dogs and his falcons. But it was soon whispered that she was a wife only in name. She died, and her place was supplied by a German princess, nearly allied to the Imperial House. But the second marriage, like the first, proved barren; and long before the King had passed the prime of life, all the politicians of Europe had begun to take it for granted in all their calculations that he would be the last descendant in the male line of Charles the Fifth. Meanwhile a sullen and abject melancholy took possession of his soul. The diversions which had been the serious employment of his youth, became distasteful to him. He ceased to find pleasure in his nets and boar spears; in the fandango and the bull-fight. Sometimes he shut himself up in an inner chamber from the eyes of his courtiers. Sometimes he loitered alone, from sunrise to sunset, in the dreary and rugged wilderness which surrounds the Escorial. The hours which he did not waste in listless indolence were divided between childish sports and childish devotions. He delighted in rare animals, and still more in dwarfs. When neither strange beasts nor little men could dispel the black thoughts which gathered in his mind, he repeated *Aves* and *Credos*; he walked in processions; sometimes he starved himself; sometimes he whipped himself. At length a complication of maladies completed the ruin of all his faculties. His stomach failed; nor was this strange, for in him the malformation of the jaw, characteristic of his family, was so serious that he could not masticate his food; and he was in the habit of swallowing ollas and sweetmeats in the state in which they were set before him. He was epileptic, and had lost his hair and eyebrows at the age of thirty-five.

This monarch, who died in 1700, left behind him a will bequeathing all the millions who were under his rule to the son of Louis XIV. of France. The dissatisfaction of rival claimants led to the celebrated war of the Succession, at the end of which, after a great destruction of human life, the Bourbon prince remained in possession under the title of Philip V.

In this sketch we have traced a hereditary neurosis following a family for 350 years—sometimes passing over a generation and appearing in various forms and intensities as epilepsy, hypochondria, melancholia, mania, and imbecility, till at length it extinguished the direct royal line of Spain. The baneful tendency in the blood was reinforced by close intermarriages with families of the same stock; and it is worthy of notice that the house of Austria, with which the Spanish line were so often connected by marriage, had few members insane, and in the end threw off the hereditary curse. What vigour was in the first Spanish kings appeared in their illegitimate descendants, and those born in wedlock only inherited their diseases. In spite of the known ancestral taint, a match with Spain was much courted by the royal families of Europe; as an example we may recall the silly eagerness shown by James I. of England to marry his son Charles with the Infanta Maria. Whoever attends closely to history must know that there is a great deal in birth, but not birth as fixed by laws and traced by heralds. A man who is well made, strong, mentally gifted, and able to do much work and stand much strain must be well born; and a race sodden with epilepsy, insanity, and scrofula, whatever its fictitious rank, is necessarily low-born, and in reality is not worth preserving. The royal families of Europe have shown a tendency to segregate themselves, as if the possession of political power conferred some peculiar virtues on the stock, and this leads them to seek alliances which sound notions would teach them to avoid and to brand as Morganatic or left-handed marriages, which would putrify their blood. If the people they rule over had any voice in such matters, as they have so deep an interest, they would forbid two royal families, each tainted with insanity, from intermarrying with one another as fraught with great dangers, not only to the family but to the nation placed under its rule, and which must suffer for the extravagances of its members.

Two Cases of General Paralysis. By WILLIAM MACLEOD, M.D., Inspector General of Hospitals, R.N., Superintendent of the Royal Naval Lunatic Asylum of Great Yarmouth.

(Read at the Quarterly Meeting of the Medico-Psychological Association, March 19, 1878).

I.—*Notes of a Case of Paralysis of the Insane discharged from the Yarmouth Naval Asylum, in which amendment commenced during an attack of Erysipelas of the face.*

S. S., aged 31, Chief Gunner's Mate, a strong muscular man was admitted from Haslar Hospital on the 11th December, 1877. According to his wife's statement he had a sunstroke five years previous to admission. I have fully inquired into the history of the sunstroke, and have come to the conclusion that it was not sunstroke, but an epileptiform seizure, and in this opinion I am supported by the man himself. Since his recovery he has stated that he believed it to be a faint, as he only lost consciousness for a few seconds, and was able to walk home with the men whom he was drilling at the time. Some months before admission to Yarmouth he had another fit of a more severe type and of longer duration; this was on the 6th of June, 1877. With these two exceptions he at all times enjoyed excellent health. He bore an excellent character, and at no period of his life was he given to drink.

On admission his memory was very defective, and he was the subject of various delusions, most of them of an exalted nature, such as that he had great wealth, and possessed several freehold houses, and that he had stolen the money he bought them with, that his wife was dead, and that he himself was going to be shot. He had much tremor of lips, thick and hesitating speech and unsteady gait from weakness of legs. Throughout the day he was violent; destructive of clothing and furniture; constantly on the move, requiring the special care of an attendant for himself, and extremely dirty in his habits.

By night he was noisy, wakeful and destructive, and seldom had any sleep unless it was induced by the Hydrate of Chloral; his appetite, as it often is in these restless cases, was voracious. There was great waste in consequence of the constant excitement, and hæmatoma of both ears appeared at an early period.

On the 2nd December he weighed 10st. 7lbs., his normal weight being 14 stone, and on the 18th March he only weighed 9st. 11lbs. About this time he fell out of bed, and wounded the bridge of his nose slightly.

On the 22nd March, 1878, erysipelas of face and scalp set in, no doubt caused by the patient constantly irritating the small cut on his nose. He was removed to a large airy ward, and isolated from the other patients. A sudden change for the better took place mentally as soon as the erysipelas was fully established, he became comparatively quiet and amenable to treatment, and glimpses of reason began to dawn on him; by degrees he regained his memory, delusions of grandeur gradually passed away, and at the end of April he continued to improve, although now and then subject to short terms of restlessness and wakefulness. The improvement went on during the month of May, and by the 4th of June he weighed 11st 8lbs. In August he weighed 13 stone; he had lost the thickness of speech and tremor of lips, his walk was steady and firm, and no trace of his former delusions remained. He states that he has no recollection of anything that took place during his illness, that his first blink of memory dates from his being isolated, when attacked with erysipelas, but of what took place during the first ten days of that illness his recollections are very imperfect.

It will be observed by the above that the patient appeared almost free from symptoms of mental or bodily disease in the month of August, 1878. The question may be asked, is there any trace of the previous symptoms remaining at the present time? The only trace of the former symptoms is a certain slowness of speech, and when excited in speaking about himself a slight thickness of speech is observed. In consequence of the certainty that this was a case of General Paralysis, it was resolved, if possible, to retain the patient under observation. Before doing so, the whole of the circumstances of his case were explained to the patient, also the danger of a return of the symptoms under which he laboured when he came here. He, after due consideration, said he would remain until it was considered safe for him to go. At the end of the year he further agreed to remain until warmer weather set in. He was discharged February 25th 1879.

I think the practical lesson to be deduced from this case is to try and imitate nature in the treatment of this disease, say, by counter irritation.

II.—*Traumatic Case of General Paralysis, accompanied by Symptoms of Trance, or Catalepsy.*

History.—Mr. W. T., aged 45, engineer, while serving on board H.M.S. M—, in 1871, was one day standing close to a 25-ton gun, being 19ft. in front of, and 2ft. to the right of its muzzle, when the

gun was unexpectedly fired. Mr. T. was, for the moment, stunned, and had to lean against the ship's side, but did not lose consciousness; that same afternoon he observed that he saw objects double with his left eye, and was deaf in left ear. His wife informs me that the first time she saw him after the accident he complained of defective vision and partial deafness, and that his friends noticed that he had suddenly become irritable and exacting, and that he had lost his former energy and nerve. There is no evidence of any hereditary taint, and he has the character of having been a steady, hard working officer.

Admission.—He was admitted to the R. N. Hospital, Yarmouth,* with the following symptoms: Drooping of left upper eyelid; left pupil dilated and sluggish; thick speech, with tremor of upper lip, and defective memory. He was weak on his legs, restless, noisy and violent, and very destructive of clothing and bedding.

He had various exalted delusions; such as, that he was to have an interview with the Queen, who was his mother, and that he was to have a grant of £15,000. He also imagined that the Queen was his wife, that he could create K.C.B.'s., and that when he shook his hands gold dropped from his fingers.

Examination of the left eye by the ophthalmoscope showed descending optic neuritis; nothing abnormal could be detected in left ear, when examined by the auroscope, but this is no evidence that the nerve tissue has not been damaged.

The symptoms mentioned above continued till May, 1877, when he gradually became quieter and more rational; he also regained his memory, so far as to be able to give an accurate account of the accident on board H.M.S. M—, which was corroborated by the captain of that ship. Between the 15th June and 16th July, 1877, he fell into a state resembling trance, or catalepsy, with the following symptoms:—

About 6 a.m. of each day he would pass into a condition of perfect stillness, lying flat on his back, and not moving a muscle; this continued till 3 a.m. the following morning, when he gave signs of life by speaking to the attendant, and swallowing whatever food was placed in his mouth. At 6 a.m., when the stage of stillness was coming on, he would break out into a most profuse perspiration, which gradually diminished as the day wore on. His temperature, both for the morning and evening, rose during this period, and once or twice slight twitches were observed, but they were not continuous.

He was to all appearance quite unconscious, his pupils were

* From Haslar Hospital, 7th Dec., 1876.

sluggish, and sensation and motion seemed suspended. When this periodic condition finally passed off he was comparatively rational, and had lost his more prominent delusion.

In the month of November following, the exalted delusions returned in full force, and the disease steadily, but too surely, progressed.

The motionless state may have been caused by terror, in consequence of what the voices said to him, for, from what he stated in the morning, on consciousness returning, he was evidently under hallucinations of hearing.

In consequence of his showing decided symptoms of insanity, and it being necessary to place him in this Establishment, a question arose as to whether there was any connection between the present symptoms and the firing of the 25-ton gun on board the M—.

My opinion was as follows:—

“I am of opinion that the exciting cause of Mr. T.’s present symptoms (General Paralysis) was the diseased action set up by the concussion, shock and fright, arising from the unexpected firing of the 25-ton gun, when he was in near position to its muzzle.”

From my experience in this Asylum, I have observed that different forms of insanity, and, in particular, Paralysis of the Insane, have followed after sunstroke, falls from aloft, direct blows on the head, concussion from falls from one deck to another, the person falling on his legs (not on his head); and, in many of these cases it was not found necessary for the individual to be placed on the sick list at the time, even for a limited period, yet from that very hour a morbid change began to take place, which in some of them terminated in insanity in a few months, in others after the lapse of years.

Average monthly temperature, pulse and respiration, of Mr. W. T., Engineer, during the months of June, July, August and September, 1877:—

Date.	Temperature.		Pulse.		Respiration.	
	a.m.	p.m.	a.m.	p.m.	a.m.	p.m.
1877 June.....	97 70	98 20	78	77	18	18
„ July.....	98 60	99 10	99	103	20	21
„ August.....	98	98 50	90	90	19	19
„ September.....	97 50	97 80	84	88	18	18

Notes on Criminal Lunacy in France. By D. HACK TUKE,
F.R.C.P.

In the report of the International Congress of Mental Medicine, which appeared in this Journal in October, 1878, I referred briefly to the discussion which took place upon the provision made, or proposed to be made, in France for criminal lunatics and lunatic criminals. I was not, however, able to give at that time the conclusions arrived at in the debate, nor did space allow of my giving an account of the Quarter at Gaillon for insane convicts. I am now able to supply both omissions, and believe that the information conveyed as to what is being done across the Channel will be of interest to those in Great Britain and Ireland who are concerned directly or indirectly with the important subject of criminal lunacy.

I.—The Resolutions of the Congress.

M. Barbier, Counsellor of the Court of Cassation (Appellate Court), who took an active part in the discussion on criminal lunatics, urged, among other points, that there ought to exist a mixed commission, legal, administrative, and medical, which should decide upon the propriety of discharging insane persons who had been confined after acquittal on the ground of insanity. This proposition was endorsed by the Congress, as well as others connected with it, as will be seen by the following resolutions which were passed :—

In all cases in which an individual prosecuted for a crime or misdemeanour shall be acquitted as irresponsible for the act with which he stands charged on account of his mental condition, he shall be placed in an asylum for the insane by administrative authority.

If, however, his discharge is demanded on the ground of recovery before this is ordered, an enquiry shall be instituted whether a relapse may not fairly be expected. This examination shall be made by a mixed commission, composed of—1. The physician of the service to which the individual in question belongs. 2. The Prefect of the Department or his Deputy. 3. The Procureur-General of the Jurisdiction or his Deputy.

The Commission may apply for assistance, if it deems it needful, to those specially distinguished in mental alienation.

If the Commission decides that the individual is not likely to relapse, his discharge shall be ordered. In the contrary event, his permission to leave shall be deferred.

The latter decision shall have force for twelve months. At the expiration of each year the lunatic, who during the time shall be the subject of special observation, shall be submitted to a fresh examination by the Commission, constituted as above mentioned.

These arrangements apply to every one confined by Government authority at the close of a judicial decision in regard to a crime or misdemeanour, whenever a discharge is demanded, and whatever may be the duration of the residence in the asylum.

They are equally applicable to prisoners condemned for crimes or misdemeanours, who, having subsequently become insane, demand their discharge (lunatic criminals).

Lastly, asylums, or special quarters, shall be set apart for the care of insane convicts or those acquitted on the plea of insanity.

M. Motet, the Secretary of the Paris Medico-Psychological Society, referring to the action taken by M. Barbier, says that "Leaving to the Administration all that the Legislator has empowered it to do, he proposed to us a solution which, under the form of a resolution, was accepted by all. He arrested our course on a declivity down which other societies have fallen, and we are glad to render him this justice—namely, that he found for us a formula reserved, prudent, which, without committing us too much in advance, expressed, in the most precise and lucid manner, the *desiderata* with which our minds were tormented, and gave us the opportunity of modifying a state of things in regard to which complaints are not less energetic and the solicitude not less awakened in Italy than with us."

I may add that at the Congress M. Moring, "Director-General of Public-Assistance," read a paper, in which, from an administrative point of view, he advocated the entire separation of criminal and non-criminal lunatics, the separation to be effected either by separate asylums or quarters sufficiently distinct in the same grounds. As we have seen, the Congress adopted this opinion. M. Moring also urged that insane prostitutes should not be mixed with other insane persons in asylums.

II.—*The Lunatic Quarter annexed to the Prison or Industrial Colony of Gaillon.*

This establishment, situated in the Department of Eure, formed the subject of an important paper read by Dr. Hurel, the Resident Physician, at the Congress; and to it I

am indebted for the particulars which follow, with permission to make use of them here, in an abbreviated form:—

With the object of uniting the demands of humanity with the necessities of penal repression, the Administration of Penitentiaries has annexed to the central house of Gaillon a special quarter for insane or epileptic prisoners condemned to more than a year's imprisonment (with the exception of those simply labouring under senile dementia), whose residence in the central building would endanger the order and discipline of the establishment.

Since May 17, 1876, when this experiment was tried, it has already served to unmask a certain number of cases of simulated epilepsy.

Agricultural work is in course of organisation. The insane who cannot be so employed are occupied in plaiting rushes. For epileptics the work consists in stuffing or mending chairs.

The control of the sanitary service is secured by the periodical returns to the Central Administration of the condition of the prisoners placed in the separate institution.

The household *regime* of order and police is determined by a special rule of the 19th February, 1876, in which are combined certain vigorous disciplinary prescriptions employed in prisons, with the special arrangements of asylums.

The following are the principal regulations adopted to carry out these objects:—

Only men condemned for a longer term than one year, whether insane or epileptic, are admitted.

No prisoner can be admitted to the separate quarter, or once admitted, can be discharged therefrom, without a ministerial order.

The prisoner who is discharged before his recovery, will be restored to his family, or sent to an asylum at the cost of those to whom he is chargeable.

The quarter is placed under the authority of the director of the central house.

The physician of the central house is alone charged with the "Service de Santé."

The disciplinary rule of the central house is applicable to the separate quarter.

The physician may authorise the use of tobacco.

Punishments may not be inflicted without consultation with the physician.

Extras prescribed by the physician to those persons who have not the means of buying at the canteen, will be gratuitously supplied, upon the authority of the director.

Those who are able to work shall be as much as possible, in accordance with the advice of the physician, set to industrial or agricultural labour.

The diet of those in health is the same as that of the prisoners who are not insane, increased by the extras ordered in each case in the dietary table annexed to the rules.

The dietary table of those who are ill is in all respects similar to that of the infirmary of the central house.

The clothing does not differ from that of the other prisoners.

A head attendant and five ordinary attendants, under the direction of the attendant in charge, are specially entrusted with the duties of surveillance and keeping order. Further, two officers are stationed, day and night, in order to prevent escapes.

Another head attendant, formerly in an asylum, fulfils the same functions, overlooks all the parts of the medical service, and insures the regular execution of the doctor's prescriptions. He has to assist him, and under his direction eight attendants chosen from the healthy prisoners.

A night watch comprises the constant inspection by a nurse in the corridor, which extends the length of the dormitory, and the rounds made every two hours by the attendants.

This establishment, which can receive 200 prisoners, ought to suffice for all insane and epileptic prisoners.

In cases of extreme urgency involving the security of persons in establishments, and where it would be dangerous to wait for the decision of the superior administration, the prefects are authorised to order that the patients shall be placed in the nearest asylum.

Since the establishment of the Quarter at Gaillon until June, 1878, that is during two years, the following have been the changes in the population :—

136 Convicts have been admitted, of whom

82 were insane,
54 „ epileptic.

9 have died insane.

14 have been transferred to an asylum at the time of their discharge.

2 not having shown any sign of insanity, have been sent back to the central house.

18 Epileptics have been discharged.

19 have been placed in the central house again, either as simulators or as not having had an attack.

There remained on June 1st, 1878—

57 insane.
17 epileptic.

Insane.

The form of insanity in the eighty-two prisoners sent to the lunatic quarter, was as follows :—

Mania	...	...	...	...	9
Melancholia	...	...	...	...	4
Ditto, with hallucinations	...	...	...	...	5
Ditto, with hallucinations and ideas of persecution	18				
Ditto, ditto, and suicidal	...	...	...	...	7
Megalomania	...	...	...	...	1
Simple dementia	...	...	...	...	18
Senile ditto	...	...	...	...	2
Paralytic insanity	...	...	...	...	11
Mental weakness (one with chorea)	...	...	...	...	3
Under observation	...	...	...	...	2
No signs of insanity	...	...	...	...	2

Melancholia (especially associated with fixed ideas of persecution) and dementia are, it will be seen, the predominating forms of mental disorder—a fact which is not surprising. The prisoner is a type apart, a true anomaly; he is generally dominated by the delusion of persecution. His favourite reply, as a defence, when he is brought before the court is, “They are in search of me.” He has a special temperament, a mental organization by virtue of which certain actions, which are only strange in prison, would be regarded as insane in ordinary life, as Dr. Nicholson has justly observed.

It cannot be said that among prisoners, the similarity of their unhappy fates causes agreement and compassion.

Among this population are to be found, as in asylums, the tranquil, the semi-tranquil, the excited and the incurable.

As Dr. Bourdin recently said, at a meeting of the Medico-Psychological Society, “Mental Alienation does not suppress man as a moral and intellectual being. It disturbs and modifies him in various ways, without annihilating in him the fundamental faculties of his essentially human constitution. Under the cloak of insanity, he adds, one finds man with his own qualities, with his faults, his vices, and his virtues.” These observations find their best application in prisoners who have become insane—lunatic criminals.

Their insanity presents, in short, a special physiognomy, and certain characteristics, which are only, so to say, the psychical exaggeration of the convict in his normal condition.

Insane criminals are turbulent; their lips often bespeak menace, and they readily resort to blows.

The same jealousies, the same hatreds, the same *coteries* which exist so frequently in the central house, where each traduces and becomes an informer against his neighbour, with deceit and hypocrisy either by nature, or more generally, with the object of obtaining the favour of the turnkeys or officers, alike tend to the adoption of the system of espionage, a melancholy means of discipline which every director ought to avoid. At the same time, they ought always to be the object of an active, even a severe surveillance. The discipline to which it is necessary to subject them ought to be adapted, as Dr. Orange contends, to their natural disposition in order to protect the attendants, and to preserve the less corrupted insane from the baneful influence of those who are hardened.

The cases of insanity have been more frequent among the prisoners punished for theft than in all the other categories of the prison population. In the second place come those condemned for violations of chastity, and thirdly the ticket-of-leave men who break their *parole*.

As regards ætiology, hereditary predisposition is mentioned as present in seven prisoners.

For forty-nine prisoners who have become insane, in regard to whom particulars have been obtained, excess of all kinds, and especially in drink, remains to be enumerated.

Information in regard to the *début* of insanity has only been obtained in 48 cases.

One had been placed in an asylum before a decision was arrived at. He had been condemned for inflicting fatal wounds.

One had given signs of insanity after his arrest. His insanity commenced in the "maison d'arret" at Aix.

Three had resided in an asylum before their arrest.

Three were insane before their arrest.

Two were labouring under general paralysis at the time of their arrival at the central house, after periods varying from a few days to five years.

One had previously been condemned to perpetual hard labour for homicide, and, being found insane a month after, was placed in an asylum, from whence he was transferred to Gaillon.

One was found to be insane after being condemned; period uncertain.

Seventeen were found to be insane when they arrived at the prison which sent them to Gaillon.

Eighteen showed signs of insanity after their admission into the central house.

One was choreic ten years before his condemnation.

The foregoing enunciation does not comprise four lunatics who participated in the insurrection during the Commune, and who were probably already affected. These statistics are not without interest from a medico-legal point of view. They show that a certain number of persons condemned to punishment were at the time in such a mental condition that they ought to have been regarded as irresponsible. In ten cases at least, there can be no doubt that they were insane before judgment was passed upon them. Here is a question which has several times already been raised, and which deserves a special consideration. Even more may be said. It is a duty demanded by society to signalize these facts, and as Dr. Sauze has observed, "to seek, by bringing it prominently forward, to render such occurrences rarer in future."

Epileptics.

The number of epileptics admitted into the special Quarter since its opening until June, 1878, has been 52, among whom figure two, who, set at liberty after a first commission, have been re-admitted, in consequence of a fresh condemnation.

Of these 52 epileptics, 12 proved to be simulators; 12 have had no attacks, and have not suffered from vertigo.

Twenty-eight have had more or less frequent fits, and of this number three have had vertiginous attacks besides. We find that attacks are more frequent by night than by day. Observations were made in 28 cases, and out of 784 fits, 502 occurred in the night, and only 282 in the day.

Of these 4 had attacks exclusively in the day; 10 more frequently in the day; 3 exclusively in the night; 10 more frequently in the night; and 2 in equal proportions. The attacks have always assumed the form of the *grand mal*. The *petit mal*, either separately or combined with the other, has not been observed.

Diet Table.

Daily ration of bread 700 grammes.

Sunday and	} Morning : Thick soup.
Thursday.	
	} Evening : Prison allowance of meat.

Monday.—Morning: Prison soup, milk, half-litre, or cheese, varying, according to the kind, from 60 to 75 grammes.

Noon: Italian pie, or pork in other forms, 90 grammes.

Evening: Soup and prison allowance.

Tuesday.—Morning: Soup with vegetables.

Noon: Ragout of beef or mutton, 75 grammes, with vegetables.

Evening: Soup and prison allowance.

Wednesday.—Morning: Same as Monday.

Noon: Salt pork, 75 grammes.

Evening: Soup and prison allowance.

Friday.—Morning: Soup with vegetables.

Noon: Cod fish (90 grammes), with onions, oil and vinegar.

Evening: Soup and prison allowance.

Saturday.—Morning: Same as on Monday.

Noon: Same as on Wednesday.

Evening: Soup and prison allowance.

For drink, cider, mixed wine, or small beer (half-litre a day), distributed at twice.

The special Quarter for insane prisoners—does it do away with the inconveniences for which French alienists have forcibly demanded—a special asylum—where, not only would convicts who become insane after their condemnation be placed, but where also those insane would be confined who have committed acts reported criminal, and those who, undisciplined and dangerous, may introduce into asylums a certain disturbance and become incessant causes of disorder and danger to others?

No; it is necessary to recognise that the lunatic, once free, if he is not cured, will return into the asylum; the majority will preserve the seal which will leave impressed upon them their past life, and will have always the same tendency to escape.

However, we are obliged to consider them all as free lunatics, and, having regard to the actual organization of asylums, to confound them with the patients who are at the expense of their families.

The Quarter of Gaillon, then, while being a real benefit, is only a step in advance, which demands others. A special asylum on the principle of that at Broadmoor, is hardly to be realized in France, in consequence of the enormous expenses which it would entail, and now that there is a Quarter for insane convicts, it seems less needed than formerly.

The progress which ought to be demanded only appears

realizable in two ways. Either create a second Quarter like that at Gaillon, with the exception of a modification of the mode of administration and rules, where the criminal insane would be placed, and those who are discharged from Gaillon.

Or, again, demand the appropriation in a certain number of asylums, and even in all of them, of a special section, so constructed as to avoid the chance of escapes, where the criminal insane as also insane prisoners on leaving Gaillon, would be placed.

These special sections in asylums would form true departments of security, and would render more service than a new Quarter, inasmuch as it would be possible to place there dangerous lunatics, and, pending the verdict of the Court, the insane guilty of an attempt either on person or property, for the purpose of observation.

Nevertheless, care must be taken to place in the new Quarter, or in the section of an asylum, only those with whom insanity is merely the accident, while the criminal nature is the essence.

CLINICAL NOTES AND CASES.

A Case of General Paralysis, with Extreme Incoordination and Muteness. By J. CARLYLE JOHNSTONE, M.B., Assistant Physician, Fife and Kinross Asylum.

David R., married. Age 34. Potato merchant. Admitted into Fife and Kinross Asylum, 30th September, 1877.

History.—His sister denied any hereditary predisposition. Family troubles of long standing, want of success in business, and constant tipping formed the apparent cause. Some time before the attack he had lost his first wife and two children; he had married again, had lost money, and things had been going against him; and, probably to drown his cares, he had been drinking more freely than usual, the result being an attack of what seemed acute mania. In the previous November, while at a marriage festivity, where he had been drinking hard, he had suddenly become convulsed and “gone out of one fit into another.” Eight or nine years before he had received a violent kick from a horse on the left knee, which left a permanent lameness.

His attack began seven days before admission. He spent the first night in reading and singing psalms. During the next three days he was restless and confused, slept badly, complained of headache, and neglected his business, solacing himself with drink the while. On

the following morning (Wednesday) he rose at five o'clock to go to work; thought he was doing great things; engaged thirteen women to dig potatoes, and kept them idle all day; was under the impression that he had a farm, horses, carts, &c., was sleepless all night and sang hymns. On Thursday he ordered a saddle, hunting whip and hunting-boots, and wanted to buy a horse, dog-cart and other things quite beyond his means and station; squandered all the money in the house, and rode about all day. On Friday he said that he was Jesus Christ; that his father and mother were coming from heaven; that he had got answers to his prayers. Went off to the neighbouring town on Saturday; called at a hotel and asked if his servant had come, saying that he was going to take her away in a carriage with grey horses. Wandered about all night and behaved in an extravagant way, still drinking copiously. On the following day he was furious and delirious; imagined that he was entertaining magistrates and councillors at a grand ball; required three men to watch him, and was ultimately brought to the Asylum.

On admission, patient was in a state of acute delirium, and he remained in an acutely maniacal condition for upwards of two months. He was extremely noisy and incoherent, talking, singing, shouting, and swearing incessantly; violent, aggressive, and destructive, continually requiring restraint and seclusion; almost sleepless, and ate little. Digitalis, Bromide of Potassium, and Chloral were successively tried, the latter being increased up to 80 grains nightly, which dose he continued to take, with the result of good sleep, for four or five months. In his quieter moments his behaviour was foolish and eccentric, and he displayed various exalted delusions, *e.g.*, he said that he was Christ, and wanted to consecrate articles of furniture by sprinkling holy water over them. He had a habit of repeating words and phrases uttered in his hearing. During the period of his residence there was a purulent discharge from his knee, and there was stiffness of the joint. *Hæmatomata* appeared in both ears.

The maniacal symptoms gradually subsided, he became much more rational in his language and behaviour, and his bodily health improved. He was for many months very irritable and passionate, and subject to paroxysms of fury, but his temper ultimately became much more agreeable and subdued. With the cessation of the mania a degree of silliness remained, and other symptoms made their appearance. His condition in June, 1878, nine months after admission, was as follows:—

He had a vacant, beaming expression, changing into a cheerful grin or lordly frown when he was spoken to. There was a distinct weakness of the mental faculties; his language was scanty and rather incoherent, and his circle of ideas apparently limited. He had exaggerated notions of personal importance and power, and was full of delusions of greatness and wealth; said that he had great numbers of horses, quantities of money, &c. He was apparently perfectly

satisfied with himself and was not disposed to make a display of his delusions, evidently considering as impertinent any inquiries as to his rank or possessions. He was of a happy, contented disposition, though intolerant of interference, and he was rather inclined to domineer over the other patients in an authoritative, but kindly way. His articulation was distinctly affected; lingering, faltering, and slurred. There was a stiffness and immobility of the lips, and the facial lines of expression were very faintly marked. The tongue was protruded very slightly to the right side, and presented a fibrillar quivering. Pupils were equal, sensitive, and of normal size. Writing was shaky and jerky, but quite legible; grasp of hand firm. He walked in a very ungainly, straddling way, lifting his feet high, and setting out with great determination; but it was impossible to say whether this awkward gait was due to his present ailment, or merely to the long standing lameness. There was a clumsiness about all his actions, and this was well seen in the cricket field, where he performed the oddest movements in the course of the game. Cutaneous sensation and reflex action were fairly normal. His appetite was hearty, he slept well, and his health generally was good. There was no evidence of hallucinations.

All these symptoms, of course, pointed to a diagnosis of general paralysis, but their progress was very slow, and it was long before any of them became at all prominent. It was for some time a question whether they were not to be attributed to the large doses of Chloral administered, or, on the other hand, to chronic alcoholism.

The development of the symptoms proceeded very gradually till December, when they became more pronounced. Articulation was very thick, stuttering, and laboured, the syllables were separated from one another by intervals, and the words towards the end of a sentence became inaudible. Tremors and twitchings occurred in the muscles of expression, and the quivering of the tongue was well marked. Writing was very tremulous, and written sentences were almost unintelligible, owing to the omission of some words and letters, and the misplacement of others. General defect of motility and ataxy were now more apparent, and the disturbance was shown in all the movements. Sensation was considerably blunted, and cutaneous reflex action impaired; the "patellar tendon reflex" was somewhat exaggerated. The mental weakness was slightly increased, and patient was subject to emotional periods, chiefly of weeping; but ordinarily there was extreme self-satisfaction and complacency. Frontal headache was complained of.

With the beginning of the new year there was a sudden exacerbation of all the somatic troubles, other phenomena made their appearance, and patient grew rapidly worse. Among the most striking of these latter features were the defect of speech and the extreme general incoordination.

On the 1st of January, patient rather suddenly lost the power of

articulation, and became absolutely dumb, being unable to utter a sound. This condition continued, with certain more or less distinct remissions, till his death, his former speech-power never being regained. It was ushered in by a state of considerable stupor, but this passed away, leaving the muteness complete; and though there was occasionally some transient clouding of the intellect, there was not, as a rule, any apparent casual connection between the mental defect and the defect of speech, consciousness being retained with little impairment till the last, and the intellectual enfeeblement making little advance. He understood what was said to him, nodded and shook his head for assent and dissent, tried to obey orders, recognised persons and things, took an evident interest in his surroundings, was fond of attracting attention, and, when spoken to, smiled in a rather pathetic way, with a reflection of his old jovial air. He made painful and laborious efforts to speak, his mouth gaping and writhing and his lips quivering spasmodically, but the necessary movements were quite beyond his control, and no sound came. From day to day remissions occurred, during which he could articulate a few words, such as "Yes," "No," "Very well," "Fine," "Better," and other brief phrases relating to his state of feeling and wants, and could utter his own name pretty readily. On several occasions there was a marked increase of speech power, his answers were more distinct and complete, and he could articulate more difficult and more lengthy propositions. But even then his articulation was very feeble, uncertain, lumbering, often almost inaudible; and after a very little speaking he seemed to have expended all his words and became dumb as before, the nervous influence being squandered away in useless tremors of the face, lips and vocal organs. At times the defect was of a different nature, and there were tendencies almost of an aphasic kind. He uttered a prolonged gabble or mumble of utterly inarticulate and unintelligible sounds, which from his intelligent and anxious expression were evidently intended to indicate a meaning.

During the whole of this period he had no difficulty of swallowing, and he gobbled his food ravenously. The tongue, which was very tremulous, could be protruded sometimes to its full extent, sometimes only a little beyond the teeth, and sometimes not at all. Though the protrusion was effected most readily during an improved speech state, it was quite possible in the periods of absolute dumbness.

Along with the loss of speech the general ataxic symptoms became much more prominent, and they were ultimately developed to an extreme and unusual degree, while the muscular power was but little impaired. At the same time tremors appeared in all the muscles, and became rapidly pronounced.

The tremors and the incoordination occurred in all parts of the body—limbs, trunk, and face being involved; but they were most complete in the extremities, the legs being most affected. The power

of execution of delicate and complex movements was almost entirely lost, and even the coarser movements were performed laboriously and with great clumsiness. When patient was seated, or lying quietly in bed, in a passive condition, there were seen fleeting tremors, shiverings, and twitchings of the muscles. Whenever he attempted to move or to put his muscles in play, the tremulousness became exaggerated, and the want of the regulating power became apparent. Communicated as well as voluntary movements at once threw the muscles of the part into riotous disorder, the disturbance being always most noticeable in the transition from rest to activity. Even the muscles of expression acted in a convulsive, grimacing manner. He had to be fed, dressed, and guided in everything, being incapable of all precision of movement. Prehensile efforts were utterly clumsy and awkward. He dived or plunged at a thing, frequently missing it, and finally clutching it desperately as if he would crush it under his fingers. His grasp was powerful, but irregular and fumbling; he soon let go his hold of an object, and grabbed at it again immediately afterwards. When his leg was lifted from the ground he was unable to keep it in the raised position; it waggled, sprawled, and floundered about, the muscles acting with considerable but purposeless power, and it came down finally on the heel with a forcible stamp. In manipulating his arm in order to take his temperature, there was the same violent and unruly action of the muscles, until the proper position was got, when the limb lay passively. In endeavouring to convey a glass of water to his mouth, he would grasp it firmly and raise it with a rapid movement, but the convulsive jerking of his arm caused him to knock the vessel forcibly against his nose or his chin, and the contents were spilt before his lips could be reached. He could not rise from his chair, and he could not sit down, but with support he could stand erect, swaying and reeling, and with a little help he could walk for a considerable distance without fatigue, throwing his legs forward in a spasmodic, extravagant fashion. On the support being withdrawn, he flung his limbs out wildly, and fell immediately backwards. In order to seat him on his chair he had to be bent into the necessary attitude, as otherwise he tumbled back stiffly and helplessly, but when once seated he remained quietly in the proper posture.

These motor troubles varied considerably from time to time, occasionally showing distinct remissions. At one period he regained sufficient control over his muscles to be able to write his own name, the signature being quite legible, though very tremulous and obscure.

On the 11th of January he became paralysed in the left arm and leg, and shortly afterwards paralysis appeared in the right side of the face. The limbs soon regained their power, and in a fortnight there only remained some weakness of the affected side. The facial palsy disappeared more slowly; the right pupil was somewhat the larger, both being rather dilated; the mouth was dragged to the left, and

the tongue protruded to the right. Bed sores now began to make their appearance, and a large, sloughing cavity was rapidly formed in the left buttock. At the same time blisters occurred on the left foot, and the lesion of the knee, which had till then discharged copiously, dried up. Diarrhœa set in and patient became speedily exhausted, death resulting on the 8th February.

The general muscular tremors became very pronounced towards the end of his life, and were occasionally developed to a convulsive degree, paroxysmal shudderings occurring in the limbs and face, in addition to the finer fibrillary quiverings, and the disturbance being so persistent as to deprive him of sleep. At this period also there were observed the phenomena described under the name of *agitation silencieuse*. Patient was in a state of incessant, restless activity, persistently crawling out of bed, tearing off his bandages, pulling off his shirt, and throwing his blankets from him; while he was either absolutely dumb, or mumbled and gabbled inarticulately. Though his actions were quite unintelligible, there seemed to be a distinct purpose and method in some of them. Thus, he would fumble unweariedly at some particular button, or perform peculiar sweeping fore-and-aft movements with his right hand, wearing the while a very earnest and determined expression. At other times there was a look of dread in his face, and he seemed anxious to attract attention; he constantly endeavoured to clutch the hand of every passer-by, clung to it, dropped it, and clutched it again; and when he failed to seize one's hand he held on grimly to the arms of his chair.*

During this period there was a considerable variation in the degree of impairment of general sensation and reflex action, but the results of tests were of course vitiated by the presence of the motor disorder. The *urine* was scanty, free from albumen and sugar, and loaded with amorphous urates. There was never any paralysis of the sphincters. An offensive odour was exhaled from the skin and lungs. During the last four weeks the mean daily *temperature* was 99.8° , the maximum being 103.2° . The degree of temperature had no apparent connection with the changes in patient's physical condition.

Autopsy thirty hours after death.—Body well nourished. A large, sloughing sore in left buttock and extending over sacrum.

Heart.—Valves competent. Aorta atheromatous.

Lungs.—Right: apex slightly adherent, contained a firm, caseous deposit about the size of a large pea. Left, healthy.

Liver enlarged and somewhat fatty.

Spleen congested.

Kidneys.—Enlarged; right slightly congested; left pale and anaemic.

Spinal Cord.—Vertebral laminæ of normal consistence. Dura mater throughout much thickened, leathery, and somewhat injected. In lumbar region several pachymeningitic patches with extravasa-

* See Voisin, "Traité de la Paralyse Générale des Aliénés," p. 136.

tions of blood. Smaller patches and slighter extravasations in cervical region. Pia mater opaque, thickened, and hyperæmic. Cord considerably atrophied; section pale; consistence soft, particularly in lumbar portion.

Brain.—Skull cap symmetrical, bones thick and dense. Dura mater adherent, slightly thickened, and somewhat injected. Arachnoid and pia mater much thickened, opaque, and milky, particularly over superior and lateral surfaces of fronto-parietal regions; marked opacity of arachnoid in interpeduncular space. Pia mater stripped readily from grey matter, except in some few places, where there was very slight decortication. Convolutions much atrophied; sulci wide and filled with serous fluid; wasting most marked in frontal lobes. Considerable hyperæmia of both white and grey matter; the latter atrophied and of a mottled pinkish hue. Lateral ventricles distended with fluid, lining membrane granular. At anterior and inner angle of intraventricular portion of right corpus striatum there was a hæmorrhagic softening about the size of a split pea. Numerous large granulations on floor of fourth ventricle. Basilar and cerebral arteries as far as their bifurcations considerably atheromatous. Pons healthy. Cerebellum and medulla slightly hyperæmic.

Weight of encephalon 44 ounces.

Microscopic Examination.

Convolutions.—The pia mater contained great numbers of nuclei and abundant fibrillary tissue, its vessel walls were much thickened, and there were some deposits of hæmatoidin.

The cells of the cortex were dwindled, their contours deformed, and their contents considerably granular and pigmented.

The vessels were mostly distended, very tortuous and kinked, and lay in widely dilated canals. They presented in their walls, in the surrounding spaces, in the perivascular sheaths, and in the nerve substance along their courses, an abundant proliferation of nuclei, with in some places fusiform bodies. In some the coats were thickened with nucleated fibrillary formations, and in a few cases there was hypertrophy of the muscular fibres. Along with the nuclei were great quantities of hæmatoidin granules, occurring so thickly as in many instances to obscure entirely the contour and walls of the vessel.

Throughout the section the nuclei were markedly proliferated, being most numerous in the neighbourhood of the vessels. Small pearly spots of miliary sclerosis in a very early stage occurred sparsely in both white and grey matter.

In the occipital lobes the changes in the pia mater, vessels, and cells were much less pronounced than in the frontal and parietal lobes; but the miliary bodies were equally distinct and numerous.

The right hemisphere generally was affected somewhat more than the left.

Corpora striata.—The vessels, cells, and neuroglia were affected in the same way as in the convolutions, but the disease was considerably less advanced. The proliferation of nuclei and the hæmatoidin deposits were well marked, and the miliary bodies were pretty distinct.

Cerebellum.—Vessels engorged with blood; scanty hæmatoidin granules. Some proliferation of nuclei in white matter, with a few small miliary spots.

Medulla.—The pia mater was much thickened. The granulations in the floor of the fourth ventricle presented clumps of connective tissue and epithelial cells.

The septa were multiplied and hypertrophied, and there was an increase of connective tissue throughout, this being pretty well marked in the anterior pyramids. There was marked proliferation of nuclei among the nerve fibres and cells and in the vessels, the greatest numbers occurring along the nerve strands. Miliary bodies, in a rather more advanced stage than those in the convolutions, were thinly scattered over the section. The vessels were mostly distended with blood and lay in widely dilated canals, the surrounding tissue being indurated. There was considerable thickening of the walls, chiefly by the addition of nucleated and fibrillary tissue. The engorgement was well marked in the floor of the ventricle, and numerous large vessel spaces occurred there. The cells of the grey matter were all distinctly unhealthy, more or less granular, some wasted and others bloated, but none were detected in the extreme stage of fatty or fuscous degeneration. The cells of origin of the bulbar nerves in the floor of the ventricle were by no means badly diseased, their nuclei were easily defined, there was little atrophy, and the granular appearance was only slight. There was no marked lesion of the olivary cells.

Spinal Cord.—The pia mater presented great thickening, with numerous nuclei, and abundant fibrous tissue about the vessels.

Throughout the cord there was considerable increase of the connective tissue and septa, with dwindling of the nerve fibres, the process being most marked in the periphery, and advancing inwards. The lower portion was affected more than the upper, and there the posterior and lateral columns were chiefly involved; while in the upper region the change was most distinct in the lateral columns. There was some proliferation of the nuclei generally, the greatest numbers occurring in the grey matter, in the posterior roots, and in the central canal, which was crammed with them. Amyloid bodies were present in great quantities; they were most numerous in the posterior and lateral parts and lay beneath the pia mater and along the septa and the courses of the vessels, and in many sections were well marked in the posterior roots. A very few spots of miliary sclerosis were seen, small in size, but pretty distinct.

The vessels were all more or less diseased, the perivascular canals were widely dilated, and in the lumbar region there was considerable

engorgement. The most gravely affected presented an extreme fibrillary or hyaline thickening of the walls. In others there were formations of nucleated and fibrous tissue, or merely proliferated nuclei. The lesions were most marked in the central vessels and those in their neighbourhood. The cells of the grey matter were considerably atrophied and lay in large clear spaces, and their substance was distinctly granular, many being markedly fuscous in appearance.

The disease of the vessels and cells was much more advanced in the dorso-lumbar region than in the cervical, and the amyloid bodies there were more numerous, larger, and more distinct.

Muteness in general paralysis, according to Voisin,* is usually observed in a late stage of the malady, and, when not the result of an absolute want of ideas, is due to extreme ataxy or paralysis of the muscles. It corresponds with certain lesions in the medulla, the most common being an excessive formation of nuclei and alterations in the vessels, along with which there is usually advanced granular degeneration of the cells of origin of the facial and hypoglossal nerves. The nerves themselves may present atrophic changes, and in certain cases there is a granulo-fatty degeneration of the lingual muscles, causing inability to protrude the tongue, with which there coexists sometimes paralysis of the pharynx and dysphagia. Voisin has not found any alterations in the olivary bodies, which have been represented by Schroeder van der Kolk and others as playing an important part in the mechanism of speech. Gallopain † considers that the difficulty of speech in general paralysis is due to the labial and lingual ataxy resulting from a lesion of the ganglia of the bulbar nerves in the floor of the fourth ventricle, particularly the facial and hypoglossal; and he attributes the muteness during and after congestive attacks to compression of the parts whence the facial and hypoglossal nerves spring.

In the present instance there was no alteration of the olivary cells, and the cells of the ganglia in the floor of the fourth ventricle were but slightly diseased. There had been, however, great vascular disturbance in the neighbourhood of these ganglia, and the condition of the medulla generally (not to speak of the morbid state of the convolutions) was such as must have gravely embarrassed its more complex functions. The muteness was inconstant, and did not depend on any confusion or absence of ideas. The tongue could be

* Voisin, *op. cit.*

† Gallopain, "Journal Mental Science," April, 1878.

protruded, and there was no dysphagia, but the incoordination which was so apparent in the limbs was also extreme in the vocal and articulatory movements.

It is of some interest to note the latency and ultimate rapid development of the spinal symptoms in this case, as compared with the long-standing lesions detected after death.*

Three Cases of Mental Disease accompanied by Affection of the Bones of the Skull. By DR. CLOUSTON.

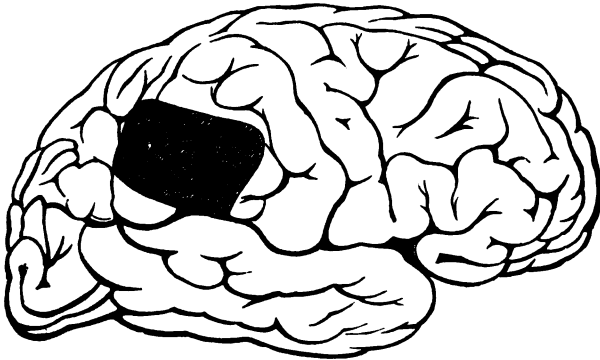
(The Pathological specimens were shown at the Quarterly Meeting of the Association, in Edinburgh, in November, 1878. See Vol. xxiv, p. 69).

CASE I.—*Syphiloma of Brain ; causing a Perforation in Skull Cap; on Tapping over this, the Leg of the opposite side thrown into Convulsions.*

W.S. Admitted 27th July, 1878, æt. 46. Died 28th August, 1878. In this case the skull cap was affected, and affected in a very marked and striking way. This gentleman's history was not well known. He had been a wanderer on the face of the earth, had roamed over the British Colonies, and had the marks of syphilitic disease. On *post-mortem* examination it was found that there was an erosion penetrating the skull cap, making a hole through it of an oval shape, $\frac{1}{8}$ inch long and $\frac{5}{16}$ inch broad, at the summit of the parietal eminence on the right side. That point had, during life, been the seat of great tenderness on pressure; and what was a very remarkable symptom, when this point was tapped, the left leg was thrown into a state of convulsion and twitching, which lasted about five minutes. The left arm shook a little, but it did not go into such convulsions as the leg. Those convulsions were not attended by unconsciousness. The dura mater was adherent at the seats of the absorption of bone, and was found to be about a quarter of an inch thick in some parts. I have often seen such localised thickenings of the dura mater, and they can scarcely be considered specific. There had been syphilitic disease of the bone, and I think that the thickening of the dura mater might be considered a secondary irritative disease of an ordinary inflammatory nature. On exposing the brain, there was seen a hard gunmatous tumour, in two nodules, the size of a pigeon's egg, which had caused very great irritation and softening in the brain substance round it. I have never seen a syphilitic tumour where the brain substance in the neighbourhood was sound, while I have often seen perfectly normal brain tissue surrounding fibrous and even hard cancerous tumours. The position of this tumour was under the opening of the skull cap. It involved chiefly the supra-marginal convolution, and also to some

* See Westphal, "Journal Mental Science," July, 1868, and Jan., 1869.

extent the ascending parietal. The angular gyrus was also involved (See fig.)



The symptoms during life had been on the whole characteristic, so far as ascertained. There were vertiginous and epileptic attacks, caused, probably, by irritation of the cortex of the brain. The mental symptoms were chiefly depression, confusion, irritability, and loss of memory, with a good deal of mental enfeeblement. It was said he had been treated in an asylum in Melbourne. The immediate attack of mental disease, for which he was sent to the asylum, was recent, and it is quite clear that he must have been regarded as quite sane long after the syphiloma had been deposited, and the bone affected. The bodily symptoms were restlessness, an unsteady shuffling gait, left arm subject to nervous twitchings beyond control of patient, who complains of pain if they are impeded, slight left hemiplegia in leg, with partial left facial paralysis. Slight anæsthesia of left cheek and arm, cannot localize a pin's prick in these parts. *When pricked in left arm feels it in left thigh*, but this paræsthesia disappeared in three or four days. Discoloured copper-coloured patches over skin of body, small tumour in right groin. He died in a congestive attack that came on suddenly, on the 27th August. The true nature of the disease was diagnosed, and he was treated from the beginning with the iodide of potassium in large doses, and with small doses of the bichloride of mercury, but with no benefit. Indeed it was evident that the disease was probably too far gone for treatment to be of any avail.

CASE II.—*Cancerous Tumour (primary) of Brain, pressing the Convulsions outwards through the Dura Mater into Cauliflower Excrescences, and these causing Erosions of the Skull Cap.*

L.S., admitted 8th Feb., 1878, æt. 40. A sociable, temperate man; brother insane. No cancerous heredity. A year and ten months ago he complained of faintness and a strange feeling passing

up from sole of left foot to tongue, like a "rush" going up to tongue and preventing him from speaking, also a pricking feeling in left finger. The former was clearly an epileptiform neurosis of sensibility, for in a few months he became subject to epileptiform attacks, in which only the head was affected, the mouth being twisted to left side, head turned to left side and thrown back. He did not fall down. The convulsions was preceded by the "aura" described. He was not unconscious, but could not speak. He had severe pains in the back of the *right* side of the head and *right* ear. Soon his memory began to fail, he became confused and incoherent in conversation, and fancied he was in some other place than his own house. The convulsions extended to the arm and leg of left side, and then became facial, but always began on left side, and were more violent on this than on the other. His hearing was never affected. His sight began to fail with diplopia, and he had dazzling lights before his eyes four months before admission. In two months he was quite blind. He had severe cephalagia. His articulation was thick, and swallowing difficult. He got weaker, more subject to the convulsions, quite lethargic and at last comatose. He died on June 20th, 1878.

At the autopsy it was found that the skull cap was very much eroded. The tumour had been of slow growth, and the enormous changes that had taken place in the nutrition and the surroundings of the brain, as well as of the organ itself, were very marked. It would seem as if some of the changes were such as to be inconsistent with life. The whole of the inner table of the calvarium had, scattered over it, small erosions with clean cut-edges. The petrous portion of the temporal bone of the right side, the side where the tumour to be described had pressed, was eroded and rough all over its surface. The bone there was so soft that it could be cut with the ordinary scalpel. The erosions were over all the inside of the skull, and the membranes presented a very strange appearance. I have only seen it on two occasions before.* Projecting through the dura mater there were small cauliflower excrescences, which were found to consist of the convolutional brain substance pressed from within outwards, right through the membrane, and embedding themselves in those erosions described in the skull cap. They had selected the small openings in the membrane, through which the blood vessels passed, and enlarged them. These excrescences consisted of grey matter outside, with white substance inside. Though soft, the brain structure in them was not disorganised. There was a large tumour, almost as big as a large turkey's egg, causing enormous disorganisation of the brain in every direction, in the centre of the right hemisphere. The left hemisphere seemed wonderfully normal. Part of this tumour was so soft that it scarcely hardened in alcohol. It consisted of medullary cancer. There was almost complete disorganisation throughout the right side of the brain.

* See Vol. xviii., p. 150, July 1872.

CASE III.—*Secondary Cancer, chiefly Affecting the Dura Mater, having originated in the Breast.*

J. M. Admitted 24th August, 1878. æ t. 56. Had cancer of right mamma for two years. Had been weak minded for forty years. But for two or three months before admission her mental symptoms had been much aggravated. She had evidently suffered from an acute attack of insanity, engrafted on chronic dementia. She got depressed at first, and suspicious, imagining that there were persons in the next house conspiring against her, and began to talk incoherently. She had the delusion that there were resurrectionists in the neighbourhood. Her delusions were melancholic and of suspicion. She was very obstinate, refusing to undress and go to bed; and she kept a hatchet beside her for her protection at night. As regarded the bodily symptoms of the disease, she slept well, took her food well, and, what was a very extraordinary thing, she seemed to have but little pain in the head, even with such cancerous deposits as were found after death in the membranes, where disease of any kind is generally accompanied by intense pain. She suffered from "rheumatic" pains, which were probably neurotic, and caused by the disease in the head. On admission she was extremely weak, had hallucinations of sight, was suspicious of those around her, fidgetty and talkative. She had the hallucinations that she saw a bright light, and that there was a man's face in the wall. Those might be due to affection of the centre of vision in the convolutions. Certainly the position of the cancerous layer turned out to be over the point where Ferrier has placed those centres. She had been twice in an asylum previously.

At the autopsy the skull cap was found very much affected with general roughening and diffused irregular erosions of the inner table, and with an adherence to the dura mater so firm that by no possibility could it be taken off. Lying inside the dura mater there were layers of cancerous (sarcomatous) deposits, chiefly confined to the left side, about half an inch thick. There was an ulcerated cancerous mass in the mammary and axillary glands.

Fatty Embolism of the Vessels of the Lungs in an Epileptic who had died Comatose, after a Succession of Fits. By
DR. CLOUSTON.

(Read, and the Microscopical Specimens shown, at the Glasgow Quarterly Meeting, March 26th, 1879.)

G. H., æ t. 40. Had taken epileptic fits for 10 years, but had worked as an engraver till his admission into the asylum on the 7th Oct., 1877. The epilepsy was caused by a fall on the head. He has been threatened with chest disease on several occasions. On several occasions after taking fits, he had been morbidly irritable, and

threatened violence, and been in a state of morbid religious emotionalism, believing he had a commission from God. For the past few days he has laboured under most characteristic epileptic insanity. He was delirious, impulsive, shouting, and totally unconscious. His delusions were of a religious nature, and he also had hallucinations of sight of the same character. While in the asylum he took fits, on an average, once a week. At times he was perfectly sane, and did some engraving work, and it was he who executed the little picture of "Craig house," which was attached to the report of the Royal Asylum, Morningside, Oct., 1877. For the last twelve months he was unable to follow his occupation in this way. About two months before his death he had a series of fits—several every hour for two days running, and was quite comatose. The second day he was very much exhausted, and seemed likely to die. The coma lasted an unusual time, even after such a series of fits, and as he recovered he was extremely weak, and his feet cedematous. The urine was examined, but we found no albumen to speak of, while its quantity and specific gravity was normal. Sugar was not specially looked for. Its quantity was normal. About four days before his death he had a maniacal paroxysm; then fits came on one after another accompanied by complete coma, after the first few hours. Between the general convulsions he had local convulsions, affecting his face and arms, and shortly before his death there were constant rythmical movements of the mouth and throat, similar to when one smacks one's lips when anything tastes very good. He died comatose on the 12th March, 1879.

The autopsy showed the brain was intensely congested—one of the most intensely congested brains I ever saw—especially in the region of the pons and 4th ventricle. There were in some of the veins of pia mater fibrous organised white bodies, in addition to the ordinary white clot, of a much more firm organisation and different microscopic structure than the white clot, so that they could be separated quite well from it.* There was extensive fatty degeneration of the liver and of the muscular fibres of the heart, and fatty degeneration of the kidneys. The bones were brittle, one of the ribs could easily be cut through. The cancellated tissue of ribs was very open, and filled with a grumous fluid. I sent the brain and organs to Dr. Hamilton, of the pathological department of Edinburgh University, and he found that many of the capillaries of the lungs were plugged with fatty embolism while in the pia mater many of the small vessels were filled with a substance which, like fat, was blackened by the action of perosmic acid. This, I believe, is a condition which has never been described in the human subject in epilepsy, or any kind of insanity. This subject of fatty embolism is attracting a good deal of attention just now, and the conditions in which it has been found hitherto have been after simple fractures of bones, and after death from diabetic coma. It presents a new field of enquiry in regard to some of our asylum patients who die comatose.

* See Vol. xx., p. 595, No. for Jan., 875.

OCCASIONAL NOTES OF THE QUARTER.

Lunacy Legislation.

Various bills affecting the treatment of lunacy having been introduced in the present Session of Parliament, a brief abstract of each will probably be of interest to those members of the Association who may not have obtained them.

Mr. Sclater-Booth's County Boards Bill (clauses 17 and 18), gives power to the County Boards to provide asylums for the "imbecile or insane poor who may legally be detained in a work-house;" or to provide "separate schools" for the "instruction and training" of idiotic young persons being paupers.

One or more workhouses, or parts of workhouses, may be appropriated for such purposes.

The whole county, or a combination of unions, wholly or partly, within the county, may be formed into a district or districts for these purposes. Any such scheme may be submitted to the Local Government Board, and may be established by order of that Board.

The asylums and schools thus provided shall be under the direction of the County Boards. The costs of providing, furnishing, and maintaining them shall be borne by the county rate; the maintenance of the staff and the inmates shall be charged to the guardians of the respective inmates, at a rate fixed from time to time by the County Board.

Power is also taken for the County Board, from time to time, to obtain information as to the amount, nature, and cost of the accommodation provided in the pauper lunatic asylums in the county. "It shall be the duty of the authority controlling such asylums, and of their officers, to afford the County Board all such information as they may reasonably require; and the members of such board may, at all reasonable times, visit and inspect any such pauper lunatic asylum."

The managers of any asylum or school, provided by the authority of this Act, may receive as inmates "any persons not being paupers" by payment, subject to the sanction of the County Board.

Relief of Insane Poor Bill (Mr. Rodwell).

This Bill incorporates certain provisions of the Lunatic Asylum Act, 1853, viz. :—

Secs. 32 to 37, and 40 and 41 as to lands and buildings.

Secs. 47 to 52 as to borrowing and repayment of moneys.

Sec. 61 as to inspection of asylums.

Secs. 79, 80, and 81 as to discharge or removal of servants.

Sec. 88 as to detention of inmates, and

Sec. 94 as to inmate, having property.

The object of the Bill is “to provide infirmaries” for the reception of the insane imbecile and infirm poor, chargeable on unions and parishes in England, other than the metropolis.

A committee of justices for the formation of an “infirm-ary” may be appointed by the Court of Quarter Sessions of the County; and the “infirm-ary,” when constituted, is to be governed by a “managing committee,” composed of the visiting justices of the County Asylum, together with “the chairman for the time being,” of each of the poor law unions in the county.

Patients who are insane, infirm, and imbecile or idiotic, and whose cases may properly be described as chronic, but harmless, may be received from any institution, &c., in the county, subject to conditions and regulations to be made by the Local Government Board; from the County Asylum by order of the visiting justices, with, and subject to, the approval of the medical superintendent thereof; from any workhouse in the county by order of the guardians, subject to the approval of the medical officer thereof.

The mode of admission shall be controlled by the Local Government Board, and no dangerous lunatic shall be admitted.

The managing committee shall appoint, control, and remove the staff; the salaries to be approved by the Local Government Board.

The managing committee shall submit an annual report, together with a duly audited statement of accounts to the Local Government Board.

Provision is made for the reception into the infirmary of idiotic children or young persons; although the same may not have been in any asylum or workhouse, or may not be in indigent circumstances, and payment or contributions may be received on behalf of them.

The infirmaries shall at all times be open to the inspection of a lunacy commissioner, of any justice of the peace, or of any guardian of any union in the county.

The Act to come into operation on 1st Feb., 1880.

The Habitual Drunkards Bill (1879).

The first provisions of this Bill are, that it shall come into operation on the 1st January, 1880, and terminate on the 1st January, 1886, except in the cases of charitable or philanthropic associations.

It defines the expression "Summary Conviction" to mean conviction before a court of summary jurisdiction; and defines the expression "Summary Jurisdiction Act" in its application to the existing laws for England, Ireland, Scotland, the Isle of Man, and the Channel Islands.

Also the expression "Court of Summary Jurisdiction" to mean—

- (a) As regards England and Ireland, a Court constituted by two or more justices of the peace sitting in Petty Sessions, or a magistrate or officer sitting alone or with others, and for the time being empowered by law to do alone any act authorised to be done by more than one justice.
- (s) As regards Scotland, the sheriff or his substitute.
- (y) As regards the Isle of Man and the Channel Islands, any Court, governor, deputy-governor, deemster, jurat, or other magistrate before whom offences and fines are by law prosecuted and recovered.

"A Retreat" means a house licensed under this Act, for the reception, control, care, and treatment of habitual drunkards.

"Habitual Drunkard" means a "person who, by reason of habitual intemperate drinking of intoxicating liquor, is dangerous to himself or herself or to others, or incapable of managing himself or herself, and his or her affairs.

Application for the license of a retreat to be made to the justices for the county or borough, and to be accompanied by a plan of the house to be licensed, with the dimensions of every room, the arrangements for the separation of the sexes, the quantity of land attached, and the extent of the applicant's interest. The applicant undertaking to give personal attention to the management.

The license may be granted to one or more persons for any period not exceeding thirteen months, and may be renewed, revoked, or transferred by the local authorities. The local

authority or the Inspector of Retreats, may order the discharge or removal of any inmate from a retreat which has become unfit for its purpose.

Any habitual drunkard may be admitted into any Retreat, by making an application in writing, in due form, stating the time (not exceeding one year), he wishes to remain, and accompanied by the statutory declaration of two persons, that the applicant is an "habitual drunkard."

The signature to the application must be attested by two Justices of the Peace, who have satisfied themselves that the applicant is an habitual drunkard, and have explained to him the nature of the application. The licensee of any Retreat, receiving such applicant, shall, within two clear days, send a copy of the application to the Clerk of the Local Authority.

The Secretary of State shall appoint an Inspector of Retreats, and, if necessary, an Assistant Inspector, by whom the Retreat shall be inspected triennially and reported on to the Secretary of State, who, on their report, or in his own discretion, may order the discharge of any person detained in any Retreat.

A Judge of the High Court of Justice, on an application *ex parte* at Chambers, or a County Court Judge, within whose district the Retreat is situated, may authorise an enquiry in regard to any person detained in a Retreat, and may give an order of discharge.

A Justice of the Peace, at the request of a licensee, may permit an inmate to be absent on leave for any period not exceeding two months; such period to be reckoned as part of the period of detention.

This leave of absence is forfeited by an attempt to escape from the person with whom the habitual drunkard has been placed, or by a reversion to intemperance.

It is constituted an offence against this Act to neglect an inmate of a Retreat, to assist him in escaping, or to supply him with stimulants of any kind whatsoever, without the authority of the licensee.

Any habitual drunkard refusing to conform to the rules of the Retreat of which he is an inmate, on summary conviction, may be fined five pounds, or imprisoned for any period not exceeding seven days.

An habitual drunkard who has escaped from a Retreat, may be re-arrested on the warrant of a Justice of the Peace, at any time before the expiration of his prescribed period of

detention : if apprehended he must be taken before a Justice of the Peace, who may remit him to the Retreat.

Notice of and cause of death of an inmate to be sent to the Coroner, Registrar of Deaths, and Clerk of the Local Authority of the district.

The Lunacy Law Amendment Bill (Mr. Dillwyn).

Gives power to the Justices of counties and boroughs to raise money for the purchase of private asylums and licensed houses.

The money value shall be given for all lands, buildings, plant, fixtures and furniture, and a sum of money shall be paid in lieu of goodwill, "which sum shall not be less than the yearly average of the receipts of the establishment during the three years immediately preceding the sale."

The establishments thus bought shall be "public asylums," and governed by Secs. 24, 25, 26 and 53 of 16 and 17 Vic., cap. 97, and by the secs. of the same Act in the keeping of accounts.

The receipts of all the asylums in a district shall form a common fund for the expenses of management, &c., and any surplus, after the payment of all expenses, shall be used for lessening the rates levied for the pauper lunacy of the district.

The Justices of counties and boroughs shall appoint for each district a duly qualified medical man, to act as medical visitor to the public asylums, who may be the superintendent of the chief asylum in the district, and who shall act as medical director of all the asylums in the district. He shall be responsible to the Justices in Quarter Sessions, who shall determine his salary, and provide him with assistance if advisable.

The Medical Visitors to be retained.

The officers of the transferred asylums shall be also retained, their salaries to be arranged with the Committee of Visitors, subject to appeal by the officers to the Commissioners in Lunacy. All officers so appointed to be entitled to the provisions as to superannuation grants in the Lunacy Acts.

Power is given to provide superior accommodation for private patients in, or in connection with pauper asylums, on terms of payment to be arranged by the Committee.

Private asylums and licensed houses in the Metropolis to be transferred from the jurisdiction of the Commissioners to that of the Justices.

Provision is made for two additional Commissioners, one

medical and one legal, and for the appointment of a substitute in the case of illness of a Commissioner.

A lunatic shall only be received in an asylum on an order by a Justice of the Peace of the district, such order to be granted upon a petition in due form, by a blood-relation or a householder, or, in the case of a pauper, by the relieving officer of the union or parish, accompanied by a statement and two medical certificates. Any superintendent may, however, receive and detain any person as a lunatic, for any period not exceeding forty-eight hours, upon the petition, statement, and one medical certificate, where the case is certified by one medical person to be emergent.

In no case shall the Justices' order remain in force longer than the 1st January first occurring after the expiration of three years from the date on which it was granted, or than the 1st January in each succeeding year, unless the medical attendant grant and transmit to the Commissioners in Lunacy a certificate that the detention of the lunatic is necessary and proper.

Provision is made for boarders in asylums.

Any person may obtain an order from the Commissioners in Lunacy for the visitation and examination of a lunatic in any asylum, by two registered medical persons, and on the production to the Commissioners of the certificates of two medical persons approved by the Commissioners, certifying that, after two separate examinations, at intervals of at least seven days, they are of opinion that the lunatic may be discharged, the Commissioners in Lunacy shall order the liberation of the lunatic at the end of ten days.

Provision is also made for granting licenses by the Commissioners in Lunacy, to attendants on the insane, on certificates from a medical superintendent of fitness, and of having acted as an attendant for not less than six months.

The Poor Law Union and Lunacy Inquiry (Ireland).

The conclusions arrived at by the Commissioners appointed for this enquiry are—

That for the better care, relief, and treatment of the poor who are lunatic, idiotic, or imbecile in mind, or otherwise afflicted with mental disease, it is expedient that a complete re-organisation of the whole lunacy administration be effected.

For which purpose they recommend—

1st. That under the provisions of sec. 15 of 8 and 9 Vic., cap. 107, the existing district asylums should be classified, reserving one or

more, as may be required, in each province, as "lunatic hospitals," especially for the curative treatment of the insane;

2nd. That the remaining district asylums should be appropriated as "lunatic asylums" for the accommodation of the chronic insane requiring special care. A certain number of this class would be accommodated in the "lunatic hospitals," as about fifty of each sex would be required for the service of those establishments;

3rd. That the inspection of the "lunatics at large" should be made one of the duties of the dispensary medical officers, who should be remunerated for this duty, and whose certificate that any one of this class is neglected or improperly cared for should be made the ground for action by the lunacy authorities;

4th. That the accommodation for the third or harmless class, who are at present in "lunatic asylums," in "workhouses," or "at large in a neglected state," be provided for by the appropriation of spare workhouse buildings, a sufficiency of which is to be found in each province; and

5th. That for the present all expenditure upon the building or enlargement of the district asylums be suspended.

They estimate the cost of the curative establishments at £26 per head per annum.

The second class at £20 per head per annum.

And the third class at £16 6s. per head per annum.

It is recommended that power should be obtained to move medical superintendents from one asylum to another without losing their services (as reckoning on superannuation), and to fix their salaries on a proper scale, instead of being dependent, as they now are, in a great measure, upon the number of beds for which their asylums are built.

The opinion is expressed that "the whole lunacy administration of Ireland should be under the general control, as Poor Law and sanitary administration is, of the Local Government Board.

The Poor Law and Lunacy Enquiry Commission was, it seems, hampered with conditions which restricted within narrow bounds the scope of its enquiry. Originally appointed as a Commission to hold enquiry "in regard to the number of Poor Law Unions and Workhouses in Ireland, and the provision now made for the relief of the sick and destitute poor in workhouses and hospitals, and whether any changes in that respect are necessary or desirable," it subsequently was directed to investigate and report on the provisions at present made and existing in Ireland for the care, relief, and treatment of the poor who are lunatic, or idiotic, or imbecile in mind, &c. Whether, owing to the limitation by which it was bound, or not, it has certainly limited its enquiry to a range falling far short of a full investigation as to what further provision is desirable for the sick and

destitute poor in Ireland, and for the care, relief, and treatment of the poor who are lunatic, or idiotic, or imbecile, and any one who expects to find those subjects exhaustively treated in the report of the Commissioners will find himself disappointed. Nevertheless, the report contains some valuable information. Owing its existence, as it did, to the force of the *vox populi* that further legislation was requisite on the subjects referred to it for enquiry, it must needs be that new legislation is proposed by the Commission, but the changes shadowed forth are not so sweeping in some directions as was, we believe, generally expected, although in other directions open, we think, to grave objection.

The Poor Law Board in England and Ireland, originally constituted partly for the prevention and partly for the relief of pauperism, has changed its name, and, it is to be presumed, its object, to an extent which is now bounded rather by geographical than social or political limits. To some extent it may be admitted that it has enlarged its views, and doubtless in the course of time it may be presumed that it will do so still more, and bring them up to a level with the legal enlargement of its powers. But while we do not deny that the Local Government Board has made considerable progress in the application of benevolent and enlightened views as regards the care and treatment of the sick, yet we by no means think that this advancement has been so complete as to warrant the expectation that as at present constituted it will supply a central authority *adequate to meet the full requirements of the insane*, especially in view of the fact that many of those requirements differ largely from those of other classes of the sick. From a similar point of view we regret that the Poor Law and Lunacy Enquiry Commission had not at least one member conversant with the treatment of the insane and imbeciles as carried out in institutions specially established and conducted for the purpose. Whatever the central authority may be to which the supervision of the insane is relegated, we trust the mistake will not be committed of constituting the body of members not having the education or experience requisite in the consideration and carrying out of measures for the due fulfilment of such duties, involving, as they do, both a practical and theoretical knowledge of the subject.

If a body fully competent to deal thoroughly with it were constituted, we should certainly object to restricting its operation by legal sub-division and technicalities, defining

the location and classification of the insane by hard and fast lines under which the insane would be statutorily relegated to curative, intermediate, and incurable asylums. Given a good central authority, better than this would be to leave the determination of the general principle and details as little restricted as possible by strict classification by statute. Before Ireland is mapped out, as has been attempted in the report of the Poor Law and Lunacy Enquiry Commissioners, we hope that much thought will be expended on the best mode of providing for the insane in that country. A liberal outlay of money on first-class asylums will never be regretted; but, as regards what is now proposed, we think the caution given by the Commissioners themselves against an outlay on buildings deserves to be most carefully kept in view.

We are afraid that the present confessedly miserable condition of the insane in the Irish workhouses will not be remedied by legalising their detention there, or by increasing their number up to 50 or 100, so as to make it worth the Guardians' while to place them in charge of one or two attendants. Let it be understood that there is no recommendation to constitute anything like an auxiliary asylum, such as Leavesden or Caterham, where large numbers, being brought together, can be kept at a cheap rate, and can at the same time be properly treated *under medical care*. No provision is made for the necessary supervision, medical or otherwise. The dispensary medical officer is to visit the insane at large, but those in workhouses are to be left to the tender mercies of attendants. The amount of care and comfort these unfortunate beings are to enjoy can be imagined from the fact that the Commission considers that £14 6s. a year will be the cost of their maintenance, after paying attendants, whilst the cost of those in the second-class establishments is to be £20, or about £6 less than what they cost at present. We have been careful to speak in measured language of the scheme now before us, but we must be allowed to say that we fear that, if carried out, it will be found disastrous to the best interests of the class it is intended to serve.*

At the meeting of the Council of the Association on the 19th March a Committee was appointed to consider the

* The reader will find much useful information in the pamphlet by Lieut.-Colonel Chichester, entitled "Amalgamation of Unions, and proposed Modifications in the Poor Law." Dublin, 1879.

various Bills affecting lunacy before Parliament in the present Session. The Committee appointed, consisting of Drs. Blandford, Crichton Browne, Bucknill, Lush, Lindsay, Orange, Paul, Parsey, Rayner, Rogers, and Hack Tuke, met on the 28th of March, when the various proposed Bills were fully discussed. The report of the proceedings of the Committee will be presented at the next meeting of the Council.

PART II.—REVIEWS.

The Pathology of Mind. By HENRY MAUDSLEY, M.D.
Third Edition.

Dr. Maudsley has re-cast and re-written his now classical volume on "The Physiology and Pathology of Mind," bringing it out in two distinct books. In some respects this may be one advantage to his readers, but we do not consider that the arrangement will be the best for the subject. As it appeared before, the book was unique in its completeness and solidarity. The fact that the physiology and pathology of mind could be treated together, and by the same author, helped to produce on the reader conceptions of the true scientific unity of the mental functions of the brain in their normal and abnormal manifestations. We see no good reason why the author's "more ripened experience" should not, like his "first fruits," have been embodied in one continuous and uniform effort to bring "psychology, physiology, and pathology" into "relation with one another." But it has seemed best to Dr. Maudsley to make the change, and we must accept his decision.

The new chapters on sleep, dreaming, hypnotism, somnambulism, and allied states are suggestive, but not strikingly new. Dr. Maudsley never writes at his best till he has an opponent. The most striking thing about these chapters is the wealth of illustration used to convey the meaning. "Man is not a mixture, or a compound of body and mind, but one being, having, magnet-like, two polarities, the one linking him to that which is below him, the other representing his spiritual aspirations, having opposite and higher attractions." The "plastic power of the supreme cerebral centres," on which he insists, as being something "deeper than conscious mental function," and to prove the attributes of which he

quotes the instances of men doing intellectual work and solving difficult problems during sleep, would, unquestionably, by the metaphysicians be called the "self-sufficing," independent working of mind. It is a clear proof that the physiological psychologists and the metaphysicians are looking at the same thing from two points of view, and have no common standpoint, when we find Dr. Maudsley and Prof. Calderwood* using the same facts to establish two opposite theories of mind. Our own belief is, that the facts of dreaming, the sudden reminiscences of the events of a lifetime in a moment, and the unconscious performance of intellectual work, are equally compatible with the brain-energy and independent-existence theories of mind.

We think that Dr. Maudsley partially fails in his attempted explanations as to how forgotten or distant events are revived in dreams, except that his third hypothesis—that of the probable stimulation of parts of the brain by the bodily organs with which they are in internuncial relation—does undoubtedly explain those dreams that refer to conditions of the body. They are, in fact, uneasy, painful or pleasant sensations misinterpreted by the sleeping but half-active convolutions. No one can attempt any rational hypothesis of dreaming at all without admitting what has been called unconscious cerebration. Dr. Maudsley does not allude to what we believe to be a most important brain condition, especially in certain forms of insanity, viz., that state of half-waking, when a man does not become fully unconscious at all, yet his brain rests, and is recuperated. In normal sleep, no doubt, the condition of unconsciousness takes place suddenly, and is complete, just as in perfectly normal sleep there is no remembered dreaming. But we have seen some cases of mania and melancholia, as well as of sane people in a highly "nervous" state, that never slept, so as to be quite unconscious, for many months, for more than a few minutes at a time. But they lay still at times, and looked stupid and lethargic, and they ceased to talk and move. We believe that there is a *conscious* sleep, and that such patients get their brain rest in that way. From what we know of brain function and repair, it seems impossible to explain why such cases do not die of exhaustion in any other way. Did any physician ever see a case die from want of sleep? Such cases are constantly

* "The Relations of Mind and Brain."

talked of, but in a prolonged experience in the treatment of insanity, we never saw one.

Another condition, not unimportant to the physician, connected with sleeping, is not alluded to, viz., that of the sort of *mania transitoria*, which is liable to occur in some persons if suddenly waked up out of a sound sleep. Within a few years a man woke up in a railway train and jumped out of the carriage window, thinking he was being strangled, and a woman in London threw her three children out of a third storey window, thinking the house was on fire, neither of them being somnambulists. We have known a man nearly choke his wife when woke up by her, thinking she was a robber. He refers to the very curious fact that the different senses often go to sleep in succession, and not at all necessarily at the same time. Who has not felt in going to sleep that common sensibility sleeps first, so that there is a complete disturbance in the perceptions and sensations of the size of one's limbs, the distances of objects and of sounds, one having a sensation that one's hands are enormously large, that one's feet are far away, and then that the ticking of the clock is miles distant?

We like the chapters on the causation and prevention of insanity the best in the book. In them the author's characteristic powers are fully brought out. His philosophical bias, his acuteness in seeing below the surface of physiological facts, his grasp of his subject in a wide suggestive sense, his expository power, and his nervous eloquence and force of diction, are all at their best. It is the best bit of medical writing we have come across for many a day. As he treats of heredity, temperaments, sociology, vice, and virtue in their relations to mental pathology, no one can escape the charm of his writing. The bits of spice that occur here and there, in the shape of castigating descriptions of the hypocrite and the egotist, and what happens to them and their offspring, are far better than most sermons. While reading them one feels how great a preacher and how stern a moralist was spoiled when Dr. Maudsley took to medicine. He has the personal hatred of the religionist to everything that is opposed to his own creed.

He thus brings out most graphically the mental characteristics of some of the relatives of insane patients:—

They have such an intimate radical sympathy of nature with those tendencies of character which have culminated in insanity in him that they cannot sincerely see alienation which is patent to

all the rest of the world. They will minimise bit by bit, finding reason or excuse for each strange act, feeling, or idea, until they have accounted for all the strangeness of it, and it only remains for the patient listener to confess that the palpable madness was, after all, very natural in him, and that their relative is not mad like other mad persons, or, at any rate, that what would be great madness in all the rest of the world is not madness in him. . . . As a consequence of their essential likeness and sympathy of nature, they will question, dispute, carp at every restraint which those under whose care he is may find it necessary to place upon him. Notwithstanding that they may have been obliged to send him from home, and to put him under control, because he was an intolerable trouble, or an actual menace or a danger, they will talk as if they would exact a mode of treatment which entirely ignored his insanity, and will end, probably, if he does not get better, in the firm belief that his disease has been caused and kept in action by the improper treatment to which he has been subjected. The worst of them would risk the chance of his attendant being killed by a lunatic, rather than suffer what they call his sensitive disposition to be hurt by the necessary means of control, and, if such a catastrophe happened, their genuine sympathies would be with him, not with the victim of his violence. Their intensely suspicious and distrustful natures, their tortuous habits of thought, their wiles and insincerities, their entire absorption in a narrow selfishness, mark a disposition which is incapable of coming into wholesome relation with mankind. It is of a character to lead to guile in social intercourse, to petty fraud in business, and, when the conditions of life are hard and simple, to evil-doing, even to crime, which, in any case, is sure to breed insanity or crime in the next generation. Moral feeling is based upon sympathy ; to have it one must have imagination enough to realise the relations of others, and to enter ideally into their feelings, whereas these persons have not the least capacity of going in feeling beyond the range of their family, unless it be to embrace a favourite cat or dog. . . . Being in such slight and unstable relations with their kind, what wonder that a son or daughter that has descended from such an unsound stock, and who most likely sucked in suspicion and egoism with his mother's milk, should get so far astray as to be loosened from wholesome bonds of social relation, and to become insane or criminal !

This is truly refreshing reading to those whose lives have often been made a burden to them by the suspicions of such people.

We would like to quote many passages from these chapters, but forbear. We most strongly advise our readers to read them for themselves. He is not one of the alarmists who cry out about the increase of insanity and nervous disorders in recent days. He denounces the egoistic aims and lives of many men in the present day, counselling altruistic and unselfish living

as an antidote to some of the insanity of the time. Here is Dr. Maudsley as an expounder of the meaning of the Scriptures :—

The maxims of morality which were proclaimed by holy men of old, as lessons of religion indispensable to the well-being and stability of families and nations, are not really wild dreams of inspired fancy, nor the empty words which preachers make them ; founded on a sincere recognition of the laws of nature, working in human events, they were visions of eternal truths of human evolution. Assuredly the “everlasting arms” are beneath the upright man who dealeth uprightly, but they are the everlasting laws of Nature which sustain him, who, doing that which is lawful and right, leads a life that is in faithful harmony with Nature’s progress. The destruction which falls upon him who dealeth treacherously and doeth iniquity, “observing not the Commandments of the Lord to obey them,” are the avenging consequences of broken natural laws. . . . Crime, vice, madness, every unwelcome sort of ill-doing, comes by law, not by chance, not by casualty, but by causality. “Shall there be evil in a city, and the Lord hath not done it?”

The chapter on religion as a cause of insanity is very vigorous, but we must say a little self-contradictory, not a little impious, and there are some parts of it that do not seem relevant. Dr. Maudsley fearlessly, in a paragraph, settles questions that have puzzled wise men since the world began. He calls it “a nonsense” to say that a man can love God. Cannot a man love Nature? Is she any more knowable than God? And do not Nature and her laws manifest forth and represent to us some of the qualities of the “unknowable?” Those very “laws” that he so eloquently pleads that we should obey, are they “knowable?” We are more inclined to agree with him when he blames the unwise religious teacher who “fosters the egoistic development of emotion,” and makes a man rise “to the insane conceit of himself as something entirely distinct from nature—an unrelated spiritual essence, for whose benefit the universe, and all that therein is, has been specially created.” Here is a startling opinion. “On comparing the best Pagan modes of thought with Christian modes of thought, a doubt might be raised whether the latter have not sometimes been less favourable to a calm and stable mental development. Contrast, for example, the widely different views and feelings with which death was regarded. To the Pagan it was the twin brother of sleep; the youth with inverted torch; the natural rest at the end of a long day’s taste of life, which the wise man would not fear, but welcome. To the Christian it was presented in all the

horrors imaginable, &c." St. Paul was a Christian teacher of the first order, and yet what Pagan ever welcomed death more calmly? And did the author of Christianity teach the fear of death, or fear it himself? Were these men Christians according to St. Paul's type, "who, through fear of death, were all their lifetime subject to bondage?" The fact is that in certain places, preacher-like, our author's eloquence gets the better of his logic, and of that calm reasonableness of mind which no one in theory would more strongly advocate than he himself. His remarks on education in connection with mental soundness are well worthy of study. "It will be the aim of a wise self-training to develop true thought and sound feelings in the mind, and so to co-ordinate them in exercise that they shall be available, when required, as the best volition; and the means to this end are not observation and reflection only, but more particularly action." "Cease to do evil, learn to do well," is the maxim of a sound mental philosophy. The proper counsel of a physician to one who consults him concerning what he shall do to be saved, because of a well-grounded apprehension that his mind will give way, would, were it candid and compendious, oftentimes be—"learn to unlearn."

Dr. Maudsley does not say anything, by the way, about that cause of the production of insanity, which, according to our observation, is very common, viz., the tendency that there is in neurotic families to intermarry with each other. The French have noticed this. We think there are strange affinities and repulsions between such people, that do not exist in healthy persons. He might have illustrated better than he has done the tendency of such neurotic persons to go into dissent of all kinds. They form the backbone of the dissidence of dissent; and they show their mental peculiarities by even their selection of doctors or systems of medicine. It is a fact, we believe, that the religionists, of whose creed faith without works, sudden "conversions," and immediate, almost supernatural answers to prayer form an unreasonable part, are greatly given to homœopathy, and other systems of therapeutics, where the means are not adequate to the end, according to ordinary known laws.

We have dwelt longer on this portion of the book because it is newer to our readers. That part in which he describes the various forms of insanity, their symptoms, varieties, and treatment, is, we are sure, well known in the former editions to most readers of this journal. Of all the books

in the English language on insanity, Dr. Maudsley's is the most suggestive and philosophical. His description of precocious, nervous, sensitive, tubercular children, and the phantasms and hallucinations to which they are subject, is very true to nature. In such children delusion is the normal mental life, for imagination overpowers observation, and to them the subjective becomes really the objective. They are most interesting subjects of study to the student of mind. The affective and instinctive madneses of children are also most graphically portrayed. Throughout the whole of this part of the book, typical and instructive cases of the diseases described are referred to. In this respect, the extended experience of the author had made his readers his debtors, more and more in the successive editions of this book, though he has not always attained to that perfect clinical style where the case—the fact of Nature—is the main feature of the description, and the dissertation follows naturally to explain and illustrate it. Few medical authors have attained this to perfection like Sydenham, Trousseau, and Watson, but it should be the aim and ambition of all authors in our profession.

We do not think that the author's symptomatological classification is either the most practical or the most scientific that could be devised. Why should melancholia be called an ideational insanity? The essence of that form of insanity is affective, a state of painful feeling; in many cases there are no delusion at all. And how is impulsive insanity, where acts are done in an unconscious, automatic, uncontrollable way, affective? It is in reality an inhibitory insanity, not being either affective or ideational.

We think that in every symptomatological classification there should be a class to include the cases of "acute dementia," the "cataleptics," the cases of "trance," and the cases of "*Melancholia attonita*." A class of "*Stupor*," or "*Psychocoma*," should be created for such cases. To the general practitioner they are most perplexing when he meets with them, for he can't put them under any of the common varieties of mental disease known to him. Then *Folie Circulaire* should take its place as a distinct class.

Dr. Maudsley's descriptions of the different classes of mental diseases are more vivid, as well as more true to nature, in this than either of the two previous editions, and most of them are not equalled in any English text book. We should have liked to quote some of them, but our space

is not sufficient, and a mutilated description does not do justice to the author. His descriptions of melancholia and mania are very striking, and perfectly true. He might, in the next edition, add a few paragraphs, describing the distinctions between acute mania and the diseases with which it is liable to be confounded, and which are constantly sent to asylums by mistake, viz., the continued fevers, especially the "suppressed" fevers in their initial stage, meningitis, delirious pneumonia, and that compound of intoxication and alcoholism which is induced in some weak brains by a small dose of ardent spirits. He does not insist, as he should, on the use of the thermometer, or on some of the *bodily symptoms* in the diagnosis and prognosis of melancholia and mania.

Dr. Maudsley very properly gives much prominence to the clinical grouping of insanity devised by the late Dr. Skae, and gives admirable and practical descriptions of many of the groups.

Some statistical information is needed, to make the chapters complete, as to the relative frequency of the various classes and varieties of insanity, and the numbers of each class that recover, die, or pass into other forms. We think, too, that the chapters on each form of insanity should be begun by a description of what might be called the physiological form of the mental alteration about to be described, and the temperament that predisposes and tends towards it, and out of which it is evolved. The natural depression of mind from bad news, and the capacity for feeling this and other forms of mental pain, is unquestionably the best mode of leading up to the study of the truly pathological melancholia. So the elevation of mind from joy, the fury and loss of self-control, of anger, and the phenomena of intoxication, are the best modes of leading up to a true understanding of mania. The conceptions of those diseases are thus made to rest on a physiological and rational basis. Then we think that the special means of prophylaxis and prevention applicable to each form of insanity, so far as we know them, should have been dwelt on, as well as the best modes of trying to cut short attacks in the beginning. There is room, too, for some observations on the kinds of occupation most suitable for those predisposed by temperament and heredity to certain kinds of insanity. Who would advise a very excitable youth, whose father had been maniacal, or who had had an attack of insanity himself at adolescence, to go on the Stock Exchange

or enter the army, but would not rather advise him to get a situation with a fixed salary, with regular routine work?

The chapters on morbid anatomy and treatment are concise summaries of what is known in regard to those matters. We must say we have the strongest objection to the idea of having all the treatment, therapeutics, and modes of management huddled together at the end. Each kind of insanity needs a special kind of treatment, and the treatment should follow the clinical description. What would be thought of a book on diseases of the lungs, when the descriptions of bronchitis and pneumonia, and emphysema, &c., came first; and the therapeutics of them all were huddled together and mixed up at the end. We hope to see a change for the better in this respect in future editions, of which we have no doubt many more will be needed. It is seldom that we get a medical treatise, which, like this, combines intense human interest, the scientific and clinical spirit of accuracy, and a cultivated eloquence of literary style.

The Life of George Combe. By CHARLES GIBBON. 2 vols. 1878.

The appearance of a biography of the author of the "System of Phrenology" and "The Constitution of Man" carries the mind back to the period when the fiercest of contests raged in regard to the truth of the views so strenuously advocated by the man whose memory is embalmed in these volumes. Born in Edinburgh in 1788 (one of eighteen children), his attention was first drawn to Phrenology in 1815 by the celebrated attack made upon Spurzheim in the "Edinburgh Review," by Dr. Gordon, a lecturer on anatomy and the author of a work on the "Structure of the Brain." After ridiculing the system for some time, Combe was induced to attend a lecture delivered by the German. It should be stated that previously he had felt, although engaged in the Law, so strong a leaning to metaphysical studies that he had read many works on the philosophy of the mind, and that with the same view he had attended a course of anatomical lectures by Dr. Barclay. He was, however, little edified by what he read, and was finally in despair when his teacher admitted that all he could give his pupils in reference to the physiology of the brain "amounted to nothing more than a

display of parts of the brain in the order of an arbitrary dissection; and that, in simple truth, nothing was known concerning the relation of the structure which he had exhibited." The sequel is best told in his own words:—

It chanced that, on leaving the Court of Session one day, a friend of mine, a barrister, said "Would you like to see Dr. Spurzheim dissect the brain?" My reply was "Yes, very much." "Then come to my house to-day at one o'clock!" I went and saw Dr. Spurzheim for the first time. He laid the "Edinburgh Review" on the table. Then he proceeded to display the structure of the brain in a manner inexpressibly superior to that of my late teacher, Dr. Barclay, and I saw with my own eyes that the reviewer had shown profound ignorance, and descended to gross misrepresentations in regard to the appearances presented by this organ when dissected by a skilful anatomist. My faith in the reviewer was shaken, and I attended Dr. Spurzheim's second course of lectures. At the close of the series I had attained the conviction that the faculties of the mind, which he had expounded, bore a much greater resemblance to those which I had observed operating in active life than did those of which I had read in the works of metaphysicians, but I was not convinced that these faculties manifest themselves on particular parts of the brain.

Combe now set to work to compare for himself the development of different portions of the skull and the accompanying mental characteristics of the individual, and in three years "became convinced that phrenology was true;" and was noted as the chief representative of the cause in Great Britain. It is interesting to turn now to the articles in the "Edinburgh Review," and observe the position taken in the years 1803 and 1815 by British anatomists and cerebral physiologists.

This "Review," in the second year of its existence, attacked the "Nouvelle Theorie du Cerveau," as described in a letter to Cuvier by M. Villers, and observed "We confess, though at the risk of having the periphery of our heads diminished in the imagination of our readers, that our experience is completely against the assertion that the general strength of the intellectual and moral powers is great in each individual in proportion to the quantity of the encephalon" (1803, p. 151). The only other observation worth quoting is that "the morbid cases on record are sufficient to show that there is not a single part of the encephalon which has not been impaired or destroyed without any apparent change of the intellectual or moral qualities" (p. 154).

In the next attack on phrenology, in 1815, the reviewer

speaks contemptuously of "the man of skulls." "Long before this time we should have looked for his craniological death;" but, "so far from suffering the demise we had confidently anticipated, he has gone on exercising his calling with indefatigable industry and extending his fame" (1815, p. 227). And then adding the name of Spurzheim to that of Gall, it is said "we look upon the whole doctrines taught by these two modern peripatetics, anatomical, physiological, and physiognomical, as a piece of *thorough quackery* from beginning to end, and we are persuaded that every person who takes the trouble to read a single chapter of the volumes before us, will view them precisely in the same light." Again, "There is nothing mountebanks can undertake which John Bull will not think possible; nothing they can affirm which he will not believe." Those who may prove proselytes of Gall and Spurzheim are in anticipation stigmatised as "the dupes of empirics." Yet among them were to be found men no less distinguished than Andrew Combe, Dr. Conolly, Sir James Clark, Sir John Forbes, Dr. W. A. F. Browne, and many others, not to mention Broussais and Vimont in France. That "the better informed in the island" would even credit such "amazing absurdities" might be hoped to be "a thing really impossible" (p. 228). It is not that the details of Gall's doctrines are fanciful, while the general principles are true; the general principles are declared to be false; it is not that Gall and Spurzheim have been carried away by enthusiasm or imagination, but they are accused of being what not a single person of the present day would for an instant charge them with, however strongly dissenting from their opinions. "Were they even to succeed in shaking off the suspicion of *mala fides*, which we apprehend is inseparably attached to their character, we should not hesitate to say that we do not know any writers who, with a conceit so truly ludicrous, and so impudent a contempt for the opinions and labours of others, are so utterly destitute of every qualification necessary for the conduct of a philosophical induction" (*l.c.*) Gall and Spurzheim are, in fine, "cunning craniologers."

One is, of course, curious to ascertain whether an Edinburgh anatomist, writing in 1815—the writer of the review being, as we have said, Dr. Gordon—did or did not believe the brain to be the organ of the mind. Hear what he says:—"We will not say that there are any facts which absolutely *demonstrate* that the brain is *not* the organ of intellect; the subject is still involved in the utmost obscurity, but we

will maintain that such cases as we have alluded to afford no proof whatever that the brain is the *organ* of the intellect.* . . . We deny that there is the slightest approach to a uniform proportion or connexion between the vigour of intellect or the strength or peculiarity of inclinations in man and the size of the brain. . . . We affirm that there is no physician or anatomist who does not know that the assertion of Drs. Gall and Spurzheim is utterly groundless. Intellect of every degree, and of every kind, and inclination of every variety is found combined with brains of all sizes" (p. 245). Again, "we deny that the brain uniformly diminishes in size in old age; or that when it does undergo diminution, the intellect is uniformly affected in proportion; or that when the intellect is affected, there is any proof whatever that this is owing to the diminution in the brain." "We solemnly declare that we, for our parts, have never yet known what it is *to feel that we think by means of our brains.*" The Review concludes with "the writings of Drs. Gall and Spurzheim have not added one fact to the stock of our knowledge respecting either the structure or the functions of man; but consist of such a mixture of gross errors, extravagant absurdities, downright mis-statements, and unmeaning quotations from Scripture, as can leave no doubt, we apprehend, in the minds of honest and intelligent men, as to the real ignorance, the real hypocrisy, and the real empiricism of the authors" (p. 268).

In April, 1817, Combe published in the "Scots Magazine" his first article on phrenology, under the title of "An Explanation of the Physiognomical System of Drs. Gall and Spurzheim," and subsequently lectured frequently on the subject. His brother, Dr. Andrew Combe, became no less warm an advocate of the new system, and in his works on "Mental Derangement," &c., avowed that he based all his observations upon it.

Dr. P. M. Roget wrote an article, "Cranioscopy," in the "Encyclopædia Britannica," in which he forcibly, though in a somewhat different strain from that of Dr. Gordon, attacked the principles of phrenology.

In 1820 the Combes, Welsh, and a few others established the Edinburgh Phrenological Society; and in 1823 started the "Phrenological Journal." † A museum was formed, in

* In this and in all other citations from the review, the italics are in the original.

† This Journal lasted until 1847. For some years it was edited by Combe's nephew, Mr Robert Cox, the brother of Sir James Coxe, who, by-the-by, added a final *e* to his name, as George Combe himself did.

which many skulls and casts of individual and national importance were collected, and exists to this day.

Andrew and George Combe were indefatigable in applying phrenology to education, crime, and insanity. In 1828 the latter published his "Constitution of Man."

The frigidity of Combe's nature, and a certain dryness and formality tended to make his writings anything but inspiring. In minds similarly constituted, and able, like him, to perform the moral duties of life with an almost mechanical exactitude, the system of philosophy taught in this work—true and valuable to a considerable extent, but incomplete and, therefore, not true or valuable when regarded as the entire system which it was represented to be by its author—appears to have been enough to satisfy all their human needs, and to have formed a sufficient stimulus to them in their daily life. But for the great mass of mankind, constituted as they are on a very different type, a system of human philosophy, marked by the absence of any appeal to higher motives than the consequences of an infringement of a law of nature, fails, as all experience shows, to regulate effectively the force of the animal passions.

One feature of Combe's mind in this relation is well brought into relief by himself.

From a horrid stoicism of constitution I have never shed a tear since I was a child. The occasion was an unexpected expression of gratitude made by a near relation, in the very moment of death. I had watched the fading taper of life, and seen it gradually approaching extinction with every variety of internal emotion, but without a tear. On this unexpected address to my Love of Approbation, however, the tear started in my eye, but never dropped (Vol. 1, p. 157).

Returning to the critics, we find in the "Edinburgh" of 1826, Jeffrey himself owning to the same astonishment as had been previously expressed at the vitality of Gall's doctrine. "Long before this time, we confess, we expected to have seen Gall's plaster heads turned into toys for children; and this folly consigned to the great limbo of vanity to which the dreams of Alchemy, Sympathetic Medicine, and Animal Magnetism, had passed, before it" (p. 254). This article is a review of Combe's work on phrenology, and extends to no less than 64 pages, and ends by granting that there are no objections to phrenology as an amusement for idle people. Of Combe himself—of his ability and ingenuity—Jeffrey speaks in terms of marked respect.

He only suspects his good faith in having come forward to defend such a monstrous system.

Let us now turn to the opinions entertained a little later on by some physicians belonging to our own speciality, and see how Gall's doctrines were regarded by them.

To those who were personally acquainted with Dr. Conolly, his favourable opinion of the system of Gall and Spurzheim is well known. In his "Indications of Insanity" (1830) he maintains that "the first principles of phrenology are founded in Nature," and adds, "I can see nothing which merits the praise of being philosophical in the real or affected contempt, professed by so many anatomists and physiologists for a science which, however imperfect, has for its object the demonstration that for other functions, the existence of which none can deny, there are further separations and distinctions of hitherto unexplained portions of nervous matter" (p. 135). And in a letter to George Combe himself, Dr. Conolly expresses his "conviction of the great usefulness of habitual regard to the principles of phrenology, especially in my department of practice, and of the confusion and imperfection of the views which seem to me to be taken both of sound and unsound mind by those who reject the aid of observations confirmed now by vast experience, and most of which may be daily verified in asylums for the insane. I am also convinced that attention to the form of the head, conjoined with that cautious consideration of all other physical circumstances which no prudent phrenologist disregards, will often enable the practitioner to form an accurate prognosis in cases of mental disorder, and to foretell the chances of recovery or amelioration, or hopeless and gradual deterioration."

This remarkably explicit letter is quoted by Sir James Clark in his memoir of Conolly, and Sir James himself observes, after citing certain passages from modern physiologists favouring the localization of cerebral organs, "These observations, which are founded on enquiries into the anatomy and physiology of the brain, strengthened by recent discoveries in pathology, all point in one direction, and tend to support the opinion of the phrenologists that the brain is an aggregate of many different parts, each appropriated to the manifestation of a particular mental faculty. The prediction of the late Dr. Andrew Combe, the most sagacious and far-seeing of all British writers on phrenology, that a possible position of importance awaited it in the future, appears to

rest on a surer foundation than has sometimes been imagined."

Dr. W. A. F. Browne, in the preface to his excellent and widely read book, "What Asylums Were, Are, and Ought to Be" (1837), says: "To those who are acquainted with the doctrines of phrenology, the extent of my obligations in this particular case, and throughout the work, will be readily recognised; and to those who are still ignorant of these doctrines, I have to offer the assurance that insanity can neither be understood nor described, nor treated by the aid of any other philosophy. I have long entertained this opinion; I have for many years put it to the test of experiments, and I now wish to record it as my deliberate conviction."

And skipping, for an instant, over a quarter of a century of time we may appropriately add the testimony of Dr. Browne's son. "To the illustrious founders of phrenological science, to Gall and Spurzheim," observes Crichton Browne, "psychology owes much; for those who have had the greatest opportunities of observation have almost invariably come to the conclusion that without an acceptance of the *general principles* of phrenology, mental disease can neither be understood, nor described, nor treated. . . . Phrenology has been despised by the many and opposed by the learned in the most illogical and dishonest manner, and yet it still exists, and now begins to take up its proper position among the sciences. Its grand doctrines are now openly or tacitly acknowledged by the great majority of medical and by several metaphysical writers, and many have earned fame by giving them to the world, without confessing their derivation" ("Journal of Mental Science," Ap., 1861).

Here, too, returning to an earlier date, we may refer to a remarkable conversion to phrenology in the medical world.

In 1840 there appeared in Dr. (afterwards Sir) John Forbes's "British and Foreign Medical Review" an editorial article on phrenology, which spoke out as follows:—"We delayed forming or expressing any opinion till we should have sufficient time and opportunity to verify its principles and scrutinize its details. Having now done so sufficiently to qualify ourselves for giving an opinion, we should shrink from our duty both to our readers and to science were we to hesitate longer in avowing our conviction that phrenology embodies many facts and views of great general interest and direct practical utility to the physician, the philosopher, and

the philanthropist; and that, as such, it has established a claim to a more careful, serious, and impartial examination on the part of the profession than it has ever yet received." The author of the article traces almost all the opposition Gall's discovery encountered, to "a most unphilosophical and illogical mode of proceeding," and confesses that "the strict test of observation" has led him to "a growing and conscientious conviction of the soundness of the great principles on which the positions of Spurzheim are based."*

Stimulated by the perusal of Combe's life, we have thus briefly sketched the history of phrenology in this country, because we think several questions, worthy of consideration, arise in the review of it. Why was it, after and in spite of the opposition it encountered, accepted by so considerable a number of men of mark? Why did it appear to act as a stimulus to the advance of cerebral anatomy and physiology, and not only so, but to social reforms which depended for their right understanding upon correct views of the relations between man's physical and mental constitution? Why did Combe die in more honour than he lived? and why did this Journal a few years ago repair an omission for which due apology was made by reviewing with favour a work of Combe's which was altogether founded upon phrenology?

The answer to these questions is sufficiently clear. Gall grasped, by his genius and extraordinary penetration, certain great psycho-physical or cerebro-mental principles which those who preceded him dimly and intermittently perceived, and which a number of his opponents even resolutely denied. As between these and Gall, they were wrong, he was right. They were without any key whatever to unlock the great problems connected with the correlation of mind and brain. Gall had found a key, rough indeed, and with some strange twists in it, but a key, nevertheless, which, in spite of its defectiveness, did correspond with many of the wards of locks hitherto unopened by metaphysicians and social reformers. They were in outer darkness; Gall at least contrived to strike a light in the gloom; fitful and uncertain it may be, but as superior to that which preceded it, as the oil lamp is to a rush-light, or as gas to oil.

And what *were* the principles which Gall grasped? Certainly he held, in a far more definite form than any one else had done before him, that the brain is the organ of the mind.

* We observe, also, that the *Lancet* at an earlier period gave in its adhesion to phrenology and even published Spurzheim's Lectures.

This fundamental principle carried with it corollaries of the utmost importance. If the mental functions were thus linked with a physical structure, must not the healthy working of the mind demand this structure's health? Must not the blood sent to it be pure? Must not, in fine, the laws which govern the mind be similar to those which regulate the bodily organs? And if so, then education must be carried on in conformity with these laws; insanity must be regarded and treated as a physical disease; crime itself must be viewed in many instances as the result of a morbid condition of the brain; and so on.

Again, Gall maintained that the brain was many-functioned. If so, dreaming, somnambulism, and partial insanity were phenomena which might naturally be expected to occur. Further, having a physical organ to do with, the necessity of quantity and the importance of quality were insisted upon by Gall. Idiocy was regarded in its true light. And indeed it must be frankly admitted that as regards both idiocy and insanity, their relation to brain was much more clearly recognised and commented upon by Gall than Pinel—from whom passages might be cited exhibiting a remarkable want of recognition of this relation. Nay, coming to much more recent times, when in 1845, M. Belhomme stated before the Academy of Medicine that insanity is always connected with disease of the brain, M. Jolly replied that we are not warranted in asserting that material lesions are necessary. "Children," he said, "are frequently attacked with inflammatory affections of the brain, but are not insane. The lesions of the intellect do not require for their manifestation, inflammation, softening, hardening, or any other *material* lesion. Hereditary predisposition, a bad education, moral commotions, alone suffice to give rise to them." Rochoux supported Belhomme; as also Ferrus. But M. Jolly had on his side three physicians, including Gerdy.

Once more, were not the moral faculties associated with the brain no less than the intellectual? If so, might not the moral monstrosities, as well as the intellectual giants of our race, be explicable by their cerebral development? Might there not be disease of one part of the brain causing emotional insanity, while the memory or the imagination remained unaffected?

All this and a good deal more might be true, and if true, of the highest import; and yet it might not be true that any

of the spots in the brain on which Gall fixed as the seats of certain mental faculties, were in reality so. We are aware that this is regarded as a stupid paradox by phrenologists, for they say, with apparent justice, that Gall arrived at all the fundamental principles now usually conceded, through the discovery of the individual organs. But, if it once be allowed that Gall conceived a development of one part of the head in association with a particular mental faculty, or of the general size of the head with the individual's intelligence, then all these principles would follow.

Were we to regard the two sides of the phrenological shield, the physical and the mental, and, taking our leading authorities of the present day, ask them how far their cerebral physiology and their mental philosophy accord with those of Gall, Spurzheim, and Combe, should we not be supplying the best practical commentary on the life of the subject of the memoirs before us? Ferrier, Carpenter, Bain, for example, in their respective territories, might be appealed to. They may be wrong; but they, at least, are representatives of a large majority of living physiologists and metaphysicians.

Compare, first, with the paragraph written by Dr. Gordon in the "Edinburgh Review," in which he cannot tell whether the brain has or has not anything to do with the mind, the following opinion, expressed in unmistakable language by Ferrier:—"That the brain is the organ of the mind, and that mental operations are possible only in and through the brain, is now so thoroughly well established and recognised, that we may, without further question, start from this as an ultimate fact." ("Functions of the Brain," p. 255.)

On the other question—that of the unity, or otherwise, of function of the brain—we may cite a striking passage; striking, as coming from a long and consistent opponent of phrenology, as ordinarily understood. His standpoint is, obviously, entirely different from that of the opponents of Gall's doctrine when he first threw down his apple of discord into the physiological world, from which hour, it may be truly said, there has never been a moment's peace; and, indeed, we cannot say we see much chance of the Temple of Janus being closed in our generation.

Dr. Carpenter observes, in a review of Dr. Noble's work* in support of phrenology, which review he has often quoted himself since, "There is a very general correspondence

* "The Brain and its Physiology," 1846, by far the ablest defence of phrenology from a medical pen.

between certain forms of the cerebrum, arising from the cerebral development of its different portions and certain leading diversities of character, which might not unfairly be regarded as indicating that these several divisions are the special instruments of particular groups of intellectual or moral faculties." (*"Brit. and For. Med. Rev.,"* 1846.)

Professor Turner, writing in 1866, observes in "The Convulsions of the Human Cerebrum Topographically Considered," that "the precise morphological investigations of the last few years into the cerebral convulsions have led to the revival in Paris of discussions in which the doctrine of Gall and his disciples—that the brain is not one, but consists of many organs—has been supported by new arguments, and the opinion has been expressed that the primary convulsions, at least, are, both morphologically and physiologically, distinct organs." And assuming the truth of the conclusions arrived at by Ferrier, since the foregoing was written, it may be said that they are so far in harmony with the leading doctrines of Gall's allocations, as not to contradict the theory that the frontal lobes are the seat of the intellectual faculties. Dr. Ferrier is himself strongly of opinion that the front of the hemispheres has more to do with purely intellectual operations than other portions of the cerebrum. But, be this as it may, on the broad question of differentiation of cerebral function, the experiments of Hitzig and Ferrier, whatever else they do or do not prove, establish this fact beyond dispute, and therein give support to one of Gall's disputed dogmas. In the same direction are the remarks made on the occasion of Sir James Coxe's presidency of the Medico-Psychological Association, in Edinburgh, in 1872, by Dr. Crichton Browne, when he paid a graceful compliment to Sir James's well-known acceptance of his uncles (Mr Combe's) views* in saying that "he had been much struck with some of the pathological specimens in the Wakefield Asylum, and that it must be peculiarly interesting to the President—who had, through good and bad report, adhered to phrenological ideas—to find them coming back to the terms of phrenology."

The fact, however, that no single localisation of the cerebral functions, as taught by the phrenologists, has been so distinctly verified as to be now admitted into the teaching of physiologists, must not be overlooked, and is a remarkable

* After Combe's death, Sir James Coxe edited his works.

circumstance in the face of the testimony borne (some of which has been quoted) to the truth of this localisation, and the practical utility of the knowledge of character thus obtained. And strange, to say, the position just referred to, that the frontal lobes are, in some sense, more connected with the intellect than the posterior lobes, is called in question by some distinguished physiologists, who look with much greater favour upon the hind than the fore head. Were this established, it would, indeed, be a cruel reversal of one of the leading conclusions of the phrenologists.

We have, as tending to the support of Gall, some degree of correspondence between Broca's convolution and Gall's organ of language. It is well known that the latter began his investigations in consequence of observing great prominence of the eyes in conjunction with a large endowment of this faculty. Now, although, so far as we are aware, this relationship has never been established, yet the inference he drew has proved to be one of singular interest. It would be very interesting if it could be shown that a largely developed Broca's convolution has the effect of pushing forward the orbital plate, and so causing a prominent eye-ball. The curious fact, however, remains, that the attention which Gall directed to the orbital convolutions in connection with the memory of words, induced Bouillaud to institute a number of *post-mortem* observations, which led him to maintain, in harmony with the conclusions arrived at by Gall on other grounds, that lesions of the anterior lobes cause loss of speech. The next link in the chain appears to have been added by M. Dax, who was struck with the coincidence of loss of speech and disease of the left frontal lobe. Subsequently appeared the now famous memoir of Broca, and some time later Hughlings Jackson's confirmation and extension of the doctrine.* We have no doubt, had Gall been living, he would have claimed the pathological and clinical observations of these physicians as favouring his position, though he would have been in some difficulty to account for the one-sidedness of this lingual allocation.

If, again, as regards language, investigations since the days of Gall have seemed to offer some confirmation of his

* "M. Broca believes that disease of the left side of the brain only produces loss of language; and, moreover, he locates the faculty of Articulate Language in a very limited part of that hemisphere. My observations tend to support the first hypothesis, and, in a general way, the second." (Dr. Jackson, "Lond. Hosp. Reports," vol. 1, p. 388.)

views, there has been nothing certain to support the location of Amativeness, notwithstanding the many pathological observations which, from time to time, have seemed to show some indirect relation between the sexual appetite and the cerebellum. Flint observes that "although there are many facts in pathology which are opposed to the view that the cerebellum presides over the generative function, there are numerous cases which go to show a certain connection between this portion of the central nervous system and the organs of generation in the human subject." ("Physiology of Man," p. 390.) At first sight there seems to be a confirmation of Gall's doctrine in the fact pointed out by Ferrier, that "disease of the median lobe of the cerebellum has been found to co-exist with priapism, or excitement of the generative organs." The explanation given by him, however, is that "instances in which disease of the cerebellum has co-existed with priapism, in the apparent relation of cause and effect, have been cases of apoplexy or hæmorrhage into the middle lobe—a condition of things eminently calculated to cause irritation of the subjacent posterior surface of the medulla oblongata and pons. . . . Eckhard has likewise shown that the vascular turgescence, which is the immediate cause of erection, may be produced by irritation of the pons, and as high up as the crura cerebri. These facts sufficiently account for the priapism observed in connection with diseases of the middle lobe of the cerebellum, and explain the absence of such effects when the disease occurs in the lateral lobes." ("Functions of the Brain," p. 123.)

The interest taken in observations on the inequalities of development of the skull rests, to a large extent, upon the belief in the multiple functions of the brain, and in this connection it is therefore interesting to observe how greatly the importance attached to cranial development in different regions has increased since the time of Gall. The interest in the dimensions and capacity of the skull is to-day as keen as either he or Combe could desire, and it would have delighted them as much as it would have disgusted the laughing philosophers who ridiculed the study of "bumps" to find Professor Flower assuming in his lectures at the College of Surgeons this year, that the skull is a fair index of the development of the brain in its different regions, and ought therefore to be studied, adding that the longer he lived he saw fresh beauty and meaning in every line and configuration of the cranium, and that the fact that he could

recognise particular skulls when presented to him as belonging to certain nations is a proof of there being certain fixed and uniform laws in regard to their development, "whatever those may say who try to run down the science of craniology."

If, now, judging Phrenology from the *mental* side alone, we take Bain for our guide, as a test of its success in elaborating a correct system of Psychology, we find that the phrenological division of the faculties into Propensities, Sentiments, and Intellect, corresponds broadly with Volition, Emotion, and Intellect. There appears, however, to be a want of definition in the distinction drawn between the propensities and sentiments. According to Combe the former indicate internal impulses which invite only to certain actions; the latter have an emotion of a peculiar kind superadded. Along with the impulse to worship, for example, there is a peculiar feeling, which is the reason why veneration is called a sentiment, while the impulse to acquire (acquisitiveness) is a mere impulse, and is therefore called a propensity. It is pointed out by Bain that although the propensities indicate rather more energetic activity than the sentiments, yet they do not contain activity mainly, and the group of sentiments emotion mainly. Philoprogenitiveness (a propensity) and Benevolence (a sentiment) both imply a powerful emotion, and in both is there a tendency to action. In neither order is there an emotion so pure that it never leads to action. And, again, some mental states which imply pure action occur in both categories. Consistently with his view of the unity of the will and the manifoldness of feeling, he endeavours by a certain modification of the phrenological orders of mind to construct a system of which he says "there is nothing in the views of phrenologists essentially repugnant to this amendment." It may be thus briefly stated: The will is the collective muscular machinery of the system, controlled by a certain portion of the cerebrum disposed to act spontaneously, but practically at the service of the feelings uppermost in the mind. Hence there ought to be in the head a region of will and one of the manifold emotions. The will is indivisible, for although there are different aspects of volition, as desire, resolution, belief, these would not occupy distinct cerebral centres, but would only be the different modes under which the indivisible will manifests itself.

From this view, the phrenological propensities and senti-

ments are converted into one common order—Emotion—the feelings which imply pure activity (*e.g.*, Firmness) being abstracted. These, grouped together, and concentrated in one combined spot, would constitute the Will; and assuming that facts should really support the position of the phrenologists, that Firmness is localised in the hinder part of the vertex, it would constitute the region of Bain's volitional energy.

Passing to the third order—Intellect—there appears, again, to be a confusion between this and the previous group as regards the examples given by the phrenologists. "Time and Tune are at the foundation, not only of musical gifts and acquirements which may be placed under Intellect, but also of the pleasures of music." Bain, however, grants that the mixing up of Emotion and Intellect in the same organs may not be found a valid argument against the metaphysics of phrenology.

If from the general we proceed to the particular classification of the faculties by Spurzheim and Combe, and pursue the same enquiry, subjecting the enumeration of primitive faculties to the test of the same psychologist's system, we discover many discrepancies, certainly. And here the reader may be reminded that Bain's test criterion of a distinct faculty differs as widely from Combe's as Maudsley's from Stewart's, for the phrenologist, rejecting consciousness, made mind "a science of observation purely," while the Aberdeen Professor regards consciousness as "the most universally accessible court of appeal in this matter."

Rapidly glancing at special instances, we find Amativeness to be admitted as fundamental. "No feeling of our nature is more distinct or more incapable of being resolved." The chief criticism is that it involves ideas as well as a propensity, if we include the persistent recollection; and, if not, it is held that it hardly amounts to a propensity; for Bain maintains that "no emotion can be looked upon as powerfully manifested, or as existing in the form of a propensity without having a strong ideal persistence." Take again Philoprogenitiveness. It is not considered surprising that, regarding this propensity as the love of one's own offspring, portions of the brain should correspond with it as well as with that of Amativeness. Before the pure residuum, however, of love of children is reached, no less than six sources of interest originating this attachment are pointed out, namely, the tender sentiment, that of power, the habit of

bestowing care, the æsthetic charms of infancy, the scope for ideality, and the sentiment of self-regard. The residuum of pure Philoprogenitiveness would have to be admitted whenever we could prove that all these elements are feebly developed along with a powerful development of this propensity. Nor is it overlooked that gestation and suckling may themselves be much more acutely felt in a way which excites interest in offspring, in some persons than in others, and may thus constitute one source of Philoprogenitiveness. Again, what can be said of Adhesiveness? It is doubted whether the phrenologists have here seized an ultimate fact of our mental constitution, although it is granted that the characteristics given by Combe are true to nature; that is, they describe correctly an affectionate disposition, included in the Tender Emotion. Among the elements going to form the complex state of sociability, or the fondness for associating with others, is enumerated the want of the aid of other persons, for it is clear that those who feel dependent will cling to—*adhere* to—those upon whom they can rest and derive help from; then there is the love of producing an impression upon others by a display of our powers. We love exerting influence; we become attached to those who serve our purpose. Again, there is the craving for a number of persons in the character of followers; they minister to the sense of our dignity. The æsthetic element has also to be taken into consideration. The love of beauty attracts us to individuals as much as to pictures; nor can Amativeness be excluded in this enumeration. Hence, if these criticisms are well founded, Adhesiveness does not appear to justify its claim to be regarded as a primitive faculty. When we come to Combativeness, we find that it is admitted that a real characteristic of human nature is here described, and that it is likely enough that so marked a quality should have a distinct localization in the brain. “In the case of well-developed Combativeness, there is manifestly implied a great overflow of active power; in the opposite, a deficiency; and we cannot avoid referring the distinction to a difference in the nervous centres, it may be of quality or of size, or of both.” And yet, even here, it may be that the love of opposing is not so primitive or distinct a faculty as it seems. When no object for combat exists, it resolves itself, according to Bain, into the sentiment of Power. Superior might is qualified by the satisfaction of prostrating a rival. Thus, two distinct elements are introduced; a superabundant central energy,

and the love of power. Of these two ingredients, the most essential is affirmed to be the latter; if it were absent, the superabundant energy would flow in other directions; but the feeling being universal, the active element is likely to be followed out into this particular gratification. This granted, the development of the brain behind and above the ear, would be an indication of an actively-disposed mental system. And what is to be said of a propensity which, perhaps, more than any other, is associated with phrenology—Destructiveness—the inclination to injure? In it is also recognised the element of spontaneous activity, directed by the gratification arising from the infliction of pain upon man or animals, and also the mere destruction of inanimate objects. Here, again, following the same guide, it becomes resolved into the certainly very comprehensive sentiment of Power; and this (if anything) ought, according to this analysis, to be the faculty located by phrenologists behind and over the ear. Both feelings—combativeness and destructiveness—might be associated and looked for here, and there would be “no intrinsic improbability in supposing that great natural vigour is apt to be accompanied with the pleasure of exercising it in the *most telling forms*, unless the more humane sentiments so far predominate as to elevate the character of its workings” (Bain). When, next, we turn to another well-known phrenological propensity—Alimentiveness—we find it conceded that the appetite for food cannot be resolved into a simpler propensity, and that as the phrenologists are right, psychologically, the location in the brain in front of Destructiveness is merely a question of observation. So much cannot be said for Secretiveness, for while there is in different persons a marked difference as to being secretive, so many motives come into play, that the mere tendency to conceal *without any motive whatever* is regarded as highly improbable. Naturally strong feelings are difficult to conceal; a social disposition leads to an open temper. Prudence, the desire to gain our object, and to avoid what we dislike, tempt us to resort to concealment. With those of a cold nature reserve is only natural. For these and other reasons it is contended that there are no facts adduced by phrenologists which do not admit of being explained otherwise than by assuming that Secretiveness is an ultimate faculty. Nor does Acquisitiveness fare better. The motives to acquire property are so powerful and numerous, that it is not considered by Bain as surprising that “the love of acquisition becomes a part of

our nature without the aid of any primitive instinct of hoarding;" so he declines "to follow the phrenologists in setting apart an organ for this propensity as being a fundamental and distinct element of the mind."

We now, however, come to a phrenological faculty which, like Alimentiveness, is admitted to be a distinct mental function, namely, Constructiveness. "Phrenologists are amply justified in treating the faculty as fundamental, and in looking out for a coincidence between it and a special conformation," although it is contended that they repeat the same faculty under "Weight." Coming to Self-esteem we find it admitted that it is a nice problem of analysis to determine whether it is or is not one of our fundamental sensibilities; and Bain himself regards it as a particular form of the tender sentiment, "Self" being constituted by us as an object of special attachment. Merit seen in self would produce the same effect as merit seen in a beloved friend. Self-esteem is involved in self-complacency, and from self-complacency is derived all that is included, not only in the former, but in self-confidence and self-sufficiency. Passing over Love of Approbation, in which instance the feelings of complacency and admiration are suggested to be a branch of the tender emotion directed towards self—a variety of the pleasure of power in producing an impression on others—and over Cautiousness, which Bain does not regard as a single faculty, the sentiment of Benevolence obtains a fairly favourable verdict in its favour; for, although he says that instead of the phrenological distribution of the propensities and sentiments which include our attachments and friendly dispositions towards others, he should "propose to consider amativeness, philoprogenitiveness, adhesiveness, and benevolence as having, with certain differences, an element in common (the tender sentiment), respecting which the description of benevolence gives the most characteristic account." He adds, "I cannot but concur with Gall in the opinion that what is called goodness of heart is not an acquired, but an innate quality of the mind," and that "when the sentiment of benevolence is in this manner fully generalised, so as to include all the relationships of tender affection, we may then not unfairly consider it as a fundamental and distinct element of the constitution, so far as our present knowledge goes; and, therefore, phrenology is justified in seeking for it a separate corner of the cerebrum."

We must pass over "Veneration," which, while the

existence of a powerful sentiment of reverence is beyond dispute, is not admitted to the rank of an irresolvable mental element, Firmness; Hope, of which Mr. Bain observes that he cannot deny that it may have a corresponding local development; Ideality, which is strongly criticised; Wit and Imitation, which are regarded as premature; and stop to note that Tune, is allowed to be innate beyond all controversy. "The analysis of the musical faculty has been made with great ease, and, we believe, with success, by the leading phrenologists. . . . No objection can be taken to the tracing out of a cerebral conformation, agreeing with this peculiar sensibility." Of Language, too, when defined as the power of learning vocables and verbal scholarship, it is granted that it may be a distinct and circumscribed power, and that "we may very fairly look out for a coincidence between it and a specific cerebral development."*

The careful sifting to which the phrenological list of faculties is thus subjected leaves some of the most important in the field; and how, it may well be asked, does this come to pass, if the cranial observations on which Gall, Spurzheim, and Combe professedly based them, are untrustworthy? The answer, in our opinion, is, that Gall studied the characters of men in actual life to a much greater extent, and in a much more practical manner, in order to construct a system of primitive mental functions, than any of the metaphysicians had done. Hence he succeeded, with very considerable success, in educing a workable, and in some instances natural, classification of the psychical powers. The terminology of phrenology has passed into our language more than that of any other system; but this degree of success is no measure of the truthfulness of the alleged cerebral or cranial development in association therewith. The truth of this correlation depends upon observations which are of a totally distinct character, and unfortunately these observations have not, as we have seen, so far, resulted in demonstrating what are the localisations of those mental characteristics which the study of character leads us to believe must have special seats in the brain. But it remains true, as Mr. Bain says, that "Phrenology is the only scheme of Human Character that has hitherto been elaborated in a manner proportioned to the subject." Hence we find Whateley writing to George Combe that he is convinced

* All these citations are made from Mr. Bain's work "On the Study of character," 1861.

that even if all connection of the brain with mind were regarded not merely as doubtful, but as a perfect chimera, still the treatises of many phrenological writers, and especially Mr. Combe's, would be of great value, from their employing a metaphysical nomenclature "far more logical, accurate, and convenient than Locke, Stewart, and other writers of their school had done."

And what, in conclusion, are the lessons we ought to learn from the history of the system which Gall originated, and which Combe in this country so laboriously and persistently defended? Assuredly, the lesson is taught us that great truths may be enunciated by brilliant geniuses like Gall, but that they may be associated with crude inferences, based, indeed, on a large number of facts, but without sufficient attention to the precautions to be taken to escape from certain notorious sources of error. Intuition having at a leap reached certain truths, generalises hastily, and refuses to be restricted within the bounds which the sober and cautious examination of facts demands. This is the lesson to be learned by the framers of brilliant hypotheses—the wild prophets of science. But is there no lesson to be learnt by those to whom these prophets preach in vain? Surely so. Here was a man—two men—who, having received a medical education, and having studied anatomy with the greatest zeal, strove to strike out new ideas in a domain of science where all lay in apparently impenetrable darkness; but they were treated like criminals for their pains. If they were not stoned, they were exiled from their native country. They were ridiculed, and practically ostracised by the great bulk of the profession. Dulness would have been no crime, but that men should leave the beaten track of commonplace, and propound so bold a theory as that of the encephalon being a complex organism subserving a variety of mental functions which it is worth while attempting to differentiate—this was intolerable.

During and since the time of Gall a pack of small curs have been ever ready to bark at this magnificent mastiff; but we do not hesitate to say that no work on mental science was published during his lifetime—to say the least—at once so profound, original, and practical as his *Fonctions du Cerveau*. His ardour in collecting observations on man, the wide range over which his reflections extend, his examinations of criminals, lunatics, and any persons remarkable for some special faculty, and his numerous researches into the mental

characters of different animals, are all exhibited in this remarkable work; and no lover of truth, or of those who, under continual opposition, persecution, and ridicule, alike from savants and theologians, continue to pursue their investigations, can fail to accord to the author the merit which he deserves, notwithstanding the errors, too hasty conclusions, and premature systematisation into which he unfortunately fell. *Sta, viator, heroem calcas*, may be inscribed on the tomb of Combe's great Master, as addressed to such as would indulge in profaning his memory by indiscriminate criticism and ridicule. The cerebral physiologist who, in visiting *Père la Chaise*, stands on the last resting-place of Gall may well pause with reverence in remembering that he treads upon a hero's dust.

Hume. By Professor HUXLEY. Macmillan & Co., 1879.

"Metaphysicians, as a rule, are sadly deficient in the sense of humour," Professor Huxley says, "or they would surely abstain from advancing propositions which, when stripped of the verbiage in which they are disguised, appear to the profane eye to be bare shams, naked but not ashamed." One cannot help echoing this statement when one renews acquaintance, in Mr. Huxley's clear and vigorous exposition, with the close and strong reasoning of Hume on many points of philosophy which are still debated, just as if Hume had never written about them, and without any real attempt to answer his arguments. The old parrot-cries are repeated without those who utter them being at the pains to get upon the same ground of reality as those whose sceptical or subversive opinions they combat. But the insulted metaphysician who reads this volume might be attempted to rejoin that Professors are sadly deficient in the sense of humour; or they would surely abstain from lecturing all the world, in season and out of season, in the didactic style of an omniscient Professor to his class.

It is easy to understand the feeling which moved the Editor of the series of "English Men of Letters," of which this book is a part, to ask Professor Huxley to take Hume in hand. Hume was a strong sceptical solvent, and modern science, which is in some sort an embodiment of the principles which he enforced, has in the Professor a distinguished popular representative who has the reputation of

being sceptical concerning much which passes current as orthodox belief. In truth, however, the deep and calm scepticism of Hume, and his subtle and penetrating irony, pregnant with weighty argument, reveal a quite different temper from that which is disclosed by the intense, dogmatic, somewhat acrid, and pugnacious scepticism of Mr. Huxley. And the evidence of these profound differences of character may be observed on almost every page of this volume which contains an extract from Hume and a comment by his exponent, or—as is perhaps as often the case—his critic. For we may say at the outset that it seems to be a grave defect of the book that the Professor has not been content to suppress himself sufficiently, by making himself the lucid exponent of Hume's doctrines from the central standpoint of an appreciative sympathiser, but has handled them rather from the standpoint of a minute critic who, as an outsider, is too careful to explain this and that, and to show forth how they are right and how they are wrong. The consequence is that each extract is apt to become the text of a professorial disquisition, critical, commendatory, emendatory, or supplementary, and that in the end we get more of Mr. Huxley than of Hume. And inasmuch as it is an irresistible tendency of Mr. Huxley to try to make things clear, we have a great deal of what may justly be called elementary psychology, such as would be suitable in a lecture to students who were beginning their studies, but which might well have been left out of a book of this kind. Elementary instruction of this sort, for example: "a word is a spoken or written sign, the idea of which is, by repetition, so closely associated with the idea of the simple or complex feeling which it represents, that the association becomes indissoluble. No Englishman, for example, can think of the word 'dog' without immediately having the idea of the group of impressions to which that name is given," &c., &c.

Instead of this sort of instruction, clear and simple as it is, we should have liked to had a great deal more information than we get concerning Hume as a man, and concerning his place in philosophy—his philosophical filiation, so to speak. For Hume was, after all, begotten, not self-begotten, in philosophy, although the reader of this volume would not suspect it. We are not content, again, that Mr. Huxley should have limited himself to the philosophy, and should not have said a word about the historian.

To go on with fault-finding, let us say that we do not like

the recurrence of such expressions as these—"Hume sagely remarks," "Hume says with profound truth;" that we like still less the jarring obtrusion of indirect and oblique remarks by which Professor Huxley betrays that while talking of Hume and his times he is thinking of himself and his times; and that we see no evidence whatever in Hume's placid account of the failure of his first literary ventures of "the bitter disappointment and of the craving after mere notoriety and vulgar success" which Mr. Huxley discovers. If he was to tell the story at all, it is difficult to see how he could have done it with less show of feeling. At page 159 the Professor has violently wrenched some words of Hume to a style of thought and of meaning of which he was incapable, in order to introduce the following unwise digression:—

The doctrine that you may call an atheist anybody whose ideas about the Deity do not correspond with your own, is so largely acted upon by persons who are certainly not of Hume's way of thinking, and, probably, so far from having read him, would shudder to open any book bearing his name, except the "History of England," that it is surprising to trace the theory of their practice to such a source.

But on thinking the matter over, this theory seems so consonant with reason, that one feels ashamed of having suspected many excellent persons of being moved by mere malice and viciousness of temper to call other folks atheists, when, after all, they have been obeying an intellectual sense of fitness.

And so on in a digression, the whole of which it is not worth while to quote, notwithstanding that Mr. Huxley thinks it "may not be wholly unprofitable." To us it seems to be an interpolation which is as unprofitable as it is in bad taste, and to bring out in a striking manner the great difference of temper and judgment between Hume and his commentator.

Professor Huxley has wisely made Hume speak for himself, so far as possible, by giving numerous extracts from his essays, and in the selections made of passages for extraction he appears to have been particularly happy. The reader will get in them the marrow of Hume's philosophy, and without doubt they, with the interpolated comments, expositions, and criticism, will together furnish useful and instructive reading for the student of philosophy. All points raised are handled in so clear and vigorous a way that he cannot fail to understand what is the issue. The book might be used as a sort of primer in philosophy of the non-metaphysical kind.

Unfortunately, Mr. Huxley's irritable and pugnacious indi-

viduality will not suffer him to go on calmly with his exposition for any length of time, but must needs drive him out of his way into remarks which will give his enemy occasion to triumph over him, and--what is worse--quote what he says as proof of the narrow dogmatism and intolerance of the scientific school. Comte he cannot abide, and he makes an early opportunity to gird fiercely at him, mentioning him as one who illustrates "the connexion of scientific incapacity with philosophical incompetence," and as "propounding solemn nonsense." When we consider the philosophical relation of Comte to Hume, and the high place which the great Positivist assigns Hume in the scientific hierarchy, it is no little wonder how so great a fool in philosophy should have shown so much insight in this respect. The particular "vilipending" of psychology by Comte, which Mr. Huxley calls solemn nonsense, was probably suggested by or actually derived from a passage in Hume, which is quoted by the Professor two pages further on. What need, again, in quoting a passage from Locke's "Essay concerning Human Understanding," to speak of the essay as "probably unknown to this full-crammed and much-examined generation?" And is it wise or in good taste to speak of science having brought to the front a heavy artillery "warranted to drive solid bolts of fact through the thickest skulls?" If anything is likely to make science offensive, and to hinder its good work going on favourably, it is this ill-advised way of writing about it. Lastly, why should Mr. Huxley imply that he is one of the *enfants perdus* of the outposts of Science? It seems to us that these *enfants perdus* have gone to their rest a long time ago, after suffering real martyrdom, and that their successors of to-day, who have entered into the fruits of their labours, have very little to complain of, being in danger rather of becoming *enfants gâtés*.

Hume traverses so large an extent of the field of thought that Mr. Huxley finds it necessary, in his way of treating his subject, to limit himself to the discussion of—1. Necessary Truths; 2. The Order of Nature; 3. The Soul; 4. Theism; 5. The Passions and Volition; 6. The Principle of Morals. His little book is really a series of disquisitions on these subjects, extracts from Hume being made the texts of them. The last subject he has treated very briefly, having dismissed it in a few pages, although Hume considered his "Inquiry Concerning the Principles of Morals" to be "of all his writings, historical, philosophical, and literary, incomparably

the best." To discuss Hume's opinions and his commentator's criticisms on these wide subjects would carry us far beyond the limits of this notice; we must end our review of a volume which has many excellencies with a regret that we do not get more of Hume than we do, and that the Professor did not select another occasion for giving his opinions, *ex cathedra, de omnibus rebus et quibusdam aliis*. The reader must not form his judgment of Hume's taste and temper from the tone of Mr. Huxley's comments and criticisms, but from the well selected extracts with which he has been happily provided; otherwise he will do Hume no little injustice.

A New Theory of Trance, and its Bearings on Human Testimony. By GEORGE M. BEARD, M.D.

(Read before the New York Medico-Legal Society.*)

A lecture, delivered under such auspices on so important a subject, deserves and has obtained our careful consideration.

Every one knows that there are certain states into which persons may fall, in which some of the mental powers no longer respond to external stimuli, while others display unusual activity. Motor power may be in action; one or all the senses may be closed. The brain being the organ of which these various faculties are the functions, in the opinion of all physiologists, there must be corresponding vascular and nervous inaction and activity in various portions of that organ. It is only the physiological mode of expressing the well-known facts of the state referred to, whether called trance, somnambulism, hypnotism, mesmeric coma, &c. Few, however, would be content to rest on this rudimentary state of knowledge.

From the title of this treatise by Dr. Beard we expected to find a novel explanation of the cerebral or mental condition present in Trance, and allied abnormal states, but we must confess to having experienced great disappointment.

The explanation which the writer gives is surely one which has long been familiar to medical men—namely, that it is a functional disorder of the nervous system, in which one part of the brain is active and another is dormant, by which the will is for a time suspended. The question has been not as

* "The Journal of Nervous and Mental Disease," Chicago, Vol. iv., No. 1.

to this broad fact, but as to the parts of the brain affected. It is almost incredible that Dr. Beard should add "The almost universally held belief that the mesmeric form of emotional trance is caused by some force or fluid (animal magnetism) passing from the body of the operator into the body of the subject, is . . . held not by the masses alone, but probably by ninety-nine out of a hundred physicians and scientists." This, it is said, "shows how one-sidedly this whole subject of trance has been studied." We cannot, of course, speak for American physicians, but had supposed that the majority would, in common with those in England, have held an entirely opposite opinion. Dr. Beard insists strongly and justly on the influence of expectant attention, but quite as if he, for the first time, had discovered this power. One statement, however, we admit has the merit of being new, but unfortunately it is not true, namely, that Mr. Braid's conclusion on this question was "not much less erroneous and one-sided" than that which preceded it. Mr. Braid was not so one-sided as to deny the subjective element present in inducing trance, although he believed, and we think with reason, that the strain induced by steadily gazing at an object, and giving attention to this one subject, will cause the hypnotic state, even without working upon the expectant faculty. The writer proceeds to show that the hypothesis of trance which he puts forward as new, explains the loss of will-control, and the automatism characteristic of this state, but the way in which he does this has not struck us as at all happy. A man is said to be under the control of the will when "the cerebral activity is harmoniously diffused, as in the normal state, through all the different regions," whereas if such activity is concentrated only on some limited region, as "that devoted to the intellect," the man has no will, but becomes a living automaton. This does not, however, bring us any nearer the comprehension of the suspension of the will than the recognition of the reflex action of the cerebrum, taught by Laycock, or the play of some of the sensory and motor centres when liberated from the control of the higher centres taught by Carpenter.

One of the most remarkable phenomena witnessed in the mesmeric trance is the response of the subject to some one person, and not to others, but to say with Dr. Beard that "he is only a fraction of his normal self; consequently he is or may be at the mercy of any external suggestion that is offered; he may not be able to resist the external suggestion,

as of the so-called mesmeriser, but he responds consciously and consistently through that portion of the brain that is active, and without coming out of the trance," does not explain why the portion of the brain, which is alleged to be awake, does not respond at all to more than one person.

Dr. Beard condemns induction as useless, and praises deduction as the only sure means of testing alleged scientific phenomena, and guarding oneself from error. Does a new discovery contravene a known law? If it does, no amount of testimony of the senses of any number of people, however scientific, is sufficient to establish it. Such is the position of the author of this essay. It only wants, when applied to any particular subject, one little factor, to make it quite perfect and charmingly easy of application. We must be satisfied in the first instance that those who decide upon the possibility or impossibility of the alleged fact, know all about the laws of nature in the department to which it belongs. But unfortunately this small assumption demands an enormous strain upon our credulity. In the present instance Dr. Beard assumes that he has fathomed the depths of psychology, and asks us to believe or not believe certain psychological phenomena, according as they agree with his own views of the possible. True we may arrive at the same conclusions ultimately, as himself; but we should not hesitate to promise to modify or extend them if unexceptionable scientific evidence is ever brought forward demanding such a change. Dr. Beard condemns a distinguished English physiologist for saying that he will believe in "thought-reading," whenever evidence is brought forward to establish it. Dr. Beard has decided that it is impossible, *ergo*, no amount of facts from men well able to observe them, will ever induce him to admit such a faculty in man. He will not allow that he assumes precisely the same unphilosophical attitude as Lardner, when he asserted that the law of nature forbade steamers ever crossing the Atlantic. Had Lardner known all about the laws of nature in his department of science, people might have saved themselves the trouble of enquiring further into this mode of locomotion; and if Dr. Beard can satisfy the world that he is infallible in his knowledge of the limits of the possible in his own specialty, they will be wise in following his lead. Until he does this, the world will be apt to decide for itself on the evidence brought before it, whether a certain phenomenon does or does not occur. We are reminded of the remark we recently heard the Lord Chief Justice make

in Westminster Hall. A barrister was eloquently proving that an alleged event was impossible, when the Judge interrupted him, saying, "I do not want to know whether it was possible, but whether it happened or not?" It would no doubt save a great deal of trouble in observing and thinking, could Protestants have their Pope in science if not in religion, but they will first demand the very thing Dr. Beard would deny them—a large number of facts to prove that any man or set of men has attained to scientific infallibility. Deductive reasoning answers very well to apply in a rough and ready way to alleged discoveries or observations, but it breaks down directly these observations become so numerous and well authenticated, that the question arises whether, after all, there may not be another and a wider law which embraces them. It would be a waste of time to mention the numerous instances in which this has been the history of a discovery, once ridiculed as opposed to known laws, now admitted into the realm of science. When Dr. Beard says of second-sight and some other alleged but improbable events that "there are not, and never have been, and never can be any such phenomena," and again that "no phenomena of this kind have ever appeared in the world in any human creature in trance or out of it," he only expresses his own dogmatic opinion, and not anything which carries with it, or deserves to carry with it, conviction to other people. Had he said that up to the present time the evidence does not convince him of any such exceptional power having existed, the position would have been sound and reasonable; but this would not have been a triumph for deductive reasoning, which possesses as much charm for the author of this paper, as it does for the most bigoted theologian who denies the possibility of any modern discovery on *à priori* grounds. They both sail in precisely the same boat, and, being alike entranced by preconceived views, are very unsafe guides in the investigation of unusual scientific phenomena.

In striking contrast with this is the mode in which Mr. Huxley approaches even such a question as modern spiritualism. He says there is nothing impossible in the existence of the denizens of another world. It can be conceived. Further, it is not impossible that they may visit the denizens of this. The simple question is, do we possess any proof that they ever do? We do not care a straw whether this is or is not Baconian philosophy; all we know is that it is the philosophy which an honest love of truth and common sense commends.

In his recently written book on "Hume," the Professor says of such a mode of reasoning as Dr. Beard is good enough to ask us to accept, "To put the argument in its naked absurdity, that which never has happened never can happen, without a violation of the laws of nature. In truth, if a dead man did come to life the fact would be evidence, not that any law of nature had been violated, but that those laws, even when they express the results of a very long and uniform experience, are necessarily based on incomplete knowledge, and are to be held only as grounds of more or less justifiable expectation. . . . No event is too extraordinary to be impossible." We commend these wise observations to Dr. Beard.

Philosophical Fragments. By J. D. MORELL, LL.D. London, 1878.

Dr. Morell tells us that these fragments are published with the hope that they may be of some interest to the few who shall continue to devote attention to the most unpopular of all the sciences, and we must acknowledge to have read his book both with pleasure and with interest. His historical outlines of the progress of German Philosophy seems to us rather short to those who wish instruction. What can we learn of the systems of Leibnitz, Kant, or Fichte, from the few sentences which the author gives to each, for his whole history of Philosophy only occupies 150 pages, and even this is intermixed with biographical detail? His sketches of the system of Hartmann and Schopenhauer leave a fuller impression upon the mind.

Dr. Morell treats of German philosophy as a history of the growth of development. The systems of Kant, Fichte, Schelling, and Hegel are dead, as these philosophers themselves are dead, but their descendants remain in the form of new systems and modified theories. It must be acknowledged that some of them are so much changed that it is likely their ancestors would not be able to recognise them for their own offspring. In a genealogical tree, sketched by Dr. Morell, Kant appears as the common ancestor of the Hegelian Rosenkrantz, the materialist Moleschott, the Darwinian Vogt, and the idealist Fichte the younger, besides Herbart and the School of Psychologists, whose farther ramifications are not given.

Dr. Morell thus concludes his historical sketch: "Material-

ism," is an intellectual power *here* as well as there (in Germany); and positivism, as it has developed itself out of the school of Mill and Comte, occupies much the same ground that humanism occupies in Germany. On the other hand, we have also *our* spiritualistic school; and a theistic philosophy, which maintains the existence and the immortality of the soul, together with the reality of a divine moral government, is still taught in all the Universities of the United Kingdom. These, in fact, are the two opposite scales of thought which now pervade the whole length and breadth of civilised Europe, and it remains to be seen which will establish itself as the *philosophy of the future*. For myself, I cannot but believe that the religious instincts, the moral yearnings, the irrepressible desire for immortality, the old inextinguishable belief of the human mind in God as the Architect of the world and the governor of mankind will, in the end, prevail over every system of philosophy, which bounds our view to the seen and temporal, and makes man alone, as we see him, the end and the law of his own existence." Should we not rather say that, as in Greece, India, China, everywhere where philosophy has found a home, there always existed an idealistic and a materialistic school, there will always be Epicureans and Sadducees, though, if we may judge from past history, they will never be a numerous body?"

Dr. Morell's observations on metaphysics, or the theory of human knowledge, are worthy of consideration. He shows that all philosophers agree that there is no evidence which can satisfy the inquiring mind that there is anything in existence beyond the modification of our own mind, and the conclusions logically drawn therefrom. Perhaps he might have added that there is nothing beyond a series of ideas and perceptions, and that we have no right even to assume the existence of a mind at all, but only of ideas following one after another. Thus everything has been analysed away, there is nothing left. But then no one subscribes to this view, however logical it may appear. People will act, and act in a certain way, whatever may be their speculative philosophy. We have built up the fabric of science by assuming a number of axioms to be true, and then applying them to explain or classify our knowledge. This is what is called a hypothesis. "The idea of an external world is, at any rate, a possibility. We assume it, therefore, as our hypothesis, and immediately we do this the phenomena begin to gather round it in some intelligible order." We assume that people have

minds like our own, that the higher animals have some amount of reason, but that plants have no reason, stones have neither life nor reason, and so on. Most men assume that God exists, and that this hypothesis accounts better for the form of the universe and man's normal nature than any other. A view like this is quite in accordance with the spirit of modern science; indeed, astronomy and chemistry are founded upon hypotheses incapable of demonstration.

At the end of the little volume there are three lectures on education, which are well worth reading. It is likely that the rules laid down by Dr. Morell, based upon a combined study of psychology and the art of teaching are reached by sagacious teachers from empirical observation alone; but stated in a scientific form they can be more easily learned and longer retained. Some of his remarks are even suggestive to those engaged in the treatment of the insane, for it is often of prime importance to remove surrounding circumstances, which feed the passions and keep alive dominant ideas, to surround the mind with fresh impressions, insinuate other desires, provide new impulses of a better description, and occupy the feelings and sentiments with new objects of interest.

PART III.—PSYCHOLOGICAL RETROSPECT.

1. *German Retrospect.*

BY WILLIAM W. IRELAND.

The German Retrospect has been done from the following periodicals:—

“Archiv. für Psychiatrie und Nervenkrankheiten,” ix. Band, 2 Heft. Berlin, 1879.

“Allgemeine Zeitschrift für Psychiatrie,” xxxv. Band, 5 Heft.

“Verhandlungen der Berliner Medicinischen Gesellschaft,” Band ix. Berlin, 1879.

“Psychiatrisches Centralblatt,” Nr. 4 and 5, and 6. Vienna, 1878.

“Centralblatt für Nervenheilkunde, Psychiatrie, und Gerichtliche Psychopathologie,” Nr. 12. 1878. Nr. 1, 2, 3, 4, 5, and 6, 1879. Leipzig.

“Der Irrenfreund,” 1879. Nr. 1 and 2. Coblenz.

Neurokeratin.—Ewald and Kühne have, through the methodical application of pepsine to the nervous tissues, discovered a new substance

resembling horny epithelium, to which they have given the name of Neurokeratin. It is hoped that the discovery of this substance will help in determining the nature of the neuroglia, in which neurokeratin forms a part. ("Centralblatt für Nervenheilkunde," Nr. 11, 1878)

Betz's Pyramidal Cells of No Importance.—Dr. Meynert ("Psychiatrisches Centralblatt," Nr. 6), in an argument which he sustains by careful descriptions holds that the nerve cell is the functional centre in the cortex cerebri, and thus refers to Betz's discovery of pyramidal cells in the motor centres. Hitzig, influenced by an erroneous location which he had given to the central convolutions in the dog, adopted the view that the motor centres in the monkey's brain were exclusively in the anterior median gyrus, and Betz imagined that he could demonstrate these centres through the microscope. He found (as Clarke and I had already found in the calcarine sulcus) groups of large pyramidal cells in the anterior median gyrus quite separate from other cell groups. This discovery is of no importance; I studied the grey matter of all the convolutions, and described it in the year 1867, but I made no remark on this appearance, because it seemed to require no explanation. The grey matter of the anterior central convolution is characterised in this way simply because it is a convolution of unusual breadth. In consequence of this breadth the inner pyramidal cells gain a much greater calibre than they attain in the narrower convolutions, on account of the long way their processes have to go to reach the grey fibrous net of the outer surface, where the pyramidal cells are smaller. The bundles of nerve fibres press together the pyramidal cells into groups.

The Centres of Sensation in the Cortex.—Dr. Huguenin has made a dissection of the brain of two people afflicted with blindness, in order to ascertain if he could find any confirmation of the experiments of Ferrier and Munk, who place the termination of the optic nerve in the occipital part of the hemisphere. These observers do not agree in their location of the centres of visual sensation. One places it in the angular gyrus, the other in the occipital lobes.

Dr. Huguenin's first case was a man of 56, who had been blind of the left eye for about four years. The left optic nerve and optic tract were much atrophied, and the two left corpora quadrigemina and the left corpus geniculatum were much smaller than the right. The grey matter of the cortex of the occipital lobe was deficient, especially on the spot where the occipital fossa runs into the median fissure. This deficiency was much greater on the right side than the left. In the other case, a woman of 42, the sight of both eyes had been very weak since early youth; both optic nerves were decidedly smaller than usual. Behind the chiasma there was thinning of both sides. The corpora quadrigemina were flatter than usual. The corpora geniculata were smaller and greyer, and the grey matter of the cortex was thinner where the occipital fossa runs up to the median fissure over a spot about the circumference of a two franc piece. This thinness extended as far as the sulcus hippocampi.

Dr. Huguenin promises the description of another case where there was deafness with atrophy of the first temporal convolution.

A Microcephale.—Dr. Virchow ("Verhandlungen Berliner Medicinischen Gesellschaft," Band ix., Berlin, 1879), showed a microcephalous girl, seven years of age, to the Berlin Medical Society. She was a sister of Helena Becker, who died ten years ago, and of whose body Bischoff published so careful a dissection. The parents were healthy, and had seven children. Helena was the eldest, then followed a daughter, and two years after a son, then three microcephales, viz., the girl shown, to the Society, a boy four years of age, and a girl that died a few days after birth. The last child, apparently healthy, is a year old. The cranium of the microcephalous girl was broad at the base and tapering towards the crown; the forehead low and slanting; the occipital region broad.

The learned pathologist stated his belief that microcephaly was a pathological defect, and not an example of atavism. A microcephale could neither keep himself alive nor propagate his race. The girl had the character of a child that had just begun to show its intelligence. The attention could be aroused. The child was capable of occupying itself with some object. Speech was well nigh confined to the word *mamma*. She had none of the instinctive activity which characterises the psychical life of the anthropoid ape.

Tendon Reflex.—Dr. Berger (in the "Centralblatt für Nervenheilkunde," Nr. 4, 1879), discusses the value of the failure of tendon reflex as an early sign of the presence of *tabes dorsalis*. Out of nineteen cases in which there was no derangement of co-ordinating power in the lower limbs worth speaking of, there was, in seventeen cases, complete failure of reflex action of the tendons of the patella and Achilles.

In three other cases where the tendon reflex failed, there were shooting pains in the legs, without any spinal or head symptoms and in two of these the symptoms progressed into *tabes dorsalis*. Thus, the want of tendon reflex was one of the earliest symptoms.

On the other hand, he had seen two patients who had a high degree of ataxia of the lower extremities, with other characteristic symptoms of *tabes dorsalis*, yet the reflex could be brought out in the tendons of the patella and Achilles.

Out of eighty-two cases of well-marked *tabes dorsalis*, the reflex of the tendon of the patella was absent in 2·4 per cent. But of these eighty-two observations, there were four instances where the reflex failed only on one side, three times in the left, and once in the right side. In order to ascertain how often this action failed in healthy people, he tried it in 1,409 cases, with the following results:—

I. The vigour of the action of the patella tendon reflex varies within very wide limits. In numerous cases the reaction is so slight that it requires great care to bring it out at all. Thus, in many individuals, it appears entirely to be wanting, but in the end was brought

out. In many cases, on the other hand, the reaction was so lively, that a light tap with the tip of the finger was sufficient to call out a powerful jerk, and not unfrequently, instead of a single muscular contraction, there were several movements of flexion and extension rapidly following upon one another. Here we succeeded, through the methods of investigation recommended to be used by Erb and Westphal, to demonstrate the clonic form of reflex of the patella tendon. It does not appear correct to speak of the pathological increase or diminution of the reflex action of the tendo patellæ. It is only the absolute failure of the reflex, with some rare exceptions, and the demonstration of a lively reflex in some other muscles in which the action is not usual, that show a morbid condition.

II. The patella reflex failed in twenty-two healthy people, that is 1.56 per cent. In these individuals it was repeatedly tried, and under all possible precautions, but in no case was any trace of the phenomenon perceived. They appeared to be all healthy people; thirteen of them were soldiers. Nothing abnormal about the knees, and the mechanical and (when tried) the electrical excitability of the quadriceps muscle seemed to be as great as usual. Dr. Berger was thus obliged, against his previous experience, to admit that the reflex action might fail in quite healthy people. In no instance did it fail on one side only.

III. Of all other reflex actions in tendons, we can, in general, most easily bring out that of the tendo Achilles, but it was found that this failed in 20 per cent., and often could only be demonstrated on one side. It was found that the peculiar foot phenomenon (the characteristic reflex action) is quite exceptional in healthy people. He had seen it only in three young men, though in a very decided measure; one of them had formerly suffered from convulsive tic. None of the three were surprised at the remarkable action, since they knew from childhood that they had a trembling of the leg whenever they sat down and touched the ground even with the point of the foot. Dr. Berger tried the reflex of the adductors and the biceps and triceps of the arm, in 364 persons. He found the reaction of the first muscle only in 5 per cent. In two of these instances the reaction was one-sided, and in one there was a contraction in both legs with the stimulus only in one side. In the biceps he found the reflex in 35 per cent., in the triceps in 25 per cent. Examination of other tendons led to no distinct results.

IV. Several times on the mechanical stimulus being applied to the tendon of the adductors, there was a contraction of the quadriceps, and on one occasion a contraction in the adductor region on percussion of the tendon of the patella of the opposite side. Dr. Berger has described a similar reaction in hemiplegia.

Strychnia increases and morphia lessens the liveliness of the reaction. In his last paper on the subject, Westphal has advanced the opinion that the failure of tendon reflex is especially valuable as a

pathognomonic symptom in those cases in which the tabes begins with spinal amaurosis, the so-called atrophica alba optica. The failure or presence of the reflex of the tendon of the patella is here the characteristic sign of a distinct disease, or the first stage of sclerosis of the posterior spinal column.

Dr. Berger has a patient, a woman of 27, who has been blind for seven years. She had no trace of spinal disease, but there was total failure of reflex of the tendon of the patella. Dr. Berger thinks that it is possible that spinal disease may yet follow, which seems a needlessly pessimistic view of the case. Out of 84 blind men in the Blind Asylum of Breslau, Dr. Berger found 9 suffering from atrophy of the optic nerves, and in two of these the tendon reflex was absent, whilst in the other 75 cases of blindness it only failed once. In four cases of diphtheritic ataxia, after paralysis of the pharynx, he found an entire absence of the patella reflex, the cutaneous and muscular sensibility being unaffected; but, on complete recovery from the ataxia, the tendon reflex also returned. The want of co-ordinating power in the legs resembled the ataxia from disease of the cerebellum, rather than that of tabes dorsalis, reminding one of the gait of a drunken man. In a case of cerebellar ataxia, which came under Dr. Berger's observation, the patella reflex action was very marked.

Dr. Westphal, in a communication made to the Berlin Medical Society ("Verhandlungen," Band ix., Theil 2, page 32), gives his latest views as to the value and significance of tendon reflex. He considers it one of the earliest symptoms of tabes dorsalis, *i.e.*, the grey degeneration of the posterior columns of the cord. It is a valuable means of diagnosis where simulation is attempted. In ataxia of the lower extremities, where the sensibility to the interrupted current is heightened, the reflex reaction is greater than usual. Dr. Westphal doubts whether the reaction of the ligamentum patella is ever found wanting in healthy individuals. He always has found it present, and in one case of reported failure, he had no difficulty in bringing it out. He uses a percussion hammer, and recommends that the knee should be laid bare, and the quadriceps not held too rigid.

Stimulation of the Renal Secretion by Electricity.—Julius Glax has published several cases in the "Deutsches Archiv. für Klin.-Med.," in which, through electricity, he was able to cause the fluid of ascites to disappear, by the application of the interrupted current to the abdominal walls. In a patient suffering from pulmonary emphysema, with insufficiency of the mitral valve, the volume of the urine rose from 900 c.c. to 2,900 c.c. The electrodes were applied to the motor points of the abdominal muscles, and from fifty to one hundred contractions excited.

Disease of the Spinal Cord through Sudden Diminution of Atmospheric Pressure.—Dr. E. Leyden (Archiv, ix., Band 2, Heft.) describes three cases of this kind, which occurred at St. Petersburg. In order to build a bridge, some workmen were employed in diving

bells, under an additional pressure of one to two, and sometimes three, atmospheres. The workmen remained in the air bells at shifts of six hours, working twelve hours in the twenty-four. During a period of seven months 160 men were employed in this manner; 157 applied for medical treatment, and 38 were taken into the hospital. The principal complaints were rheumatism, catarrh of the lungs and of the bowels, and otitis. Of the 38 received into the hospital, eight suffered from catarrh of the bowels; eight from bronchitis; 42 from typhus; seven from injuries of different kinds; three from what was called rheumatism; four from the symptoms of hyperæmia of the brain. Pains in the ear often supervened on going into the air bell or coming out. The workmen also suffered from pains in the joints, which were of moderate intensity, and generally disappeared when they returned to the air bell. Salicylic acid, in doses of .10 grammes, had a very good effect. In the cerebral attacks those affected fell down, and could neither walk nor stand, the pulse fell to 50 or 55, but they generally recovered in two days.

On increasing the atmospheric pressure from 30 to 36 ounces upon the square inch there were attacks of paraplegia, three of which fell under the observation of Dr. Lewess, and are well described. Two of them recovered, one in six weeks, the other in about a month, but the third case died after an illness of fifteen days, and an examination of the body was made eleven hours after death. All three patients exhibited the symptoms of acute myelitis, situated between the cervical and lumbar enlargement of the spinal cord. In all, while the upper extremities were unaffected, the lower extremities showed a high degree of paraplegia of motion and sensibility, with an affection of the bladder (*retentio urinae*). In the two first cases there was a speedy improvement, which, in from fourteen days to three weeks, led to recovery. In the last case there was a bad purulent cystitis and nephritis, as often happens in severe forms of myelitis, which was the immediate cause of death. On opening the spinal canal of the man who died, the veins of the cord were engorged, but in spite of the severe symptoms and rapid course of the disease, the spinal cord to the naked eye seemed to be quite healthy. There was no discoloration or remains of hæmorrhage, and it was only when the spinal cord was hardened that pathological alterations were recognised. The spinal cord was prepared for two months in Müller's fluid. There were rents or cracks found in its substance which are very minutely described. Dr. Leyden believes them owing to the sudden development of oxygen or carbonic acid gas, rupturing the delicate tissues of the spinal cord. Around these rents there were traces of inflammation, but no perceptible infiltrations of the blood. This sudden outburst of gas is believed to have been owing to the diminished atmospheric pressure in stepping out of the diving bell.

Nystagmus in Miners.—Dr. Nieden ("Centralblatt für Nervenkrankheit," Nr. 4, 1879) has studied 40 cases of Nystagmus,

occurring amongst miners. He finds that it follows an enfeebled condition of the nervous system, and is confined to those who engage in digging or hewing minerals in dark mines with a fluctuating light.

Athetosis.—Dr. Rudolf Knauck has a paper on primitive Athetosis (*Achiv.*, ix. Band, 2, Heft.) He admits that in most cases this symptom accompanies hemiplegia, epilepsy, progressive paralysis, atrophy or tumours of the brain, and other diseases of the nervous system; but in a small number of cases it constitutes a distinct disease. As the results of his study he gives the following conclusions:—

1.—Athetosis is an independent affection, recognised by characteristic symptoms. It is an independent form of disease attacking some individuals.

2.—It can appear either on one side or both; hemiathetosis is strictly confined to one side.

3.—Athetosis appears in the hands and feet, and frequently in the face, and consists in peculiar spasmodic motions, which are involuntary, incessant, slow, and rythmical.

4.—These motions are of a peculiar kind, and do not alter when the body is in repose. During exercise of any kind they are increased, so that they sometimes pass into intermittent muscular contractions. The will has scarcely any influence on these motions, but they stop, during sleep, of themselves.

5.—The shoulder, hip, and arm do not take part in the affection.

6.—The sensibility is generally normal, though sometimes it is increased.

7.—Athetosis is, if central, for the most part of cerebral origin, owing to stimulation of the motor centres or motor conducting tracts.

Hallucinations of Vision in a Blind Man.—Dr. Kowalewsky received into the Asylum of Charkoff a patient who was quite blind from amaurosis (*atrophia nervorum opticorum*). The hearing was very acute; the pulse was quick; the temperature high, but on account of his unquiet condition it was impossible to make a thoroughgoing examination. The man, a Russian peasant, was in a state of the utmost terror, believing that he saw Turks everywhere. In order to escape from them he dashed himself against the walls, doors, and window, crying out at the same time for help and rescue. During these panics he refused all food. The fits were periodical, generally lasting the whole day, and were succeeded by a period of stupor. The paroxysms lasted ten days, at the end of which he fell asleep, and wakened in the morning quite well. He had totally forgotten the fearful experiences which he had gone through, and was quite astonished when told of his frantic behaviour. The treatment consisted of iodide of potassium and bromide of soda, with prolonged warm baths, and ice on the head. The author regards it as a case of psychic epilepsy, taking an intermittent form.

Metallotherapy.—Dr. Franz Müller (*“Centralblatt,”* Nr. 2, 1879) is

surprised that English physicians seem generally agreed in putting down the results obtained by Charcot to expectant attention, or other mental influences. Dr. Müller himself visited for three months the Salpêtrière, and was able to ascertain that the application of plates, made of non-metallic substances, was followed by no result. He has seen patients successfully treated for hemia-anæsthesia blind-folded, and without knowing the nature and object of the treatment. He has found that the action of magnets is more efficacious than that of plates of metal. Dr. Müller has carried on independent experiments in the hospital at Gratz, with the same results as at Paris. This article is a valuable contribution to the subject.

2. *American Retrospect (continued).*

By D. HACK TUKE, M.D., F.R.C.P.

Passing from the "Journal of Nervous and Mental Disease," we notice several separate pamphlets and reports.

The Curability of Insanity. By Pliny Earle, A.M., M.D.

Having referred to the original article in the "American Journal of Insanity" in our Retrospect, October, 1878, we need do little more than repeat here, in regard to this pamphlet, which is published by the New England Psychological Society, of which Dr. Earle was President, that the views put forth by the author, and the statistical facts collected together, deserve the serious consideration of all concerned in the preparation of asylum reports in all countries.

Were we to take exception to any part of this paper, it would be to the too discouraging effect possibly left on the mind of the young alienist, in regard to the utility of drugs, when Dr. Earle says—"The years of a generation have passed since the time of Pinel and Esquirol, and in the course of their progress, remedy after remedy, before untried, have come up, viz., with the word of promise to the hope, but essentially breaking it to experience. Hashish was experimentally tried, proved a failure, and is now nearly forgotten. Chloroform and ether have become convenient and useful to a certain extent, but they have no curative power previously unknown to other remedies. The same may be said of chloral and the bromides. Electro-magnetism, upon which great hopes were placed, is very beneficial in a few cases of abnormal nervous action, but hitherto has proved itself powerless to correct those cerebral functions, the abnormal operations of which constitute insanity."

That Pinel, who despised drugs in the treatment of insanity—nay, more, that Dr. Tyson, the physician to Bethlem Hospital from 1684 to 1703, should appear to have been quite as successful in their cures as the superintendents of the best asylum at the present day, is doubtless a startling and, indeed, a depressing fact. It ought to set us thinking ;

and Dr. Earle will feel confirmed in his conclusion, as regards at least one drug, when he reads Dr. Savage's article on chloral in the April number of this Journal. At the same time we cannot but believe that, assuming—and this is a most important assumption—the *moral* and *hygienic* treatment to be equally good in two asylums, the one in which pharmaceutical and electric remedies are judiciously employed would have a larger percentage of cures than the other in which they are discarded. At any rate, it is so uncertain whether we are comparing like with like, when we are estimating the comparative results obtained in modern asylums and those of a hundred years ago, unless the statistics are compiled with more care than it is probable they were at the Bicêtre and Old Bethlem, that we hesitate to draw a conclusion adverse to the marked influence of drugs in the cure of insanity. Parallel observations should be made in asylums of the present day, admitting the same class of patients. If it should then appear that the no-drug and the drug treatment end in the same percentages of recoveries, we shall have established a very important fact, which, however unpalatable to us, ought to be known.

It must be understood that Dr. Earle is not by any means advocating the disuse of all drugs. This remark is necessary to prevent misconception.

Dr. Earle quotes the results arrived at by Dr. Thurnam “derived from a more thorough investigation of the subject, as presented in the patients treated at the Retreat in York, England, during a period of forty-four years, than has ever been attempted by any other writer. I have long regarded this estimate as the most nearly accurate, and hence the most reliable, of any that has been published.” This table is familiar to most English alienists.

Dr. Earle, in conclusion, says—“It appears that it may fairly be asserted that all estimates, based upon the assumption that either 75, or 70, or 60, or even 50 per cent. of the *persons* attacked with insanity can be cured and returned to the class of permanent producers in the sphere of human labour, are necessarily false, and consequently are both ‘a delusion and a snare.’ . . . Although it has here been shown, beyond cavil or question, that, as a whole, the *cases* of insanity are less curable than has by many heretofore been believed, and that the same is far more emphatically true of insane *persons*; yet by so doing, no argument has been developed against the utility of hospitals, nor has the practical value of those establishments been in the least diminished. False impressions of their value may have been corrected; and to that extent not alone has the cause of truth, which is better than error, been promoted, but a measure of protection has been furnished to the medical officers of the hospitals. The declarations of the earlier superintendents are returning like boomerangs to spend their ultimate force upon their promulgators. It is here demonstrated that there is a proper shield against their offensive assaults. Through the ministrations of hospitals for the insane, *very*

many persons of disordered or perverted intellect have been restored to their homes, their friends, and their spheres of usefulness in society, *permanently* clothed, and in their 'right mind.' Even to the political economist, or the sheerest utilitarian, this is a fact of significant importance; and by the philosopher, the philanthropist, or the Christian, it must be regarded as a blessing above and beyond all estimate or standard of pecuniary value. Nor are the duplicate or the multiplicate recoveries of the persons subject to mental disorders of the recurrent type to be too lightly estimated. A recovery is none the less desirable and none the less valuable to the person, or to society, *so long as the person remains well*, because it is of limited duration. While thus the hospitals continue their progress in the fulfilment of their beneficial mission, it would appear that the better course for the superintendents is to discard, universally, as they have already discarded, to a great extent, the classification of their cases according to duration; but constantly to keep before the people the great truth that, as a rule, having comparatively few exceptions, the sooner the person attacked with insanity is placed under curative treatment, the greater is the prospect of recovery."

Provision for Insane Criminals. By Richard S. Dewey, M.D.

Dr. Dewey, who is the Physician of the State Insane Hospital, Elgin, Illinois, arrives at the conclusions that every community has among its insane a class of "insane criminals," as distinguished from innocent and reputable insane persons, who have committed crimes (the latter generally styled the "criminal insane"); they are in large part convicts, but there are many unconvicted criminals among them; that the number of the former class is large; the proportion among convicts being probably not less than one in 50 or 60; that there is no proper or suitable provision for this class in Illinois; that this lack of provision leads to great injustice and injury to the other classes of insane, and to the community at large; that the establishment of a special asylum for these, wherever practicable, would be a measure of justice, humanity, and economy, and the preferable location for the same, when it cannot be an entirely independent institution, is in connection with the State prison.

Dr. Dewey gives a table showing the prison population in 17 States, and the number of insane convicts in prison or asylums. In Illinois there are 1,857 convicts in prison, and 28 insane.

Dr. Dewey requests that any of his readers who have documents or information relating to the criminal insane or insane criminals, will send them to him.

Report of the Pennsylvania Hospital for the Insane for 1878.
By Dr. Kirkbride.

The able and experienced Superintendent of this well-known institution here presents us with his 38th Annual Report, and, like all its predecessors, contains much valuable information. The series forms, indeed, an important contribution to the science and literature of

insanity. We heartily congratulate him on the success which has crowned so many years' arduous and conscientious labour, and trust that for not a few years more the institution will still have the benefit of his wise superintendence and mature judgment. The name of Kirkbride will be indelibly engraved on the records and be inseparable from the prosperity and fame of the Pennsylvania Hospital for the Insane. It is noted that the hospital has come into possession of a statue of Benjamin Franklin, which has been placed on a pedestal in a prominent position in the grounds of the institution. "It would seem only right that honour should be paid to the memory of Franklin, who was one of the representative men of Philadelphia, at the time the Pennsylvania Hospital was founded; a member of the first Board of Managers, active in promoting the objects of its establishment; and the author of many of its official documents, and especially of its appeals for legislative action." We would suggest to those whom it may concern that another statue might well be added to the grounds. It is not only those who found, but those who for a long period carry out the intentions of founders of public institutions, who deserve public honour.

As bearing on Dr. Earle's paper, the observations made by Dr. Kirkbride on the proportion of cures are of interest. "So far as the experience of this institution goes, all subsequent observations tend to confirm the statement made many years since, that if all the recent uncomplicated cases of insanity are promptly placed under proper treatment, and perseveringly kept so, it may fairly be hoped that about 80 per cent. will ultimately recover."

Here it will be observed that one word ("uncomplicated") qualifies the statement in the most vital manner, and when this allowance is made, then the statistics of Dr. Earle are really not contradictory therewith. The numerical statements in Tables given in Asylum Reports do not of course omit or distinguish these complicated and, therefore, more or less hopeless cases; and Dr. Kirkbride admits that when they are included in the statistics of the Pennsylvania Hospital, they "reduce the total percentage (of recovery) much below that indicated above."

Dr. Kirkbride enters into the question of the deleterious effects of tobacco, and observes "there can be no question whatever, but the amount of injury done varies very greatly in different individuals. The earlier in life it is used, the more conspicuously its worst consequences are shown. With growing boys it manifests its evil effects upon the mental faculties very strikingly, as well as on the physical condition. There is generally a great reluctance in any one addicted to the free use of tobacco to acknowledge any prejudicial influence from it, and the growing up of the habit generally requires so strong an effort, and so many hours of real suffering, that there is a natural unwillingness to believe that such a course is necessary or desirable. In addition to all this, the use of tobacco has often seemed to develop a

craving for stimulants. To those who have investigated the subject thoroughly, it is often a matter of wonder that so many who denounce most strongly and most justly the habitual use of stimulants, have so little to say in regard to tobacco and its pernicious effects on the human system. Even if they do not give a practical illustration of their disbelief of any such bad influence, they show an indifference to it by their own use of the article, possessing, as tobacco does, so many principles that are deleterious to the animal economy."

The report contains a great deal of valuable matter in regard to the causation of the attacks of insanity in the patients admitted into the hospital since its opening.

3. *English Retrospect.*

English and Scotch Asylum Reports for 1878.

One rises from a study of these Reports with feelings closely akin to disappointment. While nearly all are characterised by the carefulness with which the statistical tables are compiled, and bear evidence of considerable harmony existing between the Local Boards and the Superintendents, and again between the latter and the officers under them, there is undoubtedly to be traced, in many instances, a want of freshness and vigour in the Superintendent's remarks, and a tendency to be satisfied with existing circumstances as regards the management of their asylums and the treatment of the insane. The zeal and energy which carried the non-restraint system to its present height seems to have died out, and in its place is to be noticed a too facile contentment with a state of matters, which, though an improvement on the old, is by no means perfection.

It cannot be denied that the present is a critical epoch in Psychological Medicine. The management of asylums can never again show the abuses which were the rule even thirty or forty years ago. The general working of each must of necessity be free from the evils which then disgraced many of them, and in this country and under the Lunacy Acts, it is simply impossible that anything like really bad management could long be kept from exposure.

Is there not, however, a risk that the very excellence of the general management may induce unlooked-for and unfortunate results? As at present conducted, we speak within the mark in saying that, with averagely good officials, the every day work of most asylums is an easy matter for the Superintendent. No doubt there are many small worries, and occasionally considerable anxieties, but even with these there are few professional men who, on the whole, have less hard daily compulsory work than the Superintendent of an asylum for from 250 to 600 patients which has been in existence for some time, and in which the

officials are experienced and honest. With an efficient sub-officer over each department, he is able, if he happens to be easy going, or not to have an anxious conscientious temperament, to keep his asylum going with fair success, and to show good results in his statistical tables at the end of each year, and this, too, with an expenditure of wonderfully little personal labour. It is just in this, however, that a danger, and by no means a light one to our speciality, lies. In the reports we are now to deal with there is all too much evidence of satisfaction with average prosperity, and a lack of that determination to explore fresh fields and pastures new, which was never more needed than now, if our speciality is to keep up with the other branches of medical science in the giant strides with which they are progressing. The very facility with which a certain measure of commonplace prosperity and success can be attained may be detrimental to those higher aims and greater labours which should be the ambition of any one in the position of a Medical Superintendent of an asylum. For his opportunities are great, and in just a similar proportion to these is the debt he owes to the world he lives in to make the very best of them. Can any one say that this is done in the three or four pages in which is oft-times summed up the year's life of the community under his care? Indeed, the one thought inspired by the perusal of some reports has been—Is it possible that a learned, earnest, scientific man can have had such opportunities of observation and research and yet find so little to say? It may be said that a yearly report is not the place for purely medical details. This may be so, though we incline to think that they will most press this argument who, from laziness or some other cause, have fewest medical details of interest to give. But letting this pass, though not granting it, are there not always numberless subjects common to all thinking, earnest men, and upon which the experience of an Asylum Medical Officer should throw great and much needed light? He may be said to stand on a pinnacle, from which he can survey the various roads by which his patients have reached him. He can trace step by step the too easy descent of the drunkard, as he reels along the dolorous way which leads him down, and always down, to madness or death. So, too, with the victim of heredity. He can, with a little pains, map out the fateful career, and watch the hapless victim writhe, and at last succumb under "the tyranny of his organisation" to the miserable end. In these and hundreds of others are there not links connecting the asylum world with that outside and beyond it? and surely there are few men who have such opportunities of recording year after year facts of instruction to some, and warning to others, as those whose duty it is to receive and tend their fellow-men who are cast upon their care, storm tossed from the sea of troubles beyond? It may, indeed, with truth be said that each inmate of an asylum is a physiological and pathological curiosity, and that the history of each is at the beginning a romance, and too frequently a tragedy at the close. An Asylum Superintendent has, in fact, a mass of material, accessible to no one else, from which he should be able to draw invaluable lessons as to the

effect of our whole modern system of life upon the production of insanity. Has this vast mine been even touched as yet? We venture to doubt it.

It is, of course, impossible to set up a hard and fast line as to the model on which a report should be constructed. No doubt there are many differences of opinion as to what should and what should not be treated of in such a document. Each one should certainly be a unity in itself, and give a complete year's history of the asylum; but beyond and above this, looking to the position, leisure, and rare opportunities of its writer, it is surely not too much to expect that he should on each occasion give some of the ripe fruit of that observation and thought which every man in his place ought to expend upon the persons under his charge, their histories and the manifold circumstances of interest connected with them. Whatever opinion is held as to the model on which a report should be constructed, no exception, we should think, can be taken to the statement that it should be well and thoroughly done. Little objection would be taken to the line adopted, provided that were conscientiously and carefully worked out.

We have written chiefly, indeed entirely, of the Medical Superintendents' portion of the reports, for it is to this that one must turn both for real information and for evidence of the spirit in which each institution is conducted. The entries by the Visiting Commissioners give the impression of a visit on one or two days out of 365. The report of the Asylum Board seldom goes very deep. That of the Chaplain would in most instances be infinitely better left out altogether, while the statistical tables, valuable in many respects, are not reliable as giving a real indication of the condition of the asylum. The death-rate and the discharges, for instance, are liable, as far as mere figures are concerned, to be influenced by so many accidental circumstances, that no one who knows anything about the matter would draw from them inferences as to the true state of matters. The occurrence of a few perfectly unavoidable deaths may give this item quite a terrible appearance, while the real health of the inmates may have been first rate, and other "totals and averages" are similarly open to misconception. It is, therefore, to the report of the Superintendent that we must turn for the living interest in the year's history of each asylum.

We now take up individual reports—

Prestwich Asylum.—In the report of the County Lunatic Asylum at Prestwich, Mr. Ley submits a long, able, and thoughtful series of observations. Were it for nothing else, his report would be interesting, as showing how much material for thought and discussion an earnest and talented worker can find within the walls of an asylum, even during a period when its general history "has been comparatively uneventful, and, so far as ordinary routine of the asylum is concerned, presents no feature for special comment." We make the following somewhat extensive quotations from this report. They are well worthy of careful attention.

. In connection with this subject, I may mention that the demand for accommodation, which, during the first three-quarters of the year, was most persistent and urgent, fell off markedly during the latter three months, and in December the number of applicants was considerably below the usual average. This diminished demand was principally confined to the male sex, and was coincident with the wide-spread distress which first began to be felt so acutely about that period. All past experience, which I have been able to consult, confirms the conclusion that in periods of great commercial disturbance or distress, there is at first decrease in Pauper Lunacy, a result in a measure attributable to a temporary diminution of the population, and possibly, also, to an improvement in the habits of the people. There is always in these islands a floating population, who drift towards any point at which improvement can be secured; and Lancashire has more than its natural share of that nomadic class attracted to it by the multiplicity of its various industries, and the demand for labour, which in prosperous times is so constant and steady. In the universal stagnation of trade in this county, this immigration ceased, and the foreign element, which usually forms no inconsiderable portion of our annual admissions, has this year sensibly declined in numbers.

No doubt also the extent and keenness of the prevalent distress may have had a sobering effect upon the habits of the working classes, in diminishing drunkenness and other excesses, which in past years have proved themselves to be such potent factors in the causation of insanity. Be this as it may, it is not to be expected that the falling off in the number of applicants for asylum accommodation will be of long duration. If it be true that insanity, traceable to drink and other vicious indulgences, is more prevalent when trade is active and wages high, on the other hand, it is unhappily beyond a doubt that mental disease, due to poverty, privation, and their attendant evils, ill-health, etc., etc., increases during periods of want and depression. The universal stagnation of trade in this county, which has now existed for so long a period, has produced its natural consequence of widely-spread distress, and bitter experiences of poverty and privation are being brought home to thousands of people among classes which, although not opulent, have usually been placed above the reach of actual want. Whatever tends to deteriorate the general physical health and energy of the people, operates as a powerful cause of insanity, and there are not wanting signs that the present distress, aggravated as it has been by the unusual severity of the weather, will be followed by a large augmentation of the Pauper Lunacy of this county.

It is worthy of note that the proportion of Lunatics confined in Workhouses is considerably greater in Lancashire than in Middlesex, West Riding, or other populous districts in England. In the Metropolitan district, no less than 92 per cent. of the Pauper Insane are under care and treatment in special asylums, leaving only four per cent. in Workhouses, but in Lancashire the proportional classification of Pauper Lunatics shows a marked contrast to that of the Metropolitan district, only 59, instead of 92 per cent., reside in Asylums, while the proportion in Workhouses is 37 per cent. in Lancashire, instead of only four per cent., as in Middlesex.

In this division of the county, the Salford Hundred, the proportion in Workhouses is still greater. The Insane population of this district is estimated at nearly 3,000, of whom 56 per cent. are in Workhouses, and about 44 per cent. in Asylums. During the last twenty years, the Lunatic population of this county has increased upwards of 125 per cent. Whether this growth is really out of proportion to the increase of population is a matter of doubt, but experience proves that there is a steady and an inevitable increase, and, in considering the subject of the extent to which it is necessary to provide accommodation for the chronic Insane, this fact ought not to be lost sight of.

Among the Statistical Tables appended to this report, is one arranged at the request of the Commissioners in Lunacy, showing the causes of the insanity in the admissions of the past year. This table has been prepared as carefully as

circumstances would permit. Nearly every case has been separately investigated, and the conclusions arrived at have been based on enquiries made from different members of the patients' families, and checked from careful and independent observation. The large number of cases reported as unascertained, evidences not only the difficulty of the investigation, but also the difficulty there is in tracing the disease in some instances to any assignable cause. In some few cases the origin is manifest, and cannot be mistaken, but in the majority of instances the agencies which have conduced to the development of insanity have been multiple in their nature, gradual in their operation, and often so much involved—one appearing as the consequence of the other—that it is impossible to assign to any particular factor its definite share in the causation. In the arrangement of this table the causes are broadly divided into pre-disposing and exciting.

Among the former, hereditary constitutional taint takes the first rank in both sexes, and next in order comes the pre-disposition, left from previous attacks. Insanity, like gout, asthma, and other diseases, may be transmitted, and of the total admissions, no less than 127 inherited the disease. The pre-disposing influence of transmitted intemperance was also recognised in numerous cases; no less than 47 of the males, and 33 of the females were the offspring of parents known as drunkards. The habits of the admissions, with regard to the abuse of intoxicating liquors, show, as in former years, a large proportion of those addicted to intemperance in drink, and are a strong indication of the instrumentality of such excess in inducing mental derangement. In the Table of the Causes of Insanity, given in the last Report of the Commissioners in Lunacy, intemperance figures as the assigned cause of the disease in about 14 per cent. of the patients admitted into the different Asylums of England and Wales during the year 1876. Although this proportion has been exceeded in the admissions into this Asylum during the past year, the return contrasts favourably with the proportion of cases attributable, either directly or indirectly, to that vice during the previous seven years. In reviewing this table, one is struck with the fact that very many of the causes therein enumerated, both pre-disposing and exciting, are largely preventible, and subject, in a great measure, to the direct control of the will. An individual who has inherited gout or phthisis may, with proper care and attention, escape the effect of his inheritance, and, even with the strongest constitutional taint, the paths which lead to insanity may, in many cases, be avoided. By developing self-control, and by strict attention to the natural laws of health, and by a careful avoidance of those manifold influences which are known to be injurious to our moral nature, individuals predisposed to insanity may do much to avert the calamity, and so prevent a large proportion of evils which follow in the train of this distressing malady. The diminution in the number of cases among the last year's admissions, whose insanity is attributable to alcoholic indulgence, proves that that degrading vice is also preventible. No doubt the confirmed drunkard is past all hope of cure; he suffers from a disease more grievous than insanity, for the latter is, as experience proves, largely curable; but the habitual drunkard is the victim of a malady as incurable as the worst forms of organic brain disease. It is to the prevention of intemperance in the future, rather than to the cure of the habitual drunkard, that our efforts should be directed, but we shall never diminish habits of intemperance amongst the labouring classes until they have been taught to comprehend the manifold physical and moral evils which accompany the abuse of intoxicating liquors. Education may be expected to do much; in the meanwhile I trust that the new lessons of moderation and self-denial, which adversity has so sharply taught, will not be soon forgotten.

The number of patients is in excess of the accommodation. Mr. Ley was invalided for six months, but is now well.

An *annexe* for chronic cases is to be built, and more freehold land acquired.

Four inquests were held. 1. On a patient with fractured ribs. 2 and 3. On cases that died from injuries self-inflicted before admission. 4. On a female who committed suicide by drowning.

There were fewer admissions this year than in the previous, on account of the fulness of the wards.

Female attendants are made use of in some male wards.

Mr. Ley opposes the idea that the majority of chronic insane patients are fit to be free from asylum care and restraint, and would only allow idiots, imbeciles, and demented, who are quiet, harmless, and clean, to be away from such care. Mr. Ley, as we saw, thinks that commercial distress is at first associated with decrease in insane cases, due to diminution of population by the retreat of the nomadic classes from poor areas and improvements in the habits of the people; in the Glamorgan report it was noticed by Dr. Pringle that there was a great excess in male admissions, due to the same causes, but, doubtless, he would agree with Mr. Ley, that the increase does not come at once. There were 16 per cent. of re-admissions. Over one-third of the male admissions were general paralytics.

Mr. Ley does not think the Government Grant of four shillings has increased the flow of the insane from workhouses to asylums in Lancashire.

The report refers to many important facts known to asylum physicians, but not sufficiently understood by the outside world.

The death-rate was very low, only 4 per cent. of all under treatment.

Post mortems were made in 73 out of 74 deaths.

Altogether this report speaks very highly for the Medical Officers.

We are hardly as confident as Mr. Ley in believing persons with strongly insane inheritance can prevent a neurosis from developing, and we are not sure that gout can in all cases be avoided by temperance. Mr. Clewer, the energetic senior assistant, has left lunacy and the asylum, and Mr. Sankey succeeds him.

In the death table we again object to "serous apoplexy" as not recognised by the College of Physicians, and "softening of brain" as indefinite.

Royal Asylum, Montrose.—In that of the Royal Lunatic Asylum, Montrose, Dr. Howden remarks on the termination of the long period of twenty years which he has spent in the service of the institution. While modestly asserting his consciousness of the "many infirmities and shortcomings which have marked the performance of my duties," he lays claim to having been "actuated by an earnest desire to promote the happiness of the inmates, and to advance the prosperity and usefulness of the Institution." Dr. Howden might have taken even higher ground and found a hearty endorsement in the opinion of every member of the speciality. Though short, his report is weighty and able, and remarkable for sound and acute observation. The death-

rate was 7.48 on the average number daily resident, and 5 per cent. on the total treated. A curious fact is noted, that all the deaths from cerebral and spinal diseases occurred among the men, while all those dying from abdominal diseases were women. The precautions against fire are given in detail, and seem ample and worthy of imitation. A very interesting table of weights is given, amply bearing out the generally held idea that convalescing patients increase considerably in this respect. Dr. Howden favours the abolition of airing courts.

Garlands Asylum.—In the report of the Cumberland and Westmoreland Asylum, Dr. Campbell refers to the absence of stimulants from the dietary of his asylum, and states that the experience of 17 years fully exemplifies the wisdom of the decision of the committee of visitors, that beer and other stimulants should not form part of the diet, but be given as medicine when required. This is the chief fact of general interest in Dr. Campbell's report. He sums up the year's history of this asylum of 431 patients in four pages and a half. The following remark seems to indicate that he does not consider his report as addressed to other than a limited audience. "From the full manner in which details of management are brought before you, and from your frequent visits to the asylum, little else than the summary of the year's returns remains to be presented to you." A little extension of this argument would almost admit of a plea for not issuing a report at all. Dr. Campbell also says "each year should see some improvement in an asylum in every department. There is a danger of falling back if some advance is not being made." This is applicable to annual reports.

Ayr Asylum.—We were somewhat at a loss to understand what motive Dr. C. Skae could have had in publishing his "Eighth Annual Report." Prolonged cogitation, however, furnished us at last with a key and an analogy. It is now about ten or a dozen years since a man of genius coined a phrase and informed a company of dining and admiring political followers that the secret of certain apparently somewhat inconsistent sayings and doings of his in the past had been that he was endeavouring "to educate his party." So we surmise that portions of Dr. Skae's report, which otherwise might be thought scarcely worthy of special promulgation, are to be explained on the theory that he is "educating his committee." The first lesson he gives is to the effect that bad milk is not good for lunatics. The second is that a farm is a useful adjunct to an asylum. "At several of the district asylums, such as Larbert, Fife, Lochgilphead, there are farms, and I am told that they answer exceedingly well, being not only beneficial to the patients but remunerative, too." It must be gratifying to the Scotch Board of Lunacy to see from this that the principles which they have so assiduously fostered have taken such good root. This feeling will, no doubt, counterbalance one of slight chagrin, which they might experience at the thought that it has taken eight years for this idea to travel from Edinburgh to Ayr. We notice in his Table VIII. that Dr. Skae

has 7 cases : 5 men and 2 women "recovered" from dipsomania. The profession will hope that he may find leisure to inform them, through one or other of the Journals, of the treatment which brought about these very remarkable cures. Among his other recoveries are 1 male and 1 female from "hereditary," 1 male from traumatic sunstroke, 1 male from congenital imbecility, and 1 female from moral imbecility. We doubt if any other asylum can show such results. There is a chaplain's report appended to Dr. Skae's. In this the rev. gentleman informs the, no doubt gratified, Board that he has enjoyed good health during the past year, and then, after a few uninteresting remarks, indulges in some rather unctuous flattering of the officials of the asylum. We have an utter dislike to this prostitution of an asylum report. Work and thought and earnestness is what it should show. It is a degradation to make it a vehicle for the interchange of flabby and often misleading courtesies. Dr. Skae has not taken the trouble to give the Medico-Psychological Association's Tables. This is unpardonable for a new asylum and a young superintendent.

Inverness Asylum.—Dr. Aitken, Inverness, writes pleasantly and cleverly, and produces a report which could only have been written by a man devoted to his work and appreciative of its importance and numerous points of interest.

Dr. Aitken finds a tendency to increase in the numbers resident, and considers that this arises from a growing inclination to send in to the asylum cases of a mild, chronic, and harmless character. He advises that boarding out in private dwellings should rather be tried with such, and that the allowance should be sufficiently liberal to induce suitable persons to undertake their care.

He narrates an interesting case of a labourer, *æt.* 44. Originally this man had been intemperate, and suffered from rheumatic fever, but for 10 years previous to seizure had been in apparently good health. He went to his work, as usual, on a cold, bleak morning in December, and returned home afterwards, unable to articulate, and so violent that his case had to be reported to the Fiscal. The excitement had come on immediately after he had drunk a small glass of whisky. He was found to be aphasic, but in time began gradually to re-learn language. In the midst of this process, however, he suddenly died. At the post mortem it was found that "the lesion, which might have been expected to be associated with his aphasic condition, was absent, and that the whole posterior left lobe was reduced to a soft creamy mass."

Dr. Aitken notices a recent disappearance of that class of patients known as "decorators." Our observation leads us to think that other asylums have experienced a similar loss. This is probably a good deal due to the gradual assertion of better discipline. Though they were picturesque enough, it was a mistake to encourage the followers of this special vagrancy. They certainly induced a particularly "mad" look in their vicinity, and no doubt it is a rational thing to

check the indulgence of this wayward fancy, just as would be done in the case of any other.

Argyll Asylum.—In the report of the Argyll and Bute Asylum, Dr. Cameron confines himself entirely to a few points of detail possessing only local interest. In the entries of the Visiting Commissioners very flattering notice is taken of the general condition of this asylum, and of the extent to which healthful industrial occupation is found for the patients. On the date of Dr. Mitchell's visit, 83 per cent. of the whole population were at work, and it may be taken as a corollary to this that "seclusion appears never to be necessary."

Manx Asylum.—In the Report for the Isle of Man Asylum, Dr. Wood goes with some minuteness into various points connected with the asylum and its surroundings, but does not go beyond this. This asylum, originally built with day space for 84 and sleeping room for 94, had during the year ending 30th June, 1878, an average of 125 patients resident. Some additions to the building have been made and others are approaching completion; but Dr. Wood anticipates that still further enlargements will be required. Our own observation of this asylum would lead us to think that Dr. Wood would have found his account in facing the larger question at once, and suggesting the building of a new asylum altogether. The present one can, from its mode of construction, never be really satisfactory.

Wilts Asylum.—The Wilts County Asylum has lost the services of Dr. Wilkie Burman, a gentleman who had done good work and signalled himself by able and thoughtful papers in this Journal. His successor, Dr. E. Marriot Cooke, goes with some minuteness into various details of the asylum management, and suggests a good many alterations in the arrangement of the house. No doubt this institution will benefit from the energy infused into its general life by its new Superintendent. It should be his ambition to show that this is not merely spasmodic, and so avoid a possible reference to the results which follow the employment of "new brooms."

The following case is instructive, and may encourage perseverance with artificial feeding:—

One of these cases, that of a woman, H. M., may be mentioned as showing what may be accomplished by artificial feeding.

This patient was admitted in July, and for three months she obstinately refused all nourishment, taking absolutely nothing herself, and for the whole of that time was fed artificially; new milk, eggs, beef-tea, brandy, and codliver oil being injected twice a day into her system by means of the stomach-pump. At the end of three months, during which time she improved in bodily condition, she began by eating potatoes herself, and gradually by means of much persuasion, was induced to take meat and other articles of diet. At the present time she always eats a good dinner, but, as a rule, refuses her breakfast, at which meal she still requires to be artificially fed. It is hoped that this patient may ultimately recover. The patient's mind was occupied with the delusion that all food offered her was poisoned, and rather than, as she believed, cause her own death by knowingly taking the noxious mixture,

preferred the alternative of a slow death by starvation. The intensity of this delusion has to a great extent subsided, but even now and again the perverted idea is apparent.

There is an excess of residents but diminution of admissions. Additions to the asylum will be completed this year, an infection ward has been arranged. The weekly charge was 9s. 7½d., and this enabled a debt to be cleared off, leaving a balance of over £1,000.

A very violent and dangerous lunatic was sent to Fisherton House in exchange for a criminal lunatic. We wish changes of this kind could more often be effected, and think good would result.

Dr. Cooke is earnest in making *post-mortems*, both for scientific knowledge and also to detect broken ribs.

Two inquests were held—one in a patient dying of lung disease, there being no one present at the death; the second on a case of sudden death from heart disease. No suicide or fatal accident occurred. Several cases of fractures, especially of the ribs, are reported, and we are sure more careful examination after comparatively slight accidents would often reveal fractured ribs in the insane, and lead to a more general knowledge of their brittleness in nervous disease. Three escapes and re-captures are noticed.

Royal Edinburgh Asylum.—The admissions into the Royal Edinburgh Asylum were, for the past year, the greatest on record, being 23 more than last year, and 72 more than the average of the past ten years. This increase chiefly took place among the private patients, and is, Dr. Clouston thinks, strong evidence of how highly the profession and public appreciate the advantages which this great institution affords in supplying accommodation for this class at comparatively low rates of board. The accommodation for private patients, at rates of board of from £25 to £50 a year is a crying need of the time. We are surprised that the Commissioners in Lunacy do not take the matter up.

The extensive structural alterations in both East and West Houses, which have been proceeding for some years, are now completed, and the managers quote with satisfaction the high encomiums passed on the renovated asylum by the Visiting Commissioners.

No one can read this Report without feeling that Dr. Clouston is amply justified in speaking of its "magnificent resources" as a curative hospital in mental disease. Though not exactly within the scope of a notice of the Annual Report, it may not be thought uninteresting if just a reference is here made to the important union now lately formed between this asylum and the University of Edinburgh. With the appointment of its Physician-Superintendent as Lecturer on mental diseases, its great resources for clinical instruction will be placed at the disposal of the students as they never were before; and a great impulse ought thus to be given to the present study of psychiatry. The more our asylums are used for clinical instruction, the better for them and for our profession. This use of them stimulates all connected

with them, and helps to give a new life and interest to their daily routine.

A very important step has been taken by the Managers in the purchase of the adjoining estate of Craig House, by which they will have literally unrivalled facilities for offering the highest class of accommodation and surroundings to private patients.

In all respects it is a most charming old house, and its surroundings of quaint, old-fashioned garden, shady walks, and magnificent trees are all equally attractive. The site is one on which an ideal Asylum might be built. Healthful, well wooded, and elevated, with unequalled views of our beautiful city and its surroundings, and yet with perfect privacy. It affords ample room for many villas of various kinds, surrounding a central block for recent acute cases, kitchens, dining, and public rooms.

What more could a Claude Melnotte, musing on his "Palace Lifting to Eternal Summer," want? There will, however, be a poor time for our poets, if the "shady grove" is to be no longer the haunt of lovers but the place where lunatics most do congregate. Perhaps an ill-natured person might say in this case, as in others, that extremes meet.

Melrose Asylum.—The genial Head of the Asylum for Roxburgh, Berwick and Selkirk, has this year issued a somewhat quaint report. We do not know whether his proximity to classic ground has inspired his pen, but there is certainly evidence in his pages of a desire to produce a literary *Tour de force*. Of its ability there can, of course, be no question, but we have a slight misgiving that, in one or two paragraphs, simplicity has been sacrificed to style. For instance—

Then, again, well nigh 20 per cent. of those we have had to receive, having long passed the allotted three score years and ten, which make up an average human life, and so wearied and taxed in some cases the government and nursing resources of the Poorhouse, or overcome that sturdy independence of character, which used to be our boast as well as pride, that an old woman of 84, with a memory weakened, and feelings over-active, through no fault of hers, but as simply the outcome of an honest, hard, and industrious life, is fittingly sent here because in her vacuous and wakerife habit she flytes at some impersonal being—fancied child it may be—of a long ago period, and perhaps many years dead, for dallying, for what seems hours, over the boiling of the water that was to prepare her untimely meal.

Glamorgan Asylum.—We gather from the Report of the Glamorgan Asylum, that Dr. Pringle's anxious and painstaking management continues to maintain that Institution at the high standard to which it was brought by his able predecessor. No restraint or seclusion was required in an average population of 576.6. All the deaths were from natural causes, and no accidents of any consequence have occurred, notwithstanding a large number of new cases of a troublesome and dangerous nature. Out of 156 admissions, the illness in 83 was ascribed to the indulgence in alcoholics. The following is interesting:—

The admissions—156 in all—have been unusually numerous, particularly to the male side, which received 92, as against 68 in the previous year.

That such a great increase of insanity should take place at the present time,

when trade is so depressed and wages so small, and the classes from which this Asylum is supplied can scarcely get food, and certainly have very little money to spend on drink, may well cause astonishment, but I believe this increase is simply a marked illustration of the well-known doctrine of the "survival of the fittest," by the succumbing of those whose brains are unable to bear the strain of poverty and hardship, in addition to the weakening influences of former intemperance, of family tendency, or other causes which of themselves might not have induced an attack of insanity.

Overcrowding of patients is mentioned, and a deficiency of space for 59 women. The average cost is 9s. 3d. There seems to have been slight exceptions to the uniformly good conduct of inferior officers. We should prefer "attendants" to officers. A new asylum is to be built. One inquest was held on a patient dying from heart disease. Post-mortems were generally made. Many slight but important changes were made in the buildings, and the epileptics are again cared for by the Commissioners. Floods of the river Ogmore have necessitated outlay in embankment. Dr. Pringle reports a great increase of admissions, especially on the male side; this is due to poverty and distress, which acts even worse than drink. Twelve patients died of phthisis, and this is attributed in part to the "watery surroundings." We notice that the re-admissions have greatly exceeded the average of the past 14 years. That histories of the cases dying of aneurism and syphilis should be reported as due to the influence of mental diseases is important. Table X is very carefully compiled, and presents fully the causes. A large number of foreign nations are represented among the patients. Whisky seems the favourite form of stimulant.

East-Riding Asylum.—The East-Riding Asylum has suffered a loss in the transference of Mr. Greene to the Northampton County Asylum. His successor, Mr. Whitecombe, issues an interesting report, which shows that, in the few months since he has taken office, he has fairly mastered the leading details of the Asylum. He narrates, at some length, a case of particularly determined suicidal propensities in a female patient, and adds—"Cases such as these add enormously to the anxious and arduous responsibilities of asylum officers." We are inclined to demur to the "enormously," and to think that there is a little too much of a tendency among superintendents to magnify such anxieties, and also to dwell more than need be on the "arduous" nature of their "responsibilities." No doubt cases of a suicidal tendency cause "anxiety," but surely this should not be "enormous." As for the "arduous responsibilities," it would be in better taste to allow others to discover these and comment upon them. The recoveries during the past year were the highest ever attained in this Asylum, being 39·28 on the admissions. The deaths were 7·31 on average number resident, and 6·07 on total number under treatment. The weekly cost is 11s. 1d. Several attendants followed Mr. Greene to Northampton. Sewage irrigation has been increased. The admissions have been below the average. The usual complaint that patients are not sent soon enough to the Asylum is made. The percentage of deaths is

low. One sudden death from phthisis required an inquest. Post-mortems were general. One patient escaped, but was re-admitted. Wet-pack was used medically. The Commissioners report favourably of the internal improvements, but think the airing courts bare and cheerless. Some drain defects were also found. Special night attendants for the epileptics are still wanting.

Royal Asylum, Glasgow.—We are sorry to find Dr. Yellowlees confining himself almost entirely to domestic details, in the Report of the Royal Glasgow Asylum, Gartnavel, for 1878. This has been such an exceptional year that we should have welcomed the observations of one so well qualified to make them, on the effect of the recent disastrous times on the community from which he draws his inmates. We quote all he does say on the subject, wishing there was more of it :—

The great depression of trade, and the privation now so general among the poorer classes, assuredly tend to lessen the production of insanity. Crime likewise diminishes in such circumstances; and, probably, for the same reason,—the unwonted sobriety which poverty imposes. Prolonged privations, inducing disease, desperation, and despair, would too certainly lead to an increase both of insanity and crime.

We gather that the past year has been a prosperous one as regards the general progress of this important Asylum.

Sussex Asylum.—We have read the Twentieth Annual Report of the Sussex County Asylum with much pleasure. The impression left by its perusal is altogether favourable. This Asylum is evidently conducted with great care, and is enjoying a deservedly prosperous career. Like so many other Boards, the Sussex one has had to face the serious question of providing increased space for an enlarging community. This is to be done by appropriating to the patients' use the present superintendent's house, and giving him another. In this, space for 60 or 70 patients can be got, at a probable outlay of about £70 per head. It is gratifying that no application has to be made to Quarter Sessions for this sum, but that it can be met out of a fund which has accumulated by excess over maintenance charged to the non-contributing boroughs (Hastings, Chichester and Seaford), and partly by a profit derived by the reception of private and out-county patients. The greater part of Dr. Williams' able Report is occupied with the discussion of points of interest in this connection. He shows the very remarkable fact that, in the past eight years enlargements have been paid for in this way to the amount of £16,731, the space been equal to room for 230 patients. He considers this sum practically saved to the county. The death-rate was—male, 10·0; female, 10·5 on total numbers under treatment. The recoveries 33·1 and 25·6.

An increase of admissions is reported. Many patients seem to be sent out relieved who can be trusted at large. The mortality was slightly above the average. No suicide or accident occurred. One patient died of scarlatina. One inquest on a case of apoplexy took place. The report is quite a financial digest. The plan of night-

nursing is thorough and good. A meteorological report is made, but till this shall have been associated with the states of excitement, depression or fits, it is only a pleasing evidence of general careful observation. The Commissioners' Report is satisfactory. Dr. Worthington succeeds Mr. Green as Assistant Medical Officer.

Barnwood House Hospital.—In the Nineteenth Report of the Barnwood House Hospital for the Insane, near Gloucester, we find evidence of prosperity, and good results of treatment and management. The demand for such an institution as this is evidenced by the fact that the admissions have exceeded that of any previous year, the house being now full. The recoveries have been very satisfactory, bearing a proportion to the admissions of 49 per cent., which is 23 per cent. in excess of the average. The weekly charge varies from £1 to £7 7s., the average cost per head being £1 16s. 10½d. a week.

Hereford Asylum.—Dr. Chapman (Hereford County and City Lunatic Asylum) seems to be better off for space than many of his brethren, as out of a total of 336 patients on his books at the end of the year, 278 were chargeable to Hereford City and County, nine belonged to Gloucester Asylum, 22 to Abergavenny, two to Merthyr Tydvil Union, and 25 were private patients. An experience in the death-rate of this asylum bears out our remarks *ante* as to the untrustworthiness of this as a guide to the general health-condition of an asylum community. No fewer than six deaths this year occurred in this asylum from General Paralysis, whereas last year there was no fatal case of this disease. The following is an interesting and suggestive remark, though we are inclined to think that it is rather strongly put :—

I, myself, entertain little doubt that a large part of the lung diseases, which unquestionably occur during severe weather, are to be ascribed much less to the direct effect of cold than to the abominably contaminated atmosphere to which we are so tempted to confine ourselves in order to secure a higher temperature. By abominably contaminated, I mean such an atmosphere as many would consider a little close, and others would not remark, but, for which, as a lethal mixture, my qualifying term is not too severe.

Berks, &c., Asylum—The Eighth Annual Report of the Asylum for Berks, Reading, and Sunbury is satisfactory. Dr. Gilland has little that is new to tell, but produces an interesting report by entering with considerable pains into various points in the year's history. The death-rate was 10·31 upon daily average resident and 7·82 upon total number treated. Quite two-thirds of these were from cerebro spinal disease, General Paralysis being ascribed to no fewer than nine out of the total 31. Among the recoveries there is to be noted a rather unusual duration of residence. Four—one male and three females—were between three and four years, one male between two and three and four, three males and one female between one and two.

The asylum seems full, as twenty patients were sent to Sussex County Asylum, but the new buildings will be completed January, 1880. During the year there was a decrease by eight in the number of patients

treated, though an increase of eight occurred in the numbers resident at the close of the year. Dr. Gilland reports that the bodily health of patients on admission was bad.

One epileptic child of five was admitted. Dr. Gilland gives an useful epitome of the cases admitted and treated in his reports, thus making them more interesting than most annual reports.

We object to the term "serous apoplexy" as spoken of in page 16. We thought the term an obsolete one.

Overcrowding was associated with diarrhoea and erysipelas. The new building will accommodate 250 patients.

Cardmarthen Asylum.—Dr. Hearder, Joint Counties Asylum, Cardmarthen, has the satisfaction of pointing to the remarkably good opinion expressed by the Visiting Commissioners on this asylum. The numbers indicate an increase of 25 (11 males and 14 females) at the close of the year, as compared with the beginning. The average increase during the past ten years has been 18 per annum. The following is a serious experience, such as is, we trust, seldom met with:—"With only four exceptions all the patients admitted suffered from marked physical disease in addition to the existing mental disturbance of such gravity as to preclude all hope of recovery therefrom."

"As regards causation, the most prominent factors are, as usual, heredity and intemperance."

Dr. Hearder devotes a paragraph to the discussion of a matter of serious interest, namely, the reception of criminal lunatics into the County Asylums. We entirely agree with him that when one of this class has unfortunately to be admitted, it is an unmixed evil as well as a hardship to the other, and, in many cases, respectable patients. Those who send such cases frequently forget, too, that the primary object of an asylum is curative, and not retentive, and that the appliances are in most such institutions quite unfitted to withstand the determined efforts of a skilled prison breaker. This asylum has now outlets for its plethora of inmates, one the house at Job's Well, which has room for 50, and the other at Rhyd-y-Gors for 40 patients.

The first statement is that patients cost only 8s. 9d. a week, and the next is a dispute about costliness of enlargements between the Cardigan Quarter Sessions of Cardigan and the Committee of Visitors, which was settled by Mr. Cross issuing his order.

Overcrowding on the female side seemed proved, and erysipelas occurred, and hospital accommodation deficient. The Commissioners suggested a fire extinguisher being handy to the carpenter's stores.

The asylum estate is small. We object to the Chaplain's Report preceding that of the Medical Superintendent. We do not understand the second paragraph in page 20, for there were said to have been 70 admissions, and then that only four of these were not suffering from well marked physical disease that precluded hope of recovery, yet the next line says nine were discharged recovered. Heredity and intemperance are pointed out as causes. It seems in Wales there are still bad

times for lunatics if kept at home. One inquest was held in a case of no importance. Two women died from erysipelas. Post-mortems were general. Table V gives much information, but leaves one in doubt, as the general terms "hepatic and venal disease" occur so often, and do not mean much.

The Retreat, York.—The Eighty-Second Report of the Friends' Retreat at York indicates a vigour of management that might almost shame many younger establishments. A most elaborate and valuable table has been prepared by Drs. Prideaux and Wood, showing the proportion of recoveries, &c., both as to persons and cases admitted, with a comparative percentage between the two, and giving an analysis of the admissions and discharges, with the number of times each patient was admitted and discharged, embracing the whole of the cases admitted into the institution from the date of its establishment to the present time. While this is obviously not suitable for quotation, the great and lasting value of such a record for so prolonged a time must be amply manifest. Many improvements are detailed, all pointing to increased comfort, many to ornament and elegance. Dr. Baker trusts in due course to be able to employ educated companions for the lady patients, but remarks that "no doubt there are many difficulties, social and executive, to be combated." We fancy these are more imaginary than real, and would soon disappear were earnest workers to "take arms" against them. Indeed, we trust to see the day when, in the wards and day-rooms of our Pauper Asylums, philanthropic and Christian ladies will find a field for their labours. To many a poor soul struggling against the horrors of melancholia unspeakable relief might in this way be afforded. It can hardly be expected that the best of our attendants can have that psychological insight and that sympathy with the finer springs of human nature which is possessed by persons of education and refinement. Thus, while they may not be wanting in kindness, it may be feared that their sympathy, when given at all, is of a rough and ready description, which must seem commonplace and unsatisfying to its objects. Something at once more searching and more tender is needed for these lives—

"That have crept so long on a broken wing,
Through cells of madness, haunts of horror and fear."

We presume the chief objections to this admission of ladies on such errands would be possible interferences in the discipline of the house, but surely firmness on one side and a little judicious reticence on the other would obviate any risk. We must not quit Dr. Baker's interesting and able report without quoting the graceful sentences which form his in memoriam tribute to one who was a good worker and a loveable man.

It is under a sorrowful sense of the loss that we have sustained, that I proceed to record the decease of our valued friend and adviser, Dr. Kitching. This is not the place to enter into a description of a life-long devoted service of our

veteran ex-Superintendent. Suffice it to say that to high professional attainments he had super-added those amiable qualities which attract personal friendship—with firmness there was combined unvarying courtesy and the power of infusing into the lives of his patients his native geniality and kindness. Dr. Kitching has gone to his rest after an active life, successfully devoted to the endeavour to improve the condition of the insane, and his memory will long be lovingly cherished by a large circle of patients and friends.

Abergavenny Asylum.—The Twenty-sixth Annual Report of the Joint Lunatic Asylum, at Abergavenny, bears evidence of good management and resulting prosperity. During the past seven years there has been an increase of 67 males and 68 females. At present there are 55 patients boarded in other asylums. In consequence of the Home Secretary declining to sanction a dissolution of the Union (Monmouth, Brecon, and Radnor), the Local Board determined to obtain plans and estimates for a large increase to the Abergavenny Asylum. It was discovered, however, that the Commissioners in Lunacy object to the erection of further buildings to the extent of accommodation required (250) on the existing site, unless the estate be considerably enlarged. Something like a dead lock has thus been caused from which we can only wish all concerned a happy deliverance.

Northumberland Asylum.—Dr. McDowell's remarks in the report of the Northumberland Asylum for 1878, are not of such general interest as usual. This report is made up in a form which prevents it being bound up with any set of other similar pamphlets. We have failed to discover in its pages any justification for this assumption of solitary grandeur.

One case of death with fractured ribs occurred. No inquest was held. A second case of fractured ribs from very slight cause took place, and as the patient was a general paralytic no blame was imputed. The verdict returned is said to have been "General paralysis, accelerated." The average cost has been reduced from 11s. 1d. to 10s. 9½d. a week.

There are more men than women in this asylum. More than a third of the deaths were said to have been due to phthisis. The wet pack was used by Dr. McDowell, and with advantage. We are glad to see it is being used as a remedial agent. It is as effectual and less dangerous than medical restraint. He again points out the decrease of admissions associated with general privation. Dr. McDowell does not find the cases arising from privations in hard times less curable or more melancholy than ordinary. Of 415 patients in the asylum at the end of the year, only 15 were considered curable. This is a fearful state of affairs. We notice two cases under the head acute alcoholism, and wonder if these cases were retained.

City of London Asylum.—In the Thirteenth Annual Report of the City of London Lunatic Asylum there is recorded evidence of fair prosperity and good general results, but beyond this no fact of more than local interest. The Commissioners suggest more complete supervision of epileptics at night, and also some other arrangements to facilitate inspection of such cases. Increase of tell-tale clocks is advised.

The Commissioners' Report was satisfactory in regard to the Medical Officers, but less so in referring to the justices' visits. The death-rate was unusually low, being only 3.88 per cent. on numbers resident, and 3 per cent. on total numbers under treatment. No suicides or inquests occurred in the year. Five men and nine women seems a small number, too, in bed out of 350 patients. One patient managed to get two injuries, resulting in fractures. A cottage hospital is being completed. Escapes have been rather numerous. There seems a large number of entertainments given by friends outside the asylum.

Devon Lunatic Asylum.—Improvements have been completed. An outbreak of typhoid occurred in the house of the medical superintendent, due to bad drainage. A deep sinking was made for water. The weekly cost of patients is low, being 8s. 6d. The admissions were above the average, and the deaths below. Among the deaths we hardly understand the difference between softening of the brain and general paralysis.

No casualties or inquests occurred. One case of pneumonia with delirium was wrongly sent to the asylum. As usual, we see increased care of epileptics, resulting from the Commissioners' energetic action. Three interesting cases of death are recorded, one from meningitis and another from calculus vesicæ and peritonitis, and another of cancer of pylorus. The record of these in this Journal, with their mental symptoms, would be valuable. In Table IX. the number of widows admitted is very large. In Table XI. we object to "delirium" after typhoid, as cases of true insanity follow that disease, and should not be called delirium.

Gloucester County Asylum.—Again we find more patients belonging to the county than the asylum can accommodate. Mr. Toller was forced by illness to take a long leave, but is now happily restored. Fresh rules have been drawn up for all the officers, and we should be glad to see a copy. Sanction has been given to buy the Barnwood Estate, of 120 acres, for new building.

The two assistants have resigned. Three inquests were held, one on a man with broken ribs, and though violence was suspected, and three attendants discharged, no conviction was obtained.

Admissions were 164; re-admissions, 36. This is high.

The Commissioners refer to four deaths that may be called unnatural. One from abscess of the thigh, one from suffocation in a fit, a third from fractured ribs, and a fourth from swallowing carbolic acid. The case books were not satisfactorily kept. The epileptics will be more properly cared for in the new asylum.

The death table gives a list of interesting cases, and we must regret that so few of these become fixed by publication.

We should like to know about the case of sclerosis of "brain and cord." If not general paralysis, was it insular sclerosis, or the rare form of cerebritis, or sclerosis, seen in idiots?

There were two cases of malignant disease, and Tables XV. and XVI. are interesting, showing in the former the physical condition of

admission, and the latter the inheritance, only we should like the insane relations given.

Hants County Asylum.—The new buildings were advanced enough to receive patients, and this year there were 62 over the number of last year. More land has been purchased.

The chaplain here again precedes the superintendent in his report. The percentage of recoveries was only 17·5, but this was due to reception of old cases. Dr. Manley says the types of patients are *now* of a more hopeless character than formerly. A very high death-rate, 117 persons, has also followed, but no inquest was held, so this is highly satisfactory. One child of three years was sent to the asylum, and very properly discharged as not a proper case. The only accidents were due to epileptic patients. One case given to self-mutilation was properly restrained.

A nurse is said to have died of "brain fever." Though the lay world talks of this disease, doctors do not usually do so. A change of assistant medical officers took place. Re-admissions were large in proportion to first admissions.

Table V. gives general paralytics, and separates those who died of "epilepsy." Surely it is better to use the term epilepsy for a disease, or set of symptoms apart from general paralysis, and to call the cause of death epileptiform fits.

Another puzzling cause of death is given as "gastritis." One knows this as a result of injury, but hardly as a common cause in asylums, unless due to stone swallowing.

Northampton County Asylum.—Here we have a new asylum and plenty of room, so that out-county patients are received and a good balance of profit results from them. Mr. Green has become Superintendent.

The use of female attendants in male wards has been discontinued.

There is said to be a larger proportion of unfavourable cases—epileptics, suicidal, and violent patients—than is usual in County Asylums. One case of small-pox arose in the asylum. The recoveries were 44·2 per cent. on admissions. We are glad to see that four patients escaped and were not recovered.

The death-rate was 10·53 per cent. on average number resident. "Brain softening" is given as the cause of death of 11 patients; this, surely, was general paralysis or dementia, and why use the terms not recognised by the profession at large? *Post-mortems* are not numerous, but the Superintendent acts with caution, and legally, in not doing more, though we regret the necessity of this.

One fractured thigh is reported from a fall out of bed, and one inquest on a case due to a fall, producing "softening of the brain, accelerated by apoplexy." We should like a report of that case.

Twenty-seven new attendants were engaged.

A telegraphic communication has been established between the wards and the Medical Officers' quarters, and is reported to work well.

St. Andrew's Hospital, Northampton, is now re-christened, and is

probably the most flourishing hospital in existence ; it has added this year an estate of over 450 acres to its site. The hospital has been so full as to force the rejection of suitable patients, so that the admissions are less by 17 than last year.

There were ten escapes, all but two being re-taken ; this may seem a large number, but was not nearly enough, for great freedom means great risk of escape.

No accidents occurred and no changes took place in the staff ; this speaks volumes. Mr. Bayley gives an account of the changes made to convert the County Asylum into a provident and charitable hospital. The income has risen from a maximum of £20,000 to one of £80,000.

Somerset Asylum is nearly full, and is to be enlarged. The medical report is good, and is interesting and full. The patients admitted ranged from 5 years old to 85. Dr. Madden-Medlicott has found the addition of lunatics from prisons a disadvantage. He is able to separate his chronic harmless cases to some extent. There was an excess of cases of acute mania. There were five cases of deaths from general paralysis among the women. The deaths were said to have been due to ordinary causes, yet four inquests were held, accounts of which are not given. More single rooms have been provided, and much decoration done. The style of the report is rather florid, too much like an hotel circular. Technical teaching is made use of in workshops, and is spoken of as successful.

Dr. Medlicott's report concludes with a short address on the consideration of insanity as a disease, and his regret at the unphilosophical views taken by the public. Doubtless it is hard to distinguish between moral and physical causes of insanity ; but surely losses in business are rather moral than physical—quite as moral as domestic worry, unless absolute starvation resulted.

Stafford County Asylum.—The female side is full, but there is still room on the male side. The cost of the last quarter was only 9s. 4d. weekly. A good school attendance is reported. Of 102 deaths only 28 *post-mortem* examinations were made ; one patient died suffocated in a fit.

The Superintendent's report is brief, but contains important facts. He looks upon hereditary tendency and drink as the two chief causes of insanity. One patient died of strangulated hernia, but no notice is taken whether it was operated upon.

Among causes, we find all under the head "physical," and think it a mistake to put down the causes given by friends, as the tables thus made will in the end become mere catalogues of symptoms. Thus "imaginary enemies" is the symptom and not the cause.

Burntwood Asylum, Staffordshire.—Most of the cases in this asylum are cases of long standing. Two inquests took place—one on a patient who cut his throat in the asylum, and one who cut it upon admission. Dr. Davis' patients must be a bad lot, as the Commis-

sioners say he has "charge of many difficult cases." It is suggested that more special provision should be made for the epileptics, and that the most noisy patients should not be all placed together. The asylum is practically full. Slight defects are remarked upon, and a fire brigade suggested.

Dr. Davis' report requires no remarks; it is a short statement of facts. The re-admissions from some cause or another, seem to be very few. As in many death tables we find vague terms, like "brain disease;" we should prefer even mania, melancholia, or dementia, to this.

York Lunatic Asylum.—The Commissioners question the right to use this asylum for lunatic paupers from York. No *post-mortems* were made. One suicide by hanging is reported. Of the male admissions 79 per cent. were cured; this is a large proportion, but the whole numbers being small and selected, this is accounted for. One case died of choking, though tracheotomy was performed. Dr. Gill points out a larger proportion of recoveries among the private than the pauper cases. We were sorry to see that there were no escapes last year. Padded rooms have been constructed.

Salop and Montgomery and Borough of Wenlock Asylum.—The weekly charge here is 9s. 7½d. The Commissioners objected to the state of one patient, who for months had refused to dress himself, and was allowed to be in a padded room naked. The epileptic wards need some changes, and the yew trees in the grounds cause anxiety. We should have thought they might be fenced off rather than cut down.

The asylum being full, chronic harmless cases were tried at the workhouses; this seems, on the whole, to have answered well, but, as might be expected, some "bumbles" were in opposition. The four inquests that were held were as follows:—1st. On one patient who died of "serous effusion on the brain." Is this a real cause of sudden death? 2nd. On a paralytic, who died from a fall and ruptured intestines. 3rd. On an epileptic, who was suffocated in a fit. 4th. On a patient who died from the result of a blow given by another patient. No suicide occurred.

We find that four patients were refused admission on legal grounds. Doubtless the Superintendent was legally right, but the rejecting a case seriously ill because of some amendable error, is one that would incur moral, if not legal, blame; doubtless in the cases referred to he was morally and legally right.

Some earth closets have been removed and water-closets substituted with advantage, so thinks Dr. Strange. We suppose that 1,000 patients may be administered as well as 700, and that 500 and 1,000 are matters of detail; but if any study of mental disease is to be pursued, or even facts recorded, it takes a clear head, active habits, and medical instincts kept fresh for such a number. One-fourth of the admissions were re-admissions. In Table 35 the gross amount paid to attendants is stated, but not the rate at which each is paid.

(To be continued.)

PART IV.—NOTES AND NEWS.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

A quarterly meeting of Medico-Psychological Association was held on Wednesday, March 19th, at the Rooms of the Medico-Chirurgical Society, in Berners Street, the President (Dr. Crichton Browne) in the chair.

Dr. SAVAGE read a paper on "The Use of Hyoscyamine." (See Original Articles, p. 177.)

The PRESIDENT remarked that he was convinced that Dr. Lawson fully understood the difference between the two preparations of the drug. He thought that Dr. Lawson had pointed out that that which Dr. Savage had referred to by the name of "Alkaloid," might sometimes be more correctly described as an ash. The true Hyoscyamine had yet to be discovered. Dr. Lawson employed the name because he found it already in use, and not because he regarded it as scientifically accurate. The white ash Dr. Lawson had found sometimes almost inert, and sometimes very potent. He (the President) thought that Dr. Lawson had himself taken considerable doses of it, without suffering any inconvenience. He had watched Dr. Lawson's experiments with great interest, and, he might say, very carefully. The criticism of a gentleman in another institution was doubtless severe and crucial, but a severer criticism even than that was the criticism of a candid colleague such as himself. For a long time he was exceedingly dubious as to the benefits to be derived from Hyoscyamine, but at last he was thoroughly converted, and obliged to admit that in some cases of chronic mania—particularly in those of a criminal type—the effect of the drug was most valuable. In those cases in which Dr. Savage had applied it, viz., cases of acute mania, it would, he thought, be not only useless, but injurious, in consequence of its action in drying the throat and impairing appetite. It was in chronic mania—criminal mania—and not the excitement of general paralysis that the beneficial effects of the drug had been most strikingly manifested. In one of Dr. Savage's cases the benefit accrued simultaneously with the appearance of menstruation. In three of Dr. Lawson's cases, if he remembered aright, the benefit of Hyoscyamine followed upon hæmatemesis, and, in three cases in which this was produced, the most marked benefit resulted. Dr. Lawson's experiments were conducted with the greatest care, and his elaborate investigations would bear comparison with any that had hitherto been instituted.

Dr. MICKLEY stated that he had only used a very small quantity of the alkaloid, which the President had designated the "ash." Dr. Lawson was to be congratulated upon the fact of his having taken as much as one grain of it and recovered. The speaker gave one-twenty-sixth of a grain to a patient, and even that minute quantity had a most alarming effect. Probably the article that he used was exceedingly strong. At all events, he was convinced that a grain of it would kill any one. In the case he referred to, it produced dryness of the tongue and very marked effects.

Dr. THOMPSON had noted Dr. Savage's statement that blindness was nearly produced after giving Hyoscyamine to a general paralytic. If the treatment had been persisted in, it would have produced death. With a contracted pulse, which is typical of general paralysis, the experimenter gave a drug which was known to dilate the pupils, and, therefore, further contract the vessels. The wonder was that the patient did not die.

The PRESIDENT remarked that he understood Dr. Savage to say that the Hyoscyamine reduced the blood pressure, and did not contract, but dilate the arteries and arterioles.

Dr. SUTHERLAND expressed his regret that such attacks had been made upon strychnine, which he had himself recently used very successfully.

Dr. OGLE asked what further effects had been observed in regard to a very troublesome feature, viz., hæmatemesis?

Dr. CLAPHAM asked whether any observations had been made as to temperature?

In reply, Dr. SAVAGE stated that, in looking through Dr. Lawson's papers, it struck him rather differently than it appeared to have struck Dr. Crichton Browne. It was stated that recurrent cases have been the most satisfactory, but he (Dr. Lawson) holds out the prospect that Hyoscyamine would be also most useful in nearly all cases of acute mania; and it was from reading this that he (Dr. Savage), knowing that he had no field for recurrent cases, tried the drug upon the cases which he had mentioned. It was unsatisfactory—that was all he could say; but he fancied that Dr. Lawson himself believed that acute mania in many forms would be relieved by it. As to strychnine, he repeated that he could not conscientiously stimulate an over-worked nervous system. If he saw that a person was suffering from the paralysis of excess, he could not give him strychnine. As to hæmatemesis, the only case was one in which uterine hæmorrhage followed during the treatment. He had fancied that possibly something else had established the menstrual flow, and that, therefore, the woman had got well. He had not recorded temperatures, because, as Dr. Crichton Browne had intimated, the work of Dr. Lawson was, so to speak, classical. The way in which he had recorded the temperatures—the registration of the pulse, and the like—made his papers fit for an encyclopædia. As far as his own (Dr. Savage's) observations went (but he could not speak dogmatically upon the subject) the temperature rises for the first two or three hours after the administration of the drug, and then slowly falls to the normal, or it might even be to a sub-normal temperature.

Dr. HACK TUKE then read "Notes of a Case of Paralysis of the Insane, in which Amendment Commenced during an Attack of Erysipelas," communicated by Inspector-General W. Macleod, M.D. Also "Notes of a Case of Traumatic General Paralysis," by the same observer. (See Original Articles, p. 199.)

The PRESIDENT remarked upon the fact that out of 200 cases at the Yarmouth Hospital, 50 were cases of general paralysis, and although a number of these were in the most advanced stage of the disease, and confined to bed, yet there had been no cases of bed-sores in that institution for years past, a fact which indicated what could be done by scrupulous care, and bore testimony to the admirable management of the Yarmouth Hospital under the enlightened superintendence of Inspector-General Macleod. As to the case in which the disease had been arrested by erysipelas, they were all aware that the occurrence of any acute disease usually had a striking effect. At Northampton, an outbreak of small-pox resulted in curious modifications of the mental symptoms in many cases.

Dr. SAVAGE remarked that the treatment of general paralysis by counter irritation was not particularly new. In certain books of medicine by French authors, there was a good deal about blistering, slightly salivating, and bleeding. French physicians talked much and forcibly about the great importance of shaving the heads of general paralytics, and keeping up large open sores for one, two or three months. If such were the case, the chances were that the French physicians must have a good many cases of erysipelas. Certainly, erysipelas had a very beneficial effect upon some cases of insanity. The question seems to arise whether the benefit is only very temporary or for a long period. He should like to know from Dr. Tuke whether he had seen in the French asylums any remarkable cures of general paralysis from their treatment. At Bethlem, the majority of the cases admitted in an acute stage would pass into the condition alluded to, but after being kept quiet for a few months, they would get as bad again as ever.

The PRESIDENT observed that Dr. Macleod was not at all hopeless as regards cure. He had, at that very time, between twenty and thirty patients with their heads shaved, and it was improbable that he would mistake real amendment for that kind of arrest with which all present were acquainted. It was to be hoped that the Government would carry on this admirable institution at Yarmouth, which there was some talk of closing.

Dr. ROGERS cited the case of a woman who had had an attack of erysipelas in the scalp. She was discharged perfectly recovered, as far as her mental faculties were concerned, and he was enabled to keep her in observation for some time.

Dr. THOMPSON thought that Dr. Macleod had pointed out that in general paralysis there was a low degree of temperature in the morning, and a very high one in the evening. It was doubtful if counter-irritation could be regarded as quite analogous to erysipelas. If it was desired to obtain something analogous to erysipelas, it must be by the administration of some drug which would get the body into a feverish condition, similar to erysipelas. He was glad to find that Dr. Savage had shown that hyoscyamine caused dilatation of the vessels, for in this he recognised one more drug which would possibly prove of service in the treatment of general paralysis. Calabar bean would take the place of erysipelas if it could not be induced in any other way; and hyoscyamine might also. He was, however, convinced that erysipelas would not do it.

Dr. RAYNER stated that he had seen many cases in which a very great improvement had followed an attack of carbuncles or severe eruptions of boils, and he believed he was correct in stating that there were on record some cases of recovery after such attacks. In some cases of erysipelas, he had witnessed very considerable improvement, but he had not seen any cases which had completely recovered. They had certainly improved, and their mental symptoms had seemed to be in abeyance for a time, but the disease had always ultimately progressed. With regard to the series of cases quoted, in which there had been treatment of general paralysis in the most advanced stage without the occurrence of bed-sores, this he could quite endorse. With sufficient care, bed-sores might be entirely avoided.

Dr. FLETCHER BEACH had had no experience in general paralysis, but he had witnessed improvement by acute disease among children. In one case, a child of a very low type, who never spoke, had an attack of acute pneumonia, and, at the end of the disease, began to speak. He had certainly been surrounded by nurses, who had been speaking, but the acute disease may have had some effect in causing the improvement, which was sustained.

Dr. SUTHERLAND said that, in private practice—a field, perhaps, not so extended, but in which there were sometimes great advantages of clinical observation—he had witnessed the great benefit produced in cases of puerperal dementia by the use of a blister to the nape of the neck, and the application of camphor liniment to the shaven scalp. He cited the case of a man at the West Riding Asylum, who met with a serious accident, after which he began to speak and act coherently. At St. Luke's Hospital, a woman recovered completely from dementia after spreading the contents of a mustard-pot over her thighs. Of course, it would be very interesting if they could ascertain the *raison d'être* of all this. It appeared that a certain morbid energy in the brain was transmitted to a more distant centre, and there took up its place as a local bodily disorder. In some cases a great deal might be laid to the patient's laziness, who has, perhaps, had everything done for him for years, until this particular outbreak of disease which, arising suddenly, wakes him up. There are many cases, especially in private practice, where it is found that a person, from mere self-study and vanity, will give way to his laziness to a most disgusting extent, until he has his thoughts diverted into another direction by some severe disease. In 1869, Dr. John Ogle gave some lectures at the

College of Physicians in which he explained how frequently skin diseases are developed from nervous disorders, and a reference to these lectures would throw considerable light upon the reason why all this takes place. The lesson to be learnt was that, in asylum life, they had masses of patients to deal with, who had not the individual interests which they themselves had. Now, however, they succeeded in getting a temporary suspension of the mental aberration, full advantage should be taken of it. Let there be brought before the patient some old amusement or game to which he had been accustomed in youth, some old friend with whom he had been associated in his more healthy moments. His memory should thus be brought back to those times when he knew better days.

Dr. HACK TUKE said that Dr. Macleod would, he was sure, be gratified when he heard how much interest his cases had occasioned, and he had no doubt that he might convey to him the thanks of the meeting (applause). With regard to the remark of Dr. Savage as to the French hospitals, he (Dr. Tuke) had seen a great number of cases of general paralysis in the asylums in Paris and other parts of France, but he could not say that what he saw, left any particularly favourable impression upon his own mind as to the ultimate effects of treatment by counter irritation—in fact, he was not aware of any cases presenting more favourable results than some under Dr. Macleod's care at the Yarmouth Hospital. He had notes of some of these, and they were very remarkable in their relation to their apparent recovery. Some of Dr. Macleod's cases left as recovered, and remained apparently well for years, and continuing to draw their pension. Dr. Macleod made careful inquiries from year to year—for four or five years, certainly—and found that the cases remained apparently well. He (Dr. Tuke) did not know of any cases in his own experience which had done so well as those to which he now referred. In regard to one of the cases described this evening, it would be observed that it appeared to commence—taking the epileptiform attack as an early symptom of the disorder—at least five years before admission. The case was, at all events, under actual observation for two years, and the erysipelas occurred a year ago. A considerable number of cases had been known in which erysipelas had caused an attack of insanity, and, therefore, it was very interesting to hear of some in which erysipelas had cured or alleviated it. As to the occurrence of a trance-like condition in the other case—was it a state of true trance, or one arising out of an hallucination? If the latter, part of its interest arose from the fact that, as some French alienists have pointed out, there is a comparative rarity of vivid hallucinations in general paralysis.

MEDICO-PSYCHOLOGICAL ASSOCIATION.—QUARTERLY MEETING IN GLASGOW.

A meeting of the members of the Medico-Psychological Association was held in the hall of the Faculty of Physicians and Surgeons, St. Vincent Street, Glasgow, on Wednesday, 26th March, 1879.

Professor Gairdner was called to the chair.

Professor GAIRDNER—I think it might be of considerable interest to the gentlemen here to see one of three cases which I recorded in the Journal for 1876. They were recorded under the title of "Two Cases having certain points of resemblance to General Paralysis of the Insane, but without insanity; and occasional memoranda of a third." In regard to the two cases, the men are still living. The first, S.D., is, I believe, physically a good deal weaker, but I do not know much about his mental state. He was a watchmaker, about fifty years of age, and I find he is now down about Alexandria and cannot easily be got. The other called on me yesterday, was formerly a miner, and is 45 years

of age. His history is briefly this: He had headaches occasionally for 7 or 8 years, but nothing particularly cerebral until a single *quasi* epileptic seizure, in the midst of otherwise good health, five years ago. I questioned him as to this seizure, and there is considerable doubt as to the nature of the attack, but, at all events, it would appear to have been isolated. He had a more decided epileptiform fit five months ago, succeeded by very gradually progressive lesion to mobility, manifested chiefly in the gait and articulation. There was no distinct paralysis, and no further epileptiform or other spasm, and no anæsthesia or abnormal sensibility. There had been sexual excess in married life, but no syphilis and no impotence. His habits were temperate as regards alcoholic drinks. I had only a brief conversation with him yesterday, and in the course of it I put a question as to his sexual habits. He is not a bit impotent, even now. He has got to be somewhat less addicted that way than what I noted at the time in the Journal. I think you will see that he looks physically stronger, and he has performed some things within the last two months that you would hardly have expected a man to have done in a progressive state such as this. His articulation is just the same.

The patient was then shown to the members.

Dr. CLOUSTON then showed two microscopic specimens of fatty embolism in the lungs in an epileptic who had died comatose after a succession of fits. (See Clinical Notes and Cases, p. 219.)

Dr. CLARK then showed microscopic specimens from the detached occipital lobe of the brain of a Hydrocephalic Imbecile, where a new "association system" of nerve fibres could be seen—an "intra gyral" connecting together groups of nerve cells by fasciculi of white fibres that ran in loops. (This paper will appear in our next number.)

Professor GAIRDNER and Dr. CLOUSTON made some remarks on the physiological importance and interest of this discovery as supplementing and completing Meynert's "Association System" of brain fibres.

Dr. J. CARLYLE JOHNSTONE proceeded to read his paper on "A Case of Aphasia," giving a most careful clinical and pathological account of a case with Aphasia where there had been no marked lesion in Broca's convolution, but where, on microscopic examination, the cells were found degenerated in sections of this and the neighbouring convolutions.*

The CHAIRMAN said he was very glad to have had an opportunity of furnishing a new member to the Medico-Psychological Association, who had thus distinguished himself by this paper. There is another case which I brought here, but I will leave him to be produced should Dr. Johnstone's paper bring any point up in regard to his case. It is simply a very striking case of pure amnesic aphasia. One special characteristic of it is, that while he is perfectly conscious of the value of numbers when shown to him, if you name a number you will find he is exceedingly hazy about it. He was so bad that he could not give his own name, and at times failed to distinguish it when named to him. He had since improved very considerably. As he mentioned previously, the patient had no difficulty in distinguishing the value of numbers. He knows perfectly well the relation of a sovereign to a shilling, but when he (the Chairman) first knew him, if a number was named to him, he was very hazy about it, and in nine cases out of ten actually broke down.

The patient was shown to the members of the association and carefully examined, when the curious fact was discovered that the patient was quite amnesic and aphasic in regard to written number symbols, but was not at all amnesic, though quite aphasic in regard to figure symbols of the same numbers. For instance, he could not tell what "three" meant, but at once held up three of his fingers, when "3" was written down; and this was the case with all numbers.

Dr. CLOUSTON agreed with the Chairman, that Dr. Johnstone's paper was one

* See "Edinburgh Medical Journal," May, 1879.

of great merit. He thought it a model paper, and hoped it would be an example to the younger members. He always liked to see a man go carefully into a case. The most interesting part of this case seemed to be the negative results brought out by Dr. Johnstone—that they might have aphasia, resulting from a slight atrophy and degeneration of brain substance without any gross lesion whatever. In regard to the education of the right side of the brain, I think we want evidence to show that it can be educated at all in the faculty of speech. In the cases where there is said to have been an education of the right side of the brain to speak, I think that, in reality, it was an improving—a healing of the tissue that was originally broken down by apoplexy. I am not aware that there is any record of any aphasic case having been taught to speak with continued disease on the left side of the brain. I think that the theory of the educability of the right side, which was very much in vogue, and which Dr. Wilks so strongly advocated, will have to be given up in face of the clinical facts that are now accumulating to a greater extent than formerly.

Dr. ROBERTSON—I have been very much interested in Dr. Johnstone's paper, and I consider that it is very creditable to him. At the same time, with regard to the case itself, in its clinical aspects, it does not seem to have been a thoroughly typical case of aphasia. There was not apparently a complete loss, either of pantomimic or of labial speech. There was considerable impediment of speech, no doubt. I make that remark principally in regard to the *post-mortem* appearances, because the degeneration was most marked in the region of Broca. Although not complete, it was most marked there, and I think where we have a partially aphasic condition, we cannot expect a complete destruction of that lobe, but only a certain amount of degeneration in it. I did not ask my friend, Dr. Foules, to bring a specimen here which is rather an important contribution on the subject of aphasia. It was shown to the Pathological Society about two months ago in Glasgow, and there was found a complete lesion of Broca's convolution. A small portion of it was not lost. But I would say that the whole of the third posterior part of the left frontal convolution was gone. In that case, according to Dr. Foules, there was not the slightest aphasia. It was traced out most thoroughly, and a record of it appeared in the "British Medical Journal" about a fortnight ago. I think it is almost the only case that has been recorded, where a person was right-handed at the same time, when we have a lesion of that kind to that extent, and yet the person was not aphasic. There is now an immense amount of evidence before us in favour of the left side of the brain having a special reference to speech. So much evidence has been accumulated during the last dozen years, that the fact cannot be questioned, that the left side of the brain is particularly associated with the speech function. I may say that my own observations entirely corroborate that view. I have not summed up the results of my observations, but they are quite in accordance with the general view that the left side has to do particularly with speech. I have seen a well marked case of aphasia with hemiplegia upon the left side. How are we to account for this? Certainly we must connect it with the right-handedness, which is the special characteristic of the race. We must so connect it, for the left hemisphere has the principal functions, and in relation to that it is worthy of recollection that the blood supply coming from the carotid artery is held to be greater to the left side. Then, again, we have had the statement made that the left side is earlier developed, or at least takes the lead in development. That, also, is a very important matter. However, we do find occasionally that there is aphasia in left-handed people. There have been two or three cases where there has been lesion on the right side, showing that in the education we have one of the speech centres educated and not both. So that the position seems to be this, that although we have corresponding parts on both sides of the brain, in the process of education only one speech centre is educated and not both. Dr. Clouston made an obser-

vation as to the other centre being slow to educate. My own observation is rather corroborative, of that. About twelve years ago I had a case of some twenty years standing, and although an attempt had been made to educate that woman—and she was fairly intelligent—it had utterly failed. At the *post-mortem* we found that the left side of that region was entirely destroyed—the Broca convolution and round about it—while on the right side there was no defect observed at all, showing that if educated at all, it is certainly very slow to learn. With regard to Professor Gairdner's case, I brought forward a view a number of years ago, that in certain cases the lesion seemed to be more in the medullary fibres than in the surface of the brain. You might consider that in this case the medullary fibres which proceed from the organs of articulation were more affected than those leading on to the hand. You would observe that in the case shown us he could not pronounce or tell his age in words, but he could write down his age, so that we have in that view I have given an explanation of the case, namely, that we have the fibres connected with the surface of the brain, which pass on the centres connected with articulation, broken across to a greater extent than those which pass on to the centres which passed through the hand, hence you would have the power of writing retained to a greater extent than the power of speaking.

The CHAIRMAN—Perhaps you did not notice that he wrote with his left hand, not with his right?

Dr. ROBERTSON—Yes, but in most cases the patient cannot write at all.

Dr. JOHNSTONE said that Dr. Robertson had evidently, to some extent, mistaken his description of the case. Pantomime was completely lost. Possibly his description did not bring that clearly out, but pantomime was completely lost. He never saw it in the case at all.

Dr. ROBERTSON—How did she express her emotions?

Dr. JOHNSTONE—By laughing and crying—by movements of the face. She had these intuitions, which are the very last to leave, and are quite different from pantomime. The difference between the two sides of the brain was merely microscopical. On being so examined, it was seen that on one side there was degeneration to a greater extent.

Dr. CLOUSTON—Was the dementia extreme?

Dr. JOHNSTONE—The dementia was extreme, but quite distinct from the aphasia.

Dr. CLOUSTON—And the mental functions of the brain were accordingly gone?

Dr. JOHNSTONE—Yes, all the cerebral functions were involved, but the speech affection was something distinct.

Dr. CLOUSTON—I had Dr. Johnstone's case once under my care, and I remember quite distinctly thinking that I saw an exact analogy between her symptoms and those of another patient of ours in Morningside, in whose case we found after death an infinite multitude of small miliary aneurisms. We considered that we should find the exact same pathological appearances in Dr. Johnstone's case, which shows how very far we are from being able to come to a correct pathological diagnosis in many cases.

Dr. HOWDEN—The microscopical appearances observed are quite those we might have in cases of atrophy of the brain. Probably, we will move sharply after such cases in future. I think, now that I have heard this case described, I can recollect cases very like it, in which there was an aphasia which did not attract so much attention as the mental condition. Of course, the occurrence of extreme dementia makes it difficult to separate the two conditions sometimes. In Dr. Gairdner's case the man appears perfectly sane, and in another case I know, there is no insanity that I can detect, unless hotness of temper and want of the power of speech be insanity.

Dr. IRELAND then read a paper on "A Hereditary Neurosis." (See Original Articles, p. 184).

Dr. BOWER then read a paper on "The Injurious Effects of Coffee in Causing Dyspepsia Among the Patients in Asylums."

Dr. IRELAND said there was not much time for discussion, but he thought the subject was one they might very well consider. It was difficult to treat it in a scientific manner. It was a thing in which the common sense of the physician should be exercised to seize upon such articles of diet as are not injurious to health. He had attended to this subject himself, but had not arrived at the same conclusions as Dr. Bower. Dr. Bower seemed to have a kind of antipathy to coffee. In his case there was an antipathy to tea. Coffee, he imagined, raised the pulse a beat or two, but he never heard that, taken in small quantities, it caused dyspepsia. If taken in large quantities, it might, and probably would, do so. He certainly would be surprised if it were made out that coffee, in moderate use, had any pernicious effects. At the same time he was not prepared to deny it. As a physician, he had never observed any of these effects in any marked degree, except in the case of patients who took a great deal of coffee. He had, however, seen a great deal of mischief arise from the taking of tea. As medical men, he was sure they had all had to attend women who, living alone, or in company with other women, and of sedentary habits, subsisted almost entirely on tea and white bread. He had seen indigestion, as well as many nervous symptoms, arising from indulgence in tea.

Dr. BOWER said he spoke of the immediate effect of coffee as an article of diet when a person was slightly dyspeptic.

Dr. YELLOWLEES greatly preferred tea to coffee, agreeing very largely with the paper which had been read. The question, however, was pretty well illustrated by the old proverb, "what is one man's meat is another man's poison."

Dr. CLOUSTON held that coffee was one of the most charming and delicious beverages, which, he considered, had been hardly dealt with, if not grossly libelled, in the paper! He was constantly in the habit of ordering a cup of very strong coffee, before they got up, to his melancholic patients, and often with the greatest possible benefit. He thought that it was the universal experience in asylums that when coffee was given in the morning to patients, it was received with very great favour, and he thought also with very great benefit.

MORISON LECTURES ON INSANITY.

Professor GAIRDNER is the Morison Lecturer on Insanity to the College of Physicians, Edinburgh, for this year, and has just completed a course of six lectures on the following subjects:—

"What is Insanity? Elementary ideas as to Sane and Insane—Difficulties of definition—The Physician's view of Insanity is based upon the analogies of Bodily Disease and Function—Practical consequences of this view."

"How far a purely Somatic Pathology of Insanity is in accordance with the results of observation, and with sound theory—Sketch of the Physiology, as bearing on the Pathology, of the Nervous System—Excito-Motor, Automatic, and Instinctive phenomena—Hereditary Instincts and Habits—Hereditary Genius—Hereditary Crime—Relation of these facts to the Philosophy of Mental Disease."

"The final *Cruz*—Modern Materialism in relation to Insanity—The Insoluble Problem of Spirit and Matter—Free-will and Necessity—Conscience and Controlled Action governs the whole question, and limits the application of the Somatic Pathology—Illustrations."

"Illustrations in detail—Drink-Madness—Other Narcotic Poisons—Mania of

Fever, and of some other Constitutional States—Comatose and Paralytic Affections—Aphasia—Anæsthesia—Exaggerations of Habit into positive bodily disease—Corresponding instances from the field of Mental Pathology—General Paralysis of the Insane, and other admittedly Insane types—Hysteria.”

“The question of Capacity—Legal and Medical aspects of Insanity.”

“The question of Responsibility—Sources of the collision between Legal and Medical definitions—Practical suggestions—Conclusion.”

UNIVERSITY OF EDINBURGH.—LECTURESHIP ON MENTAL DISEASES.

Dr. CLOUSTON has been appointed Lecturer on Mental Diseases in the University of Edinburgh. The establishment of such Lectureships was recommended by the Scottish Universities Commission, 1877. This is the first appointment of the sort made in Scotland.

Appointments.

JONES, L. R., M.B., C.M., has been appointed Assistant Medical Officer at the North Wales Counties Asylum, Denbigh, vice Miles, resigned.

MCCRACKEN, J., M.B., C.M., has been appointed Assistant Medical Officer to the Glamorganshire Lunatic Asylum, at Bridgend, vice Snell.

RUDKIN, G. M. A., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Visiting Surgeon to Dunnington House Private Asylum, near York, vice North, resigned.

SNELL, G., M.R.C.S., L.R.C.P.Ed., has been appointed an Assistant Medical Officer, British Guiana.

WALLACE, J., M.D., L.R.C.S.Ed., has been appointed Medical Superintendent of the Parish of Greenock New Lunatic Asylum at Smithstone.

WOOLLETT, S. W., M.R.C.S., L.S.A.L., has been appointed Assistant Medical Officer to the Sussex and Brandenburg House Asylums, Hammersmith.

ANNUAL MEETING OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION, 1879.

The thirty-fourth annual meeting will be held in the Royal College of Physicians, Pall Mall, London (by permission of the President and Fellows), under the Presidency of J. A. Lush, M.P., F.R.C.P.

Notice of the date will be sent to Members, when fixed.

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PART 1.—ORIGINAL ARTICLES.

*Presidential Address delivered at the Annual Meeting of the Medico-Psychological Association, Wednesday, July 30, 1879, by J. A. LUSH, M.P., F.R.C.P.**

At Page 54 of the First Report of the Commissioners in Lunacy they state that in June, 1846, there were in England and Wales 23,000 persons of unsound mind.

Of these there were in detention—

In Licensed Houses		Private.	Pauper.
Metropolitan ...		1103	1664
Provincial ...		1580	2932
	Total	... 6629	
In Hospitals ...	...	1193	524
	Total	... 1717	
In County Asylums	...	239	5247
	Total	... 5486	
In Workhouses ...	...	... 4490	
	Grand Total	... 18,322	

Leaving about 4,700 persons of unsound mind more or less at large.

The population was about 17,000,000.

* In taking the Chair, the President made a few appropriate remarks introductory to his Address, which will be found in the report of the Annual Meeting in "Notes and News," Part IV.

After one generation, according to the Report for 1878, there were in detention, January 1st—

In Licensed Houses	Private.	Pauper.
Metropolitan ...	1470	190
Provincial ...	1593	540
	└──────────────────┘	
Total ...	3793	
In Hospitals ...	3040	98
	└──────────────────┘	
Total ...	3138	
In County and Borough Asylums ...	463	37,300
	└──────────────────┘	
Total ...	37,763	
In Broadmoor and Bow ...	900	
In Workhouses ...	16,265	
In Single Care (Private) ...	747	
At large or with friends (Pauper) ...	6000	
Being, with an addition of an estimated ...	2500	up to the
1st of January, 1879, a		
Grand Total of ...	70,823	persons
in England and Wales who need the protection of the Lunacy Laws.		

The population is 25,000,000.

It appears, therefore, that while the population has increased at the rate of 45 per cent., the number of Lunatics in detention has risen at the rate of 250 per cent.

Assuming that another 33 years will yield similar results, and unless the figures show only an apparent increase, accommodation will have to be provided in 1912 for nearly a quarter of a million of Insane and Imbecile Persons in England and Wales.

This is a prospect appalling to the Statesman, to the Physician, and to the Philanthropist.

But it will be seen that whereas there were in detention in 1846— There were in 1878—

In Licensed Houses ...	6629	3793
In Hospitals ...	1717	3138
In County Asylums ...	5486	37,763
In Broadmoor and Bow ...	—	900
	└──────────┘	└──────────┘
	13,832	45,594

A decrease in Licensed Houses ...	2836
An increase in Hospitals ...	1421
An increase in County Asylums ...	32,277
An addition of Broadmoor and Bow	900

Of Private Patients—

The increase in Licensed Houses is	16 per cent.
The increase in Hospitals is ...	160 per cent.
The increase in County Asylums is	100 per cent.

Or classing all Hospital Patients as private, an average increase of $62\frac{1}{2}$ per cent., about equal to 17 per cent. above the increase of population, while the increase of Pauper Lunatics rises to 300 per cent.

But between 1846 and 1879 the produce of a penny income tax has risen from £750,000 to £1,750,000, notwithstanding a much greater exemption; and the inhabited house duty has advanced in about a similar ratio; leaving little doubt that a considerable increase in the paying capabilities of the middle classes has been diffused throughout the country.

These figures are interesting in connection with the much fostered and prevalent belief that a main cause of the increase of Insanity is to be found in the greed and dishonesty of proprietors of Licensed Houses, and that the remedy is their dissolution by Act of Parliament.

I need not say in this assemblage, that if we were projecting anew a scheme for the care and treatment of Lunatics, such a complex system as now exists may not, perhaps, enter into it; but our social condition is also extremely complex, and rather than rush to sudden and confiscating changes, he is the wiser man who endeavours to make the best of what is ready to his hand.

Until the Act of 8 and 9 Victoria, the State had no doubt grossly neglected the care of the unhappy sufferers from Insanity, and the system of private treatment grew up in consequence of the laxity of Government, although licensed and largely supervised.

This system has become associated with the needs and sympathies of the public; and I am by no means assured that any other plan is largely demanded by the upper and middle classes.

Admitting the excellent management of the public institutions, I hold that there are, and ever will be, many who object to the quasi-publicity involved in them, and who will prefer the comparative privacy of Licensed Houses for their friends.

With a view to avoid a subject of controversy, I say nothing regarding the cost involved in the proposed changes; but it cannot be gainsaid, that the compulsory shutting up of 97 Licensed Houses in this country will not only deprive the public of the tact and skill (often hereditarily shown) of the proprietary experts, but also destroy a wholesome competition both in charges and treatment.

Lord Shaftesbury's opinion of Licensed Houses, given in 1859, has lately been paraded; but his matured views, given before the Select Committee in 1877, not being, I suppose, grateful to the feelings of the writer, are quietly ignored: and it is notorious that the allegations upon which that Committee was granted failed utterly of proof, such charges as were brought forward having been really levelled at Public Asylums, each breaking down under enquiry.

There is undoubtedly an active although fractional party desirous of upsetting the present Acts, and the most vulnerable point of attack is found in the supposed interest of private proprietors in the reception and detention of unsuitable cases; but as the true interest of a proprietor is in the reputation of his House, it seems to me that with the present supervision and checks, the admission of improper cases is well nigh impossible; that is, if the same care and attention are bestowed upon Public Asylums by the Commissioners in Lunacy as my own experience teaches me they devote to private institutions; and that the tendency of the present system is in the direction of too early discharges.

It is evident that the efforts so zealously and theatrically made by the so-called Lunatics' friends point to the exemption of all persons not actually raving or mischievous from the risk of confinement in any authorised places whether public or private, and insanity itself is scarcely recognised as a disease.

The constant iteration of their views has reacted disadvantageously upon jurists, upon the Press, and upon Medical Men.

It is notorious that many Doctors refuse to sign certificates in the clearest cases, from dread of responsibility, and of possible future annoyance; the Press seems eager to publish sensational accounts of supposed unjust detentions; while magistrates and judges, with one voice, pit the so-called liberty of the subject against the danger to the common weal, to the detriment of the latter; and with another refuse to accept the plea of insanity in a large number of cases where

prejudice or obtuseness alone can fail to detect it, and so inflict punishment upon irresponsible victims.

The horror and dislike of Insanity have led to an underestimate of its bearing upon our national life, and I fear to a terrible miscalculation of its consequences. Mr. Wilkes stated before the Select Committee that in one year 1,600 suicides occurred in England alone, and that a majority of these cases might have been preserved by earlier recognition and proper care.

The newspapers teem with suicides, murders, and felonious assaults, many of them by discharged patients, and many more by persons whose recent conduct had been indicative of insanity.

It is rare that the moral of these cases is pointed out either by Coroners or by the Press; the absurd verdict of *temporary insanity* is often returned, when the culpable neglect of friends or the equally culpable indifference of the authorities should alone be blamed.

The attacks upon Private Asylums, coupled with the rise and rapid growth of costly Public Asylums, wound the susceptibilities of the public, and shock the interests of the ratepayer, with the result of an unwitting combination to ignore the malady altogether.

Projects for boarding out paupers, and for the demolition of licensed houses are crudely put forward; and in the haste for cheap philanthropy, their authors set aside all considerations for the national weal. But Insanity, being emphatically an hereditary malady, and having so largely increased under the restrictions now in vogue, what must result if lunatics are further permitted to mingle with the general population?

I saw lately a young man whose father, mother, brother, and sister, are, or had been, confined as lunatics. He himself was about to marry, and cases are familiar to all of us, where marriage has been permitted between persons both of whom had been insane. Can no check be placed on this? or shall the evil only widen as it grows?

It is a policy of false humanitarianism to tolerate a system wantonly cruel to individuals, and already sapping the vigour and future energy of our race.

To go back to the period when drivelling idiots and erotic imbeciles roamed through our villages, is not probably the desire of many; but an extensive system of boarding out must tend to reproduce these conditions, and is therefore in my opinion to be reprobated.

Insanity cannot, like Cattle Plague, be stamped out, but I hold it to be true political economy to oppose every practicable obstacle to its undue multiplication.

I therefore presume to urge upon the Members of this Association the importance of the functions they may exert in the interest of the community.

To you is committed the duty of upholding scientific knowledge against the assaults of ignorance and parsimony, and by so doing to endeavour to repress the progress of the disease itself.

None of the recent schemes appear to me to have this object in view. Not the diminution of Insanity, but the license of the Lunatic, is inscribed upon the revolutionary banner, and its success is fraught with danger to the State as much as any other misguided fanaticism.

Although legislation this year has failed, some changes of procedure are probably impending. These, I trust, will be of a moderate character, and not radically subversive of the system now in vogue, nor restrictive of an easy and early power of seclusion.

I felt it to be my duty to oppose Mr. Dillwyn's Bill in its first stage, as its permissive character made it a manifest injustice, as well as from its general repudiation of the recommendations of the Select Committee; but if a clear recognition of the value of their interests is made in a Government Bill, I do not for my own part counsel the proprietors of Licensed Houses to resist a change when that is clearly shown to be an advantage to the public.

The true solution of the difficulty is to be sought—

1. In increased family responsibility.
2. In educating the popular belief in the gravity of the disease itself.
3. In further State interference where possible.
4. In increased efforts to make the lot of insane persons under detention as little irksome as is consistent with safety and the conditions of their malady.

Beyond these I fear not much can be done or hoped for; less ought not to be required; and if, instead, a callous indifference continues to prevail as to the extent of Insanity, grave and calamitous results, to be discovered only when too late to be repaired, must follow a neglect of the accepted teachings of medical science and experience.

On the Separate Care and Special Medical Treatment of the Acute and Curable Cases in Asylums; with Proposals and Suggestions for a Detached Hospital, for special purposes, in connection with every large Public Lunatic Asylum.
By J. WILKIE BURMAN, M.D. Edin., late Medical Superintendent, Wilts County Lunatic Asylum, Devizes.

(Read at the Annual Meeting of the Medico-Psychological Association,
July 30, 1879).

Throughout the length and breadth of the kingdom, from the "Dan" of Inverness to the "Beersheba" of Bodmin, if there is one universal wail, and one that is more continuously and persistently than any other given vent to in asylum reports, it is that which refers to the fact that our asylums are becoming, day by day, more and more transformed into *receptacles* for the care of the insane rather than *hospitals* for the cure of insanity, and that the more important and paramount object in view is being gradually swallowed up and thwarted under circumstances over which, at present, we seem to have but very insufficient control. Coincidentally with this general lament, we find that the separate care and treatment of the chronic and harmless cases in asylums, in some less expensive manner, is urging itself into a prominent position—as a desirable object to be attained for certain economic and other reasons; and it is, to my mind, a matter for some considerable regret that, at the present time, our efforts seem, apparently, to be directed principally, if not entirely, in this channel, to the comparative neglect of the more important and paramount object to which I have referred. That is to say, of the two principal objects at present more particularly engaging our attention, such practical steps as are being taken are rather in the direction of securing a cheaper care of the incurable great majority than towards effecting the cure of the small minority, which I am sanguine enough to believe it is within our power to recall more largely to a state of health, if only more determined and special efforts be made in such a grand and worthy undertaking. Of course institutions for the insane must ever continue to fulfil their desirable function as *asylums* or *safety-houses*, and I certainly have no wish to underrate the importance of endeavouring to effect, as far as possible, such economical reforms as may be brought about

by the separate and less expensive care and treatment of the chronic and incurable cases of insanity, which are of interest principally (and deservedly so) from a *humane* point of view; nor do I but consider that the care of the great majority must ever, very largely and very properly, engage attention in Public Asylums; but I do desire, at the present time, to lift up my humble voice in deprecation of the pre-eminence of the practical efforts that are now being made in this direction over those being made to secure a greater rescue of curable cases from life-long insanity, which, after all, should be the object most worthy of the special attention and best energies of the Asylum Physician. Indeed, the separate care of the chronic and incurable majority cannot but hasten the advent of a system, of separate and special treatment of the curable minority, which I am now desirous of advocating.

According to Dr. Conolly, in his work "On the Construction and Government of Lunatic Asylums," a lunatic asylum is intended to be (to use his own words) "not merely a *place of security*, but a *place of cure*;" but beyond this general admission, I am afraid I am unable to further quote the words of such a great authority on all matters pertaining to the insane, in favour of my present position as an advocate for the separate and special treatment of the curable cases of insanity. Dr. Conolly seems to have had very strong and decided views on this subject, by no means in accord with those held by the Commissioners in Lunacy at that time existing; for in his work just referred to (and published in 1847), he draws attention to some suggestions in the Report of the Metropolitan Commissioners in Lunacy for the year 1844, and records his opinion thereon as follows:—

It most unfortunately happens that the Commissioners have adopted an opinion that it is practicable and safe to provide for chronic cases, or for incurable lunatics, at much less expense than for recent and curable cases. "The great expenses (they say) of a lunatic *hospital* are unnecessary for incurable patients; the medical staff, the number of attendants, the minute classification, and the other requisites for an hospital for the cure of disease, are not required to the same extent. An establishment, therefore, upon a much less expensive scale would be sufficient."

Dr. Conolly then goes on to say that, though these conclusions of the Commissioners in Lunacy may at first sight appear reasonable to those not familiar with the insane, yet, according to his belief, all who have lived in asylums would

pronounce them to be fallacious and not unattended with danger; and he then proceeds to draw attention to the impracticability, in his opinion, of the absolute division of the incurable from the curable patients in any asylum, to the cruelty of condemning the incurable to what would appear to them to be a hopeless prison, and to the possibility there would be of sometimes including curable patients in this condemnation, as well as to the fact that even amongst curable cases—

“Many are paralysed and feeble, yet occasionally delirious; many epileptic and occasionally furious; and that amongst those who are neither paralysed nor epileptic, and who are generally tranquil and inoffensive, many are yet liable, several times in every year, to attacks of recurrent mania or melancholia, of which the symptoms do not differ, in any respects, from those in recent and curable cases, and render all the requirements of treatment, and all provisions for superintendence, and all precautions for safety, as indispensable as in an asylum containing recent and curable cases alone.”

Such is the recorded opinion of one of the greatest and most respected authorities in these matters, and to which the utmost deference is due; and which, therefore, with perhaps greater candour than discretion, as an advocate of somewhat different views, I have thought it only fair to quote without reserve. I cannot but think, however, that in promulgating these views, Dr. Conolly's principal desire was, in accordance with the well-known humaneness of his disposition, rather to prevent the neglect of the just claims on our consideration of the incurable cases than to deprecate the separate and special care and treatment of the curable cases of insanity, which for reasons to be hereafter referred to, and without drawing any hard and fast line, I am now desirous of advocating. These expressed opinions of Dr. Conolly seem practically, at any rate, to have taken deep root in the minds of Asylum Physicians; for it is only of quite recent date that we observe signs of a decided and steady move in the direction indicated by the Commissioners in Lunacy in their suggestions above referred to, which have been repeated time after time with so little avail during the last thirty-five years. And if all reforms in asylums, whether experimental or otherwise, have to pass through an equally long period of incubation, even when repeatedly recommended by the highest authorities and in different quarters (I refer to the Commissioners in Lunacy and to other distinguished authorities I shall shortly refer to), then I can scarcely entertain

any very sanguine hopes with regard to suggestions made at the present time.*

I shall later on have to defend my position in relation to the views of Dr. Conolly; but leaving them for the present, let me pass on to refer to the somewhat different views of another great authority in all such matters, viz., the late Dr. Thurnam, who, in his well-known special treatise, published shortly after that of Dr. Conolly, makes the following remarks, under the head of "The Influence of Treatment on the Statistics of Insanity":—

"The proposed plan (he says) of erecting *asylums* for the care of the decidedly *incurable* and comparatively harmless, in addition to *hospitals* for the cure and care of other classes of the insane, appears to me to be worthy of every encouragement. The most desirable plan would seem to be that of making such *asylums* appendages to the *hospitals*, and of placing their internal government in subordination to the directing physicians of the latter. An Assistant Physician or other medical officer should, however, be appointed as the resident head. Such asylums should, when possible, be within a quarter or half a mile of the hospitals with which they are connected. Their construction will properly be more simple, the officers and servants less numerous, and their general economy altogether less costly than that of their sister establishments—the hospitals. The formation of such divided but inter-dependent establishments of that of hospitals and asylums united with each other under a common external, and united internal, government, will, whenever carried out, constitute an important era in the public provision for the insane poor of these kingdoms; and will, I believe, be found not only more economical than our County Asylums as at present constituted, but, by affording greater facilities for the admission of recent cases into the hospitals, also result in a larger proportion of recoveries and a diminished mortality."

This expression of opinion by Dr. Thurnam decidedly recognises the advisableness of dividing institutions for the insane into two separate departments, adjacent to one another and under one general management—one, the

* In making the above remarks on a subject so intimately connected in its bearings with that of this essay, that I find it almost impossible to avoid referring to it, it is but right and fairly due to a former President of this Association and a distinguished pioneer in our special department of medical practice, that I should not here omit to refer to the isolated example set by Dr. Bucknill at the Devon County Asylum so long ago as the year 1858, when, and later on, he clearly demonstrated that it was possible to provide in an economical manner for the accumulating insane in that asylum, and to relieve the main building, by a system of detached buildings, of cheap and simple construction, for farm workers and chronic and harmless cases of each sex respectively.

asylum, being devoted to the more economical *care* of the decidedly incurable and comparatively harmless cases ; and the other, the hospital, to the *cure* and care of the other classes—an arrangement which had, however, already been previously recommended by Dr. Jacobi, of Siegburg, in his important treatise “On the Construction and Management of Hospitals for the Insane,” dated 1841, and which, along with the excellent introductory remarks by Samuel Tuke, of York, contains much matter profitable to be read and considered even at the present time.

Later on, in the year 1856, I find the Irish Inspectors in Lunacy, in their seventh Annual Report, referring to the then existing provision for the insane in Ireland as being “mixed, unsatisfactory, and inadequate,” and they call upon the executive to entertain the question whether or not it shall be continued, or “a more advanced and liberal system adopted.” The system they then recommended for adoption was similar to that already referred to as having the sanction of the English Commissioners in Lunacy, viz., the provision of buildings auxiliary to the existing public asylums, on inexpensive plans, for the accommodation of the chronic and tranquil insane, in order that the District Asylums might be disembarrassed “from all but inmates suffering from recent and acute affections, or those whose malady afforded reasonable hopes of ultimate recovery ; thus leaving them free to exercise their proper and legitimate functions as *hospitals* for the *cure* of insanity, instead of being mere receptacles for the safe keeping and maintenance of chronic cases.”

About the year 1864 a special inquiry into the state of the great Hospitals for the Insane in Paris was conducted by a Commission of important personages, which, at its several sittings, examined numerous witnesses, including several of the most distinguished Alienist-Physicians in France. This enquiry terminated in the adoption of certain propositions, including the construction of a central asylum, to be situated in Paris, for the reception of all forms of insanity, but especially of acute and recent cases, and in connection with it a system of clinical instruction ; as also the institution of a block, annexed to the central asylum, for the admission of patients (where reputed lunatics might be examined, and their distribution determined), and the establishment of special asylums for insane epileptics and idiots. I refer to this enquiry because I am desirous of quoting, in support of the position I am assuming, the opinions of one of the dis-

tinguished gentlemen who gave evidence before that Commission, viz., M. Lelut. He calculated that the proportion of *incurable* cases in asylums was about *four-fifths* of the whole population, and assumed that it was generally conceded that those who had not recovered at the end of two years were not likely to do so. He held that because some few out of a considerable number *did* get well after that period, that was no argument against the attempt to separate recent and acute cases of insanity from the chronic and probably incurable, particularly as in an asylum, occupied by the latter, the hope need not be ignored and the means of cure would not be wanting. The separation, he considered, was desirable on economic grounds, and the cure of recent cases could, in his opinion, be more thoroughly cared for in specially adapted asylums or hospitals of small size and with a full complement of medical aid; and, moreover, he held that, under such circumstances, it would be a simple expedient to remove any cases from an asylum for chronic cases to that for the recent and curable, or *vice versa*, when thought desirable; and he saw no necessity for stigmatising the larger separate establishments as asylums for "*incurables*."

These arguments by M. Lelut may, I think, be fairly considered as meeting several of the more important objections to such a system advanced by Dr. Conolly and already referred to.

The only other point I would draw attention to, in reference to this Parisian Commission, is that with regard to the question as to the *practicability* of providing separately for the curable and incurable cases of insanity, the great majority of the witnesses answered in the *affirmative*.

The indiscriminate sequestration of the insane has, since the date of this Commission, been repeatedly animadverted upon, and various recommendations have been made and carried into effect by many eminent and distinguished alienists; but in so far as these have had for their principal object the solution merely of the question of how best to provide for the accumulating insane without increasing the size of existing asylums (already larger than desirable), and as they have generally and practically involved simply the *pecuniary* consideration rather than otherwise, it would be out of place to further refer to them here.

In 1864, Baron Mundy, that great opponent of indiscriminate sequestration, and advocate of the Gheel System, in suggesting the general adoption of that system, proposed that

a hospital, or central asylum, complete in every respect, should be built in the centre of the colony, such hospital being separated into two divisions, the first for fresh and acute cases, and the second for the treatment of chronic cases, only such patients being placed in the latter division as absolutely required to be sequestered for the sake of their own protection and preservation, and from their being dangerous to society, and, finally, for scientific purposes; the same principles holding good, in a similar manner, for the first division, with regard to therapeutic purposes and diagnostic examinations.

I may also refer, in support of the proposed system of separating the acute from the chronic cases, to a paper by a former President of the Association, Dr. Lockhart Robertson, read at the annual meeting held in Edinburgh in 1866, in which, in drawing attention to the advantages of the Pavilion System in asylum construction, he proposed that two of these pavilions should be devoted, one to acute and recent, and the other to chronic cases.

Then, in an important article by Dr. Griesenger, translated by Dr. Sibbald, and published in the "Journal of Mental Science" for April, 1868, that distinguished author indicates his leanings as to the direction which further public provision for the insane, in Germany, should take. He recommended two principal systems of treatment for the insane, founded rather upon the period for which the patients were likely to remain in the asylum, than on their curability or incurability, the one system being intended for a merely transitory, and the other for a long, residence of patients. But here we would seem to have made a distinction without much of a difference, for it must be admitted that those whose residence was transitory would be entirely composed of curable cases, whilst those of long residence would be, for the most part, the chronic and incurable cases. He, moreover, recommends all such arrangements for his proposed hospital for acute cases as could only be required for their special treatment, with a view to more rapid and frequent recoveries, such as a "large medical staff, well versed in science," &c.

Lastly, but not least, in favour of the separation of the acute and recent from the chronic cases of insanity, I will quote the evidence of Lord Shaftesbury, given before the Select Committee of the House of Commons, on Lunacy Law, in 1877, which, I am sure, you will agree with me, should, for obvious reasons, carry great weight with it.

In reference to the separation of chronic and recent cases in the same asylum, and in reply to the following question (11,473), "Do I understand you that you would not have them in the same asylum?" his Lordship replied, "I would not mind the separation so that they were within reasonable limits. The one should be within reach of the other, and, possibly, even under the same roof; but I would have it completely divided, and that the recent part should be totally distinct from the chronic part, so that the medical men should not have their attention diverted from the recent cases to be everlastingly looking after chronic cases. I have no doubt that in that way a very great effect would be produced in the repression of lunacy."

Having thus impartially glanced at the views of some of the older and of more modern authorities on the subject, let me now proceed to draw your attention to some special arguments, which appear to me to be in favour of the proposal I have to make, viz., that the acute and curable cases of insanity in all large public lunatic asylums should be separately and specially dealt with, and that no time or reasonable expense should be spared that might conduce to promote a greater rate of recovery amongst such cases. And first, taking it for granted that an overwhelming *consensus* of opinion at present exists, and has long existed, against the indiscriminate sequestration of the insane, and that some separation of the cases in an asylum is desirable for medical and economic purposes, it appears to me that, not only for obvious and paramount reasons, but because they constitute such a small *minority* of an asylum population, we should first, separately, provide for the acute and curable cases, leaving the rest, forming the great majority, to be cared for and suitably treated in the existing main building (which must, in any case, be used for some purpose or another) and in adjuncts to it, and in various other ways that may, in the process of time, be found most desirable. A reference to the Blue Books of the Commissioners in Lunacy shows that, for the five years, from 1873 to 1877 inclusive, the average total number of curable cases remaining in English County and Borough Asylums, at the end of each year, was only 7.25 per cent., the average in the Wilts County Asylum alone, for the 5 years (1874-1878 inclusive) being just about 7 per cent.; and I can vouch for the fact that with regard to that asylum the estimate of curable cases, remaining at the end of each of those years, was a most liberal one, and included every single case in which there seemed to be the slightest prospect of recovery. Such being the case, it appears to me to be beginning at the wrong end to discard this small minority of

cases, and provide separately, in the first instance, for the great majority, which, there is every reason to believe, can be suitably and best dealt with in the main building and adjuncts of the existing asylum, which would then subserve its proper function as a *safety-house*, the curable cases being separately dealt with in a detached hospital.

Then, again, considering the exceedingly short duration and comparatively fleeting nature of the curable stage in cases of insanity, and considering also the life-long burden and great cost entailed upon the ratepayers in the case of every patient who lapses into a chronic and incurable condition, it seems to me highly desirable, both for medical and economic reasons, to deal separately and specially with the cases that may be deemed curable; for I believe that if not thus dealt with, and being indiscriminately sequestered with the rest, it is impossible to give them such adequate and unremitting attention and special treatment as they certainly merit, under the circumstances, at the hands of asylum physicians. To illustrate the well-known fleeting duration of the curable stage in cases of insanity, I may state that, at the Wilts County Asylum, for the 10 years (1869 to 1878 inclusive) out of a total number of recoveries, during that period, of 454 cases, the duration of residence was:—

From 1 to 6 months in 239, or over *one-half*, and
 „ 6 to 12 „ „ 122, „ „ *one-fourth*,

leaving only 93 cases, or about *one-fifth*, in which the duration of residence exceeded 12 months. So far as these statistics can be relied upon, then, it would seem that at least *three-fourths* of all the recoveries take place within the short space of nine months after admission, which may, therefore, I think, be considered as a fair estimate of the brief period during which, alone, as a rule, such important issues as life or death, recovery and restoration to usefulness, or life-long sequestration at the cost of the ratepayers, rest in the hands of asylum physicians. Considering these circumstances, therefore, and having no reason to believe that the facts are not the same throughout the other asylums of the kingdom, as at that for the county of Wilts, the *immense* responsibility here entailed must be obvious, as also the importance of straining every nerve and using every effort and known appliance or medicament likely to be of avail, in order to bring about the desired favourable issue in curable cases. . And the question is whether this can satisfactorily be done, whilst the curable cases are mixed up with the others and scattered all over the

large, and oftentimes straggling, main building; or whether we might not more advantageously mass them together, in a small detached hospital, to be the objects of special care and solicitude, observation and treatment.

Again, should there be attached to an institution for the insane a *hospital*, as distinguished from the *asylum*, it might be that such an arrangement would conduce to the promotion of more proper views, amongst the public generally, with regard to insanity, and that patients received and treated in that hospital alone, and discharged without having been indiscriminately sequestered in the asylum, might come to be more looked upon, as they ought to be, as being the subjects of a mere bodily disease, no more deserving of stigma than the subjects of other forms of bodily disease in other hospitals: and should such a feeling obtain, it might lead to less hesitation and diffidence in committing patients to an institution for the insane, and promote their being placed under special and experienced treatment in an earlier stage of the malady, which, as we all well know, is so desirable and important with regard to the issues involved; and this, besides eventuating in a greater proportion of recoveries, would, with the increasing knowledge of insanity now being disseminated amongst general practitioners, most probably effect some diminution in the number of deaths from preventible suicide, which are so constantly occurring *out* of asylums, and but comparatively rarely *in* them.

It is reasonable to suppose, moreover, that, by massing such patients together, the facilities for their observation and treatment would be much enhanced and their prospects thereby improved. Being all together, they could more frequently and conveniently be visited by the medical officers than when scattered all over the building; and being separated from the rest, they would be less likely to witness and contract those degraded habits which are unfortunately so common amongst the chronic insane, and which, when once contracted, may not soon and easily be abandoned. The medical treatment could, moreover, under those circumstances, be more uniformly and systematically carried out, and improved means of treatment, practically inapplicable when the patients were scattered, might then be more readily adopted and largely carried out.

Again, the very fact of there being a special hospital for curable cases would tend to constantly divert the attention of medical superintendents to their paramount duties and responsibilities as medical officers, which are apt to become

more or less forgotten and neglected, or, at any rate, not to receive their proper meed of attention, when the demands of asylum superintendence are, as is the case sometimes, pressing and overwhelming:—that is to say, the curable patients, being separated and placed together for special care and treatment, would be more likely to receive full and undivided attention than they would when scattered over the building; for I presume that the claims of such an hospital upon the time of the medical officers would be considered as primary and paramount, and would never be neglected in any case; the secondary claims, as to general superintendence and management, being regarded as subordinate to these, and alone allowed to suffer in case of pressure of work. At any rate the medical care, clinical observation, and treatment of the curable cases, would not then be, as it is now, more or less indissolubly mixed up with the general inspection as to sanitary and other arrangements, for, of course, such a special arrangement would necessarily involve more medical assistance for medical purposes solely. It is too often the case, at present, that the medical officers have to hurry away from important medical duties to compass their daily task of general routine, when they would be only too glad to spend more time in the observation and clinical study of particular cases, which, if more fully investigated and carefully studied, might lead to the solution of many problems that yet weigh heavily upon our minds as physician alienists. The importance of a full and careful clinical study of each individual case, combined with complete post-mortem investigations, can scarcely, now-a-days, in my opinion, be over-estimated, when we consider how, in this way alone, that shrewd and accurate observer of Nature's experiments, Dr. Hughlings Jackson, was enabled to forestall the brilliant results of Prof. Ferrier's recent experimental researches, and when we also bear in mind the difficulties that have been placed in the way of further and continued experimental researches by the well-meant though unenlightened efforts of anti-vivisection agitators.

And above all, seeing that the steady increase in the population of asylums is mainly due to an accumulation of *incurable* cases, it is evident that special exertions are necessary with a view, if possible, to including within the category of *curable* cases many which are at present deemed incurable, and in this way to check such accumulation in the most beneficial and only radical manner.

(To be continued.)

A Case of Tumour of the Brain associated with Epilepsy and Catalepsy. By FLETCHER BEACH, M.B., M.R.C.P.,
Medical Superintendent of the Darenth Asylum.

*(Read before the Annual Meeting of the Medico-Psychological Association,
July, 1879.)*

S. B., aged 16 years, was admitted into the Clapton Asylum, May 7th, 1875, with the following history. She was born a healthy girl, having no mental defect. She enjoyed good health up to nine years of age, when she became the subject of chorea, supposed to have been caused by exposure to the sun. She was sent to Margate, in the hope that the change might prove beneficial to her, but the chorea continued. Four years ago, while bathing, epileptic fits came on, and soon afterwards the chorea ceased. Her intellect is said to have become weak after the fits were noticed. She has never since been free from them. She was sent to Caterham and afterwards to Hampstead Asylum, whence she was transferred to Clapton.

There was no history of intemperance or mental disease in the parents, who were not connected by consanguinity. The mother suffered from rheumatism during her lifetime, but had died three years before, the immediate cause being two fits, the last of which "took her speech away." There had been seven children in the family, but two had died of accident and one of whooping cough. The three remaining (S. B. excepted) were healthy, and showed no signs of mental defect.

On admission, S. B. was a tall, well-nourished girl, of fair complexion and lymphatic temperament. There was no sign of paralysis or chorea, but she was decidedly hysterical. A well-marked mitral murmur was noticed. As to her intellect, she could read and write fairly, count to 100, say the multiplication table, had a good ear for music, and knew all the colours. She was fond of sewing, and could knit antimacassars. In consequence of her heart disease and somewhat weakly constitution, she was not put to household work, but spent her time in school, where she made such progress that about ten months after her admission she was employed as a monitor. She was subject to epileptic fits from time to time, and on two occasions had distinct attacks of catalepsy, the first of which was so perfect, and attended with so much pallor, that the attendant in charge of her summoned me hastily, saying that S. B. had suddenly died. On each occasion the attack lasted from half an hour to an hour, and then she slowly regained consciousness, the next day being as well as usual. She was noticed to be drowsy for thirty-six hours before the second attack. On the 10th of May, 1876, she had a severe attack of acute rheumatism, from which she had nearly recovered when a relapse took place. She suffered a good deal from palpitation of the heart, and

the murmur before noticed now became more marked. Soon her breathing became affected, and she died on the 30th of June, 1876, in a fit, which chiefly affected the left side.

At the necropsy made twenty-eight hours after death, the cranium was found to be symmetrical and the calvaria of normal thickness. The dura mater was very closely adherent, so that it was found necessary to remove calvaria and dura mater together. A little to the right of the middle line of the frontal bone it was especially adherent, and in this position it was congested and thickened. The brain weighed 2lbs. 15oz. On inspecting the upper surface, the first and second frontal convolutions of the right hemisphere were seen to be somewhat pressed together in front, and on palpating this region there was found to be hardness and resistance over a space of $1\frac{1}{2}$ in. long by $1\frac{1}{2}$ in. broad. This hard resistant part commenced about half an inch posterior to the anterior border of the hemisphere, and was bounded internally by the longitudinal fissure. On close inspection the hardness was found to be due to the presence of a tumour (exhibited) the size of a large walnut, the upper surface being situated below the convolutions in the position just stated, and the lower partly in front of and partly above the anterior portion of the right lateral ventricle to which it contributed to form the roof. The convolutions directly over the tumour were flattened out, while those outside were closely pressed together. The tumour, the upper surface of which was calcified and hard, the under surface fibrous and yielding, was yellowish in colour, had a well-defined outline, was not encapsuled, and weighed two ounces. On cutting into it yellow grumous matter escaped. On further examination the tumour was found to consist of a fibrous shell or capsule about one-eighth of an inch in thickness, in which calcareous matter had been here and there deposited. The interior was nearly filled with caseous matter, a small cavity which had previously been occupied by pus being evident.

The brain substance in the vicinity of the tumour was yellowish in colour, but not softened. With this exception the cerebral structure was normal, and the arachnoid and pia mater were unaffected.

The pericardium was found to be much thickened, and on the inner surface of the external layer were a number of villous processes. The internal layer was in places adherent to the heart, which was much hypertrophied and dilated, the dilatation being chiefly marked on the right side. The aortic and mitral valves showed a slight deposit of fibrine on their edges.

The lungs were congested and œdematous, and both pleura contained a quantity of serous fluid. The left lung was partially adherent by recent lymph.

The other organs presented signs of long continued congestion due to mechanical interference with the return of blood from them in consequence of the disease of the heart.

The bronchial and mesenteric glands were enlarged and congested.

This case presents several points of interest. First, what was the nature of the tumour? It can hardly have been tubercular, since no tubercle or even caseous glands existed in any portion of the body. The enlarged bronchial glands no doubt owed their condition to the congested state of the lungs. The more probable theory seems to be that it was originally a sarcoma, which in course of time had degenerated, caseation and ultimately conversion of the external portion of the tumour into fibrous tissue, in which calcareous matter had afterwards been deposited, being the ultimate result. A case of tumour of the brain in which the tumour (a sarcoma) had undergone a similar change is related by Dr. Magnan in the fourth number of "Brain." As to the cause of it there is no evidence.

Secondly, had the tumour any relation to the epilepsy? If we may trust the history, the epilepsy had been in existence for four years. I am not aware of any evidence on record showing the time necessary for a sarcomatous tumour to undergo the change described; but supposing the tumour to have commenced growing at that time, it might have been the cause, not by directly irritating the convolutions in apposition with it—for the frontal are, as far as we know, non-motor—but, according to Dr. Brown Séquard's theory, by setting up irritation in others (motor) at a distance. The frequent occurrence of epilepsy having been established, any slight cause—as, for instance, interference with the proper circulation of blood through the brain due to disease of the heart, and the pachymeningitis found post-mortem—would be sufficient to produce epileptic convulsions, even after the tumour had ceased growing and begun to deteriorate. It will be remembered that the fits were chiefly noticed on the left side, that opposite to the tumour.

Thirdly, had the catalepsy any relation to the epilepsy? The catalepsy did not come on until the epilepsy had existed for some time. The epilepsy had no doubt weakened the brain, for previously to her admission into the asylum she had been considered a clever girl, and had carried off prizes at school. In addition, she was of a hysterical temperament. Given these conditions, very slight excitement would upset the stability of the brain, and the action of the will being suspended, catalepsy might ensue. While on the subject of catalepsy, it may be interesting to note the reason given by Niemeyer for the limbs remaining in the position in which they happen to be placed at the commencement of the

attack, or in which they may be placed by a bystander. He considers that "all the motor nerves are in a state of medium excitement in this disease, and hence all the muscles of the body are in a state of contraction sufficient to counteract the resistance afforded by the weight of the limbs." There is, in fact, increase of the normal tonus of the voluntary muscles.

There are many other points which might be touched upon in connection with this case, but time will not permit me to enlarge upon them.

A Detached Left Occipital Lobe and other Abnormalities, in the Brain of a Hydrocephalic Imbecile. By A. CAMPBELL CLARK, M.B., Assistant Physician, Royal Edinburgh Asylum.

(This paper was read, and the microscopic appearances were shown, at the Quarterly meeting of the Medico-Psychological Association, in Edinburgh, on 14th Nov., 1878, and the Intra-gyral Association system was microscopically demonstrated at the meeting of the Association, in Glasgow, on 26th March, 1879.)

John R., admitted into the Melrose Asylum on the 29th May, 1875, æt. 38.

The history of the case is, that he was one of the illegitimate children of a drunken woman, in whose custody he was allowed to remain, until one of the Commissioners in Lunacy interfered, and ordered his committal to the Asylum; and the feeling then was that this interference had not been exercised an hour too soon, for he presented an appearance of dirt and general neglect, surpassing anything that, in the experience of Dr. Grierson, the Superintendent, had ever been witnessed since the opening of the Asylum.

The following facts regarding his early history were ascertained: (a) that he was born hydrocephalic; (b) that the hemiplegia, from which he suffered, was pronounced by the late Professor Syme to be congenital; (c) that there is no history of syphilis in the mother.

The physical conditions were essentially those of deformity and extreme helplessness. Incapable of progression in the ordinary manner, he had been accustomed to move about for short distances of a few yards on all fours, and while in the Asylum required to be carried about from place to place.

The head attracted attention from the large cranium and small face, the frontal bone being very prominent in the region

of its eminences, and large in its vertical direction, and the cranium generally being of considerable size. In the left speno-temporal region there was a very decided oval swelling, of the size of a hen's egg, projecting outwards. It was hard to the feel, and marked in its definition from the rest of the cranium. Looked at from above, the contour of the circumference of the head was irregular and asymmetrical, and the left semi-circumference seemed larger than the right. The face was small for his age, the features were fine and regular, and the expression usually happy and pleasant, though childish. The palate was saddle-shaped, and the pommel well-marked. There were no molars in the lower jaw, and only one in the upper (left half). There were no canines or bicuspidis in the upper jaw.

As regards the nervous system, the following facts were noted :

Sensory Functions.—The ordinary sensation of the right side was said to be impaired.

Motor Functions.—He suffered from right hemiplegia. The chief paralyses observed in the arm affected the muscles of the fore-arm, and those which elevate at the shoulder joint. He was never observed to move the right lower limb in any way, and it appeared to be a drag on the left, which alone was observed to execute movements. When placed on a chair the left hip appeared to adapt itself to his altered position more readily and naturally than the right. Lastly, there was convergent strabismus of the right eye.

Reflex Functions.—Normal.

Special Senses.—Sight myopic. Hearing and taste normal.

Mental Functions.—A study of his mental state showed that it was more negative than positive in its characters, but negative only to this extent, that mental processes of which he was capable indicated more an arrested development of most of the mind faculties half-way, than perversion or utter defect. The best developed faculty was certainly that of memory, which in his case was exceedingly impressionable and retentive, and the most exaggerated faculty was the emotion of fear. As with a boy of 10 or 12 years, his mental power and vision were limited to the observations of trivial matters of childish importance, which he took account of chiefly as they concerned himself, thus wanting that deeper observation and more mature reflection, which exist in the adult of ordinary intelligence. He could not take a wide view of human relations and interests, or appreciate the

graver questions of every day life. With his senses fairly developed—the eyesight only being affected—he was capable of experiencing many and varied impressions, and these generated corresponding ideas simple and complex. He was capable of associating ideas, and his ready memory here came into play as a prominent factor, but want of education and his helpless condition (which necessarily excluded him from participating in many outdoor experiences) deprived him of many ideas associated usually with an ordinary adult intelligence. This, combined with feeble volitional energy, rendered him helpless in constructing or following the more complicated processes of mentalisation of the ordinary kind. He was very observant, showed a fair appreciation of his surroundings, and displayed an amount and character of curiosity something more than childish. He could not read, simply because he had never been taught, not because he wanted memory, or a fair share of comprehensive power, for he possessed both. His memory, in fact, was remarkable. He remembered having once or twice in Edinburgh been lifted off the streets as a nuisance thirty years previously, and delighted in describing the prison scenes which came under his observation. Frequently conversing with acquaintances hailing from a town where he had spent the greater part of his life, it was his wont to bring to their recollection events of as far back as twenty years before, *e.g.*, incidents connected with marriages, fairs, &c.

Although the patient could not read, he had learned many Bible facts, and understood in a general way the laws of Scripture teaching. The moral sense was fairly developed. He often expressed regret regarding the behaviour of his mother, whose looseness of moral character was well-known in the district, and did not fail to strike his observation. He was not slow of comprehending simple matters, and showed a wonderful appreciation of any joke which he could understand. The relative powers and positions of officials who came in his way were quite understood by him, and he was cunning enough to make the best of his acquaintance with the more important members of the staff. Alive to the failings of attendants, he has been known to threaten to report a slip on the part of one of them, when the latter had occasion to perform a duty painful to him, but the general tone of his manner was conciliating and amicable. He had musical talent in a fair degree, readily recognised the more familiar tunes when whistled or sung, and though he himself whistled indifferently

he could, nevertheless, give forth, in rough fashion, a tune, so as to be recognisable. The emotion of fear, as already observed, was very strongly marked, this emotion, believed to be the lowest of its class, was, when excited in him, quite beyond the control of his will, and no amount of experience could rid him of it, or lessen its intensity. Thunder was a great terror to him, and its first peal was the signal for covering himself over with the bedclothes. Patient had also a dreadful horror of a bath, and, notwithstanding the frequency with which ablution had been resorted to during his residence in the Asylum, his nervous aversion to it was as strong at the end as at the beginning. When placed in an arm-chair, though protected all round, he was in a state of deplorable misery, until he was brought back to bed, so great was his fear of falling. His speech, as regards co-ordination and articulation, was normal, but the tone was feeble and his mode of expressing himself simple and childish. His mother had developed in him a liking for whisky, and in his last illness the thirst for it was peculiarly prominent.

Subsequent History.—As far as concerns the mental state of R., nothing noteworthy came under observation latterly. The only conditions attracting observation were of a physical character. In 1877 chronic peritonitis was diagnosed, and on the 18th October, 1878, the illness which terminated in death was ushered in by vomiting severe and persistent. This distressing symptom was present at varying intervals till 6 p.m. of the 22nd, when he became suddenly comatose, and examination of the eyes revealed convergent strabismus of the left eye, in addition to the pre-existing right convergent strabismus, which still remained. He died at 5.30 p.m.

Record of Post-Mortem Examination made 52 hours after death:—

Height 4ft. 6in. Circumference in plane of nipples $29\frac{3}{4}$ inches.

Measurements of head—

(a) Tragus to middle of forehead	{ Left . . .	$6\frac{1}{2}$ inches.
	{ Right . . .	6 "
(b) Tragus to occipital protuberance	{ Left . . .	7 "
	{ Right . . .	$6\frac{1}{2}$ "
(c) Occipital protuberance to glabella	. . .	14 "
(d) Mastoid process to mastoid	. . . . .	$14\frac{1}{2}$ "
(e) Circumference in plane of occipital protuberance and frontal eminences	. . . . .	$24\frac{1}{2}$ "
(f) Right semi-circumference	. . . . .	12 "
Left " "	. . . . .	$12\frac{1}{2}$ "

External Appearances.—Convergent strabismus of both eyes. Lips and gums extremely anæmic. Feet flat soled. Right leg and thigh smaller than left; the legs semi-flexed on thighs, and thighs semi-flexed on abdomen, particularly the right, in which the ham-strings are very tightly drawn and prominent. The condyles of right femur are larger proportionately than those of left. Both lower limbs tend to lie to the right side. The right arm is not so well developed as the left, the development of which corresponds to the general fair development of the body; there is complete flexion of right hand.

Examination of the Cranium.—The right frontal bone is considerably bulged outwards. Slight bulging in neighbourhood of left frontal eminence. Distinct flattening is observed in the region corresponding to the anterior fontanelle, which is completely ossified. As regards the parietal bones, there is on the left side an uniform increase of the natural convexity; whereas on the right, between the sagittal suture and right parietal eminence, the bone is flattened, and the right parietal eminence juts out abruptly about an inch below the sagittal suture, and therefrom downwards shows well-marked convexity. On the left side the upper part of the occipital bone bulges considerably backwards and to the left. It will thus be noted that the longest diameter is in a line extending obliquely from left to right (left oblique diameter), the extremities of which indicate the points of greatest convexity. The sutures are all closed, and firmly ossified.

Relative Thickness of Cranial Bones.—Left frontal fully twice as thick as right. Temporals about equal, but very thin, almost papery. The parietals appear to be natural. Occipital at least not less than normal. The groove for the superior longitudinal sinus is replaced in its anterior half by a prominent bony ridge, which, on reaching the vertex, leaves the middle line, and in its course backwards diverges gradually more and more to the right, and ultimately reaches the posterior margin of the foramen magnum. The various diameters and their measurements are given in Fig. 1 (which is an impression printed from a section of the cranium and reduced one half). On examination of the base and of the inner aspect of the cranium generally, it is found (*a*), as regards the fossæ, that there is want of symmetry; that this depends upon well pronounced expansion of certain fossæ, and that the fossæ so expanded

correspond to the areas of greatest expansion on the skull cap. The fossæ in question are the right anterior, left middle, and left posterior. At the same time, the relative increase in the left posterior is not in proportion to the corresponding expansion of the skull cap; but this may be accounted for by reference to the firmly interposed tentorium, and the subjacent cerebellum. (b) As regards the vascular channels, that there is no torcular Herophili; and that the only sinus represented in the posterior fossæ is the right lateral. Further, the left middle meningeal groove is considerably larger than the right; (c) that the right lateral sinus begins immediately at the right side of the ridge above-mentioned, which appears to do duty for the anatomical middle line.

Examination of the Brain and its Membranes.—On the right side, comprising the whole superficial extent of the hemisphere, was found a large cyst containing clear serum. The cyst wall, with the exception of a part of the floor, was formed by the arachnoid, which was greatly thickened. The latter did not spread over the basilar portion of the hemisphere, but had resolved itself into two layers, the more extensive and upper one forming the superior and outer walls of the cyst, the lower covering the pia mater on the upper surface of the hemisphere, except in the centre of the floor, where the lateral ventricle was found freely exposed; and a narrow strip of convolution, bounding the ventricle anteriorly and posteriorly, was also free from interposition of arachnoid. Organised bands of fibrous tissue traversed between the walls of the cyst in various directions. Its estimated capacity was 16 fluid ounces. The dura mater over it was closely apposed. On the left side, covering the upper and outer aspect of the frontal lobe, was found a cyst as large as a medium sized orange, the walls of it being formed by the arachnoid—greatly thickened, opaque, and bladder-like—and with dura mater over it in close contact to the cyst wall, but not so thick as the arachnoid. On opening this, it was found to contain serum coloured by blood of recent effusion, and a fibrinous clot in the floor.

Enclosed in the anterior part of the falx cerebri was found an elongated piece of bone $1\frac{1}{2}$ inch in length, which lay above and to the right of cyst last described. In the region of the last, as in the first mentioned cyst, the arachnoid was found wanting at the base of the hemisphere. One more cyst remains to be described. It covered the left hemisphere

on its upper and outer aspect, and filled up many gaps and deficiencies in the hemispherical structure. This left posterior cyst was the largest of the three, and its estimated capacity was 20 ounces. It contained, like the cyst on the right side, clear serum. The upper and outer walls were formed also by the thickened arachnoid, the dura mater being in firm contact with it—the floor by the base of a pyramidal shaped portion of brain substance which apparently had no nerve connection with the rest of the brain (this lobe corresponds to the left occipital, and will be referred to more particularly later on), and also by the left lateral ventricle, and the intermediate tentorium cerebelli. The pia mater was found thickened, and adherent to the cortical substance as follows:—(a) Right marginal convolutions, slightly at more than one point; (b) right gyrus fornicatus, slightly anterior to its centre; (c) left supra-marginal convolution.

The medulla oblongata shows well-marked convexity on the posterior aspect, and is flattened on the anterior surface. The fourth ventricle is small; and the aqueduct of Sylvius cannot be traced. The right crus cerebri is about twice as thick as the left, and in the latter the crista and tegmentum are correspondingly diminished; and the locus niger on both sides is large, but relatively and virtually larger on the left side, where it is diffuse in appearance, not presenting the typical crescentic form, which was well seen in the right. The peduncles of the cerebellum appear of equal size.

Right Hemisphere.—The convolutions and sulci show a very fair degree of development. The convolutions are delicately elaborated, the secondary sulci being numerous. The normal convexity of the upper and outer surface of the hemisphere is wanting anteriorly, owing to the lateral ventricle being freely exposed, and to partial destruction of the upper portion of frontal lobe. Ventricle oval-shaped and $1\frac{1}{2}$ inch long. Corpus striatum, optic thalamus, and tænia semi-circularis are small, but still correspond with the size of the hemisphere. The ventricle has a very contracted appearance, owing to adventitious bands of fibrous tissue which arch over the commencement of the anterior horn, and over the whole of an accidental transverse horn, the channels of which are therefore rigid and constricted. The cornua are found as follows:—Anterior terminating very abruptly, being only an eighth of an inch long; inferior appears to be natural; there is no posterior, but instead is found a horn

which has a direction properly speaking transverse, and directly outwards and ultimately backwards, its groove marking a wide separation between the middle frontal, inferior frontal convolution, and anterior part of the operculum, on the one hand; and the lower extremities of the ascending parietal and ascending frontal convolutions, on the other. This groove is roofed over in the whole of its extent by a covering of fibrous tissue, thus forming a closed channel.

Convolutions and Sulci.—In the region corresponding to the floor, and anterior portion of right cyst, there is a considerable deficiency of brain substance. The superior frontal convolution is wanting to the extent of three-fourths—the posterior fourth alone remains; and presents at the point of solution of continuity a raggedness and irregularity of surface, indicative more of tearing than gradual disintegration. The middle frontal has also been broken in upon; but at its posterior extremity, the portion of its substance wanting being the posterior fourth; and its posterior free edge (the point of solution of continuity) is smooth, and has evidently entered into the formation of part of the incidental transverse horn already described. The only defect in the inferior frontal is a slight grooving corresponding to the point where the transverse horn curves backwards. The ascending frontal appears short, and it, together with the ascending parietal, appears rather defective inferiorly, the transverse cornu in its backward course intervening between these convolutions and the operculum. On section of the ascending frontal convolution, the inferior cornu was seen to run deeply beneath it. The parietal lobe has developed in rather irregular fashion. Nothing particular falls to be noticed concerning the ascending parietal and supra marginal convolutions; but the remaining convolutions of the parietal lobe are represented by a series of vertical gyri—four in number—which are mainly situated between the ascending parietal convolutions and the occipital lobe. They all run downwards from a narrow strip of brain substance which skirts the longitudinal fissure, and their directions are parallel. The first from before backwards is the shortest, and runs into the supra marginal convolution; the second joins by annectent gyri with the superior and middle tempero-sphenoidal convolutions; the third becomes continuous with the middle tempero-sphenoidal; and the fourth, and most posterior one, communicates with the superior occipital convolution by the first annectent gyrus which embraces and limits the outer

extremity of the parieto-occipital fissure; lower down this fourth convolution blends with two annectent gyri from the middle occipital; and at its inferior extremity it is seen to run into and fuse with the third vertical convolution already described.

As regards the occipital lobe, all that requires record is the arrangement of the convolutions on the inner surface. The occipital lobule is somewhat coarse in outline, and feebly differentiated into secondary sulci; and it is separated from the parieto-occipital fissure by what must be considered an accessory and incidental gyrus. Inferior to these the convolutions show little conformation to the normal type. The apex of the lobe is very prominent and pointed. The condition of the temporo-sphenoidal lobe presents nothing striking. There is deficiency of the gyrus fornicatus and marginal convolutions corresponding to the region of destruction already described, and thus is formed a complete transverse gap, of irregular wedge shape, the base being at the inner aspect of the hemisphere. The Island of Reil is well developed, and large for the size of the hemisphere.

Fissures.—Sylvian natural; intra-parietal wanting; parieto-occipital three-quarters of an inch externally, internally it forms a very oblique angle with the calcarine, which terminates in a small gyrus on a deeper plane, and this bridging gyrus overlaps the posterior portion of the optic thalamus. Below the parallel fissure there runs another fissure in a direction parallel with the former, but of much greater extent. This abnormal cleft is bounded above by the third and fourth vertical convolutions and by the middle temporo-sphenoidal, and below by the inferior occipital and the inferior temporo-sphenoidal. On drawing aside the edges about its middle, it is seen to communicate freely with the descending corner of the lateral ventricle.

Left Hemisphere.—On the left side there is not only evidence of breaking down of brain tissue, but also of considerable defect in the development of the hemisphere. Beginning again with the lateral ventricle, we observe that it is also exposed, but that a thin layer of white brain matter covers its middle and posterior parts. The corpus striatum is relatively large, and softer considerably than on the right side. It presents a grey gelatinous appearance, and fuses with the brain substance external to it in rather an abrupt manner. The optic thalamus is much smaller than the right, indeed almost rudimentary. Anterior cornu ends abruptly at about the same distance from the ventricle as on the right side.

The inferior in the backward part of its course is shorter than the right, and dips downwards very abruptly. On this side also the posterior horn is wanting, but there exists a transverse which is channelled through brain substance, and completely closed in; its length is one inch, and it is more capacious than the right transverse. Ventricle shorter antero-posteriorly, but with a greater transverse diameter than right. Foramen of Monro is patent on both sides, but exceptionally large on the right.

Convolutions and Sulci.—These are chiefly frontal and parietal. They are not so well defined, nor so elaborately developed as on the right side; and therefore are more removed from the typical condition. Transverse frontals are moderately developed, but shorter than the right; and the horizontal terraced characters are not so well brought out. The ascending frontal and parietal gyri merge into one at their upper extremities owing to the rudimentary condition of the fissure of Rolando; they are narrow and short, entirely destitute of secondary sulci, and extend only half-way from the sylvian to the longitudinal fissure. The parietal lobule is defective posteriorly, for it slopes backwards and downwards to the supra-marginal in such a way that the latter forms the superior posterior angle of the hemisphere. As regards the tempero-sphenoidal lobe, all that requires remark is that the superior gyrus is present, the inferior wanting (except a nodule at the anterior extremity) and that there exists (corresponding to the middle gyrus) an elongated mass of brain matter which shows little or no differentiation into secondary sulci, but presents evidence of a disintegrating process along its whole surface. The operculum is present as on the right side. Supra-marginal twice the size of right, but the reverse obtains with regard to the Island of Reil, which, on the left side, is represented by a sunken area of white substance totally devoid of sulci or gyri. There is loss of substance on the inner aspect of the hemisphere corresponding to the defects on the outer aspect, and notably of the quadrate lobule and the posterior extremity of the gyrus fornicatus. The characters there are so blurred that I have not attempted a more precise description.

Detached Occipital Lobe.—Lastly, there falls to be noted the most remarkable of all the peculiarities, viz., a detached occipital lobe. This curious condition was observed on evacuation of the contents of the left posterior cyst, and the lobe was seen to be connected to the tempero-sphenoidal, merely

by a process of pia mater, along which was conducted its sole vascular supply. There is complete absence of nerve connection with the rest of the hemisphere, the only possibility of such, even in the faintest degree, being by microscopic fibres in the process of pia mater already described. Even assuming this, there is no real association such as could, even in the remotest degree, have connected it functionally with the rest of the hemisphere. Its shape, as previously stated, is pyramidal, the base of the pyramid is covered by thickened arachnoid, and formed part of the floor of the cyst. This lobe could only have reached a very early stage of development, for it is small in size, the convolutions are very simple and narrow, the sulci unbranched and shallow, the characteristic land marks of the more fully developed lobe are wanting, and the general appearance corresponds to what we would expect to see in the brain of a foetus. Further, the absence of organic connection implies absence of function, and in this way we probably have a satisfactory explanation of arrested development.

The third ventricle has a narrow contracted appearance, the anterior commissure being small, but the posterior and middle can scarcely be said to exist. Fornix and velum interpositum are present, but the pineal gland and the aqueduct of Sylvius are wanting. Corpora quadrigemina are small, and the differentiation into four tubercles scarcely observable.

Fissures.—(a) Fissure of Rolando reaches only half way upwards towards the longitudinal, and a very slender connection between the ascending frontal and parietal convolutions inferiorly saves it from freely opening into the sylvian fissure; (b) the latter is much better developed on the outer aspect than at the base, the ascending and horizontal limbs exist, the former crossing obliquely the inferior extremity of the fissure of Rolando, and running up behind it. A small annectent gyrus connects the anterior extremity of the superior temporo-sphenoidal with the posterior extremity of the inferior frontal.

WEIGHTS OF VARIOUS PARTS.

Right Hemisphere	13½ ounces.
Left "	6½ "
Medulla, Pons and Cerebellum	5½ "
	—
Total	25 "
Weight of Membranes	2¾ "

THORACIC ORGANS.

Heart.—Weighed $7\frac{1}{2}$ ounces. Cardiac muscle healthy, valves competent.

Lungs.—Left: Extensive pleuritic adhesion; lower lobe shows passive congestion. Weight $13\frac{1}{2}$ ounces.

Right: Only adherent at apex; upper lobe somewhat emphysematous; lower shows passive congestion. Weight $12\frac{3}{4}$ ounces.

Abdominal Organs showed nothing special. The cavity contained a large amount of serum, with numerous flakes of purulent lymph. Peritoneum congested. Weights: Liver, 1 pound 14 ounces; spleen, $7\frac{1}{2}$ ounces; kidneys, right, $2\frac{3}{4}$ ounces; left, $3\frac{1}{4}$ ounces.

Microscopic Examination.—The following parts of the brain were examined microscopically:—(a) Occipital lobes; (b) Ascending frontals and ascending parietals; (c) medulla oblongata.

(a) *Left-Occipital or Detached Lobe.*—Prior to sections being made for microscopic purposes the grey matter was measured, and gave a depth of which the average is $1\frac{1}{4}$ millimetre, the greatest thickness of the lobe (*i.e.*, from apex of pyramid to base) being 11 millimetres. The sulci are very simple, there being no secondary sulci apparent on section. The cells of the grey matter are well defined, and the nuclei and nucleoli are in many of them quite apparent. No evidence of degeneration in any of the cells. They are of various shapes, round and large oval cells being most numerous, pyriform and pyramidal fewer, and arranged in no definite manner, the apices being superior, inferior, or transverse, and the cells forming no distinct layer. There are few processes, and these short and abrupt. The white matter appears almost natural. The only pathological conditions observed were a few clusters of corpora amylacea, both in the white and grey matter; and small pigmentary deposits, probably the remains of old hæmorrhages. These were scattered throughout the grey and white matter. A point of considerable interest is, that this remarkable lobe demonstrated, within a single convolution, a series of ganglionic centres with bundles of nerve fibres connecting them, and examination of a number of sections showed that this arrangement extends throughout the grey matter.

Fig. 2 represents the appearance seen in a section placed under a low power. At the point of demarcation between the white and grey matter, there exists a looped arrangement of bundles of fibres passing from one centre to another. While the great mass are intra-gyral,

Fig. 1

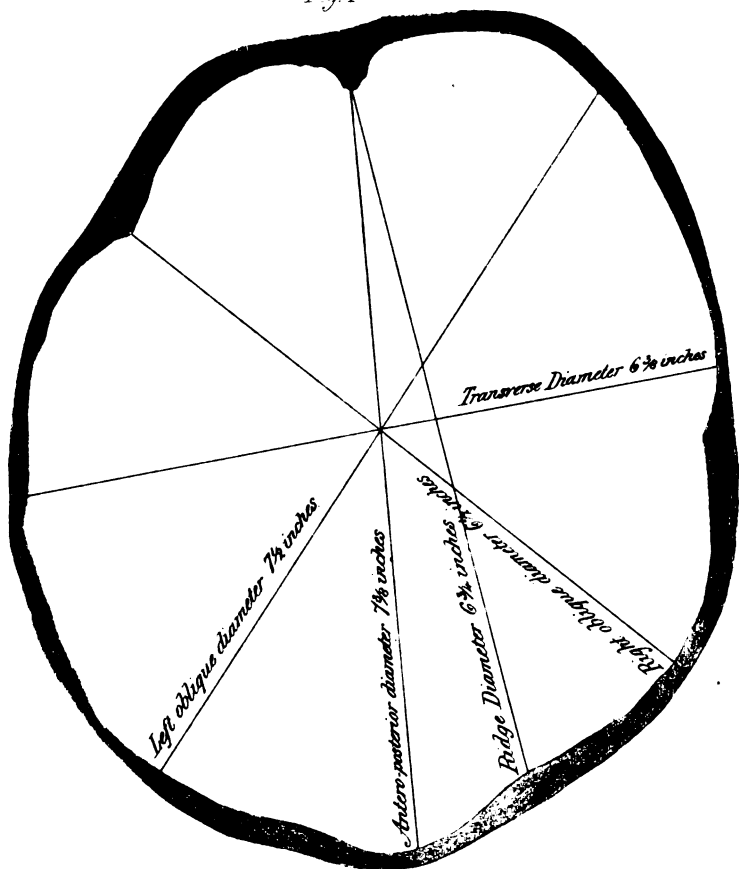


Fig. 2

Fig. 3

two bundles are seen curving beneath a sulcus. The loops are not all in the same plane, for two bands are found passing more deeply into the grey matter, and their loops lie in different relations, one being horizontal and higher, the other more oblique.

Fig. 3 represents the same section under a high power, demonstrates the centre to be a group of large cells of various shapes, chiefly ovoid, and the fibres to be nerve fibres.

A third section, stained with chloride of gold, and placed under a low power, show a whorled arrangement of nerve fibres in the grey matter, but the loops are not complete, nor is direct association with centres demonstrated, the section evidently not having been made in a direction exactly parallel with any loop. The directions of the loops are various.

This chain of association of fibres forms a very intricate network, groups of nerve cells occurring at intervals at the points of intersection.

So far as I have been able to ascertain, this appearance has not previously been demonstrated, but is a new and hitherto undescribed feature of Meynert's "association system," viz., as it appears *within* a convolution, an *intra-gyral* system as distinguished from the *inter-gyral* association system described by him.

Right Occipital.—Average width of grey matter $1\frac{1}{2}$ millimetre. The pyramidal cells are few and small. Colloid bodies are much more numerous than the amyloid in the left, and are especially and extensively found in some parts of the white matter. The only other condition attracting observation is the evidence of old hæmorrhages of small size.

(b) *Left Ascending Frontal and Ascending Parietal* convolutions present appearances nearly similar. They show a fair condition of the grey matter as regards the nutrition of its elements. The pyramidal cells are larger and more numerous than in the occipital lobes, and their process better developed. The nuclei of the neuroglia are increased in amount, and the nerve fibres are few.

Right Ascending Frontal Convolution.—The grey matter shows little that is abnormal. Pyramidal cells and their processes larger and more numerous than on the left side. A number of large multipolar cells are seen, some exhibiting yellow granular degeneration. The white matter contains a large number of nerve fibres, some cut transversely and others running parallel with section.

(c) *Medulla Oblongata.*—Transverse sections were made at

various points above the decussation of the pyramids, and after staining with carmine, a macroscopic examination was made, and revealed the following conditions:—(1) The right anterior pyramid distinctly larger (about twice the size) than the left. (2) Opposite lower part of floor left corpus dentatum larger than right; but higher up the reverse obtained. (3) Opposite the lower part of the floor, the restiform and posterior pyramid are slightly larger on right side, the defect of the left posterior pyramid is, however, more apparent higher up. Microscopic examination shows yellow granular degeneration of many of the cells of the corpus dentatum, and of the multipolar cells in the floor of the fourth ventricle; these cells are not, however, extensively affected, and there is no evidence of cell-disintegration. At the same time the condition is more general, and involves the cell-substance to a greater extent than in the right ascending frontal. The effect of per-osmic acid was to blacken this yellow granular matter, indicating a fatty degeneration. Nerve fibres are relatively few in the left anterior pyramid; colloid bodies are present in the right and left, but the nerve fibres of the right are much more numerous than in the left anterior.

The leading features, then, of this case, briefly are—

I.—CLINICAL.

- (1) Mental defect coming under the definition of imbecility.
- (2) The faculty of memory not impaired, and that of speech childlike.
- (3) Paralysis of right arm and leg, with defective sensation of same side.
- (4) Convergent strabismus of right eye during life, and double convergent strabismus a few hours before death.

II.—PATHOLOGICAL. A. MACROSCOPIC.

- (1) Asymmetrical condition of cranium as regards (a) general contour, (b) thickness of bones, (c) size and form of the fossæ, and (d) vascular grooves.
- (2) The existence of three cysts—two containing clear serum—the other (smallest) bloody serum and fibrinous clot, the cyst walls formed by thickened arachnoid, and with an external covering of dura mater, but more or less free from these membranes in the floor of the two larger cysts. The absence of arachnoid at base of brain, and the presence of a bony growth in anterior part of falx cerebri.

- (3) Destruction of brain substance, chiefly affecting, to a greater or less extent, the following convolutions, &c.:—(a) transverse frontals, gyrus fornicatus, and marginal convolutions of right side, (b) middle and inferior tempero-sphenoidals, gyrus fornicatus, and quadrate lobule of left side, (c) corpus callosum.
- (4) Arrested development of the following convolutions:—(a) of left occipital lobe, (b) left ascending parietal and frontal, (c) left Island of Reil.
- (5) Complete dissociation of left occipital lobe from rest of hemisphere as regards continuity of nerve structure.
- (6) Asymmetrical development of (a) frontal convolutions, (b) parietals.
- (7) Arrested development of the following fissures:—(a) Left Sylvian, (b) left Rolando.
- (8) Feeble development of posterior and middle commissures of third ventricle, and of corpora quadrigemina.
- (9) Absence of Sylvian aqueduct.

B. MICROSCOPIC.

- (1) The comparatively healthy state and fair development of the nerve elements in left occipital lobe. (2) The intra-gyral association system demonstrated in the latter.
- (3) The right occipital lobe more extensively degenerated in its white substance than the left.
- (4) The deficiency of nerve fibres in left ascending convolutions, and their pyramidal cells relatively smaller and fewer than on the right side.
- (5) Degeneration of cells in ascending frontal (right), and corpus dentatum and floor of fourth ventricle in medulla oblongata.

C. MACROSCOPIC AND MICROSCOPIC COMBINED.

The projection system of Meynert showed defect on the left side as follows:—

- (a) Motor. Ascending frontal and parietal (macroscopic and microscopic) and parietal lobule. Corpus striatum (softening). Crura (diminished bulk). Anterior pyramid of medulla (macroscopic and microscopic).
- (b) Sensory. The occipital and part of temporal, &c. Optic thalamus (small size). Tegmentum (small). Posterior pyramid of medulla (small).

Remarks.—This remarkable case presents a collection of important features which are of interest in more than one department of medical science. To determine the possible, or most probable conditions which produced dissociation of the left occipital lobe is an interesting problem for the embryologist, and it is but one of many rudimentary conditions in this brain which may claim his attention. Here I would draw attention to the striking physiological fact that, without nerve connection, without function, in spite of the pathological influences in existence, and depending purely on the small strip of pia mater for its nutrition, this small lobe has, for 40 years, maintained, almost unimpaired, its integrity of nerve structure.

To the anatomist, the points of interest are numerous and varied; and they depend chiefly on the fact that this brain and cranium, in their physical appearances, constitute one mass of eccentricity. A *resumé* having already been given, I need not repeat them, but will merely refer to the additional fact of an intra-gyral system having been demonstrated in the left occipital lobe. This extension and elaboration of the association system demonstrates the exceeding complexity of nerve-structure in a single gyrus; and it suggests a corresponding complexity of function. The *inter-gyral* system enables us to understand how the groups of nerve cells in the *different* convolutions are connected functionally with each other: this *intra-gyral* system enables us to realize how the groups of cells in the *same* convolutions are so connected. But the question naturally presents itself—Why has this not been demonstrated before? Two possible explanations are suggested. (a) That in so small and simple a lobe the meshes or loops are necessarily small, and thus escape division by the section knife more readily than in the fully-developed structure, where they are considerably larger. (b) That at the comparatively early stage of development reached by this lobe, the intra-gyral system is so much simpler in its arrangement than in the fully-developed lobe, that it is demonstrated more clearly and intelligibly. A microscopic study of a gyrus in course of development, like that of other parts, may be expected to throw additional light on its structure.

But the question which is brought most prominently before us in the investigation of this case is its bearing on the problem of the localization of the cerebral functions. Does it contribute anything to a solution of the problem, and to what extent? The former part of the question may safely

be answered in the affirmative ; but the latter cannot receive so definite a reply. The present state of our knowledge will not permit us to utilise the facts here presented to the full extent of their possible future bearing on the question. The rudimentary condition (shown in the macroscopic and microscopic appearances) of the left ascending convolutions, the small size of the parietal lobule, extensive disease of left corpus striatum, and the defect of the motor division of the projection system therefrom downwards through the crus and medulla, combined with the clinical fact of congenital right hemiplegia, afford strong evidence in favour of the belief that the convolutions above-mentioned are associated with the motor supply of the arm and leg.

The relatively small size on the left side of the optic thalamus, tegmentum of crus, and posterior pyramid of medulla, the dissociation of left occipital lobe, and destruction of part of left temporo-sphenoidal, combined with defective sensation of right side, appear to harmonise with the principal distribution of sensory fibres, as given by Meynert, a distribution which Ferrier, however, disputes.

We meet, however, with the most difficult part of the problem, when we come to consider how far the pathological conditions and mental symptoms, taken together, can throw light on the question of localisation. There is still doubt as to the part played by the hemispheres respectively in psychical manifestations. Some observers even hold that, so far as mentalisation is concerned, one hemisphere is sufficient. Now this is contrary to what *à priori* we would look for ; and not only so, but it is not in keeping with carefully observed pathological and clinical conditions. In his work on "The Functions of the Brain," 1876, Dr. Ferrier refers to the "American crow-bar case," as illustrating the fact that disease or injury of the præ-frontal region of one hemisphere is not followed by any appreciable mental symptoms. In his more recent work, "The Localisation of Cerebral Disease," 1878, Ferrier furnishes a detailed account of this case, as given by Dr. Harlow at a later period. Dr. Harlow reports a decided change in the patient's mental state, from being that of a man having a well-balanced mind, and considerable business energy and capacity, to that of a child, as regards his intellectual capacity and manifestations, &c. That case, with many others, had been quoted, to show that one lobe may be seriously affected without mental symptoms.

At this point I would quote a remark of Dr. Ferrier's, with

regard to the observation of mental symptoms in bilateral cerebral lesions, as it is equally pertinent to the question now under consideration, viz., unilateral lesions:—"Unless a man becomes so demented as to neglect the ordinary wants of nature; or so furious, maniacal, or irrational as to require restraint, there are few engaged in the practice of medicine who think of enquiring narrowly into a patient's mental state; and, even if more attention were directed towards this subject, are we in possession of any means of accurately gauging the mental condition of an individual, so as to be certain that it has altogether escaped damage, notwithstanding the presence of a cerebral lesion." There can be no doubt that psychological investigations are frequently neglected or slurred over, and so long as some medical men resort to the brief and unsatisfactory report of "no mental symptoms," I do not consider their evidence is of much value. So long as they do not intelligently enquire into the condition of the leading attributes of mind, compare present with previous mental manifestations, and state in detail positive and negative features, so long must we grope our way blindly in the matter.

R.'s case, and the "crow-bar case" agree physically as follows:—(a) In that the proper relation of the hemispheres to each other was, to some extent, broken; in the former case from commissural defect, in the latter from left præ-frontal lesion; (b) in that the *inter-gyral* system of association was not entire in the left hemisphere, in the former case, from dissociation of the occipital lobe, and deficiencies in some convolutions, in the latter from the præ-frontal lesion. In R.'s case, this want of relation was much greater than in the other; and there was deficiency also in right præ-frontal region.

They agree mentally in this general point, that there was imbecility, but differ as regards the moral character and emotions. Gage, in his changed mental condition, showed a striking want of inhibitory exercise, a marked predominance of evil impulses, self-direction which wanted intelligent guidance and control, and considerable moral depravity. R.'s condition, less positive in its character, exhibited less need for inhibited influence, a freedom from evil impulses, deficiency of self-direction other than of a passive nature, a reverence for moral laws, and emotions forming a decided contrast with those in Gage's case.

Regarding the simplicity of Broca's convolution, and the

left island of Reil, compared with the corresponding points of the right side, I would remark that the simplicity of R.'s expressions, and his limited vocabulary, were quite in keeping with these conditions. At the same time it may be contended that their larger size and better development on the right side, combined with the fact that he was practically left-handed (having been congenitally hemiplegic on the right side), argue strongly in favour of the speech-centre having been seated in the right hemisphere.

In considering the mental capacity of R. in view of the pathological conditions described, we have to keep in mind at least four facts, (*a*) extensive destruction of right præ-frontal region, (*b*) simplicity of arrangement of gyri of left præ-frontal region, (*c*) loss of commissural fibres, (*d*) defective condition of motor and sensory areas on the left side, and corresponding deficiency of association fibres. What influence these conditions respectively had on his mental development, is a question which cannot yet be determined with certainty. This strange brain, prolific as it is in suggestions of various kinds, must wait its time for further explanations on these points.

Spanish Asylums. By DONALD FRASER, M.D., Paisley.

In the spring of 1878, while travelling in Spain in company with two friends, I took the opportunity of visiting several asylums. Having entered Spain by the north, I made known my desire to see some Spanish asylums, to an influential citizen of San Sebastian, who gave me to understand that I would find them in much the same condition that English ones were in about 40 or 50 years ago.* He furnished me with letters of introduction to friends in Madrid, through whom I became acquainted with an accomplished and enthusiastic alienist, Dr. J. M. Esquerdo, Lecturer on General Pathology in the General Hospital of Madrid, and director and proprietor of a private asylum in the neighbourhood of that city.

While in Madrid I attempted, through the assistance of a

* The Provost of Paisley told me recently that he remembers having seen about the year 1828 a row of cells having straw laid on the floor, and provided with posts, to which the madmen of that day belonging to the town were chained. This place was popularly known as the "shells."

member of the Cortes, to obtain statistics of the number of the insane, and of the provision made for their care. I learnt that there were few statistics of the kind, and that the few there were could only be obtained with great difficulty. A Spanish medical friend in Seville took the trouble of looking through the only authoritative Spanish work dealing with the administration of charitable relief in Spain, but he informed me that it contained scarcely a reference to the condition or necessities of the insane. From Dr. Esquerdo and others I obtained such information as there is to be had on the subject, and have incorporated it with the following notes.

On the 10th April, 1878, I proceeded to the village of Carabanchel, near Madrid, where the private asylum of Dr. Esquerdo is situated. Close to the house I met the doctor, who was on his way to visit the General Hospital, but with true Spanish politeness he returned with me, showing me over his place, and giving me all the information he possibly could. This, the only private asylum in the province of Madrid, had been opened about a year, and was, in great measure, incomplete. There were only twenty patients. The building of a wing for females was just commenced at the time of my visit. Dr. Esquerdo apologetically informed me that, as he was sole proprietor, I need not expect a very grand place. In going through the house we were accompanied by his nephew, who acts as resident physician, and a medical pupil. The institution was indeed abundantly supplied with servants, there being in all, including attendants and two coachmen, 23. The building was a long two-storied one, and had formerly been a dwelling house. On a projecting cornice of the vestibule were several small busts of distinguished men. He particularly drew my attention to a bust of Pinel, and another of Tuke, the founder of the York Retreat.

The best day room was furnished in drawing-room fashion; had a piano, and was hung round with engravings. While having a cup of coffee in this room, we were treated to a piece on the piano from a patient who had learnt to play since his admission. The bedrooms were clean and comfortable, the beds being provided with spring mattresses. Iron gratings were on the windows, after the fashion of Spanish dwelling houses, and they had no reference to the detention or restraint of the patients. He informed me that he was thoroughly opposed to anything of the kind, indeed he seemed to be a great admirer of Conolly, and spoke with

much appreciation of the system of non-restraint. I was shown a padded room, but I saw no patient in seclusion, or in any way restrained. The corridors were bare, and with white-washed walls, though quite in keeping with Spanish ideas of home comfort. There was a gymnasium nicely fitted up, a chapel with a prettily decorated altar, and a court something like a racquet court, for playing the popular Spanish game of ball. The bath room was provided with plunge and douche baths.

As to treatment, he informed me that he trusted most to good hygiene. He used the bromides a good deal, and seemed to have faith in phosphorus for the treatment of general paralysis. He had tried the treatment by coloured glass, using variously coloured panes, according to the kind of light required, but had so little faith in its value, that when any of his glass got broken he did not replace it. Altogether the treatment and surroundings of the patients were in harmony with our English notions of what is best. The doctor and his patients were evidently on most excellent terms. I understood that so far as was possible with private patients and Spaniards, they were employed in the open air; the land extended to between 20 and 30 acres, most of it under cultivation. The situation was very good, and said to be healthy. The house, which stood on a slight elevation, commanded an extensive view of the plain on which Madrid is situated.

It has been asserted by some that there is not much insanity in Spain, but Dr. Esquerdo did not believe this. On the contrary, he considered that there was a great deal, though from the want of accommodation and registration, accurate information could not be obtained as to the actual amount. In view of the great consumption of tobacco in Spain, I asked him if he thought that it had any influence in the production of insanity. He appeared to think that it had not much.

I next proceeded to the public asylum of the province of Madrid, situated at Leganes, a village distant about 14 kilometres from the city. Unfortunately, the medical superintendent was absent during my visit. I was therefore shown through the establishment by the manager or lay superintendent. I was first taken to the chapel, which was provided with a small gallery fenced with wooden railing for the males, the floor being reserved for the females. The dining room of the private patients was a long narrow room, provided

with narrow tables having marble tops, and laid out with knives, forks, and table napkins. The private patients, of whom there were about 60, are divided into two classes. The first-class pay about the equivalent in Spanish money of three francs a day, while the second pay a franc and a half. The bedrooms were very plainly furnished, and the beds were clean and comfortable. The recreation-room for the first and second class was a squalid-looking room, having wooden benches round its sides; the chief or only amusements being dominoes or cards. The male airing court was surrounded with high walls, and contained a number of trees. In order to get to this court we passed through a large day room, crowded with poor patients, who seemed to have nothing particular to do but loaf about or play cards or dominoes.

The bath-room was of the most wretched description, and contained two stoneware baths sunk into the earthen floor, and an erection like an old village pump, which turned out to be a douche bath. The patient is enclosed in the wooden box, which was provided with a grating in front, and the water then pumped upon him. Punishment is not allowed, and the douche is never used for that purpose. I was also told that the camisole was seldom used, perhaps on an average about once a month.

The single sleeping rooms of the private patients of the second class, and of the poor were provided with commodes, fixed in the corner of the room, the vessel being removed through a trap door opening into the corridor. In a padded room an epileptic patient lay in bed. He was in the habit of taking many fits in the day, and had occupied this room day and night for over twelve years. In fine weather he was said to be taken out for exercise. He was very anæmic, and the air of the room was fetid.

There were four or five males in seclusion, described as "Furiasas." They were seldom allowed into the open air save for exercise. Their cells or rooms were provided with beds, and were occupied day and night. The door is furnished with a perforated plate or slide to allow the inmates to be seen from without. I saw no trace of excitement in any of these "furiasas."

The dormitories were placed next the roof, and appeared to be not too well supplied with cubic space, though I was assured that there was plenty of ventilation. I was shown a few sleeping cells used for epileptics with beds raised only about four or five inches above the floor. I lately saw

a somewhat similar arrangement in a Scottish County Asylum.

The female department called for no special remark. There were six females in seclusion, and their rooms had this redeeming feature, that they opened into a small court or garden a few feet square, planted with shrubs and flowers.

There were three cows kept for the use of the institution. The garden was large, and contained many vines; it was open to patients of both classes, though I understood that few if any of them were employed in its cultivation.

The kitchen, with its arrangements, was very good. The Sister who accompanied us evidently took pride in it, as well as in her well-filled store-room. I was pleased with a neat surgery presided over by a Sister. I learnt that there had been no serious accident for two years; and there were only four or five very sick in the house. Sedatives were not much used.

There were 200 patients, of whom 140 were paupers. During the year there had been 40 admissions, 10 or 12 deaths, 14 discharged cured, and 14 improved.

I was informed that there were 22 male attendants, including servants, 8 females, and 14 sisters of charity, in all about 51; being in the proportion of one attendant to four patients. There were four night attendants. The medical work was done by two physicians and two students. The Sisters exercised considerable authority, as may be imagined, when it is known that the asylum is overlooked or inspected by a committee composed of ten ladies, called a committee of vigilance, which is nominated by a minister of the crown, and has for its head the Princess of Asturias. Two of this committee visit every week, and there is no other Government or official inspection.

A few days after my visit to the asylum at Leganes, I visited the asylum of Toledo, and was here privileged with the company of Dr. Esquerdo, who brought with him an interpreter in the person of a Cuban, who spoke a little English; and very amusing to my two companions was the somewhat Polyglot discussion indulged in by the three medicos during the journey.

The asylum, called after its founder, Casa del Nuncio de Toledo, is one of the oldest in Spain. It was founded in 1483 by Francisco Ortiz papal nuncio in Toledo, and named by him "Casa de Inocentes," or house of the Innocents; and it may be interesting to some to know that this was the

madhouse of Toledo to which the false Don Quixote was sent by his friends. The present building was erected by Cardinal Torenzana about 1790, and, as may be supposed, is not structurally in harmony with present notions of what an asylum should be. Externally it is a handsome building, and is in the form of a square, having a cross in the centre which divides the interior into four spacious patios or courts. The centre of the cross contains the chapel, which, by the way, has over its altar a painting, which Dr. Sanches informed me was by Ribera.

The asylum is situated in the town, surrounded by houses, and with no grounds or garden attached, though there was a pleasant view obtained by us from the unglazed windows of a recreation room on the first floor. The building, though capable of containing from 200 to 250 patients, yet at the date of my visit contained only 47, of whom two or three were private patients. There was a resident chaplain and a medical superintendent, Dr. Fernandez Sanches, who accompanied us through the house, and seemed keenly alive to both its structural and sanitary defects. In traversing the courts which practically do duty for day rooms, the nose was assailed with a most evil odour from gratings which evidently communicated with drains. Such dormitories as existed were large and well ventilated. There were, however, a great many single rooms, or rather cells, many of them wretched dungeon-like places.

There were no patients in seclusion. Evidently Dr. Sanches is a follower of my friend Dr. Esquerdo in the matter of non-restraint. The following figures form a striking comment on the sanitary condition of the asylum.

Of 117 patients admitted during the quinquennium 1872 to 1876, 59 died, 25 were dismissed cured, leaving 33 in the institution. The assigned causes of death amongst the total population of the asylum during the same period were—Diseases of the cerebral and nervous system, 30; of the chest, 6; of the abdomen, 35; constitutional diseases, 6; ganegrene of the feet, 1; asphyxia from strangulation, 1. Total, 79.

Of the 35 deaths from diseases of the abdominal cavity, 24 were due to *dysentery*. Thus nearly a third of this terrible mortality was caused by a disease due essentially to bad sanitary conditions.

The forms of insanity in 103 of the 117 admitted were—Mania, 54; Melancholia, 10; Monomania, 4; Ecstasy, 1;

Stupidity or dulness, 1; Dementia, 10; Epilepsy, 12; Hysteria, 3; Imbecility, 5; Idiocy, 1; General Paralysis, 2.

I now take my leave of an institution which has little besides the interest of its antiquity to recommend it. The same evening we bade farewell to our friend Dr. Esquerdo, whose kindness we shall never forget, and to whom I was indebted for letters of introduction to friends in Valencia, Granada, and Seville.

To Valencia and to Spain belongs the honour of providing the first asylum for the insane in the world. In the year 1409, a begging friar, Jofre Gilanext, feeling much for the fate of the poor lunatics who wandered about the streets and fields of Valencia, founded the first hospital for their care, the "Casa de Orates." Originally intended for the insane alone, it became diverted from this purpose and now fulfils the functions of a general hospital—a hospital of which at the present day the Valencians are justly proud. This famous hospital I did not take time to visit, preferring to see the "Manicomio," or asylum proper. Indeed, I was not at first aware that the general hospital contained a number of insane patients. On enquiring for the asylum, I was directed to an ex-Jesuit convent situated a little way out of the town, which had been converted into an asylum in 1865. At the time of my visit all the female patients and about eighty or more males were placed in it. As the physician had just paid his morning visit and had gone, I was shown through by an under official. There being no resident physician, the institution is managed from the general hospital. As dinner was being served during my visit, we proceeded first to the dining-room of the male division—a large, bare room with earthen floor. The patients sat at slim, narrow wooden tables, and were being served with soup, meat, and bread, in small tin basins. There was a small dining-room in somewhat better style for private patients, who pay from 2½ to 5 francs a day. One of the dormitories which I was shown contained 46 beds. It was large, well aired, and appeared in quite a satisfactory condition. Passing through a court, we reached a row of out-houses, which looked like cellars, and this was my impression of them until I was startled by seeing a face peering through a narrow slit in one of the doors. An attendant was standing at the open door of what appeared to be a larger cell than the others. Here, to my astonishment, I saw a scene which is not likely to be met with in any other country in

Europe. The room would be about 12 to 14ft. square, and was lined with straw. Crouching amongst the straw, or sitting on a fixed bench which ran along the back of the room, were about ten men having no other dress than a coarse blue shirt, which reached below the knees. These wretches were greedily devouring the food which had just been given to them in small tinned basins, most of them crouching amongst the straw and looking like so many monkeys. Their bronzed necks, arms, and legs testified to the length of the enforced exposure. These patients I was told were furious or destructive, hence their situation and want of clothing. There were seven or eight cells, and all occupied. I estimated at the time that there were about seventeen men in this condition. One of these cells for single patients was opened for my inspection. Its inmate was a vigorous looking young man, who, being strong and dangerous, had an iron belt round his waist; to this belt his wrists were chained so as to give his hands a few inches of play. His wrists were marked by scars caused by the iron bracelets which encircled them. The walls of his cell were covered with rude drawings. On the door being opened, he appealed pitifully, as it appeared to me, to get out; and I must say that neither his manner nor appearance indicated any peculiar ferocity. I have often thought since how excellent a thing, to use a phrase which I consider most objectionable, a little "Conollyism" would be in this Jesuit convent. I was next taken to see a strong arm-chair firmly fixed in the floor in which particularly outrageous cases were confined; the seat was padded, and had an oval opening, while a pan was placed beneath for the patient's excretions. This engine was abundantly supplied with straps and buckles for confining various parts of the patient's body, and the attendants showed me the whole concern with much the same interest that the sacristans of some of the cathedrals we had visited turned out their most interesting relics. This was, unfortunately, no relic, though, so far as I could learn, it was very rarely used. I next asked about baths, and was taken to a court, into the centre of which a large bath was built, which from its size was capable of bathing several patients at once. This bath was said to be in daily use, though it had the appearance of being seldom used. From here we marched across a court to another out-house, the door of which being opened, I saw amongst the straw, not another patient as I expected, but a pig. While

puzzled as to the meaning of this, my attention was directed to the roof, where a piece of piping, not unlike a piece of broken gas pipe, hung down. This, I was informed, was the douche bath. It was said never to be used for punishment, and to have used it at all must have sadly incommoded the pig, whose den the place was.

As the cells above described were only the day-rooms of these poor creatures, I asked to see their sleeping place, and was taken to a crypt-like part of the building, which was fitted up as a dormitory, the beds being of a poor character. An inner portion of this crypt was provided with a wooden platform about two feet high, running along the wall and projecting about six feet. On this platform chaff and straw were heaped up, these forming the bed and bed clothes of the worst class.

The female side was very much in the same condition as the male. Passing along the mouth of a gallery, or covered way, I observed a blue-shirted individual running along the passage, who, suddenly tucking the shirt between the legs, made a somersault. Turning, in astonishment, to my guide, I asked if this was a man. "No; a woman," was the reply. In a female airing court, which looked in quite a crowded state, were a number of women dressed as above.

The Valencians are fully alive to the defects of their asylums, and admit that the ex-convent wants all the necessary conveniences for such an institution as an asylum. They lament also that the actual department of the insane of the provincial hospital is in want of space, of ventilation, and of light, and that it lies far behind in the general advance. So they have secured an excellent site half a league to the north of the city, and thereon intend to erect a model asylum capable of holding 600 patients, and at a cost of about 3,000,000 reales; the patients are to be treated by the mixed system, both "manicomic" and colonial, "with a convenient separation of the sexes, of paying and pauper patients, and of dangerous and quiet patients. The dangerous patients are to be accommodated in a central building, properly called an asylum, and submitted to a continuous assistance and vigilance, while the quiet and the convalescent patients will lead a free and family life in a number of country houses, thus forming a colony peopled by the insane, and by families dedicated to their cure."*

* Memorial to the provincial deputation in reference to the erection of a new asylum

So they anticipate great things for their projected asylum, and sum up its advantages thus: "Close to the capital, sharing in the mildness and beauty of its climate, with abundance of water, sufficiently retired for the patients, with the elements necessary for them to dedicate themselves to the cultivation of the ground, to work, to fatigue, with a broad horizon, excellent walks, gymnasium, play-room, lecture hall, indeed, with everything necessary." As if to justify all the outlay, &c., they say what we much wish we could believe. "Now it is necessary to make progress, and do all that the advance of science requires, which now *declares possible* the *complete* cure of lunacy." Let us hope that when this goodly edifice is reared to the glory of Valencia, and for the good of humanity, in the asylum properly so called, the patients shall be at least clothed, if not in their right mind.

On the 1st Jan., 1877, there were in the insane department of the general hospital, and in the asylum, taken together: Males, 289; females, 159. Admitted during the year: Males, 81; females, 54. Dismissed, males, 50; females, 24. Died, males, 43; females, 25, leaving 441 patients at the end of the year.

In the "Journal of Mental Science" for July, 1868, there is a description of a visit paid to the Lunatic Hospital at Granada, by Dr. Lockhart Robertson. Though my visit to the same institution was paid ten years later, there is no necessity to add to Dr. Robertson's description of it. I did not see the somewhat primitive arrangements for the night treatment of acute cases, which he describes, and which I have referred to as existing in Valencia, though I heard the shouting of some female patients who were in seclusion and were *naked*. I saw one male in seclusion. I was addressed in very good English by one patient, who maintained that he was a British subject, having been born in Gibraltar, and that he was unjustly confined. He appeared to be a private patient, and his room (with which he expressed himself as pleased, and said was one of the best in the house) was a miserable little den. There were over 160 patients in the asylum at the date of my visit; of these 105 were males.

Dr. Robertson speaks of this hospital as the oldest lunatic asylum in the world, but this is a mistake, as it was not founded for more than 80 years after the one in Valencia. According to Dr. Esquerdo, Spain, in one single century (the 15th) founded four lunatic asylums: Valencia, Zaragoza, Seville and Toledo. Zaragoza I had not the opportunity of

visiting. Its hospital was destroyed by the French Army in 1808, and, though rebuilt, or restored, it has little to recommend it, being much in the same condition as those above described. I understand that it provides accommodation for 400 patients.

The General Hospital and Asylum of Seville was visited by me on a Sunday afternoon, on a day when the hospital was open to the public, who availed themselves to the full of this liberty. Accompanied by a Spanish medical man and a house surgeon, we had literally to elbow our way through crowded wards and corridors. I admired very much the large and lofty wards, though I did pity those poor patients who were seriously ill, and had to endure the noise, bustle, and crowding of the occasion. The portions of the institution closed to the public were the venereal and lunatic departments. The latter demands very little in the way of description: we saw three or four women in seclusion, and one old woman in a camisole strapped on a chair. I obtained from a clerk a table of the movement amongst the patients during the year 1877, which, however, contains little of general interest.

A large number of patients are regularly sent to Barcelona, to the best asylum in Spain, that of San Bandilio de Llobregal, which, besides making provision for private patients, receives public patients from 21 provinces of Spain. This asylum, which is thus both a private and public, and even a military asylum, has accommodation for 600 patients. It was founded in 1854 by its present proprietor and director, Dr. Antonio Pujadas, and, judging from an illustrated prospectus which is now before me, it is admirably adapted to the purpose for which it was founded.

The public asylum of Barcelona is a department of the general hospital, and is said to be in a deplorable condition, and to provide accommodation for about 500 patients. I understand that here also there is a project for a new asylum.

The only other public asylum is that of Valladolid, which is said to be passable enough, if not, indeed, one of the best public asylums in Spain, considering that the building was originally a palace of Don Alvaro de Luna, who was executed in Valladolid, in 1493. It has accommodation for about 500 patients. In this city there is also the private asylum of San Rafael, with about 15 patients.

Besides the private asylums above mentioned there are

other three in different parts of Spain, which combined make provision for not more than 160 patients.

This rapid sketch of the asylums of Spain would not be complete without stating that in several provinces there is a small department, or depôt, attached to general hospitals, and these are without the most necessary conditions for the treatment of their patients.

The asylums of Spain point, as do most of her institutions to her past glory and her present decadence. In this matter the fault lies not with the medical profession, the leading members of which are on a par with those of other European nations. At the present day, for instance, there are fully 300 students who receive instruction in this speciality; and the belief in the spiritual nature of insanity is passing away in Spain, as elsewhere. Meanwhile every lover of his race must heartily wish for the day when in this, as in every other sphere of action, that curse of Spain, clerical supremacy, shall be abolished, and a noble people be left free to develop those qualities which at one time made them masters of both the old and the new world.

“*After Care.*” By REV. H. HAWKINS, Chaplain of Colney Hatch Asylum.

The “*After-Care,*” that is, of poor and friendless female convalescents on leaving asylums for the insane. That out of about 59,000 pauper patients estimated to be inmates of lunatic asylums and other institutions,* there should be many, both male and female, who, on attaining convalescence, require further assistance to enable them to resume life’s duties, with fair prospect of success, would reasonably be expected.

But the case for present consideration is that of poor and friendless *female* convalescents only. Male patients under similar conditions, are, no doubt, often equally in need of “*after care.*” Their special requirements, however, will not now be discussed.

Nor will particular reference be made to the case of those female convalescents who have friends able and willing to offer them at least temporary shelter on leaving the asylum.

Those whose need is sorest, are patients—*young and*

* Dr. D. Hack Tuke, “*Insanity and its Prevention,*” p. 131.

middle-aged women, without relatives or friends; wives deserted by their husbands, widows, single persons in various callings, as governesses, sempstresses, shopwomen, domestic servants, employées of different kinds, who, after treatment in asylums, having sufficiently recovered to justify their discharge, have no relatives or friends to receive them, no home to return to, no situation or employment awaiting them in which they can earn their bread.

Those who are familiar with the inmates of public asylums will probably be able to call to mind cases of female convalescents whose actual dismissal, though warranted by the state of their health, is delayed—postponed from month to month, because they have no friend who can, or will, undertake their charge, on their first return to the world. Some may be literally friendless, others are estranged from their friends, or so remote from them as to be beyond reach of their assistance. The friends of others are sometimes so poorly lodged as to be unable to receive, even for a limited period, an additional inmate into their rooms. In some cases, it is to be feared, relatives would be better pleased that the convalescent should find in the asylum a *permanent* abode, than that she should leave it, and so possibly become, more or less, burthensome to themselves.

But, from whatever cause, the convalescent's discharge is, in certain cases, at least not facilitated by assistance from friends without. On the other hand, her official guardians, from motives of humanity, may see fit to decline to expose her to the probability of relapse, distressing penury, or of even worse mishap, by dismissing her unbefriended into the world; so that, continuing still a patient—though convalescent—and realising in her own sad experience the bitterness of the hope deferred which makes the heart sick, many a one may fall back from a condition of almost completed recovery into mental derangement, of which the recurrence may be far more serious than the previous attack.

It is true that the convalescent may be transferred from the asylum to the workhouse. There she would be at liberty to claim her discharge. But the question arises, would her change of abode place her in a more favourable position to start anew in life? In the workhouse it would probably be known that she had been an asylum patient. This would be to her prejudice. No special interest in her case, or trouble on her behalf, could reasonably be expected to be taken; so that, as an inmate of the house she would not find her way

to self-maintenance much easier than it had been in the asylum.

Some convalescents, though they may have relatives or acquaintances willing to receive them, yet have only such quarters to resort to as, with regard to board, lodging, companionship, and general surroundings, are ill-calculated to establish recovery. The transition from a spacious asylum ward, with its comforts and even refinements, to some close murky room in Whitechapel or Bethnal Green, would be the reverse of salutary; and the loaded atmosphere of a crowded court would not conduce towards sustaining the convalescence, which fresh country air had been largely instrumental in effecting.

Again, with respect to the subject of situations. The friends of many convalescents are themselves so poor, dwellers in neighbourhoods so squalid, that often the only place which they would be able to procure for a discharged patient would be that of a drudge of all work, of which the slang term "slavey" is hardly an exaggeration. It need scarcely be observed that such occupation would not be favourable to the preservation of recovered health. Called about hither and thither more than was Francis the drawer, by the Prince and Poin in Shakspeare's *King Henry IV.*,* "Francis! Francis! Come hither, Francis! What! stand'st thou still and hear'st such a calling?"—upstairs and downstairs from morning till night; spending lonely evenings, and finding Sunday no day of rest, is it to be wondered at if a convalescent's health often again breaks down? Scarcely less unfavourable is her situation in some low house of business, where overlong hours of work, miserable payment, and evil sanitary arrangements, are antagonistic to both mental and physical well-being.

So that it may be confidently asserted that, whether the convalescent be utterly friendless, or whether she has such friends only as are unable to render adequate assistance at the needful and critical time of her return to life's duties, her case may fairly claim more consideration and aid than, perhaps, it has hitherto received.

In what ways then can assistance be effectually rendered, so that convalescence, instead of being retarded, may be fostered and confirmed, and the recovered person again become a useful member of society?

Perhaps the initial and immediate want is that of a judi-

* Act ii., s. 4.

cious and kind-hearted Christian woman who would wholly devote herself to the work of relieving the necessities of poor and friendless female mental convalescents, on whose behalf her assistance might be required.

The cause is one which might well be undertaken, not as a bye-work (*παρέργον*) but as a life work. There would be wanted something of the devotedness of Fliedner, the founder of the Kaiserwerth institution, of whom it has been remarked, "He was a man of 'one casting' as the Germans say." There is a call for a labourer who would throw herself into the work in the spirit in which Mrs. Fry devoted herself to bettering the condition of prisoners; Agnes Jones, of Liverpool, to workhouse nursing; Sister Rosalie, of Paris, to charities of almost unlimited usefulness.

Brief reference will presently be made to the organisation of an association to carry out the objects indicated in this paper.

Let some instances be now brought forward in which valuable assistance could be rendered.

In certain cases, a patient, wholly recovered, might be quite able, and indeed might sometimes prefer, to recommence work immediately after leaving the asylum, without any intermediate period of rest. But how is she to obtain employment? She has, in addition to other difficulties, to encounter the formidable, yet quite intelligible, reluctance to employ persons who have been under treatment for mental disorders. As has been justly observed by the author of the book "My Experiences in a Lunatic Asylum," "The thread of life, and work and duty has been rudely broken, and has to be knit again under great drawbacks."*

At this juncture a friend's help might sometimes be invaluable. The authorities of asylums would, in due time, if not at first, welcome the alliance of an approved association, which would endeavour to procure suitable occupation for friendless convalescents. An interview (easily arranged)

* The following remarks by Dr. Edgar Sheppard apply with even greater force to the case of females:—

"Others come back to us because they cannot find in the outside world those favourable surroundings which alone can ensure their mental stability. The odds are desperately against any sensitive man, who is *known* to have been an inmate of a Lunatic Asylum; for all the apparatus of society henceforth bristles against contact with him, and refuses again to absorb and utilise him. An institution which could lay hold of these poor creatures—silence prejudice, allay fears, and gently reinstate them in their former spheres—would deserve and ensure the gratitude of all right-thinking and observant men."

between one of the ladies of the Association and the recovered patient, would enable the former to judge of the particular work best adapted to the capacities of the individual. Some such post might be vacant on the Society's register. If not, inquiry would be made. And greater success might attend endeavours to obtain situations for convalescents if made by persons not officially connected with the asylum.

That benevolent persons *may* be found willing to receive into their households recovered patients, immediately from the asylum, is within the writer's experience. He is acquainted with two instances in which an invitation for assistance was responded to by ladies who offered to take into their household a convalescent from an asylum. To one of these families a young friendless patient was forwarded by the authorities. She was treated with great consideration, and afterwards transferred to a more remunerative place. This transaction was effected without concealment of the young woman's previous residence in an asylum. The other offer referred to was eventually not accepted, on account of special circumstances connected with the locality of the lady's residence.

Still the fact remains, that two households were found willing to receive an asylum convalescent. It is surely not an unfair inference that, if the necessities of friendless convalescents became better known, other households would be found equally forward to do a similar work of charity.

In many cases, however, a brief interval of rest, change of scene, air and associations, immediately after leaving the asylum, would be beneficial.

If the cure effected in ordinary hospitals is often more permanent if a discharged patient has the benefit of a few weeks' sojourn in the country, or by the sea-side, before resuming life's duties, would not this advantage accrue (even *à fortiori*) in the case of mental convalescents? Country or sea-side homes are becoming recognised supplements of hospital treatment. Should not ampler facilities be provided for perfecting, under healthful conditions, the convalescence of some of the weakest of our fellow creatures recovering, it must be borne in mind, often not from *mental* ailments alone, but from *physical* disorders also?

If it should be suggested that recourse might be had to existing convalescent establishments, it may be sufficient to reply that these would, probably, decline to receive, at all events as a rule, patients from lunatic asylums. Even if the

managers did not refuse to extend the benefit of their Home to inmates of that class, the other inmates might be unwilling to consort with mental convalescents.

Another very useful feature of the "after-care" of convalescents, would be inquiry, on their behalf, after respectable persons living in healthy and cheerful situations, who would be willing, on fair terms, to receive them for a brief sojourn into their homes, and to treat them with kindness and consideration. If of two convalescents, each furnished on departure from the asylum with an equal pecuniary allowance, one passed her month's trial in an unhealthy atmosphere, ill-nourished, in the midst of depressing surroundings of dirt and dinginess, within daily view of scenes of disquiet, it may be of vice—the other in some locality where pure air, suitable food, quiet and cheerfulness promoted entire restoration, it is obvious that the issue of the two furloughs might be widely different.

Yet the difference would be just that of the case of one convalescent provided with funds which neither she herself nor her friends could beneficially administer, and that of another, who, though no better supplied with means, had a well-selected resort selected for her, in which to complete her health, on quitting the asylum.

Suitable persons might be found disposed to receive convalescents on moderate payment. Some benevolent individuals might, as an act of charity, offer them a temporary home gratuitously.

But any reasonable outlay which would contribute to the completion of recovery—a recovery perhaps, slowly and at much cost, with God's blessing, effected—would surely prove to be economical expenditure.

But these are cases for whom the arrangements of a well-ordered "Convalescent Home" might be better adapted than those of an ordinary private household. Besides, it might sometimes happen that no private preparations could be made for the immediate reception of a patient on the point of being discharged.

The subject of Convalescent Homes intended for the reception of recovered female patients from public asylums may well invite attention.*

As has been remarked, existing homes for the benefit of persons after recovery from bodily ailments would not ordi-

* A paper on "Convalescent Homes for the Insane Poor," by the writer of these remarks, was inserted in the April number of the "Journal," 1871.

narily be available for mental cases. So that if the benefits of homes are to be extended to asylums as to hospitals, these homes will have to be specially provided.

Such a home might be an ordinary roomy, comfortable house, with garden ground; the household being under the management of a sensible Christian-minded lady. Such a superintendent might be found who would give her services "all for love and nothing for reward." The administration would be frugal. There need be few expenses, beyond rent and housekeeping. No paid servants would be required, as the inmates would carry on the domestic work as one of the conditions of admission. The rules should be few and simple, regulating the hours for household worship, meals, closing the doors at night, &c.

During their sojourn, say for a month, the inmates would be expected to employ themselves usefully, but they would have full liberty to inquire after employment in service or otherwise. In this search assistance would be given them by the management. After a few weeks' stay in a well-conducted home, convalescents would often have a better chance of resuming their place in life than if they recommenced its battle directly after their discharge. A suggestion in reference to "Lunatic Asylums and Convalescent Homes" was made not long since by a correspondent of "Social Notes."

Moreover, such a home might occasionally be serviceable as a haven of refuge (a "*Perfugium Miseris*," as the inscription on the lighthouse proclaims Ramsgate Harbour) to persons who, having formerly been asylum patients, were in danger of relapsing into mental infirmity through stress of life's anxieties and trials. Even one day's quiet retreat, nay, even a few words of kindly counsel and of cheery encouragement from the lady of the house, might sometimes operate as a preventive of impending illness.

It would be important that the Home should be, both in structure and arrangements, as domestic and home-like and as unofficial as possible; also, that it should be quite independent of any asylum in its management, and not a mere adjunct or annex. Otherwise, it might run the risk of being considered only an asylum of another type, and of having its common life order interfered with by official regulations.

In special cases, of which one or two examples will be given, the "after care" of the recovered would have a distinct and peculiar value.

Take that of a female patient, whose insanity had been

caused by intemperance in drink. Under sanitary conditions and regimen, removed from opportunities of indulging her harmful propensities, she recovers so far as to justify her discharge. Before departure, the vital importance both to herself, and most likely to others also, of the strictest self-control, is impressed upon her. She professes, probably sincerely, to have formed stringent resolutions to practise temperance or abstinence. But, on returning to the world, she is at once beset with temptations, which too frequently prove fatal to her newly-formed determinations. The solicitations of former companions, and the old craving for drink not rarely prevail. Even if she keeps from the public-house she finds facilities for obtaining drink in shops where she purchases household necessaries. Often she lapses into former habits, and her last state becomes worse than the first.

Now, is the hope too sanguine, that if a convalescent intemperate, immediately on quitting the asylum, were to have the advantage of a friend's "after care," which would secure for her the sympathy and moral support, say of a well ordered Temperance Society, and which would, in other ways, diminish her temptations, she would be more likely to sustain unbroken the resolutions which in retreat she had formed?

Perhaps, in due time such retreats for inebriates, as that lately opened at Spelthorne, near Feltham, may be opened with special reference to cases from asylums.

There is also another class of convalescents who have an especial claim upon our "after care." In populous asylums there will generally be found foreigners, some of a better class than that of the majority of the patients; women educated for governesses, teachers, &c. Strangers in a strange land; sometimes far from friends as well as country, their position is not seldom one of painful isolation. In such cases the considerate sympathy of a kind hearted and educated friend, particularly if conversant with the stranger's own tongue and country, would be of great value.

The superintendent of one of our largest asylums refers to his difficulty in dealing with the cases of elderly or aged female convalescents. It must be admitted that, when these would be unable to maintain themselves, their case could hardly be brought within scope of the work of an association such as that attempted to be sketched in this paper. It would be manifestly impossible to make *permanent* provision for convalescents whose physical infirmities, or advanced age, incapacitated them from self-maintenance.

Not a word in these remarks will, it is hoped, be understood to imply that authorities of asylums are remiss in their obligations to convalescents. Their "after care" may, indeed, become a better recognised feature in asylum work than it has been hitherto, and a more strenuous effort made to supply an undeniable "missing link." But, after all, official care can never be so complete as to render works of private benevolence superfluous. Indeed, to some convalescents assistance ministered through private channels, would be more acceptable than if it reached them from official sources.

This further point also seems to be of some importance. The connection between the asylum and the patient terminates either at the actual time of her leaving, or at the expiration of a definite period after her discharge. Afterwards, no recourse to the asylum is permitted for assistance of any kind. No subsequent claim on its good offices exists, or could be recognised. A patient once absolutely discharged becomes, henceforward, officially unknown, except as regards his or her past history.

But the "after care" of a voluntary association would be restricted by no arbitrary limitations. As long as it was really required, it would continue (as far as possible) to be exercised; long perhaps after official oversight had ceased. Of course, all due safeguards against imposition would be adopted, but might not instances occur, when by a little seasonable aid, by assistance rendered in seeking a situation, by sympathy and judicious counsel, relapse might be warded off, and new hope and energy infused?

With respect to the requisite funds for carrying out the suggested plan of the "after care" of convalescents, three sources may be indicated.

1. The statutory allowance which Visiting Justices are empowered to grant during a limited period after discharge. This amounts to a weekly contribution, not exceeding the sum charged to the parishes, for the patient's maintenance.

2. The charitable fund sometimes maintained in asylums, out of which aid is occasionally bestowed, according to the various necessities of convalescents, on their discharge.

If such an association as that which has been the subject of the foregoing remarks, commended itself to the governing body, they, and indeed often the patients, on trial themselves, might prefer that moneys given to facilitate the renewal of life's duties, should be administered to the best

advantage of the persons chiefly interested, by the Association's agency.

3. The third source whence funds would be obtainable, is private charity. If the want referred to becomes gradually acknowledged, funds towards supplying it will not be withheld.

Moreover, it may be again remarked, that the prevention of relapse and the confirmation of convalescence are equivalent to economising expenditure in rates.

As to the *personnel* of the association. Its mainspring, as has already been intimated, would be found in some devoted pioneer in this comparatively untilled field of work. Making the cause her "mission," she would gather round herself a band of like-minded women, among whom would be distributed various departments of service, within the range of the society's operations. With these ladies should be associated a council of gentlemen, who would consent to superintend any matters of financial, professional and general business requiring attention. To them also reference might be made in cases of difficulty.

It may here be briefly noted that there exists in Belgium and England a religious community devoting itself entirely to the care of the insane.

Also that the Charity Organization Society, which is collecting information on the subject of ordinary convalescent homes, was not, recently, aware of any Home open professedly for the reception of mental convalescents.

The question in King Lear

"What can man's wisdom do,
In the restoring his bereaved sense?"

must often, in some form or other, pass through the minds of all interested in the cure, by Divine blessing, of the mentally afflicted.

Scarcely, however, less suggestive of thought are those other words,

"'Tis not enough to help the feeble up,
But to support him after."

[The foregoing valuable Paper, to the importance of which we specially call the attention of our readers, was read on the occasion of the formation of an Association to procure the "After-care of Poor and Friendless Female Convalescents on leaving Asylums for the Insane," June 5, 1879." See Notes and News." Part IV.—Eds.]

*An Asylum, or Hospital-Home, for Two Hundred Patients: constructed on the principle of adaptation of various parts of the house to varied needs and mental states of inhabitants; with Plans, &c.** By T. S. CLOUSTON, M.D.

Principles of Construction, etc.—I think I am justified by modern Scotch and English experience, as well as by my own, in laying down the following principles for the construction of an asylum for the insane, accommodating two hundred patients, and suitable for every class of the population, which, I understand, is an essential element in the solution of this problem in America.

1. The site should be somewhat elevated, sloping, and exposed towards the south; sheltered, if possible, from the prevailing winds; the subsoil dry; the buildings to be rather nearer the northern than the southern boundary of about one hundred acres of wooded land, with an accessible water supply of fifty gallons for each patient a day, within two miles of a large town (that with a medical school being selected, if any such exists).

2. The buildings being intended for the treatment with a view to recovery, and the care, of a number of persons who, though all mentally affected, are individually and in classes in different states of mind as regards the following points: *a.* Safety to themselves. *b.* Safety to others. *c.* Intelligence. *d.* Curability. *e.* Capacity for social intercourse and enjoyment. *f.* Daily habits of life. *g.* State of bodily health. *h.* Capacity for useful and other employments of entirely different kinds. *i.* Capacity for joining in amusements of different kinds. *k.* Necessity for care and attendance on the part of others. *l.* General trustworthiness: it necessarily follows that uniformity of accommodation and arrangements throughout the buildings should be most carefully avoided.

3. At one end of the scale, we have the insane who, as regards their mode of living, differ so little from the sane, that accommodation precisely like that afforded by the ordinary houses to which they have been accustomed is quite suitable for them.

4. At the other extreme are the deliriously maniacal, the intensely suicidal and homicidal, the paralysed, those absolutely enfeebled in mind, and those very weak in body, for whom very special hospital accommodation has to be provided suitable to their needs.

5. There are intermediate classes who require modified supervision, nursing, attention, and, therefore, accommodation intermediate in character between those two extremes.

* The author having been requested by the State Board of Health, Massachusetts, to furnish the plans of an asylum, with a description of them for publication in their Tenth Annual Report for 1878, the following is reprinted by permission from that Report. The introduction is omitted. T. S. C.



6. It should be a principle, never departed from, that the structures and arrangements that are necessary for the worst classes of patients should not be used for the best.

7. The special structures and arrangements for the treatment of the worst class should be as little special as possible, consistently with fulfilling their purpose, and should be modelled on medical and humanitarian, not prison principles. They should all be arranged so that they imply unceasing attention and vigilance on the part of the skilled and responsible officials and attendants: anything whose object or effect is merely to save trouble and watching in the treatment of an acute case of mental disease may be regarded as utterly to be condemned.

8. All things that give an air or sense or feeling of confinement should, as far as possible, be avoided; many of the insane being super-sensitive in regard to the effect of their surroundings.

9. Every thing that produces "cheerfulness" of effect, inside and outside an asylum, should be most carefully studied, down to the minutest detail of painting and furnishing. This has been abundantly proved to be of the utmost importance for healing, hygiene, and happiness. Variety in the shape, size, and aspect of buildings and rooms, tends to interest, rouse, and cheer the patients, when they pass from one into the other.

10. An asylum should have every sort of strictly medical appliance of construction and arrangement for isolation, trying and studying the effects of drugs and treatment, baths of all kinds—Turkish and medical—microscopic and necroscopic rooms, &c. ; every thing, in fact, to encourage and facilitate medical study, investigation, and treatment of the individual cases.

11. It should be remembered, in constructing and furnishing an asylum, that the chief things of which insane patients treated in asylums complain are: *a.* Removal from home. *b.* Being "locked up." *c.* Want of employment for which they are paid, and in which they take an interest. *d.* Control by attendants. *e.* Monotony of life. *f.* Association with "lunatics," meaning thereby fellow-patients worse in some respects than they are. It follows, that in constructing and furnishing the buildings of an asylum, and arranging its various parts, great care should be taken to provide for liberty, domesticity, classification, employment, amusement, and social intercourse between those who will enjoy it. Opportunities must be given for the creation of an artificial home life, as nearly like the natural as is possible.

12 It is impossible, in carrying out the foregoing principles, to avoid all risks of sudden impulses to violence, suicide, escape, &c. ; but my experience is, that such risks are best avoided by a careful daily study and observation of the individual cases by the superior officials, and more especially by the medical officers. I often deliberately run risks for the sake of the happiness and cure of my patients; and I think this principle has by no means been carried out far

enough. Who, if he had his choice before he became insane, would not prefer that the risk of suicide should be run in his treatment, if by that means there was any chance of his being saved from falling into dementia? If boys were brought up on the principle that they should run no risk of accidents, or even were ordinary houses or manufactories built, or carriages constructed, or railways run, on this supreme principle, "life would not be worth having" for any of us. I maintain that there are infinitely worse things in asylum management than "accidents."

13. After all, the risk of accidents is best met, and the necessity for irksome supervision and precaution avoided, by placing the patient in such circumstances that he works and plays, and forgets his morbid humours. Irritability, and consequent unhappiness, are best diminished by giving scope for expending muscular energy in the open air. To know how best this can be done for each case, implies a study of the patients that is good for patient and doctor. I have seen both systems tried. When I came to Morningside Asylum, in 1873, there were high-walled airing courts, a "refractory ward," and only about one hundred and ten male patients out of three hundred going out to the garden and workshops from the "West House;" while it was the rule, that no patient was sent out to work in the garden without special orders. Now we have no "refractory ward," no airing courts; two hundred and ten patients go out to gardens and workshops every day, besides twenty-five who assist attendants. The rule is, that all the patients go out who are not under orders to stay in; but then an assistant physician sees them go out every morning, and turns back any patient who is not fit to go. I never really knew my "refractory patients" till I had to provide each with suitable employment; and some of the very worst, who had been for years reckoned dangerous men, are now the most useful workers we have. One such man, a perfect type of "monomania of suspicion," who used to have a daily fight with some one, is now absolutely the most profitable inmate of the institution, making and mending every tin and copper dish in the place. If fearful sounds are heard in the workshop court, it is known that "Joe" is taking it out of his imaginary enemies (for he still has the former delusions), by ferociously hammering a flat tin plate into a form suitable for a kettle. No sane man I ever saw could do it so quickly. If he has a fight it is only on a Sunday.

14. Patients should nearly all (except the sick and weak) dine in a central dining-room in association, for the following reasons: *a.* The meals are thus more hot and comfortable. *b.* The service is better. *c.* The supervision by medical and superior officers is more complete. *d.* There is a variety in the life, change of scene, and a means of passing the time secured. Who that has lived in a hotel has not felt the charms of going to the *table d'hôte*? *e.* The increased self-respect that is implied in extra attentions to dress and personal appearance is thus best secured. Since we began to use a common dining-room here, several inveterately untidy patients have been cured of their

slovenliness of dress. *f.* Self-control is taught. The public opinion of the room or the table won't tolerate noise or disturbance. New patients get to feel this at once. *g.* The wards and parlours are thoroughly aired and ventilated during the absence of the patients.

15. The dining-rooms should be large, lofty, and very well lighted, and should have a totally different character, as regards colour, decoration, and architecture, from the wards and parlours. The Swiss hotel-keepers have long ago found this out.

16. The passages to the dining-rooms should be constructed chiefly of glass, to secure cheerfulness. Thus constructed they afford a grand opportunity, which has never yet in any asylum been fully taken advantage of, for being a "winter-garden," fitted with evergreen hardy plants. Looking after those would afford a pleasant kind of work to the patients during the winter, when they have no garden work, and can't get out. Thus treated, they afford delightful exercise and smoking corridors for many others, and especially for excited patients when they cannot go out. Some of the glass corridors to the Pavilion blocks at the Garlands Asylum, Carlisle, when I was there, were brilliant with flowers; and so are now the passages to the dining-rooms here, thus producing a most pleasing effect on the minds and spirits of the patients.

17. The beneficial psychological effects on the patients, of bright, cheerful colour in the wards, dining-rooms, and passages of asylums, have by no means as yet been sufficiently considered. I have had nearly the whole asylum here tastefully painted in most brilliant colours by the very best and most artistic colourist house-painter in Edinburgh, with very good results. I maintain that money is thus well spent in painters' bills. I have used for the same purpose somewhat lavishly, in the passages, Minton's floor-tiles of bright colours, stained-glass in the windows, &c.

18. Drawing-rooms for associated amusements of both sexes, billiard-rooms, &c., should be provided.

19. Workshops of many kinds should be a *sine qua non* of every asylum, and one large "general amusement workshop," where the amateurs of all trades can find suitable tools, materials, and room for even their perverted ingenuity. I had a man who for five years provided himself with a most engrossing occupation in trying to construct a machine for perpetual motion. I have now a man who does so, in making toy chairs out of sticks cut in the grounds, with no tool but a penknife, and no fastenings but pins. For ten years a man here was made supremely happy by employing himself in making grotesque garden-seats for the grounds out of twisted sticks, which he whittled into wooden serpents with staring eyes, little imps with long ears, and repulsive demons with cloven feet. The faculty of constructiveness, as perverted among the insane, affords a field for a most interesting psychological study.

20. A gymnasium should be provided.

21. One of the large parlours or public rooms should be so arranged that it can be used as a school in the evenings.

22. All the special arrangements of rooms, window-shutters, strong-rooms, padded-rooms, &c., should be as little prominent and offensive as possible; and, above all, they should not be suggestive of what they are intended to prevent. I don't advocate *insecure* arrangements, however. Many special contrivances are capable of being masked. Strong-rooms, strong window-shutters, and others can be altered in effect when not needed.

23. A patient labouring under an acute attack of insanity should have an extra abundance of—*a.* fresh air; *b.* water for bathing; *c.* floor-space in his parlour, and room for a good walk in a corridor of some sort; and, *d.* he should not be along with too many others.

24. Many asylum patients are in such a condition that they need most what is understood as ordinary "nursing;" and for this female nurses are, on the whole, the best. For the greater number of this class an "infirmity ward" is the best provision, where all the arrangements are somewhat like those of an ordinary hospital.

25. All the parlours and some of the bedrooms should have open fireplaces. If other heating is required, it should be done on scientific principles by steam-pipes, which will be also needed to keep the frost out of the glass corridors, and away from the plants in the "winter-garden."

26. Ventilation should be provided for by: *a.* Open windows. *b.* Open fireplaces. *c.* Gas-burners having openings over them communicating with flues, to remove the foul air and create a movement in the upper stratum of air in the room. *d.* External openings in outer and partition walls, opposite the ends of the joists under each floor, communicating with the open spaces between the joists, and those again with openings round the cornices, so that, which ever way the wind blows, there shall be a current of fresh air crossing the whole building among the joists. For very cold climates the external openings may be made to shut during the great frosts. *e.* Archimedean screw exhausters in all the roofs and tops of the glass cupolas in the one-story buildings. *f.* Special exhausting flues in three-story-block for "acute" and admission cases, communicating with each room at one end, and with a large chimney at the other.

27. All locks of doors to have handles to open them, and ordinary spring latches, but capable of being locked and double-locked by a common key.

28. Double roofs, with a non-conducting medium between, to be everywhere used.

29. The walls of certain of the bedrooms should be made double, with cotton-waste or something of that sort between, to prevent the sounds from noisy patients disturbing and keeping awake those near them.

30. A special wing should be thrown out, containing rooms for a few patients who would disturb the others and the general quiet of the house at night.

31. All windows, except those of a few of the bedrooms, should be of three-eighths-inch plate-glass, four squares to a window in second and third stories, and two squares to a window on the ground floor.

32. All the day-room windows should reach to within two feet of the floor, and some of those on the ground should go down to the floor and open as French windows do.

33. Provision should be made for training attendants systematically to their work. They should begin by being taught to nurse the sick, this being an essential part of their work, and tending to produce at once that humanised, softened, helpful frame of mind, with a tendency to regard the patient as an object of sympathy, study, and help, which is of the last importance in a good attendant. The attendant, after being three months in the infirmary ward, should then be sent to the ward for acute cases, and should at first have the charge of only one case, for whom he is to be held strictly responsible. Therefore rooms must be provided for two "probationer" attendants.

34. Nearly all bedrooms should have shutters, with means of ventilation at top and bottom, opposite the openings of windows in summer.

35. It must be recognised as a fact, that the general public have ideas of repulsion and horror of asylums for the insane, those ideas finding their acme in nervous persons of unstable mental equilibrium, who have an undercurrent of consciousness that they may become insane some day. There are many causes for those ideas: *e.g.*, the undoubtedly repulsive nature of some forms of insanity; the terrible pictures of it drawn by the classical and modern dramatists and artists; the inhumane treatment of former times; but, in addition to these, the prison-like character of some asylums, outside and in, has increased this feeling. It should, therefore, be a pressing duty of every modern asylum architect and physician to counteract this prejudice by making asylum buildings bright, airy, and broken-up looking. A terrible amount of mental suffering might be avoided were asylums regarded as ordinary hospitals are. To run even to extremes, with this view, may have a good effect in the end.

36. For practical purposes, I think the best classification of one hundred patients into wards is the following. The numbers are those which I have ascertained to exist in this asylum for each hundred.

1. Acutely excited, the very demented and dirty in habits	...	...	16
2. Recent admissions, improving cases, with some mildly demented, but needing much supervision	...	...	20
3. Sick, infirm, paralyzed, epileptics taking very frequent fits, bed-ridden, very old, and recently admitted cases in a very weak state; all requiring "nursing"	...	...	21
4. Convalescent, mildly demented, harmless, and agreeable delusional cases	...	...	18
5. Permanent inmates who are delusional, mildly demented, or slightly excited; all useful workers	...	...	25

 100

37. For each of these classes I would have a ward in the form of a distinct block of buildings, of special construction and arrangement, except that class 1 would occupy the ground floor, and class 2 the first storey, of the block A, B, and C (in plan), next the medical officers' quarters. The others I should connect to the centre, and to each other, by glass-covered winter-garden passages of different lengths, except class 5.

38. The advantages of such an arrangement seem to me to be : *a.* That it best fulfils the principle I have laid down, of making special structural and other arrangements to suit persons in different states of mind. *b.* That while doing so it gives sufficient concentration for administrative, medical, and daily working arrangements. *c.* That there is apt to be a great *esprit de corps*, and also a healthy rivalry, among the chief attendants when they have a "house" to themselves, under their special charge. *d.* That it gives more cheerful and homelike, better-lighted, and better-ventilated rooms. *e.* That thereby the asylum is less "institution" like, and more homelike, its inner life less formal and restrictive, through being more varied and natural.

39. The proportion of single bedrooms to associated dormitories has hitherto varied much in different asylums, according to the social classes of the patients, and the ideas prevalent on the subject in different countries. In America, I am aware, the principle and practice have hitherto been strongly in favour of nearly all the sleeping accommodation being in the form of single bedrooms. I am myself greatly in favour of a considerable proportion of associated dormitories, because I think they have certain clear advantages, *e.g.* : *a.* There is better supervision of the patients in them. *b.* There is less risk of suicide. *c.* After a little, many patients like it better. *d.* It checks bad habits at night. *e.* Patients in dormitories exercise much more self-control, as regards making noises, &c. The public opinion of the room is brought to bear on them. If our Scotch plan of making most of the attendants sleep in them with the patients is adopted, most of those advantages are increased. Acting on those views, I have introduced some dormitories, suitably furnished and fitted up for the highest class of patients, in the "East House" at Morningside, where none had previously existed, with very good results. I think the proportion I have provided in the plan, of forty per cent. of single bedrooms, is ample in any country. It is more than is needed here.

40. A dormitory for very suicidal patients, with a fireplace in it, where an attendant can sit up all night, and one or two single rooms opening into it for patients who may be very restless or dangerous, is the very best plan yet adopted for preventing suicides during the night. Every asylum should have such an arrangement, though in an institution for two hundred, it need not be always in active use.

41. Every ward and block of the institution should be connected to the porter's room, and his room to the physician-superintendent's residence, by electric bells and telephones; while the wards for the acute cases (A), for the sick (E), and for the convalescent (C), in

each department should be connected, in the same way, to the chief attendant's room in the admission ward (B). The porter's room being just under the assistant medical officer's room, he can at once communicate any message to that gentleman. We have had telephones in use here for more than a year, and find them invaluable.

42. Every arrangement in an asylum should combine the greatest amount of simplicity with the greatest amount of strength and durability and good workmanship. Especially does this apply to all the plumber and engineer work, to the water-closets, door-locks, hinges, &c. We use here a much simplified closet, on the "Jennings" principle, which works admirably, and almost never goes wrong.

43. It is not my intention to enter here systematically into asylum management, except to say that the management of an asylum is necessarily much affected by its construction. Without saying that an institution badly built and arranged cannot be well managed, yet I do say that a homelike, cheerful, broken-up asylum is far more apt to be managed on principles that are pleasant to its patients. I have had experience of this. I have seen the mere alteration and reconstruction and re-decoration of a ward produce a revolution in its management, even with the very same attendants in charge of it all the time.

44. A certain number of cottages for the married attendants and officials (say four or five for an asylum of this size), should be built on the outskirts of the property; and each cottage should have one large spare room where one or two patients can be "boarded out," living with and forming a part of the family, who, in money and the patients' labour, receive remuneration and help sufficient to make it an object to wish to have such patients; thus adopting, to this small extent, the true "Gheel principle."

Description of the various parts of the Asylum.—I shall not attempt a technical or even a minute description of the asylum whose plans are annexed. I shall merely state the principles on which each part is constructed to adapt it for the purposes it is intended to serve, with only enough reference to details to accomplish this object, and to enable the reader to understand the plans. These plans were drawn out in line by me, and were then put in their present shape by Mr. W. Lambie Moffatt, of Edinburgh, of Messrs. Moffatt and Aitken, the present architect of the Royal Edinburgh Asylum, who has also been the architect of several asylums both in Scotland and England. To him I am indebted for many valuable suggestions as to details and technical matters.

The Block containing the two Wards for, first, the acute cases; second, the admission improving cases; and, third, the sleeping accommodation in the third storey (A, B, and C).

These form one block of building of three stories. It is placed next the central administration block, because the patients in those wards need medical attention, care, and study, far more than any other class. They need more supervision too; and their attendants

require to be supervised and kept far more on the alert than those of any other class in the asylum. The objections to going far to meals, &c., apply to this class, rather than to any other. And, as a certain number of patients in the acute ward cannot go to a common dining-room without disturbing its quiet and good order, it is desirable that one of its parlours that can be used as a dining-room should be near the kitchen (A 2).

The block is turned at an angle of sixty-seven and a half degrees to the line of the administration, dining-room, kitchen, &c. This may seem a preposterous thing from an architectural point of view; but my reasons for so placing it were, 1st, to give it an uninterrupted outlook from the chief day-room and corridor windows. 2nd, to avoid looking down at the great block of building forming the kitchen, scullery, and workshops. In these respects, both cheerfulness and the feeling of privacy are secured, and a greater *individualization* of each ward as a distinct entity, and not being merely a bit of a large institution.

The Ward for the acute cases, and some of the very demented, who are dirty or slovenly—ground floor; for sixteen (A).

This consists of two parlours (2 and 8), each with distinctive features, and a corridor between. In this way the patients for whom the ward is intended can be classified and segregated according to their condition at the time, and one or two acutely maniacal cases could be treated without necessarily disturbing all the others. The parlour (2) is within eighty feet of the dining-room, and eighty-five feet of the kitchen, and is intended also as the dining-room of those patients who cannot go to the central great dining-room. The other parlour (8) is very well lighted, cheerful, and with two aspects. It is intended for the more quiet cases. The corridor is large enough to sit in, as well as afford a good long promenade for an excited patient, and has two recesses (4 and 6) for seats for about four or five patients. There should usually be four or five patients in one parlour (2), seven or eight in the other (8), and four or five in the corridor. Three attendants should take charge of the ward at almost any time, and two (one in each parlour) when there were no specially excited cases in it. Of course, four or five might be needed at times, when individual cases needed special attendants.

Each patient has a hundred and twenty-five superficial feet of day-room floor-space in this ward. This is the largest allowance in any part of the asylum, as such patients need it most. Space tends to quietude, and freedom from irritation and contact with the other patients.

The other accommodations provided by the ward are seven bedrooms (5) for the more quiet patients,—one being for an attendant,—and an annex thrown back at a right angle, containing a back staircase (9) and three bedrooms (10) for noisy or very violent patients; this annex being shut off from the rest of the ward by double doors and

thick walls for preventing the noise made by patients in those rooms disturbing the others. The aspect of those rooms is away from that of the others, for the same reason.

One of those rooms should be a "padded room," lined for five feet above the floor and over the floor itself with strong shoe-sole leather, cut in large pieces, five feet by two and a half-feet, each piece being sewed to the next at the edges, and then well screwed to the wall on two folds of thick felt. Above this, the room should be lined with wood. The surface of the leather should then be neatly stencilled, and coated with four coats of the best varnish. It is then soft, impervious to urine, strong, and makes a pleasant-looking room, just like an old library hung with stamped leather. In this way the forbidding features of an ordinary "padded room" on the patient's mind are avoided. There should be a gas-light in the centre of the room, or above the door, protected by a light wire grating; and a small inspection-hole in the door.

The other two rooms (as also all the rooms in this annex in the second and third stories) should be either finished in smooth strong cement, well painted, and tastefully stencilled in bright colours, with close narrow-tongued, well-seasoned, hard-wood floors, well varnished; or the walls for six feet high can be framed and panelled in well-seasoned oak, this being screwed on some soft material like roofing-felt, to deaden the sound if a patient tries to drum on it with his fists. We have four such rooms in the "East House," Morningside, that are as "strong rooms" as are ever required, and yet look quite like an old English oak room. If a patient is maniacal, the furniture is taken out: when he gets more quiet, it is put back; and with this, and a bright carpet-rug on the floor, such a room looks quite attractive—a great matter to attain for the most special and asylum-like part of such an institution.

All the doors, shutters, hinges, woodwork, &c., of these nine rooms in the three floors of this annex, should be made very strong and substantial. The short corridor to the rooms (11) opens by a door into the glass corridor leading to the convalescent-block. This might be convenient for taking an excited patient through for exercise in the "winter-garden" in bad weather, and in other ways.

There is a lavatory and bath-room (12), with a bath and shower for medical and special purposes; and opening out of this into a projecting tower (7) on the back of the building are the water-closets, slop-sinks, and, in the wards for men urinals. There are windows and extracting ventilators on each side of the tower on each storey; and the door opening from the lavatory to them should have a spring to keep it always shut, and should shut on an India-rubber tube, so that there shall be no chance of sewer-gas or bad smells from the closets entering the wards. The water-closet tower might easily be made a very ornamental feature of the building architecturally, and should be carried above the roof of the block.

The Ward for the newly-admitted cases, the moderately excitable, the improving, and a few chronic cases that need special attention or care; for twenty (B).

This ward is the same as the last in structure, being above it on the second floor, all the partition-walls being carried up. It is intended for twenty patients, who will thus each have one hundred superficial feet of day-room floor space. Such patients don't need so much space as those in the acute ward, though they need a good deal. It is intended that they all should go to the central dining-room to meals, with perhaps occasional exceptions in the case of temporarily excited patients, who would dine in the parlour (2) of the acute ward.

All the rooms, day-rooms and bedrooms, should be painted in most cheerful, tasteful colours, the furniture and fittings should be extra good, and the supervision should be very thorough. The head attendant should occupy one of the bedrooms in this ward, and the attendant in charge of it should be the best in the house. The "first impressions" of the newly-admitted patient should be pleasant. He should get the impression that every thing is well-ordered, homelike, and comfortable, and that great attention is paid to the study of his symptoms. There is nothing that takes off the irritation of a patient's forcible removal from home, like the conviction that he has come to a hospital where he is to be medically examined and treated, and where every thing is done that is possible for him. A physician should spend at least the first half-hour he is in the asylum with him in the ward, examining him, and taking notes as to his symptoms. Such an examination interests and amuses him, distracts his mind from the unpleasantness of being taken from home, and exalts his self-importance; while, to the physician, the knowledge of the case thus acquired is simply invaluable, and is never forgotten. The patient and doctor often in that way learn to understand each other, and this understanding is all-important. This ward is in immediate contiguity with the billiard and amusement-room; and one of its parlours should be fitted up, and used as the general library.

The Sleeping Accommodation for some of the patients and also some of the attendants from both the admission and the acute ward, and the suicidal dormitory (C).

This is on the third storey; and, if economy or architecture demands, it can be constructed with a French roof (double, to protect from the heat of summer and the cold of winter). It consists of dormitories (2, 5, 8, 10, 11) and single rooms (4, 9, 13), more than sufficient for the population, sane and insane, of the two wards below it that cannot be accommodated in the twenty single sleeping-rooms in those wards. If those wards were fully occupied, there would be nineteen patients and four or more attendants that would sleep there. The night attendants could have rooms up here too. It is intended that the rooms in

this storey should be occupied only during the night ; the patients and their attendants going down to one or other of the two wards below when they have washed and dressed in the morning.

Seven patients and one attendant could sleep in the dormitory marked 2, five and one attendant in 8, one in 5, one in each of the three marked 9, while room 10 could be used as a special suicidal dormitory, with 11 occupied by a patient both suicidal and dangerous, or very restless. A large lavatory, 6, is provided here. Rooms 13 are for noisy or restless patients.

In most of the modern English asylums there are upper stories used in this way, for sleeping rooms only, and it works well. I have myself had experience of it, and like it. Much extra accommodation is thus got at small cost. If preferred, wooden screens four or five or six feet high could be erected between the beds, as in some of the English public schools, thus securing more privacy, and not interfering with the other good effects of a dormitory, or with the ventilation of the room.

The Ward for convalescents and also some chronic cases whose mental state is liable to change ; for eighteen (D).

This ward consists of a one-storey block, of simple construction, connected to the dining-room by a glass-covered way that takes a circular course up to the acute ward A (20), ten feet wide, and four hundred and eighty feet long,—a part of the winter-garden. The block is so placed, that it interferes with the views from the admission and acute wards (A and B) as little as possible ; and this is one of the objects of its being one-storied. It is an oblong building seventy-five feet by fifty, with projections (3, 7, 9, 18) at the corners which are used for water-closets and lavatories at the back (9 and 18), and as pleasant bow-windows off the two parlours in front (3 and 7). It has a verandah round three sides of it (19).

It consists of a corridor ten feet wide (1) down the middle, off which open all the chief rooms. This corridor is well lighted and ventilated from the roof all along its length, and has two recesses with seats, and two fireplaces. There are two parlours (4 and 6), the one large enough for a billiard-table (6), and used as the smoking-room in the case of the male ward, and as a work-room in the case of the female ward ; while the other (4) is to be used as a reading and non-smoking room. These two rooms should be "got up" quite differently from each other, and also from the corridor. It is difficult often to get architects and painters to take the trouble to exert their ingenuity to get varied effects in the different rooms of an asylum ; but this is very important, and should be done. It costs little more than unbroken monotony of colour and effect. Both parlours open into the verandahs, and double doors should be provided for winter.

All the sleeping accommodation is in the form of dormitories, which may have low wooden screens between each bed (5, 8, 13, 16) ;

and each patient is allowed fifty-six superficial feet of day-room floor space, and seven hundred and forty-seven cubic feet of air by night. Stores are provided (12 and 15), and also attendants' rooms (11 and 15). It will be at once seen that the whole effect of this building, inside and out, is different from the acute and admission block, and the *feeling* of living in it quite different. It is more simple, home-like, and, being all on the ground-floor, more cottage-like, and less formal and hospital-like. We have at this asylum two wards built somewhat on this principle, that work admirably.

All the patients, of course, come to the dining-room for their meals, and the distance is not nearly so great as from some of the rooms to the *tables d'hôte* of some hotels. They are all expected to employ themselves in some way. The unity of administration is kept up by having this ward connected to the administrative block by telephones. The patients in this department may be regarded as coming after those in the sick-ward and before those in the cottage, as regards the necessity for frequent medical supervision and attention. They come fourth of the five classes in this respect.

The Ward for the sick, paralysed, very weak, very old, bedridden, blind, the recent cases especially of melancholia that are very weak, and the class of cases generally that need nursing; for twenty-one (E).

A mere glance at the list of the different classes of cases that are to inhabit this ward shows that we must provide suitable special accommodation for them, that this accommodation must be all on the ground-floor, that it had better be apart from the rest of the asylum, and yet not too far from either the central kitchen or the medical officers' quarters. The patients cannot go to the central dining-room for their meals, so a dining-room must be provided (5). A certain amount of minor cooking, and keeping beef-tea, &c., hot, must be done too, therefore it must contain a small kitchen. As a man and his wife are intended to have the chief charge of this ward, a kitchen adds much to the element of domesticity. Among the patients in the sick-ward of an asylum, some had better sleep in dormitories, others in single rooms. Some of the former require to be in bed all day, others only a part of it, and others can be up all day. The greatest variety, too, exists among the patients who need to sleep in single rooms. There is an enormous difference between the general paralytic in the end of the second stage of his disease, who is restless and noisy at night, though so weak that he stumbles and falls about his room, very dirty in his habits, rubbing his fæces over the walls of his room, unable to feed or clean or dress himself, and the quiet, slightly demented, consumptive or hemiplegic patient, who needs to be in bed all day, but whose cough or helplessness would disturb the others in a dormitory. Both of those need single bedrooms; but it would be undesirable, if it could be avoided, to place them next each

other. I have never yet seen a sick ward whose construction and arrangements seemed to me so varied as the requirements of its patients.

The building I have planned is a separate one-story block (E) three hundred and forty feet from the central kitchen, connected by a prolongation of the winter garden corridor (17). It consists of a central corridor (1), roof-lighted, ten feet wide, into which open on the back of the building, on entering it from the corridor (H), two store-rooms (2 and 3), one for brushes, pails, &c., and the other for linen and clothes. Then comes the kitchen, with a small cooking-range and the means of washing and storing dishes. If the dinners are cooled in coming along the corridor from the great kitchen, they can be easily warmed here; and as the serving of the meals to so many helpless people takes a considerable time, from many of them having to be fed, the meals of those last served can be kept hot. Here the wife of the attendant in charge presides; she is the "housewife," and makes the breakfasts and teas, assisted by a quiet female patient; the dinners coming from the central kitchen.

Opening out of the kitchen, and occupying almost the centre of the building, is the dining-room (5), with sufficient space, tables and chairs, to dine fourteen, or two-thirds of the patients, in the ward. I find that proportion sufficient here. The others are in bed, or too helpless to come to table. The dining-room walls should be carried up five feet above the height of the ordinary walls of the sick-room, to form a central hall, and to give ventilation; and it should have a large cupola-light with a ventilator in the centre of the ceiling, which should be more or less dome-shaped. In that way all the "dinner smell" is carried up and away, without permeating the rest of the ward.

Opening out of the dining-room, there are two small dormitories for three patients each (16), which are to be occupied by quiet bedridden people. Their meals can be served very conveniently from one of the dining-room tables.

From the back of the dining-room opens a short corridor with double-glass door at the end (for taking bodies to the dead-house) (10), which is the centre of a projecting annex, that contains four single bedrooms for patients who are noisy at night, an attendant's (probationer) room (7), and a small bath-room and water-closet for the helpless, dirty, and paralysed, who may occupy those four rooms (9). Those rooms are so placed that noise in them is not heard by many of the patients in the rest of the ward. This annex should be shut off by thick walls and double doors from the rest of the ward; and every room should be well heated by steam-pipes, and not have open fire-places, as such patients sometimes throw off their bedding, and roll about their rooms naked.

On the other, or front side of the corridor, there are, first, three single bedrooms (10) with a sunny aspect, for quiet, cleanly, more

sensible patients, suffering from bodily ailments, or for newly-admitted patients, who may be very weak, and need much nursing. Those rooms are so convenient to the kitchen (14), that meals can be served in them very easily. Next to them, on the same side of the corridor, there is a large dormitory-dayroom for patients who may keep their beds part of the day. It has a fireplace and bow-window; one corner of the room being kept free of beds, and used as a place where patients can sit when they get up. The eight beds are placed round the rest of the room. Such a room, cheerfully painted and well-furnished, I look on as a most necessary part of any asylum infirmary-ward.

Next it, still on the same side of the corridor, is the room for the married couple who have charge of the ward (12). Still farther along is the day-room proper, for those patients who are able to be up all day. It has two good exposures, a bow-window, and opens into the corridor, and also into the verandah (16).

The larger bath-room, and lavatories and water-closets for general use (14 and 15), project out from the building, have cross ventilation, and are shut off by double doors from the corridor.

Over three thousand cubic feet of air-space is allowed in this ward per patient in day and night rooms together. This large amount is needed for this class of patients.

Every thing in the sick-ward should be bright, airy, and cheerful. No paper should be used on the walls; all the colour being got by paint, which should have a final coat of fine varnish. Every room, almost, should have a different tint of wall. The floors should all be hard wood, or pitch-pine well-seasoned, and sawn into narrow boards, and tongued.

The Detached House for chronic, useful, slightly enfeebled, and more slightly-crazed patients, none of whom require active medical treatment or constant supervision; for twenty-five (F).

This house may be placed in any convenient situation; but probably the best place for it would be somewhere near its position in the block plan, as being least obstructive of the views from the rest of the building. It is a two-storey house, simple and home-like in character, and could be built of brick, stone, or wood. If any moderate extensions of the asylums were needed through the filling up of the other wards with quiet incurable cases, a number of such houses could be built in different parts of the grounds. It is intended that the patients from this house should come to their meals in the central dining-room; and in bad weather they could come so far along the glass corridor to the convalescent ward. This should be kept in mind in fixing the position of the house.

On the ground-floor there are two day-rooms (1 and 4) of different forms and aspects, that should be painted and finished differently, to give variety. There is a front door (2) with outer porch and hall

(3), to which runs at a right angle a passage leading to five single bedrooms (one being for an attendant), and a store-room (8). At the end of the main hall, opposite the front door, is the stair, leading to the second storey (6); a passage by the side of this stair, and going under the first landing, leads to bath, lavatory and water-closets, which project so as to secure cross-ventilation. Behind one day-room (4) there is a small room (5) for a combined kitchen, scullery, and attendant's dining-room.

On the second floor the same rooms exist; but those over the parlours are dormitories, and an attendant's room is taken over the front hall, opening into both dormitories. Two attendants are sufficient for twenty-five of this class of patients, and even one efficient, experienced attendant might take charge of them. A house of this kind for men should have a man and his wife in charge as attendants. This works well in such detached houses at the Wakefield, Cupar, Cheadle, and other asylums in England.

Each patient has forty-two superficial feet of day-room floor-space, and nine hundred cubic feet of air-space in the dormitories, and twelve hundred feet in the single bedrooms. This is a very great allowance for such a class of patients, who ought to be much out in the farm, winter garden, or workshops; and, if economy were much of an object in building an asylum, from thirty to thirty-five patients might be put into such a house, or it might be made of less size for the twenty-five.

It may strike some one, why so many single bedrooms should be provided in this house, and none in the convalescent block. The reason I have done so is that I think it is better, on medical grounds, for the convalescent patients to sleep in small dormitories, while, living in such a house as this, there would be many chronic cases whose only home it is for life; and I would let a few such, who were specially useful to the place, have single bedrooms as a reward and encouragement; and in those rooms I should allow such patients to collect their *Lares* and *Penates*—homelike trifles or foolish accumulations, as the case might be—at all events, I should let such people have in a very full degree the sweet sense of possession of a room and all that it contained.

All the patients in this house would be in good bodily health, and so would be able to go to meals, prayers, chapel, and workshops. In fine weather they would probably all go straight across to the workshops and dining-rooms, rather than so far by the covered corridors. I have had experience of such houses for men and women, and I know they work well if the patients are properly selected.

The Administration Block (G).

This is not very special in its character. It simply consists of a large house of four stories, with rooms (as marked on plan), suitable for porter, visitors, assistant medical officer, matron, household and kitchen servants' bedrooms. As the architectural centre of the build-

ing, it is better to have it of four stories; and an able architect could here exert his ingenuity and taste to the utmost.

The Glass Corridors of Communication and Winter Gardens (H).

At the front door in the administration block begins the corridor (H), that leads everywhere to the different parts of the asylum, except the detached houses. The hall should be spacious, wide, and inviting. It leads straight to the front of the dining-room, and is formed chiefly of glass from where it leaves the back of the administration block, throughout its length and ramifications. It is to be filled with plants and flowers; and the colours of its timbers, &c., are to be bright and harmonious. On each side, to fill up the lower part of the spaces between the dining-room and administration block, there are two conservatories (H.) Thus a patient, or his relative coming to see him, as he passes for the first time along the corridors to the wards, sees nothing gloomy or prison-like, but, on the contrary, has a distinct feeling of cheerful brightness. I cannot sufficiently reiterate, that such a passage of communication to the asylum has a good effect psychologically on the patient. The whole system of combined glass corridors of communication, and winter garden, I consider one of the most important and novel in this asylum plan. It combines utility and beauty in the highest degree.

The Dining-Room (I).

This is a large room, fifty-two feet long by thirty wide, and twenty in height. It is peculiar in its construction. It has really two walls; the outer, of glass, being the wall of the glass corridor (H), while its inner wall is constructed of brick piers to carry the roof, with the spaces between partly formed of lath and plaster partitions, and partly of large glass doors or glass screens. The impression produced by such a room is that of being in an arcade with a conservatory outside it.

There are two chief entrances for patients: one near the front, for those from the convalescent and detached houses; and one near the other end, for those from the admission and acute wards. A dining-room of this construction, tastefully coloured, is most cheerful and very comfortable both in summer and winter. The layer of slightly warmed air that really forms its wall is about the very best material for that purpose. We have two such rooms here in the Royal Edinburgh Asylum, and they are admitted, by all who have seen them in use, to be perhaps the most beautiful, cheerful, comfortable, and unique dining-rooms in any British asylum.

The Amusement-Room and Billiard-Rooms (over I).

These occupy the floor above the dining-room, and together are the same in size, shape, and construction. Their walls are formed in the same way as those in the dining-room, the glass corridor (H) being

here carried up for two stories. This is the only place where this corridor exceeds ten feet high. It can be here made forty feet high, either in wood or iron, with the brick piers of the dining-room and drawing-room walls as the solid basis of support.

The amusement and combined billiard and news-rooms should have a different character, and should open *en suite* for specially festive occasions by large sliding double doors. There should be a stage at one end of the amusement-room, for the performers in concerts, plays, &c. The billiard-room should not have so much side-light, and more roof-light. It should be used as a general news and reading-room, with newspapers, maps, books of reference, atlases, dictionaries, &c., lying about.

The Kitchen and Scullery (K and L).

The kitchen is an oblong room lighted from the walls above the glass corridor on each side, and especially from the roof, thirty feet by twenty-eight by twenty-five in height, with all the steam cooking boilers together in the centre of the room, and a large cooking-range next the scullery. The walls should be lined with white glazed tiles for at least six feet high, and above that should be finished in smooth cement. There are two large service openings from the kitchen into the dining-room.

The scullery is a room thirty feet by twenty, properly fitted up with sinks, plate-racks, presses, &c.

The Kitchen Court (M), Steward's Department (N), Boilers, Coal-House, Bake-House, Surgery, &c. (O).

Beyond the scullery the glass winter garden corridor is carried across at a right angle to that part of it which has run alongside of the kitchen and scullery. In this way free communication is got across from one side of the house to the other; *e.g.*, for the linen to be taken from the male wards, to and from the laundry (U); for the men going to the bath-house (T); for the women to take articles to be repaired in the workshops (P H). There is a large kitchen court (M) beyond the corridor, into which the road for supplies, &c. (V), enters. On one side of this court is a block of building (N), containing the steward's and general store-room, his office, stores for potatoes, coals, beer, &c. The glass corridor thus runs angularly round the corner of this, and then in a straight course parallel to the entrance road up to sick-ward (E). Of course the steward's stores and office open into it, as well as into the kitchen court. It gives a unity to the whole administration of the institution.

On the other side of the court is a block of building containing larder, milk and flour store, bakery, surgery, and surgical-instrument room. One set of those open into the court; the other, into the corridor on the outside of the block.

The Workshops (P).

These are all made easily accessible by the glass corridor (H), and consist of engineer's, plumber's, carpenter's and cabinet-maker's, upholsterer's, shoemaker's, and tailor's work-rooms—all well lighted from walls and roofs, and cheerful, healthy, well-ventilated rooms, whose inside walls are all done in bright, cheerful colours. The number of patients in them at different times will vary, but together they should be capable of accommodating twenty men at work.

The Gymnasium, and the Workroom for the idlers, loafers, and amateur artificers, who make crazy, useless articles (R).

This forms a block on the other side of the glass corridor from the workshops. The gymnasium is a lofty, airy room, with most of the appliances used in an ordinary gymnasium, except that the principle of safety is more thought of.

The idlers' and amateurs' workshop I look on as a great institution. Many people about an asylum will go there most usefully to themselves, who won't go into the regular shops; and there are others who would go to the latter, but would merely hinder the real useful workers.

The Dead-House, Post-mortem Room, Microscope Room, small Chemical Laboratory, and Pathological Museum on the second story (S).

This forms a block by itself; the dead-house opening into the road, and the necroscope room opening into the corridor (H). I have placed it in this position for the convenience of the medical officers. In many respects it would be better to have a dead-house a detached building near the outer gate. But it is apt to cool pathological research, for the medical officer to have to walk from such a building to his rooms at two o'clock of a winter morning.

The Museum.

This is a well-lighted, oblong room over the microscopic and chemical rooms, thirty feet by fifteen, lighted chiefly from the roof and suitably fitted up.

The mere fact of having rooms there, suitable and ready with all the appliances, stimulates and encourages the medical officers (or outsiders with pathological tastes) to original investigation and research.

Forty feet beyond this block the corridor leads to, and ends in, the male sick ward (E).

The Bath-house (T).

This consists of an ordinary bath-room with movable screens between each bath, a swimming-bath, a Turkish bath, a complete set of medical baths, and a dressing-room. It is a most important adjunct to an asylum, for medical and hygienic reasons.

The Laundry (U).

This enters from the glass corridor, on the female side, by a wide entrance. It consists of receiving and distributing rooms, wash-house, laundry, drying-closet, and engine-house for a small steam-engine to work the machines.

The Road of Entrance (V),

for the delivery of all stores and for all non-medical business traffic.

The Chapel (W).

This should be built to contain the whole number of patients in case of any future enlargements. It can be connected, if desired, by an offshoot at a right angle of the glass winter-garden corridor, connecting the convalescent block to the centre. The best position is that shown on the block plan, flanking the physician's house. Standing thus apart, the patients have the feeling of "going to church" on Sundays.

The Physician-Superintendent's House (Y).

This should be a quite separate building, of villa character, in its own enclosed garden. It can be connected by an extension of the glass corridor similar to that leading to the chapel, if desired, or if the climate demands such an arrangement.

In conclusion, this asylum may be called a "Hospital Home" for the insane, planned in its various parts on the principle of adaptation of each house to the mental states of its inhabitants. If, in practice, I have failed thoroughly to harmonise construction with all the varied phases and needs of mind diseased, I am certain that the principle I have adopted is the right one. I have had in view cure more than care in devising these plans. I think this Hospital-Home would be found suitable for the treatment of an unusually large number of recent cases, in proportion to the whole number of the inmates. One hundred patients a year might be sent to it, provided the quiet and improved cases, as well as the recovered, were discharged. The theory on which it is constructed would be quite upset, were it to become chiefly a comfortable residence for incurable cases. And while I cannot point to the success or otherwise of an institution where the principles of adaptive construction I have endeavoured to lay down have been fully carried out, because in my opinion none such exists, yet I am able to refer to five years' experience of increasing quietude and contentment, diminished excitement and liability to accidents, a smaller death-rate, and a higher percentage of recovery, among my patients here, since extensive additions and reconstructions in an old building have been carried out under my own eye, on these principles.

THE VARIOUS PORTIONS OF THE ASYLUM.

(See accompanying plans.)

THE SCALE SHOWS THE SIZES OF THE VARIOUS ROOMS.

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| A. Ward for acute cases, &c. | } | These in one three-story block. |
| B. Ward for admission-cases, &c. | | |
| C. Sleeping-accommodation for some of the above two classes and their attendants. A suicidal dormitory, &c., in the third story. | | |
| D. Block for convalescents. Connected by glass corridor. | } | One story. |
| E. Sick ward. Connected by glass corridor. | | One story. |
| F. House for quiet chronic workers. | { | Detached; two stories. |
| G. Administration block. | | Four stories. |
| H. Glass corridor of general communication, also used as winter-garden, promenade, smoking-corridor, exercise-place for excited cases, &c. | } | Ten feet wide, by eight or ten feet high. |
| I. Common dining-room, with amusement-room and billiard-room over it, all with conservatory walls. | | |
| K. Kitchen. | | |
| L. Scullery. | | |
| M. Kitchen court. | | |
| N. Steward's department, stores, &c. | | |
| O. Surgery, &c. | | |
| P. Workshops. | | |
| E. Gymnasium and idlers' workshop. | | |
| S. Dead-house, post-mortem room, microscopic and chemical rooms, and pathological museum. | | |
| T. Bath-house. | | |
| U. Laundry. | | |
| V. Road of entrance for stores, &c. | | |
| W. Chapel. | | |
| Y. Physician-Superintendent's residence. | | |
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CLINICAL NOTES AND CASES.

Syphilis and Mental Alienation; further Cases illustrative of their Relationships. By W. JULIUS MICKLE, M.D., M.R.C.P., Medical Superintendent, Grove Hall Asylum, London.

In 1876 and 1877 I published a series of papers in the "British and Foreign Medico-Chirurgical Review" on several of the relationships between syphilis and mental disease. In the first paper of this series were related a number of cases of intra-cranial syphilis occurring among the insane, in several of which the mental disease was the direct result of the syphilitic. The second contribution concerned the so-called varieties of syphilitic insanity, and particularly the acute forms of insanity, intercurrent in secondary syphilis; while the third article dealt with the differential diagnosis, and general distinctions between syphilitic disease of the encephalon (and meninges), and general paralysis of the insane.

With reference to general paralysis, the views, published some time ago† by myself, are somewhat analogous to those avowed by Dr. A. Fournier,‡ to the effect that syphilitic disease may simulate, but not produce, true general paralysis of the insane; or, as Fournier formulates it, there is a syphilitic general paralysis differing from true general paralysis of the insane. Dr. Buzzard,§ also, argues for the separation of these cases from true "general paralysis." The subject, indeed, has been the source of much conflict of opinion. Furthermore, it need only be repeated here that, in my own experience, the cases of syphilitic disease of the cerebral arterioles include some, at least, of the cases of intra-cranial syphilis, which most closely simulate "general paralysis."|| In these cases some of the cerebral arteries usually suffer also, while naked-eye lesions of the brain-cortex may be present. Again, syphilitic meningitis, especially of

* "British and Foreign Medico-Chirurgical Review," July and Oct., 1876, and April, 1877. Abstract in "Journal of Mental Science," Oct., 1877, p. 407.

† "Brit. and For. Med.-Chir. Rev.," April, 1877, p. 444.

‡ "La Syphilis du Cerveau," 1879.

§ "Clinical Aspect of Syphilitic Nervous Affections," 1874.

|| "British Medical Journ.," July 13, 1878, p. 49.

a chronic adhesive form, sometimes wears the garb of general paralysis.

In the following pages it is simply proposed to relate a few additional cases bearing upon the relationships between syphilis and insanity; cases in some of which syphilis was supposed to be the cause, or, in others, one of the several causes, originating mental disease; while in one or two the evidence as to these ætiological relationships was more doubtful. A short commentary follows the details of each case:—

CASE 1.—*Primary and secondary syphilis; cranial pain; alopecia; return of severe pain; breach of military discipline when "in drink;" imprisonment; intense cranial pain; insomnia; stupor; delirium; insanity, at first of the nature of mania, then of monomania, with exalted delusions. Recovery under specific treatment.*

A gunner in the Royal Horse Artillery. Admitted January 14th, 1879. Age 29. Service, 10 $\frac{2}{3}$ years. Single. Scotch.

This was the first attack of insanity, and of uncertain duration, it having become marked in Oct., 1878, but "probably being of much longer duration." Before admission here the patient had been under treatment for mental disease in the military hospitals at * * * * from Oct., 1878; and at Netley from Dec. 10th. The assigned causes of his insanity were "syphilis, and probably intemperance;" and he was reported to be neither epileptic nor suicidal.

No hereditary history of insanity was ascertained. The army "medical history sheet" of this patient testified to several admissions into hospital in India for ague and hepatitis; also, that he incurred primary syphilis in 1872; and was 62 days in hospital at Aldershot for secondary syphilis in Sept. and Oct., 1877, and, again, during 22 days, in April, 1878. On Oct. 30th, 1878, he was admitted into hospital at * * * * for mental disease. For more than three months before this he had been strange in manner, violent in temper, easily roused to anger; and had had pain in the head, loss of memory, and, at times, delirium.

After admission at * * * * he occasionally refused to speak in English. He said he could speak forty languages; that he was the Saviour, had been crucified; and saw visions of angels; that he preached to angels, and was infinitely higher than they; that he was the son of Ex-President Grant, and wrote poetry, withal. He prayed and sang; was often noisy, restless and troublesome by day and by night, and slept but little. Similar delusions were exhibited at Netley, where, also, the patient suffered from cranial pains, and psoriasis palmaris of the right hand, as well as from cough.

On Admission.—Height, 5ft. 9in.; weight 151lbs. Without minute details as to the physical condition, it may be stated that the heart-

sounds were indicative of diminished arterial tension, that the liver-dulness was rather wide, and that there was a slightly enlarged gland in the right posterior cervical triangle. Ordinary acne existed on the shoulders and back. The tongue was slightly indented and tremulous. Gums slightly spongy, and readily bleeding upon pressure; speech clear.

Partly on this, and partly on a subsequent occasion the patient stated that he had suffered from gonorrhœa in 1869; and in 1872 from a syphilitic sore, "not followed by secondaries," that he had sore-throat in July, 1877, and some pains in the head before Sept., 1877; that he had a third attack of gonorrhœa, and a hard single sore, simultaneously, in Sept., 1877, and shortly afterwards (about Dec., 1877), a spotted rash all over the trunk; that he suffered much afterwards from cranial pain, namely, from about Dec., 1877, to March, 1878; and to obtain relief went into hospital in Jan., 1878 (about which time his hair came off), and remained therein until March; and again sought, and obtained, admission into hospital in April, for cranial pains, which on this occasion lasted about two months; that he was tried in May, 1878, for insubordination and absence when under the influence of drink; that his sentence of imprisonment, beginning on May 15th, expired on Oct. 29th, but that for two or three months previously to the latter date he felt very ill, became delirious, and had severe exacerbations of the cranial pains, which had again returned, which were general, but most intense at the temples and vertex, were "shooting," deeply seated, worse at night, increased by the application of heat, and lessened by that of cold. In August the pains kept him awake day and night. During the last three months he was in prison he oftentimes fell into a stupor, but when the nocturnal pain was severe he used to shout aloud "in a delirium." Both the stupor and the delirium, which alternated or succeeded each other irregularly, were worse at night. The pains ceased after his discharge from prison, but under what, if any, treatment, I am not aware. He had four attacks of "liver-disease" in India, he said; suffered from ague several times, and had some splenic trouble. Occasionally he had given way to drinking habits.

Mental State.—The patient was smart, clean and tidy in appearance. His memory was fair. He denied the present existence of any delusions or hallucinations, and referred to his above-mentioned beliefs as having been "delusions." Finally, he acknowledged that he could write poetry, and showed me the MS. of "a poem," as he said. This was written in the most feeble doggerel, was mis-spelled, and contained many high-sounding words and phrases, the whole forming an absurd travesty of heroic verse. This, he said, was "rather deep." In one part the wording of the MS. seemed to imply that it was written by "the Everlasting Son of the Most High God." Asked whether it *was* so written, he said if he acknowledged that it was, he would be deemed to be insane—therefore, he considered the expression to be "only

nonsense." But when urged to tell the truth, he said that *was* the truth ; he *was* "the Everlasting Son of the Most High God."

R. Potassii iodid., grs. viij. ; hydrarg. perchlor., gr. $\frac{1}{4}$; ammon. carb., grs. iv. ; ter in die.

Feb. 13th.—He was now able to give a more exact account than formerly of his various attacks of disease, and of the circumstances attending the outbreak of his insanity. He still wrote what he was pleased to call poetry, and thought he could support himself as an author, and could explain many things that no one else understood, as, for example, the combinations of the gases of the air and their chemical relationships, as to which he had learned, not from chemical experiments, but from "books and experience." He worked regularly. There was no distinct mercurialism ; the gums, however, still bled slightly on strong pressure, perhaps as a result of chronic teeth-neglect. He slept well, the appetite was good, and the increase in body-weight since admission was five pounds. He was ordered to continue the mixture as above.

Without detailing the subsequent notes, it may simply be stated that the patient gradually abandoned all his delusions, that he continued writing his verse for amusement after he came to the conclusion that it was very poor stuff, but finally gave up that also, and was discharged recovered on May 17th, 1879, after four months of the specific treatment recorded above.

Remarks.—That this was a case of syphilitic insanity was quite clear. Intense syphilitic cranial pain, ending in insomnia, in stupor, and in delirium, and this in mania gradually undergoing transformation into a form of monomania, and steady recovery under specific treatment—these were the chief phenomena.

It is strange that his true condition was not recognised some two or three months earlier than it was, and whilst he was still in prison. Had this been done, the mental derangement might have been cut short by specific treatment, the patient have been spared some months of pain, and the country a great expense, and the loss of an active, intelligent unit of the army.

CASE II.—*Many and severe occurrences, and long-continued symptoms, of constitutional syphilis. Doubtful attack, attributed to "sun-stroke." "Hepatitis," dyspepsia, cranial pain, vertigo, insomnia, dementia, failure of moral sense, tinnitus aurium, more or less anosmia and ageusia ; indications of organic changes in cerebral cortex and arterioles. Recovery under anti-syphilitic treatment.*

J. S. English. Private, Army Hospital Corps ; single ; aged 37 ; admitted Jan. 23rd, 1878, after 18 years' service, of which three were spent at Mediterranean stations, and six in India. This was

stated to be the first attack of insanity, and of uncertain duration, but to have become marked since August, 1877, and for it the patient had previously been under treatment at Aldershott, and, for 25 days, at Netley. The causes assigned were "hereditary predisposition, sunstroke, and constitutional syphilis." It was stated that the patient's mother died in a lunatic asylum, that his habits, latterly, had been temperate, and that he was neither epileptic nor suicidal.

In 1863-4-6 he was admitted into hospital for constitutional syphilis on six occasions, remaining, in all, 258 days, and being treated by mercury, potassium-iodide, tonics and sedatives. Again, in 1873, he was in hospital four times for otitis, and periostitis tibiæ. In June, 1875, he is said to have had "sunstroke," followed by "hepatitis," and by general debility. After five months' treatment he was invalided to England, but was retained in the service, and was transferred to the A. H. Corps in 1877. At Aldershott, whilst under treatment for "dyspepsia," supposed to be due to hepatic disease, he was said to have been suddenly attacked "with symptoms of dementia" on September 23rd, 1877, but probably the symptoms were of longer standing. At that time he became fidgety, restless at night, scrubbed or brushed objects without any reason, pilfered and secreted articles, and, though generally quiet and inoffensive, was sometimes noisy. He was supposed to be passing into general paralysis.

The medical certificates under which he came here from Netley testified to his then dulness of apprehension, impairment of memory, aversion to society and conversation, indifference and callousness, insomnia, proneness to steal and secrete articles useless to him, hesitating articulation, incipient loss of co-ordinating power over locomotion, rarity of speech, and incapacity to understand what was said to him.

On Admission here.—Height, 5ft. 8in.; weight, 170lbs. It is unnecessary to describe his physical condition in detail. There were, a bubo scar in the left groin, some irregularity of the left shin, and brown stains over the right. The pupils were small, irregular, sluggish; the face was dull and somewhat expressionless, the forehead rather contracted by action of the occipito-frontalis; the tongue only slightly tremulous and twitching after being protruded a moment; the writing slightly shaky, but fairly good; the speech slow, low in tone, deliberate, somewhat "singy," not tremulous, and not accompanied by any facial twitching, but becoming more natural at times. There was no evidence of local palsy; the grasping power of the hands was good; but the gait was rather awkward, swerving, and wanting in confidence. It did not appear why he thought the right leg the stronger. Sensibility to a touch, a pinch, and to local heat and cold was apparently fair. The habits were clean. He had had pain in the head, off and on, for a long time, "since the sunstroke," he said. The pain was "through the head and across the forehead," but he was not aware that it kept him awake, though he thought he did not sleep well. As to what period of the nycthemeron it was worse his statements were unreliable, owing to

failure of memory; worse it was by day, he said on this occasion. Arterial tension was diminished, he complained of a feeling of great cold, and any slight impression of cold produced shivering.

Dementia was extreme, the loss of memory very obvious; he could tell but little about himself, and could not place that little correctly in time. But no hallucinations, illusions, or delusions were discovered.

R. Potassii iodid., grs. vj; hydrarg. perchlor., gr. $\frac{1}{8}$; ammon. carb. grs. ij; ter in die.

Short abstracts from several of the notes of the further progress of the case.

February 22nd.—Still has cranial pain, especially at night, he now says. The pain is frontal, and there is some tenderness on percussion, principally at the left temple, and over the site of an old scar there. The shins also are tender. The breath is foul, the gum-line red. The mental state is almost unchanged. Omit the mercurial only, from the mixture.

March 20th.—The cranial pain is now only slight, but still the head becomes hot, he says, when he gets warm in bed, and there is frontal and slight tibial tenderness. He says he feels better, and "not so dull as he was," but sleep is still defective. He writes his name more readily than he did, his memory is much improved, and he now correctly answers simple questions relating to his past life. The pain he now says was worse at night. He is still slow and dull in every way, though less so than he was. The gums are swollen and spongy, in part, no doubt, from foul and carious teeth. The body-weight is the same as on admission. Increase the potassium-iodide to grs. xij thrice daily.

June 8th.—Cranial pain has now been entirely absent for a fortnight. The pain he now speaks of as having been more on the left side of the head, and as having been at its worst when he was warm in bed at night. There is still some tibial tenderness. The pupils and tongue are much as described on admission; and during speech there is still occasionally slight hesitation and partial repetition of a syllable, but the voice is louder, clearer, and more rapid and natural than it was.

Much that passed during the height of his attack is now a blank to him, but his memory is good for simple matters relating to his life prior to his illness. His attack began, he says, with severe pain in the head, followed by dizziness and insomnia, then he "became bad," and recollects but little of what ensued, but he heard "a buzzing in the ears," and lost the senses of taste and smell, which have since returned in a gradual manner. The emotional state is calm and neutral. The patient is industrious. Increase the potassium-iodide to grs. xx three times a day.

Subsequently to this date the patient gradually became more intelligent and quicker in perception and in action, but undoubtedly was by nature somewhat dull and sluggish. Cutaneous sensibility, special sensation, and patellar tendon-reflex, continued to be normal, but the

pupils were still somewhat small and sluggish, and slightly irregular, and the speech was still as mentioned in the note of June 8th.

He was finally discharged, *recovered*, on November 12th, 1878, having gained 14lbs. in weight since admission.

Remarks.—The only doubt that can intrude for a moment is, as to whether the sunstroke, from which he is said to have suffered in June, 1875, could have brought about that mental derangement which was first recognised in September, 1877, and was supposed to have existed from the preceding month. But in a history of this kind, the sunstroke, if it really occurred, could only well have acted as a predisponent. As Dr. Buzzard has observed, symptoms due to syphilitic nervous disease are often assigned to sunstroke, and perhaps this was an example of the kind. There was no history of the attack of insolation, and it was unknown whether palsy existed then or not. In this case, I think, there was somewhat diffuse cerebral pachymeningitis, and, perhaps, vertical leptomenigitis (to use the term of Lebert), together with syphilitic disease of many smaller arteries of the brain. By the prolonged use of specific remedies the patient recovered from what at first appeared to be a hopeless condition, yet the cerebral cortex only gradually resumed an approximately healthy state. The simulation of general paralysis was interesting; before his transfer to this place the patient had been looked upon as passing into general paralysis.

CASE III.—*Constitutional syphilis; rash, leaving slight cicatrices. Mental disease; periostitis of tibiæ, sternum, and right parietal bone. Subsequently, pericranitis, severe cranial and tibial pains, insomnia. Attacks in which the delusions and hallucinations became vivid, with tenderness and intense pain at the forehead and vertex, dissipated by large doses of potassium-iodide. An ague-like attack of several paroxysms. Scaly cupreous patches on the right calf. Melancholia, impairment of mental powers, hallucinations of sight and hearing, delusions of conspiracy and of persecution, leading at times to excitement, and even to violence. Recovery.*

O. D. Irish. Private 45th Regiment; admitted May 11th, 1875; aged 37; service 19 years. First attack, confirmed symptoms since the preceding December, but mental disorder undoubtedly of longer duration; previously treated in India, from December, 1874, then on voyage home, and then at Netley for fourteen days. The attack was attributed, in part, to climatic influences.

The family history was unknown. There was a history of constitutional syphilis, and of convulsive seizures, the dates of which were

not stated ; and at Netley the patient suffered from periostitis of both tibiæ, of the sternum, and of the right parietal bone. Whilst there, also, he was quiet, desponding, and of a suicidal tendency ; he was said to be subject to hallucinations of sight and of hearing, and delusions as to designs against his life, and as to conspiracies on the part of his comrades against him ; while perception, memory and judgment were stated to be materially impaired, and the thoughts confused.

On Admission here.—Height, 5ft. 8in. ; weight, 146lbs. Without describing the general physical state, it may be said that he acknowledged having had “gonorrhœa” in 1856, and “chancre and secondaries,” the latter consisting in part of a rash on the back and head, in 1871 ; also, that he subsequently had epileptiform convulsions. But he appeared to have had occasional fits for many years. The chancre had apparently left a slight preputial scar ; on the back was a slight cicatricial trace of the rash. Over both parietal bones there was tenderness on pressure ; and frontal pain was complained of at midday, and also, occasionally, at night. Besides this he had nocturnal pain over the left tibia and both parietal bones. The edges of the shins were slightly irregular. Hepatic tenderness was observed about three inches below the right nipple, but no marked increase of the area of hepatic dulness. Save for slight friction-sound at the left pulmonary apex, the viscera were otherwise healthy.

He stated that his comrades were hostile to him, that he formerly heard their voices insulting him, and that in various ways he was annoyed. Together with the depression and melancholia there was some readiness to become excited, but the hallucinations were now apparently in abeyance, and it was stated that he slept fairly.

R. Potassii. iodid., grs. viij ; potassii. bromid. grs., xx ; and ammon. carb., grs. iv. ; ter in die.

Abstract from certain of the further notes of the case.

May 30th.—He has now delusions about the attendants, similar to those mentioned above, and yesterday was considerably excited. His memory is bad, he is morose, surly and unsociable. Both by day and night, but especially in the early morning, he complains of severe cranial pain transversely across the temples. It is dull, heavy, constant, and compressing in character, and there is considerable temporal and frontal tenderness on pressure.

Later in the same day he was excited, talked strangely, the face and head were flushed and heated, and he complained of burning pain there. Pulse 120. Ordered to bed, and to take grs. xiv of potassium-iodide every four hours ; and an aperient at once.

On May 31st, and on June 2nd, he had fully-developed ague-like attacks, and at the latter date was still excited and under vivid delusions, and was directed to take grs. xiv of the iodide every three hours. Certain of the same symptoms returned on the 4th, only ; and a febrile movement on the evening of the 5th. No “antiperiodics” were given.

Furthermore under these large and frequent doses the cephalalgia

and cranial tenderness gradually passed away during the ensuing month.

In July he again became strangely excited and suspicious; entertained delusions as to the hostility of those about him, and suffered from hallucinations of hearing.

On August 7th the large and frequent doses of potassium-iodide were omitted, and a return was made to the use of the smaller and less frequent doses originally ordered. He had now been free from pain for some weeks, and was mentally far more composed and rational.

A week later he had slight nocturnal pain over the vertex and temples, and tenderness on pressure at the left temple, and was apt to be querulous, censorious and discontented.

In September the iodide and bromide of potassium were omitted.

In November he was again excited and full of delusions. Weight, 161lbs.; gain since admission, 15lbs.

February 24th, 1876.—Has had no pain for many weeks past, except recent lumbago pain. The left tibia is somewhat irregular and nodose on its edge. On the outer side of the right calf is a yellowish-coppery, hard, slightly elevated patch. He now says that the chancre was single, and was followed by a rash in about three weeks, but not by any bubo. Is quiet, entertains delusions of the old type, such as that the men of his regiment used to talk about his self-abuse; but the delusions are rather in the background, and no hallucinations exist at present.

Subsequently to this time the patient gradually improved, and was discharged, *recovered* on September 27th, 1876.

Remarks.—It will be noticed that when the patient became worse in June, 1875, and severe syphilitic pains were apparently associated with tertian ague, the doses of potassium-iodide were increased and taken more frequently, and the doses of the bromide and ammonium-carbonate were taken more frequently also, but no antiperiodic was given, and yet the tertian-like symptoms rapidly subsided. I pursued this course because at the time I had in mind the cases recorded by M. Zambaco and Dr. Thomas Reade, of Belfast, in which symptoms like those of intermittent fever were dependant upon syphilitic nervous disease.

The cranial and other syphilitic symptoms were unusually obstinate in this case, and potassium-iodide was taken, and for the most part in large doses, during a considerable period. In all, the patient was four months under the iodide.

Whether the insanity, which was intercurrent in late secondary, and early tertiary, syphilis, was actually caused thereby, I think very open to question; but there is no question that the syphilitic morbid processes or intoxication at least greatly aggravated the mental disorder by producing pain

and insomnia, if not more directly, and the mental state always worsened with the worsening syphilitic pain. It will be observed, however, that although improved, the patient had not recovered, mentally, when the potassium-iodide was discontinued; and that although there was subsequently a little cranial pain, and psoriasis of the calf, and occasional slighter return of mental excitement, yet the patient recovered (temporarily, at last), without the further aid of anti-syphilitics.

The patient's hallucinatory accusation of onanism, and his exposure to tropical disease, and to the effects of tropical climate, are suggestive of other immediate exciting causes of the mental derangement.

(To be continued.)

Case of Hysterical Chorea. Under the care of Dr. SUTHERLAND.

(See Report of Quarterly Meeting "Notes and News," Part iv.)

A. B., aged 53, staymaker; married. Has two children alive, one of whom has phthisis, the other some cardiac derangement.

Admitted at the St. George's Hanover Square Dispensary, 9th June, 1879. Father died at 84 and mother at 65. No nervous disorder in the patient's family.

She has been always healthy, excepting that she has occasionally suffered from cardialgia.

Twenty-five years ago she had an attack of chorea produced by anxiety concerning her husband, who was a soldier by profession, and engaged in the Crimean War.

No attack since that time of the same kind.

Six months ago she had an attack of tetanus, produced by her treading on a large nail, which penetrated her heel, and she was obliged to be fed with a spoon for a month.

Immediately after this attack, choreic movements commenced, the head oscillating from side to side both by day and by night, and this has continued with but little intermission for the last six months.

Sometimes the choreic movements extend to the extremities on both sides, but they are most violent in the left side of the jaws, and in the left leg, which is, as she says, sometimes "all drawn up in knots."

She is very weak, and can scarcely walk, although before the attack commenced she could walk twenty miles a day.

Right lung rather bronchitic; second sound of heart accentuated. Rather costive. Urinary and other functions healthy.

Treatment.—Pot. Bromid., liquor Strychniæ and Iron, followed by much improvement in the symptoms.

Prognosis.—Favourable.

Remarks.—It is unusual to see chorea in a person so old. “Dr. Sée has seen it in a woman 36 years old, in another 44 years of age, and in a man aged 59.” Trousseau saw it in a man aged 51, “Jeffreys in a patient 60 years old, and Powell and Maton in another 70 years old, while Bouteille saw a man aged 72 who was afflicted with it; and lastly, Dr. Henri Roger has recorded a case of chorea occurring in a lady 83 years of age.”

The incomplete history of an attack of tetanus, and the fact that the patient had a sham epileptic fit on the stairs of the Dispensary, seem to indicate that this case of chorea is strongly adulterated with hysteria.

Pseudo-Muscular Hypertrophy. By W. B. KESTEVEN, M.D.

In the “Journal of Mental Science,” January, 1871, was published a paper by the writer, on the Microscopical Anatomy of the Brain and Spinal Cord in a case of Pseudo-Muscular Hypertrophy. Two cases of the affection were related in that paper, one of which, dying shortly afterwards, I was enabled to make microscopical examination of the nervous centres. The other case survived until February of the present year, and I have been able also to examine the brain and spinal cord, and portions of muscle in this instance also. As the patient however, had not been under my notice for several years, I can only assume that the clinical history was much that of the previous case.

The following notes, therefore, of the pathological histology of the case are supplementary to the observation recorded at page 563 of this Journal, January, 1871 :—

Extreme dilatation of the vessels of the brain and cord were noticeable in the first case; these were also very obvious in the second, with the additional feature of greater tortuosity of the minute arteries, so that they seemed as if even in some parts they had been coiled upon themselves. The surrounding brain substance has been extensively removed as the result of the repeated vascular distension, so that not only are the so-called “perivascular spaces” more capacious than usual, but wide tubular tunnels are excavated in the cerebral tissue. The walls of the vessels themselves are also thickened.

Conspicuous even to the naked eye, on sections of the brain and cord, both coloured and uncoloured, are white spots of a morbid change that has been pointed out by Mr. W. H. Kesteven,* and designated

* “St. Bartholomew’s Hospital Reports,” vol. xii.

"Muscular Atrophy." The change does not consist merely in a substitution of lower organised material as in the "degenerations" of nerve tissue. On examination with a high power ($\frac{1}{8}$ th inch), these spots present the appearance of a skeleton leaf; the fine fibres of the neuroglia are seen with here and there a stained nucleus, but the contents of the nerve-tubes, the myelia, and axis cylinders are wanting. These spots average from $\frac{1}{80}$ th to $\frac{1}{100}$ th in. in diameter.

In the same section, and in sections also taken from the cord, there prevail a large number of spots of miliary degeneration, varying in size from $\frac{1}{80}$ th to $\frac{1}{1500}$ th of an inch in diameter. Like the preceding spots of insular atrophy, these resist the carmine dye. They are of irregular shape, some circular, some lobulated; they are amorphous, semi-opaque, and colourless. Their borders are well defined and are bounded by broken nerve fibres, and minute vessels tinged with the carmine. There would seem to be a relation of degree or transition between these two forms of degeneration.

In addition to the above lesions, I observed also some few scattered colloid bodies, while in some portions of the cord patches of disseminated sclerosis were seen. The nerve cells throughout had not undergone much deterioration, although here and there they are observed to be slightly granular and faintly pigmented.

A Wooden Reel impacted in the Vagina of an Insane Woman, ulcerating into the Bladder, and getting covered with Phosphatic Calculus. By W. KEBBELL, L.R.C.P.

I. F., admitted 1862. Died June 2, 1879.

Summary of Case.—This patient had been an inmate of the Gloucester County Asylum many years, and was suffering from chronic mania.

Early in April she had a severe attack of pleuro-pneumonia. After she had been ill for about three weeks, and was gradually getting worse in her general condition (in spite of the lung symptoms having subsided to a great extent), I examined her *urine*, and found it loaded with albumen; it contained also a good deal of blood, which varied considerably in quantity from day to day; it deposited also a copious sediment of phosphates, muco-purulent matter, shreds of epithelium, and was of very offensive odour. Since the patient had been ill, she had become very dirty in her habits, passing everything under her, and it was impossible to keep her dry for more than a few minutes at a time; when well, she was very clean in her habits. She used, however, to get out of bed, to pass water two and three times a day, passing, however, very little, and complaining of sharp cutting pain at the time; the greater part of her urine running away from her, she apparently being unable to hold it during her illness. She became very

demented mentally, and was unable to answer any question as to her condition and symptoms. She got gradually weaker, and finally died June 2nd.

Diagnosis.—Besides the lung mischief there was—

- (1) Disease of kidneys.
- (2) Calculus in the bladder.

The Diagnosis of Calculus was based upon the condition of the urine, together with the pain and difficulty in passing water whenever she attempted to do so, showing there was probably some great source of irritability in the bladder itself.

Post-mortem revealed considerable disease of lungs and heart, the details of which it will be unnecessary to mention, sufficient, however, in itself to account for death.

Liver.—Large, fatty.

Kidneys.—Small, pale, fatty. Cortex atrophied. Outer surface slightly granular. One cyst in left kidney on outer surface. Some slight peritonitis.

BLADDER.—Contracted; coats thickened and much disorganised, its inner surface torn and ragged and streaked with pus. Situated partly in the bladder and partly in the upper portion of vagina, its long diameter placed transversely and the greater portion of its bulk in the vagina, was a large, what at first appeared to be a phosphatic stone. There was a large irregular opening between the vagina and the bladder, which was filled by the calculus, but which no doubt allowed the urine to dribble away freely. In the bladder were also numerous fragments of soft crumbling phosphates. On sawing the seeming stone in half, it was found to be a wooden reel which had been pushed up the vagina, and by its pressure had caused ulceration of the roof of the vagina and floor of the bladder, and had forced its way partly into the latter viscus. It was covered with a thick layer of phosphates. How long it had been there it was rather difficult to say, but from its appearance certainly some weeks, possibly months, though *no symptoms* had been observed till within about six weeks of her death. The patient had exhibited erotic tendencies, was at times given to expose herself indecently, and was under the idea she was married to the chaplain.

Observations.—Of course a vaginal examination would have at once shown the real state of affairs, and would have, if it had been made sufficiently early, by allowing the removal of the foreign body, prevented the unfortunate results narrated above. Unluckily there were no symptoms to call attention to her condition, until the greater part of the mischief probably had been done, at least none were noticed by the attendants or myself.

Thinking then that the symptoms which latterly presented themselves were due to stone in the bladder, and considering

also how ill the patient was from other causes, no examination was made, and hence it was not until the post-mortem that their true cause was discovered. Until the patient was confined to her bed on account of her lung disease, there was nothing unusual noticed about her condition. This I have ascertained by careful inquiries, though from the thickly crusted condition of the reel and the mischief done, it would appear likely that it had been situated in the vagina longer than six weeks.

The case is instructive, as it shows how careful one should be to make an examination in all cases in which there is the slightest suspicion of a foreign body in the vagina, bladder, or rectum, and also the importance of warning the attendants to be very particular in noticing and reporting anything unusual in the condition of those parts, such as difficulty or pain in making water, inability of a patient to hold her water, and any abnormal discharge from the vagina or rectum either of blood or pus.

Laceration of the Oesophagus by a Fishbone; Death from Hæmorrhage. By A. R. URQUHART, M.D., Assistant Medical Officer, Warwick County Asylum.

J. L. was admitted into the Warwick County Asylum in 1853, labouring under dementia, having then been insane for three years. Up till May last the records of his case call for no remark. He was a confirmed dement of low intelligence, incapable of holding rational conversation, and requiring constant supervision. For many months he had been ravenous in his appetite, and given to bolting his food unmasticated; and as a precautionary measure was put on mince-meat. Notwithstanding, he was a determined purloiner of other patients' rations, and would swallow any sort of refuse with avidity.

On the 7th May J. L. must have surreptitiously obtained a fishbone from a neighbour's plate, or otherwise; though no proof of this was forthcoming during life. Next day he was noticed to be rather more ravenous than usual, and in consequence was fed by the attendant in charge. At this time he would throw the food out of his mouth as if it were too full; but his manner in general was so bizarre that this was attributed merely to his mental condition.

On the 11th May he went to bed as usual, having taken all his meals. Next morning, however, he was found to have passed a tar-like motion in bed, and on being removed to the adjacent bath he fainted. He was almost immediately seen by Dr. Wade (at 6.30 a.m.), who found him presenting the general appearance of a person recovering from syncope. The surface of the body was pale, but not cold; the pulse was small and feeble. He was calling out his own name in his usual monotonous chant.

A little brandy was given, which he swallowed with apparent ease, and thereupon seemed to recover his usual condition. At 10 a.m. he was reported "better" by the head-attendant. In the interval, while under constant observation, he had made no complaint of pain, merely saying he "felt bad" and was "going to sleep."

About an hour afterwards, however, he retched slightly and brought up some blood, and his voice became weaker, as he still continued to talk to himself. On the immediate arrival of the medical officer J. L. presented the appearance of a person recovering from an epileptic fit—some blood, mixed with saliva, dripping from his mouth. He was lying on his right side, the surface of the body was extremely pallid, the extremities cold, the limbs were thrown about restlessly, the conjunctivæ bloodless with widely dilated pupils, the tongue and lips blanched and tremulous. Bright red blood was seen to be oozing up the pharynx, without straining or retching. Pulse extremely small and feeble, 136 the minute. Loud râles in the throat rendered auscultation impossible, but the percussion note was clear all over the chest.

There seemed to be tenderness, with gurgling, over the epigastrium; but the patient was too incoherent to give expression to his feelings, and continued to talk incoherently to the end. The whole condition pointed to some excessive internal hemorrhage. Notwithstanding his moribund state, some brandy and a drachm of the liquid Extract of Ergot were swallowed, not only without apparent difficulty, but rather with avidity. The characteristic blanching and jactitation continued, though the visible hæmorrhage decreased, and he speedily sank, and expired about noon.

Sectio cadaveris twenty-two hours after death. Slightly built body, spare, and apparently bloodless. No discoloration of the posterior and dependent parts of the body. Colour generally pale or slightly yellow; abdomen greenish. Rigor mortis marked.

Cranium well shaped, dense throughout; almost total absence of diplôe. *Dura mater* thick, leathery, and non-adherent. *Arachnoid* thin and translucent, except a slight opacity over the posterior portion of the first frontal and vertex of ascending frontal convolutions, and on the under surface of the cerebellum. *Pia mater* easily separable from the brain surface. The *Cerebrum* was remarkable for the simple character of the convolutions, each separate gyrus being distinctly marked off, bold in its outline, and without intricate reduplication.

No apparent atrophy.

On section the brain was markedly pale and firm. Grey matter ill-defined and attenuated. Ventricles contained one-and-a-half fluid ounces of serum. Choroid plexus and velum shrunken. Marked absence of blood in the sinuse and vessels at the base.

Heart.—On attempting to open the pericardium the substance of the heart was cut into, and the pericardial sac was found to be entirely obliterated by old standing and extensive adhesions, which were torn down with much difficulty. The right auricle was so firmly attached

that it had to be removed piece-meal. The heart was small, and somewhat flabby. All cavities contained small clots of blood. Valves competent.

Lungs pallid and bloodless, but otherwise perfectly normal. There was no blood in the trachea.

Liver displaced to the right by the distended stomach.

Œsophagus.—On slitting up the gullet opposite the fifth dorsal vertebra was a sickle-shaped fishbone, which had produced extensive laceration of the parts. It was found lying transversely, imbedded in a grumous clot, the sharp ends penetrating the œsophagus and adjacent tissues on either side, thus causing most extensive hæmorrhage into the alimentary tract. The convex margin was directed downwards, the concave upwards, thus offering but slight resistance to the passage of soft food. The lacerations were comparatively slight on the right side, but on the left were several distinct patches of rents. These last extended quite through the substance of the œsophagus, and penetrated the adjacent tissues in dangerous proximity to the aorta, which, however, remained uninjured. The connective tissue for a considerable distance around was infiltrated with blood, and the clot in the gullet extended upwards to the epiglottis, and downwards to the

Stomach, where it distended the entire organ, and had become moulded to its shape. The only contained food recognisable was a few fragments of potato skin; and a careful search of the contents of the alimentary canal failed to discover any disease or foreign body—same as above noted. At the pyloric end of the stomach were a few blackish spots of injected vessels, and the mucous coat was thrown into folds as in the act of digestion. The clot adhered by tenacious mucus to certain parts of the stomach, but for the most part was enclosed in a semi-decolorised covering, which crepitated under pressure from contained air.

Small Intestine.—The intestines were distended with gas, and presented a slate-coloured appearance. The great omentum was thin, translucent, and contained but little fat. On slitting up the gut the contents were found to present the same general characteristics as those above described in regard to the stomach; but with a remarkable *stasis* of the clot from about ten feet from the pylorus to fifteen inches from the ileo-cæcal valve—the duodenal and iliac extremities being perfectly empty, while within the above limits the blood adhered to the mucous lining, almost as if it had been extravasated therefrom.

Great Intestine contained characteristic tar-like fœces, and an incipient fibrous stricture was found about sixteen inches from the anus.

Bladder very small, walls much hypertrophied—about $\frac{5}{8}$ inch thick. Diameter of organ about 2 inches. Only a few drachms of urine retained in it.

	WEIGHTS.	oz.
Clot in Stomach		23 $\frac{1}{4}$
Clot in Intestines		12

This case presents much interest from the complete masking of the symptoms during life by the degraded mental condition of the patient. Until he was *in articulo mortis* it was impossible to form any idea of the nature of his injury. Instead of the ordinary symptoms of a foreign body in the œsophagus—instead of pain, dysphagia and mental distress, the patient appeared in his usual condition, but for an apparently improved appetite. It is indubitable that the bone remained in the gullet for four days without causing an urgent symptom, and it could have been only on division of some arterial twig that the fatal hæmorrhage was set up. But, even in the most favourable cases, uncomplicated by mental disease, the extraction or propulsion of such a dangerous mass would have been a most hazardous undertaking.

Note by Dr. Parsey.—The only other fatal casualty in this asylum consequent on an impaction in the throat, not immediately fatal, occurred about eight years ago to a male idiot, æt. 52. Three days before his death his attendant reported that, during his evening meal, consisting of tea and sop, he appeared to choke, and some sop, streaked with blood, was expelled from the mouth by coughing. When his mouth was cleared he finished his tea. On medical examination later in the evening, a soft swelling was found extending from under the right ear behind the ramus of the jaw, with some general fulness down that side of the neck. Nothing abnormal could be detected in or about the fauces, but swallowing of soft or liquid food was performed with evident difficulty. Two days afterwards he coughed up a quantity of purulent matter, and there was great constitutional disturbance. On the following day he died in a state of general exhaustion.

At the *post-mortem* examination a piece of thick end of the bone of a neck chop was found impacted in the lower part of the pharynx on the right side, in a position not materially to interfere with the passage.

The surrounding soft tissues had passed into a state of gangrenous inflammation.

OCCASIONAL NOTES OF THE QUARTER.

Habitual Drunkards' Act, 1879. (42 & 43 Vict., Ch. 19.)

With some modifications, the Bill, as brought in, an abstract of which is given in our last number, p. 223, has become law, and comes into operation Jan. 1, 1880, to be in force until the expiration of ten years.

“Habitual Drunkard” is now defined to be “a person who, not being amenable to any jurisdiction in lunacy, is, notwithstanding, by reason of habitual intemperate drinking of intoxicating liquor, at times dangerous to himself or herself, or to others, or incapable of managing himself or herself, and his or her affairs.”

It will be observed that it is not said that the habitual drunkard must not be a person of unsound mind. It need not be said that we are constantly meeting with persons of unsound mind, who, unfortunately, are not amenable to any jurisdiction in lunacy. But for this distinction the introduction of such a clause would be exceedingly embarrassing for those who may have to decide whether A. B. is or is not a suitable person to become an inmate of these new Retreats. (By-the-bye, it is a pity that this appellation, which bears so distinctive a character, and has so special a history attaching to it, should have been appropriated to the present object.) The voluntary nature of the admission into a Retreat is the element of this Act, which will serve, we fear, to greatly limit its utility to habitual drunkards, who are a torment to their friends, and from whom, undoubtedly, they ought to be protected. How many will *sua sponte* consign him or herself to a year's confinement and restraint? Surely very few. No remedy whatever is, therefore, provided for the large majority of cases in which the selfish and often violent habitual drunkard is wasting the property of his family and bringing it down to perdition. It would be a different thing if such could be brought under the arm of the law and effectually punished and kept permanently out of mischief. But every one knows that punishment can only be inflicted in a relatively few instances, and that, after a short imprisonment, the sinner only returns home to repeat his misdeeds. Will private enterprise be encouraged to undertake the provision of institutions for so doubtful a supply? We shall see.

Inebriate Retreats are to be inspected twice in the course of the year.

The following is the form of the request for reception into these institutions :—

I, the undersigned, hereby request you to receive me as a patient in your Retreat at _____, in accordance with the above-mentioned Act, and I undertake to remain therein for [a period not exceeding 12 calendar months] at least, unless sooner duly discharged, and to conform to the regulations for the time being in force in the Retreat.

The above-named signed this application in our presence, and at the time of his so doing we satisfied ourselves that he was an habitual drunkard within the meaning of the Habitual Drunkards' Act, 1879, and stated to him the effect of this application, and of his reception into the Retreat, and he appeared perfectly to understand the same.

Dated this _____ day of _____

Justice of the Peace for the County
[or Borough] of _____

Witness's Name in full _____

Applicant's Name in full _____

Address _____

Address _____

Description _____

Description _____

The Local Authority, upon whom the power of granting a license rests, is to consist of the Justices of the Peace for the Borough, or City, in Special Sessions assembled, or in the case of the County, of the Justices of the Peace for the County or place in general or Quarter Sessions assembled. One, at least, of the persons to whom a license is granted shall reside in the Retreat, and be responsible for its management. A duly qualified medical man shall be employed as medical attendant of such Retreat, provided that when the name of the licensee shall be in the Medical Register he may himself act as such medical attendant.

No license shall be given to any person who is licensed to keep a house for the reception of lunatics.

If an habitual drunkard escapes, it shall be lawful for any justice or magistrate, having jurisdiction in the place, upon the sworn information of the licensee of such Retreat, to issue a warrant for his apprehension at any time before the expiration of his prescribed period of detention; and he shall be brought before a justice or magistrate, and may, if he should so order, be remitted to the Retreat from which he had so escaped.

Notwithstanding the array of Lunacy Bills, abstracts of which were given in the July number, the above is the only one which passed the Legislature. Much cry, little wool!

PART II.—REVIEWS.

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

A book like the one before us is received by the reviewer with very mixed feelings; he is most anxious to see the latest thoughts of a leader in the profession, to hear the life-long experience of a skilled and conscientious observer about a most fatal but interesting disease, but he is sorry to see so large a book which contains not only the special thoughts of the author, but vast masses of other less interesting matter. In such a large volume, reference is made to many subjects and views that have already been sufficiently discussed, for a book of this kind is not likely to be read by any than specialists, and for them much that is treated in full is already well known, and scarcely required further discussion.

The book itself is very large, and, like most French scientific books, well printed, but so badly bound that it is in pieces before it is half read.

The contents are carefully divided and arranged, and the headings of the chapters are useful aids, though they do not make up for the want of an index.

The *résumé* at the end of each chapter is most useful, and is so complete that, if printed separately, they would make the most useful book on general paralysis in existence. The plan of the book is encyclopædic rather than clinical, so that every possible cause, complication, or symptom has its own paragraph. This is necessary for completeness, but at the same time is a little tedious, for the same statement is constantly being repeated in different sections.

The two chief features of this book are perfect certainty that all general paralysis is one disease, due to congestion, and that this congestion may be relieved or cured by anti-phlogistic treatment. Our author will not admit that there can be a general paralysis without mental symptoms.

At the end of the book are a series of very good coloured plates, that represent very well what is seen post mortem, the colouring being a little too high in some; the plates, however, are some of the best and most truthful we have seen.

In order to do justice to this important book, we purpose going carefully through it, giving an epitome to a great

extent of its contents. This the reviewer of a scientific work can do, while the reviewer of a novel must conceal much, and find fault with forms of expression rather than with facts.

In his preface, M. Voisin says that he regards general paralysis as an inflammatory disease, considering that ordinary insanity may pass into and become general paralysis, and that such disease is not quite incurable.

Chapter I. begins with a very complete but lengthy definition of the disease, collecting and mixing the chief symptoms, and pathological lesions. Considering the disease as a general encephalitis, and objecting to authors who would prefer to have some more restrictive term, M. Voisin states that he cannot see that there is any justice in comparing such a name with "general inflammation of the chest contents."

As we shall see later, disease does select special points of attack, and is not general even in encephalitis, and just as the general diseases of the cord have been localized, so will those of the brain be in course of time.

Our author considers general paralysis to be but one disease, because similar symptoms appear sooner or later. He supposes that there may be a centre, the inflammation of which sets up ideas of exaltation; in fact, that there is a centre of grandeur. This is a rather fanciful idea, for we think we must look upon ideas of grandeur as the results of unchecked, uncomparated ideas, freely presenting themselves before the mind of a person whose power of control is lost; at any rate, we do not expect a centre of grandeur any more than we do one of will.

In considering the disease, the following order will be pursued, examination of the prodromal stage, then simple general paralysis (*i.e.*, an uncomplicated case), next, the varieties of general paralysis, and lastly, the complications.

The prodromal period is said to be often "three months." This is the time in which to cure, if at all; the symptoms may be moral or physical, and here our author is most elaborate in dividing these heads into many sub-heads. The facts are interesting, as it is rare to see cases early enough, or to get correct notices of the earliest symptoms. M. Voisin considers that neuralgic pains, especially about the head, changed feelings of heat, cold, or electricity are common as prodromata. On the sensory side, noteworthy among others are feelings, as if the patient were light as a bird, feelings of dullness, singing in the ears, general dyspeptic symptoms,

and irregular menstruation. On the mental side, he speaks of sleeplessness, and rather startles us by saying that a tendency to sleep after meals is an early symptom. The most important symptoms may be of an expansive, depressed, or demented character, or all these changes may occur; the change in character, M. Voisin thinks, does not take place on the line of the ordinary character, but that there is a perversion; the patients are rarely vindictive, but are childlike, easily roused and easily calmed; they are talkative and full of plans. We need not follow the author in detail through his careful arrangement of symptoms, which are so well known. He believes much more in sexual excess as an early *symptom*, than as a *cause*, and mentions the fact that premature frigidity may occur, and refers to what we have seen mostly in medical men, *i.e.*, the mental hypochondriasis, that causes the patient to complain of fear that he is "going mad." He then goes on to notice the habit in simple weak-mindedness of some patients constantly making use of some one word, such as "thing," for other words which they have forgotten. Useful reference is also made to peculiarities, as seen in the two sexes, and in different professions; thus, a woman ceases to be a good manager, though still able to reckon sums, and a good soldier may become unpunctual. It is not easy to be sure of these early symptoms, and still more difficult to give their somatic origin. Like causes may produce general paralysis and acute mania, and the symptoms may be so similar, that time only can clear up the question. M. Voisin makes an arbitrary intermediate period, commencing from the time when the insanity is developed, and lasting till the somatic troubles, essential to general paralysis, appear. If, however, this period lasts more than two years, he does not call it an intermediate period, but considers the symptoms as belonging to simple insanity, which then passes into general paralysis. This seems to us to be very unscientific, for, if this disease is one and distinct, we cannot understand another passing into it; a typhus, if it last twenty-one days, does not become a typhoid. In the above way, a remission of more than two years is considered as cutting off the earlier symptoms altogether from the later. All this is arbitrary, and, to our mind, confusing; the intermediate stage may be just under four years, *viz.*, nearly two years of the first stage, and nearly two years of remission. In this stage the symptoms must by the definition be psychic alone, and there need be no such period at all; the physical symptoms

may be the same as in the prodromal stage, or may altogether disappear.

Neuralgic and other pains may be lost, this intermediate stage may be the first, there being no prodromal period; hence, in sudden attacks of acute mania, we fear general paralysis. The mental symptoms are of two orders, either assuming the character of any simple insanity, or else of weakmindedness.

Next we find discussed the somatic troubles, which are classed under five main heads, and a large number of accessory signs are added. The chief symptoms are—1. Loss of smell. 2. Trembling of speech. 3. Fibrillar trembling of lips and muscles of the face. 4. Pupil changes. 5. Fever. The leading accessory symptoms are related to changes in sensibility, motility, pulse and urine.

M. Voisin makes much of the loss or diminution of smell; suggests the use of pepper as a test, and says this loss is very constant, belongs alone to this disease, occurs earlier than other symptoms, and is easy of detection. If this prove to be true, it is certainly a very valuable addition to our aids to diagnosis, but our own experience does not accord with that of M. Voisin. We have tried a fair number of cases in the earlier stages, and as yet have not found one who could not detect and name the smell, if he would speak at all. The tremor of the lips is discussed, and a corresponding series of changes in the bulb discovered. The nucleus of the facial nerve is found diseased before that of the ninth. Fever is essential, serves as a basis of treatment, and is diagnostic.

We have long regarded the increased temperature as a very useful aid, but we are not prepared to admit it as constant. The most important facts about the increase of temperature are, that it is higher at night; that at irregular intervals of from a week to a fortnight it is for a day or two higher still, and also that it generally rises rapidly before a fit. In considering the accessory signs, M. Voisin furnishes many interesting details. The local anæsthesia, so common in the early stages, he considers due to congestion, which passes off, and the hyperæsthesia, which is rare, as due to congestion of the cord.

We agree with our author, that the visual troubles and appearance of the disc are of no diagnostic value in this disease. He points out a peculiarity of the eyebrows, that he thinks often occurs, *i.e.*, a separation at the nasal ends, and a tendency to weep, like a moustache. We, too, have

observed this, and with it have thought we also saw a weeping of the eyelashes, but neither symptom is constant, or even common.

M. Voisin will not admit that there can be such a thing as general paralysis without any mental symptoms. We, however, constantly meet with cases presenting the various somatic symptoms of the disease without there being any mental enfeeblement. Such cases are to be seen in every London hospital, but they are not kept in till the end; they may become insane years after, or, more probably, may pass into simple weak-mindedness, and be tended at home until their death. We have never satisfied ourselves that mental weakness must result from this disease, but we have never yet seen a patient dying of this disease who was in sound mind. If we accept the statement that intellectual loss is essential, we must admit that no disease is general paralysis, unless the anterior lobes of the brain are affected.

Speaking of ataxic troubles, M. Voisin holds that such symptoms in general paralytics are not increased by closure of the eyes. This opinion we cannot confirm, for though it may be true of ordinary cases of ataxia at intervals, both in this disease and also in general paralysis, we may yet have the symptoms present at one time and absent at another. This one would expect, for we certainly find the same parts of the cord affected in both diseases, and in both we get other symptoms, such as loss of patella reflex.

The grinding of the teeth, which is rare in the earlier stages, is alluded to, as well as the act of swallowing. The latter has seldom, if ever, been recognised as a symptom. In some cases there is a constant tendency to swallow, so that the patient looks as if he were always trying to get rid of something in his throat. This, in our experience, is not a common symptom in the earlier stages, but later on it is of considerable importance.

M. Voisin speaks of the pulse being full and compressible in general paralysis, while small and frequent in ordinary insanity. We would rather say that in general paralysis one may find a resisting high-tensioned pulse, or may have a full soft febrile one; the pulse varies much with the stage of the disease. The urine, too, is very variable in this disease. M. Voisin holds that its specific gravity is above normal, if there is excitement, and below, if depression is present.

We have examined the urine of general paralytics who were somewhat excited, and whose urine had a specific gravity of from 1.030 to 1.040.

In considering the psychic states, our author divides the expansive ideas into those of satisfaction ; of ambition, such as of riches and power, of simple exaggeration, and of ambition, with hypochondriasis, such as when a patient thinks his inside has been emptied, and the void filled with diamonds.

A much more important point for us is the consideration of general paralysis, in which the ideas are of a depressed nature. The relationship of melancholy symptoms to general paralysis was, for a long time, not recognised, and M. Voisin considers that it is only of late that many such cases have occurred. In these cases the disease is not suspected at first, and, when discovered, runs a rapid course. Under this class are described cases of active melancholia, melancholia with stupor, with religious depression, with ideas of persecution, and hypochondriasis. There is some difficulty in detecting the general paralysis in such cases, as the patients are so quiet, but careful observation will reveal some somatic troubles, such as tremors, irregular pupils, or, more important still, increased temperature ; and, beside these, the mental symptoms, though depressed, are not so rigid as in simple insanity with depression, and there is evidence of mental weakness. The most novel part in his account of this variety of general paralysis is a careful examination of the hypochondriacal cases, for M. Voisin, following Baillarger, attaches almost as much importance to special hypochondriacal symptoms as to exaltation. He thinks that all cases having these hypochondriacal delusions have inflammatory mischief in the brain, which may stop short and become simple insanity, or else may go on into general paralysis. This seems doubtful, or, at any rate, unproven. The symptoms of the special hypochondriasis are : delusions of obstructions, or of loss of viscera, or ideas on the part of the patient that he is dead, dwarfed, wasted, or has become a child. This last M. Voisin calls micromania, and though its occurrence is rare, he looks upon it as an almost certain sign of general paralysis.

Whatever the earlier symptoms of general paralysis may be, the one needful is dementia. This is so much a matter of belief that some authors only recognise dementia, regarding the other symptoms as accidental. In the cases one sees at general hospitals, if they all end in paralytic dementia, we can only repeat that we have often been unable to detect the slightest mental loss, long after the somatic troubles have been marked.

The dementia varies greatly in its degree. No single

symptom, bodily or mental, is pathognomonic, the disease consisting of both.

We now come to consider the second period of general paralysis. The general symptoms are taken in detail by M. Voisin, and re-examined almost to tediousness. These have, at this stage, become more marked, and some of the accessory symptoms have assumed a distinct character. We frequently find statements made long ago, repeated by each succeeding author, without being verified. None is more commonly made about general paralysis than that in it electro-muscular contractility is intact. The writer has been at considerable pains to examine this question, and intends taking an early opportunity of publishing experiments, showing that in the earlier stages of the disease, especially with exalted ideas, the muscles are extremely irritable, while later on certain groups of muscles lose more and more their power of reaction. M. Voisin repeats the old error. In this second stage, it is said, the sight fails, and though the disc changes are slight, if any, the retinal arteries become narrow and contorted.

Again, our author speaks of the abolition of smell. This we cannot confirm, though taste is impaired. "L'aliéné ne sait pas manger," says Brillat Savarin, "il n'y a que le sage qui sait manger."

In the second period, besides the psychic and physical troubles, the so-called vaso-motor ones appear. Under this head M. Voisin proceeds to consider flushings, some irregularities of the pupils, pulse changes and fever. Fever in this stage is not so high, nor so habitually above normal, and may be below it. In the latter case M. Voisin thinks the fact may be due to uræmia, though of this we are doubtful. We quite agree with him that kidney changes are common in general paralysis, though we cannot with him attribute these changes to brain disease, but prefer to regard them as due to arterio-capillary fibrosis, or, at least, to general changes.

Among the ataxic symptoms of this stage noticed are the changed handwriting and the increased difficulty of speech. A very elaborate discussion on the alteration of speech and its special causes occupies pp. 122-136. Our author considers the hesitation to be due to want of muscular harmony, and finds alterations in the cells of the bulb, and not elsewhere. True paralysis occurs only in the later stages.

He describes "*l'anonnement*" as that embarrassment produced by retardation of presentation and emission of words,

syllables, or letters, the exaggeration of the open vowel sound "a." This may occur in writing, as in speaking, but most frequently in advanced cases; and the prognosis is grave, as he dogmatically says it is to be attributed to disorganisation of the anterior lobes. If this symptom appear early the progress of the case is steadily to dementia, and such cases rarely have fits. Active treatment is strongly urged with the faith of a believer.

Trembling speech is ataxic; this differs from scanning speech, in not being isochronous. "*Bégayement*" is simple repetition of syllables, and of little value as a symptom; "*bredouillement*" is precipitation in the emission of words, the muscles do not complete one act before beginning the next; this is paralytic rather than ataxic. Dumbness may occur early and pass off, or may result from muscular or mind defect. Special notice is taken of fatty degeneration of the tongue-muscles themselves, as described by Hanot. To sum up, "*l'anonnement*," "*le trainement*," "*l'hésitation*" are due to cerebral lesions; "*le tremblement*," "*le bredouillement*," and "*le bégayement*" to bulb lesions; and dumbness to cortical lesions and lesions of the muscles and nerves of the lips and tongue.

M. Voisin next proceeds to describe Falret's "agitation silencieuse," a silent, destructive, and restless tendency, and "machonnement." The swallowing is said to be more common in men than in women, and we have hitherto only seen it in male cases.

On the mental side, he says depression is more uncommon in this stage. A pulse-trace is given, but of this, as of all others in the book, we can only say that it does not satisfy us as being definite. He concludes graphically that "*bref, à la fin de la seconde période, le malade n'a plus de l'homme que la forme et le nom.*"

From the second to the third stage the progress is gradual. Marcé makes involuntary loss of urine and fæces the dividing symptoms. Besides accentuation of the other symptoms we get a genuine cachexia.

M. Voisin does not consider the term paralysis of sphincters justifiable, and thinks the dirty habits are rather due to carelessness or senselessness. As paralysis increases, he remarks that unilateral paralysis is more persistent than general paralysis, but hesitates in admitting Baillarger's explanation, that this circumstance is due to wasted convolutions. Dementia becomes marked "*et ces déments ont*

cessé de vivre avant de mourir." In cachexia we see at times a dull, dry, scaly skin, but more often a greasy skin, with a peculiar and offensive odour. The odour, we agree with M. Voisin, is very characteristic. Bed-sores, boils, phlegetenulæ may form, and one yet unexplained peculiarity is that while one boil or bed-sore is rapidly healing others may be in course of formation. Our author thinks these sores depend more on the brain than on the cord. His experience accords with our own in finding no special changes in the sympathetic to account for the troubles, his idea being that the local sores are due to local disease of nerve extremities. This, however, seems open to doubt, for nerve extremities would not be likely to repair rapidly. Blood-changes may have something to do with it. M. Voisin finds constant changes in the blood, and we have often observed what he describes—*i.e.*, the tendency of the blood under the microscope to run into many small aggregations, and not into large "rouleaux," the blood in mass not forming firm clots, but being diffuent. This he thinks may give rise to thrombosis.

The discussion of hæmatomata is short and rather superficial, but the subject has already been done to death. Our author thinks violence and some blood change are the chief factors.

Chapter V., containing the progress, duration, forms, and ends of the disease, is very important and well written, the facts being carefully ranged and classified. The difference is pointed out between *remissions* in which distinct improvement occurs, and *arrest* where stoppage of progress only is seen. From the existence of remissions Baillarger supposes that the congestive theory is supported as against that of sclerosis. The latter process would be continuous, but we know of continuous changes to which the body accommodates itself. Five forms of general paralysis are considered. Voisin holds that the progress in any case, as a rule, is uniform—*i.e.*, if the early stages are slow, so, too, will the later stages be slow; but we have many exceptions to this rule. He considers that any division of mental symptoms is impracticable, as they are so mixed and varied. He divides the cases thus:—1. Acute, rapid, or galloping. 2. Common, with expansive ideas. 3. Senile. 4. Demented. 5. Spinal. As crosses may occur between these species, Falret considers this fact a proof of the unity of the disease. The first form is very malignant, and rarely has remissions;

but M. Voisin is earnest in suggesting energetic antiphlogistic treatment.

The second form (in which fits are common) is met with more frequently in men than in women; often has arrests, generally proceeds to dementia.

The third form, or paralytic dementia, has no true delirium; the somatic troubles are slight, and remissions rare. The second form may pass into this by "appropriate and fortunate treatment." In symptoms this is very like the next form, but the heart and arteries are not diseased, nor is the pulse-trace flattened. It is impossible to separate this from dementia due to hæmorrhages, or from softening affecting the brain; spinal symptoms may follow.

M. Voisin is specially proud of Species 4, which may be called his own. It is associated with atheroma of arteries, is rare, and its course rapid, rarely lasting two years; the tendency is to dementia. Adhesion of membranes is not so common. Atheroma is present. The treatment of these cases is not to be antiphlogistic. There are no exacerbations of temperature. The patients are lean and sallow, and there is often a "bruit de soufflet" at the base of the heart. This form may easily be confounded with lead, alcohol, syphilitic, or gouty nervous troubles.

(To be continued.)

A few Remarks on Proposed Lunacy Legislation. SIMPKIN and Co. 1879.

These remarks, in the form of a pamphlet, are the natural result of the outcry against private asylums, and may be read with advantage in connection with the President's Address this year, and the lively discussion which followed its delivery. Life would be very dull without some difference of opinion, and no one was disposed to blame the President for introducing so burning a question—the question, in fact, of the hour. It was done with good temper and moderation, and the same description applies to the observations now before us, written in defence of private asylums. The author's position is that their abolition, while a radical change, would not be a *reform* in the true sense of the word, and that hence the last state and position of the lunatic (questions somewhat lost sight of, he thinks, in this controversy) would be worse than the first.

We demur to the opinion expressed by the writer that this question is not one in which the public has felt vitally interested, and has only been excited into action by sensational articles in the general or medical Press. On the contrary, we believe that, rightly or wrongly, it is a fact that a large number of thoughtful men, quite independently of these articles, have grave and honest misgivings as to the theoretical justice of the present system of confining the insane in asylums in which the proprietor has a personal interest in their detention, these misgivings extending, though in a less degree, to other asylums; and our own observation has certainly been (to our surprise) that the tide of public opinion has not been allayed by the Report of the Select Committee of the House of Commons, reasonable as it would seem to be that such should be the case. Be this as it may, no harm, but good, must result from the temperate consideration of the whole subject; and to this end the anonymous author of these remarks has made a judicious and modest contribution.

PART III.—PSYCHOLOGICAL RETROSPECT.

French Retrospect.

By J. G. McDOWALL, M.B.

On Trephining in Epilepsy due to Injury of the Skull. By Dr. M. G. Echeverria.

In this valuable paper, a reprint from the "Archives Générales de Médecine," Dec., 1878, trephining in cases of epilepsy after injury to the skull is advocated. Of five cases operated on by the author four recovered, and one was much improved. After injury to the head convulsions may be developed at once, but generally appear after a long interval, sometimes of several years. In cases where immediately after injury, convulsions are associated with inflammation of the brain or its membranes, operation has proved very fatal. The more a fracture is comminuted and circumscribed, the more probably will it be followed by convulsion.

Injuries may be divided into pericranial and cranial. In the former the scalp only is injured, in the latter the skull and its contents. That injuries of the scalp may give rise to epilepsy, is proved by the occurrence of cases where recovery has followed incision or cauterisation of the cicatrix. Injuries of the scalp may result in disease of the

bone and changes in the dura mater, although no wound has been made.

In true cranial lesions, epilepsy appears when they give rise to irritation of the brain or its membranes. The cause of irritation may be depression, hæmorrhage, laceration, or disease of the bone, as caries or new formations. In these cases, epilepsy is developed with other nervous disease, and has generally premonitory symptoms. These symptoms are giddiness, pain in the head and at the seat of the lesion, twitching, numbness or shaking of the limbs, sudden shaking of the body, changes in character without insanity, exaggerated need of activity, or irresistible craving for alcohol. The author has collected from various sources and tabulated 145 cases where the trephine was used. Of these 93 recovered, 18 were improved, five unimproved, one became aggravated, and 28 died. The left parietal bone was the most frequent seat of fracture. The causes of death in the fatal cases were suppuration over the surface of the brain, extensive effusion of blood on the brain, sloughing of the membranes with abscess of the brain, hæmorrhage from the longitudinal sinus, meningitis and erysipelas and meningo-encephalitis.

The following conclusions are arrived at :—Trephining is the best treatment for epilepsy due to injury of the head. The operation is nearly as successful when performed at the time of injury as later, while in both cases the presence of fever contra-indicates operation. Paralysis or insanity are indications for, rather than against the operation. Trephining succeeds equally well whether the disease of the bone be syphilitic and unaffected by specific treatment, or due to other causes. Statistics of a large number of cases in which the trephine has been used show that the fatal cases amount to 19·30 per cent., recoveries to 64·30 per cent., cases relieved to 12·41 per cent., and cases unrelieved to 3·44 per cent. It is of great importance that the membranes be protected as much as possible during the operation, that silver sutures be used, and that all bleeding be checked before the wound is closed. Pus should have a free exit. To secure rapid union, ice should be constantly applied to the wound, ergotine and hemlock given internally, the bowels kept open, while a moderate diet and plenty of fresh air must be supplied. An anti-epileptic treatment should be kept up for some time after the operation.

Le Progrès Medical. (Oct., 1878—July, 1879.)

On Paralysis of the External Rectus. By M. Gaston Graux.

M. Gaston Graux presented his thesis to the Société de Biologie, in which he arrives at the following conclusions :—

1. On the floor of the 4th ventricle there is an area, very limited (*eminentia teres*), pathological changes in which give rise to a characteristic symptom—paralysis of the external rectus of one eye, with conjugate inaction of the internal rectus of the sound eye.

2. The paralysis of the internal rectus is not, in certain cases,

absolute ; it appears or disappears with that of the muscle of the other eye with which this paralysed internal rectus acts.

3. The presence of this symptom shows that the nucleus of the 6th pair is affected.

4. Paralysis of the internal rectus of the healthy eye is never seen with affections of the periphery of the 6th pair.

5. Central paralysis of the 6th pair may be differentiated from paralysis due to an affection of the periphery of that pair, by saying, that in the first case the secondary deviation of the healthy eye is an external, and in the second an internal strabismus.

From an anatomical and physiological point of view, M. Graux formulates the following conclusions :—

a. The nucleus of the 6th pair furnishes not only the motor nerve of the external rectus, but also a band to the internal rectus of the opposite side.

b. The internal rectus is also under the influence of the 3rd pair. In fact, a bundle of nerve fibres connects, under the floor of the 4th ventricle, the nucleus of the 6th pair of one side with the nucleus of the 3rd pair of the opposite side.

Tumour of the Ascending Parietal Convolution of the left side, in a Woman suffering from General Paralysis. Convulsions of the same side during life. By M. Magnan.

In this case the symptoms of general paralysis were present, and during eight years the patient had suffered at irregular intervals from convulsions of the left side.

After death the membranes were found thickened and adherent over all the right hemisphere. On the left side there were only two points of adhesion, but a tumour the size of an almond was found on the upper part of the ascending parietal convolution. M. Magnan, who exhibited the specimen, thought that the tumour had been of slow growth, thus rendering functional compensation possible, while the convulsions were due to the diffuse meningo-encephalitis of the right side.

Right Hemiplegia with Aphasia—Epileptiform Attacks—Cerebral Tumour. By MM. Bourneville and Poirier.

C. Sainral, aged sixty-five, entered the Salpêtrière in May, 1872, suffering from right hemiplegia, aphasia, and epileptiform attacks. The attacks were first observed in her forty-third year. In January, 1871, she suffered an attack of apoplexy. She had been of temperate habits, and a hard worker. Before the apoplectic attack she had been very religious, and of but limited intelligence. During her residence in the asylum she lost some of the few words she could utter on entering it.

In April, 1877, her condition was as follows :—

Face.—Wrinkles of forehead and eyelids equal, pupils equal, cataract of right eye. Right labial commissure effaced, left well marked, no deviation of the tongue.

Right Arm.—Arm pressed against the thorax, forearm flexed to a right angle, hand similarly flexed on the forearm, the four fingers flexed on the thumb. The joints are all rigid, and sensibility to pinching is retained.

Left Arm.—Normal.

Right Leg.—Thigh and leg are slightly flexed, foot normal. The hip joint is stiff, and the knee allows of further flexion, but not extension. Sensibility retained.

Left Leg.—The thigh and leg are flexed and the knee joint is rigid. Sensibility retained. The patient can raise the leg. There is no movement on the right side, but the left limbs can be used. There is no shaking or vermicular trembling.

There is no cardiac murmur.

Intelligence.—The patient can pronounce a few words. She understands most of the questions put to her, wrinkles her forehead, closes the eyes, puts out her tongue and laughs. She is emotional, crying when told anything unpleasant. She is dirty in her habits.

Since admission she has suffered four attacks of syncope, followed by vomiting. The epileptoid attacks are rare, and begin with a slight cry, the head is then turned to the right, and the mouth drawn to the right side. She does not bite her tongue.

In December she suffered an apoplectiform attack, and on the following day the sterno-cleido-mastoid muscle of the right side was observed to be contracted. There was no change in the condition of the limbs. She died on the following day.

Autopsy.—Skull slightly thickened and adherent in points to the dura mater, particularly in the line of the sagittal suture. Dura mater much thickened, especially over the anterior half of the left hemisphere, where it is cartilaginous in consistence. Sinuses distended with dark coloured blood. There are some adhesions of the dura mater to the inner membranes on both sides of the falciform process. At the level of the ascending frontal convolution and over the roots of the three frontal convolutions the membranes are very vascular, and adherent to each other and to the cortical substance. Cerebro-spinal fluid not increased. Vessels of pia mater injected over whole of convex surface, rather more on the left than on the right side.

Brain.—Weight 1170 grms. The arteries at the base are free from atheroma. The left hemisphere is evidently larger than the right, and in its anterior half presses on that hemisphere. The right hemisphere weighs 430 grms., the left 580 grms. On the right side the anterior cornu of the ventricle is partly effaced, and the posterior correspondingly dilated, otherwise the hemisphere is normal.

Left Hemisphere.—The middle of the ascending frontal convolution, and the posterior half of the second frontal convolution, present a surface of about three centimetres in diameter, of a deep red colour, smooth and of firm consistence. The first and third convolutions are pressed on, and are much wasted, particularly the third. The tumour has a

fibrillar appearance, and stretches towards the central ganglia without reaching them. The cerebral peduncles are normal. The left half of the pons varolii and the left anterior pyramid are slightly wasted. Cerebellum is normal.

Remarks.—The growth of the tumour has been very slow, the first fit occurring at 45 years, while the patient reached 71 years.

The association of the motor disorders with a lesion in the region where experiment and pathological anatomy have placed the motor centres of the limbs, is worthy of notice.

It is also to be observed that the sensory centres were normal, and during life sensibility was unimpaired.

Above all, the gradual and slow development of the aphasia corresponds perfectly with the gradually increasing pressure on the third frontal convolution.

Aphasia and Right Hemiplegia. By J. Déjérine.

The patient in this case was a woman of twenty-three. Three years before, while in good health, she was suddenly seized with aphasia. Two hours later the right arm became powerless, and on the following day the left leg and the face.

For nine months the aphasia was complete, but since then has gradually disappeared, and for a year she has talked readily. For some time before death, the facial paralysis was scarcely perceptible, the leg appeared much wasted, and its power greatly diminished. The arm was absolutely paralysed, and the forearm flexed on it. Some very slight power of movement remained in the fingers. Sensibility was unimpaired.

After death, from phthisis, the skull and membranes were found to be normal, on removal of the membranes, except that the anterior part of the left hemisphere, appeared smaller than the corresponding part of the right, nothing abnormal was seen. On cutting the brain perpendicularly, through the roots of the frontal convolutions on the left side, an old softening was found, with a cavity about $2\frac{1}{2}$ centimetres in height, one in width, and two in length. The lesion beginning in the middle pediculo-frontal fasciculus, extended downwards through the inferior pediculo-frontal fasciculus and implicated the lenticular nucleus and anterior part of the internal capsule. The anterior part of the cavity of the ventricle was considerably diminished. The right hemisphere was healthy. The left half of the pons varolii was much atrophied, as was also the left pyramid. The posterior part of the right lateral column of the spinal cord was sclerosed. The nerves of the limbs on the affected side presented well-marked hypertrophic neuritis.

Brachial Monoplegia. By H. Leloir.

F. A., aged 52, suffered from syphilis fifteen years ago. Four years ago he began to suffer severe pains in the head, and some months later from numbness and emaciation of the right arm, the arm becoming paralyzed. In spite of anti-syphilitic treatment, the paralysis remained,

and the patient died of tuberculosis in Dec., 1878. Sensibility in the affected limb was unimpaired, and the other limbs were quite unaffected.

After death, the lungs, digestive canal, and cerebro-spinal membranes were found affected with miliary tubercle. There were no granulations on the convex surface of the brain. Over the upper third of the ascending frontal convolution on the left side, there was a gummatous patch where the membranes were adherent to each other, and to the cortical substance, but not to the bone. This patch extended to within six millimeters of the median fissure. On removing the membranes, the subjacent grey matter and a thin layer of white matter were also removed. The cord and nerves to the affected limb appeared to the naked eye normal.

Revue des Sciences Médicales. (Oct. 1877 to Jan., 1879.)

As this Journal consists entirely of abstracts of other works, anything of interest can only, as a rule, be translated or very shortly noticed.

On the Cerebral Circulation. By Cadiat.

The anastomoses of the small arteries of the pia mater are so numerous, that they form, according to the author, a network on the surface of the convolutions. The circle of Willis may be taken as typical of the cerebral circulation. The veins also form a network. This arrangement of the arteries may be observed not only in man but in all mammals and fishes.

Another result of Cadiat's observations is to show that the arterial areas communicate with one another. A common vermilion injection thrown into any branch of the circle of Willis, injects a whole lobe. He made these injections for the purpose of discovering in the pia mater those vessels connecting the arteries and veins, vessels other than the capillary network properly so called. Their existence was proved by the fact that the injection of tallow and vermilion return very readily, and in large quantity by the veins, without having reached the capillaries.

Duret opposes the view of Cadiat, with respect to the network of the vessels of the pia mater. With opaque vermilion injections, it is impossible to decide when the vessels cross each other, when they overlie each other, or when they unite. Transparent injections, as gelatine, should be used, and the preparations examined with very varied powers. Anastomoses between the vessels of the pia mater exist, but are of slight importance, for Duret has often completely injected all the capillaries of the cerebral substance in the area of the sylvian, whilst the neighbouring areas were but slightly penetrated. Further, if the anastomoses form so rich a network, how are the frequency and extent of cerebral softenings limited to an arterial area to be explained? That communications exist between arteries and veins, other than the capillary network, Duret does not admit.

On the Cerebral Circulation in some Animals ; Correlation of Motor Regions and Vascular Areas ; Independence of Physiological Divisions and Lobulation. By Duret.

In man, the dog, the cat, and the rabbit, there exists a remarkable correlation between the area of the middle cerebral and the region called motor by Ferrier. The middle cerebral artery might be called the *artère motrice corticale*. The anterior cerebral corresponds more particularly to that part of the frontal lobe, the removal of which, as effected by Ferrier in a monkey, leads to an enfeeblement of intelligence ; this would be the artery of the *régions intellectuelles*. Lastly, the posterior cerebral occupies the parts of the cortex of the hemispheres, of which the cauterization, as performed by Ferrier, should give rise to hemianæsthesia.

There is no correspondence between the external configuration of the brain and the vascular areas. The lobes and convolutions are produced under physical, not functional, influences, and after studying the development of the brain from this point of view, the author arrives at the conclusion that the cerebral folding is due to 1st, the resistance of the skull ; 2nd, the density of the nervous substance, and, perhaps, to the radiation of the fibres of the peduncular expansion ; and 3rd, to a very slight extent, to the great arterial trunks.

In man there exists a special artery, a branch of the middle cerebral, for the third frontal convolution. In the dog, cat, rabbit, calf and sheep, there is a vessel with a similar origin and a similar direction and distribution. It is in the parts supplied by this artery, that Ferrier places the motor centres of the tongue, jaws and lips, both in man and animals. Duret extirpated the centres in dogs, to observe if phenomena analogous to those observed in man after lesion of the third convolution would arise. These animals were under observation only fifteen days, and appeared to have lost the power of barking.

This comparative study of the cerebral circulation renders a more natural co-ordination of the lobes and convolutions in animals possible. Thus, in the brain of the calf or sheep, the middle cerebral is relatively less than in other animals, one or two of its branches being absent, and there is nothing corresponding to the two Rolandic convolutions. It is in these convolutions, or, in the dog, in the sigmoid gyrus, that Ferrier places the motor centres of the limbs more particularly those of the fingers and toes. Again, it is known that ruminants execute scarcely any other movements than flexion and extension, and that they have only two toes on each foot. The delicate and varied movements of the fingers and toes being absent, it is not astonishing that the motor cerebral centres of the parts are very slightly developed.

These interesting researches show, as Charcot remarks, that too much importance may be attached to the name of any one convolution. The motor centres of the limbs are not always placed exactly in corresponding points in different animals. An absolutely regular geographical distribution need not be expected.

Charcot again remarks that in man the para-central lobule receives

blood from the anterior, and not from the middle cerebral artery. Now that part of the brain is motor, as lesions of its substance followed by hemiplegia of the opposite side have shown. This is an exception to the general law laid down by Duret.

On the Means of Hardening and Colouring the Tissues of the Nervous Centres. By A. Erlitzky.

After trying most of the liquids recommended for hardening the nervous tissues, the author has adopted the following solution:—Bichromate of potash, sulphate of copper, of each 50 centigr.; water 100 grammes. These two salts, dissolved separately or together, form a solution of a greenish colour, paler than that of the bichromate of potash. The brain and cord of a dog forty days old, removed an hour after death, were hardened in eight days.

For the human brain the solution must be slightly modified, 2·50 per cent. of bichromate and half per cent. of sulphate of copper being used. The liquid should be changed every day during the first week, and every two days during the second week, after which the hardening is sufficient to allow of very clean sections being made.

As to colouring material, Erlitzky has adopted the green methylaniline in aqueous or alcoholic solution of a strength of 1·5 to 2·5 per cent. The aqueous solution colours better than the alcoholic. To produce colouration immersion from twelve to twenty-four hours is necessary.

The medulla receives a very pale green tint, while the axis cylinders remain uncoloured. The nuclei of the cells with protoplasm are also coloured green.

The nuclei of the neuroglia are of a more intense green, as also the nuclei of the blood-vessels; the white blood corpuscles assume a green tint, the red become yellow. The cylindrical epithelial cells of the central canal of the cord are tinted a deep green, while nerve cells of all kinds remain uncoloured.

The author has tried the action of carmine on preparations coloured with the green methyl with the following result:—Weak solutions of carmine produce on preparations already coloured with green methyl several shades of colour. The nuclei and nucleoli of the nerve cells are red. The protoplasm of these cells, and the prolongations of the axis cylinder, assume a clear red colour. Connective tissue fibres are even clearer. The medulla remains of a greenish hue. The nuclei of the connective tissue, cylindrical epithelium cells, and the nuclei of the vessels have a violet colour. The large nuclei of cells with loose protoplasm become red, with a faint shade of violet.

To sum up, the green methylaniline is chiefly valuable in showing the nuclei of the neuroglia, and in making them easily distinguishable from the small nerve cells.

On Cerebral Blepharoptosis. By Landouzy.

Cerebral blepharoptosis, existing alone or associated with a monoplegia or hemiplegia, appears to depend on a central lesion, and acts as a cross paralysis. This latter character is important and new, for in

the classical cases the cause of a direct paralysis acted on a part of the nerve to the levator, between its origin in the orbit and its termination in the muscular fibres.

In the cases collected by the author there have not been lesions of the periphery, while central lesions have been constant. This central paralysis is partial, affecting only one branch of the third pair. It appears from the ten cases reported by Landouzy—

1st.—That the motor centre of the elevator of the eyelid should be sought in the posterior region of the parietal lobe.

2nd.—That this centre is not included in the motor centres of the limbs, since ptosis appears to exist as frequently alone as associated with hemiplegia.

3rd.—That among the nervous bundles which join to form the third pair, only those which reach the levator palpebræ appear to be connected with the hemispheres.

Like facial paralysis of cortical origin, cerebral paralysis of the third pair is always partial, which proves that if there exists for that pair distinct cerebral bundles, the motor centre of the branch to the upper eyelid is not more closely connected with the centre for the muscles of the eye than the centre of the inferior facial is with that of the orbicular, palpebral, and frontal muscles. From this point of view the clinique helps the anatomy, and proves that the fusion of the various bundles which form each third nerve does not occur in the hemisphere, for cortical or cerebral lesions, of whatever extent or situation, appear never to give rise to paralysis affecting both the levator palpebræ and the muscles of the eye.

Further, there do not exist two kinds of cerebral ptosis, the one cortical, the other central; central ptosis results, as central inferior paralysis of the face, from some central lesion which cuts the fasciculus to levator palpebræ between the cortex and the pons varolii.

As to the other branches of the third pair, they necessarily follow another course to the pons, for no lesion of the white fibres of the ganglia or of the cortex has produced complete paralysis of the common oculo-motor nerve. It is evident, then, that cross paralysees of the third pair are always partial.

With respect to diagnosis and prognosis, these considerations are important. It must be discovered if the ptosis depends on a direct lesion of the periphery or on a crossed central lesion. This is to be ascertained by observing the motor disorders of the face and limbs on the same side as the ptosis, whether there be impairment of intellect or sensation, and whether these disorders have appeared with, before, or after the ptosis.

On the Conservation of Associated Movements in Cerebral Hemiplegia. By Simoneau.

It is known that in hemiplegia of cerebral origin the orbicular muscle and the fibres supplied by the superior facial escape paralysis. M.

Simoneau, while admitting the clinical fact, shows that there exists a slight paresis of these muscles. He argues from the fact, previously pointed out by M. Potain, that the closing of the eye on the affected side alone is generally impossible, while the patient can readily close both eyes at the same time.

The author, in support of this assertion, brings forward eleven cases where paresis of the orbicular muscle was evident. These facts, even in cases where a real diminution of contractility in some fibres exists, is explained anatomically by the existence of commissural fibres, which connect the halves of the central nervous axis. The nuclei of the facial nerves are especially connected, and the stimulus given off by one hemisphere acts at the same time on the organs of the nerve of each side. The habit which certain groups of muscles contract of acting together must also be noted, but this cause is not sufficient to account for the phenomenon, and reflex action alone fails to explain it.

Broadbent, elsewhere, has shown that this rule is applicable to the muscles of the pharynx, to the diaphragm, in fact, to all the muscles of which the movements are associated.

Experimental Researches on some Points of the Physiology of the Medulla Oblongata. By Laborde and Mathias Duval.

From these researches it appears :—

1.—That the medullary nucleus of the sixth pair contains and sends anastomotic fibres to the nucleus of the common oculo-motor nerve on the opposite side. These fibres, in causing the simultaneous contractions of the external rectus on one side, and internal rectus on the other side, make certain the associated movements of the eyes.

These associated movements appear to have their functional centre in the medulla oblongata, in the region where the above-mentioned nucleus exists, while it is in the cerebellum or in the medullary prolongations of the cerebellar fibres that the co-ordinating centre for the general movements of the eye resides.

2.—The constant production of complete anæsthesia, with trophic affections of the eye after a lesion deeply affecting the lateral pyramids in their upper half, demonstrates the existence of medullary fibres belonging to the descending or little root of the trigeminal.

Note on the Results of Irritation of the Dura Mater. By Duret.

Irritation of the dura mater causes convulsive movements on the corresponding side of the body, particularly in the eyelids, muscles of the face, and upper limbs. Sometimes the movements extend to the opposite side. The movements are much better marked if the animal is not under the influence of chloroform.

If a small quantity of an irritating fluid be injected between the dura mater and the bone, contracture of the muscles of the same side occurs and increases with the spread of the inflammation. This irritation of the dura mater appears to act also on the vaso-motor nerves of the hemisphere and eyeball of the same side.

It will thus be possible for the surgeon to recognise whether a splinter of bone or foreign body acts on the brain or its membranes. In the former case convulsions will occur on the opposite side to the injury, in the latter, on the same side.

On Sclerotic Meningitis limited to the base of the brain. By E. Labarrière.

This special form of circumscribed meningitis is nearly always secondary, succeeding a vascular lesion, or some change in the neighbouring parts, particularly in the bones of the base of the skull. It is a rare affection, and as yet has been incompletely studied.

Tertiary syphilis is the chief, and, in fact, the only demonstrated cause, alcoholism affecting the membranes on the convexity of the brain, and tubercular inflammation running too rapid a course to produce sclerosis.

The patches of sclerosis are chiefly seen on the middle region of the base of the brain, and may be numerous and small, or combined. The fibrous thickening results in vascular changes, which may affect the floor of the fourth ventricle, the characteristic lesion being chronic arteritis. Gummata are by no means rare.

The symptom which points to circumscribed meningitis is persistent, severe headache, to which localised paralyses are soon added. The paralyses are generally motor, occur at irregular intervals, and affect isolated nerves. They may be transient, or permanent. Clinically the disease presents two forms, according as the disease spreads from before backwards, or in the reverse direction. The disease generally advances very slowly, the various paralyses requiring several years for their completion.

The chief symptoms of lesion of the medulla are hesitancy of speech, trembling of the tongue, and sometimes difficulty in deglutition. The disease may closely resemble general paralysis, or labio-glosso-laryngeal paralysis. Neuro-retinitis is a common symptom, and with polyuria, which is also common, should aid in the diagnosis. Apoplectic attacks, resembling those which occur in general paralysis, have been observed in some cases.

Bulletin de la Société de Médecine Mental de Belgique. No. 13, 1879.

1. *Note upon the Relations existing between Erysipelas of the Face and Insanity; Clinical Case.* By Dr. Lammerts-Van Bueren.

2. *On the Classification of Mental Diseases.* By Dr. Lentz.

3. *On Insanity due to "Zwangsvorstellungen."* By Dr. Von Kraft-Ebing. Abstract by Dr. Lentz.

4. *Metalloscopy and Expectant Attention.* By Dr. Hack Tuke. Translated by Dr. Morel.

5. *Report on the Guislain Asylum for 1878.* By Dr. B. C. Ingels.

6. *Eleventh Report on the Lunatic Asylums in Belgium, 1878.*

7. *Report on the Condition of Lunatic Asylums in the Netherlands, during 1869 to 1874.*

It will be necessary to notice only some of the above articles, and these briefly. Nos. 3 and 4 being reprints, call for no notice. In No. 2 Dr. Lentz does little more than direct attention to the classification of mental diseases, adopted by Schule, and published by him in his article in Ziemssen's "Cyclopædia."

1. This is a curious case, and the author believes that it demonstrates the existence of intimate relations between erysipelas of the face and insanity.

S. M. M. was admitted in 1863. She was in her twentieth year, and had suffered mentally during the five previous years. She had also during that time been under treatment for spinal meningitis. Her mother had laboured under several attacks of melancholia. On admission she was well-nourished, and her chest was healthy. She suffered from constipation. Over the last dorsal and first two lumbar vertebræ pressure or the hot sponge gave rise to pain. Her gait was tottering, and for six months she had used a stick in walking. She was intelligent and well-educated for her position in life, but very emotional and with exalted ideas.

Antiphlogistic treatment was adopted, galvanism employed, and iodide of potassium given internally, but the paralysis continued to advance.

Two months after admission she became irritable and melancholic, and shortly afterwards suffered from an attack of furious mania. Her chief delusion was that she saw the devil. When this attack ended severe erysipelas of the face began. Since that time nine attacks of mania have been followed by erysipelas of the face, and attacks of melancholia, with irritability, have been followed by slighter eruptions. On one occasion, after a prolonged attack of melancholia, conjunctivitis and small ulcers of the cornea became developed in the right eye. Any painful emotion was sufficient to provoke an attack of erysipelas, even quarrelling with her attendants or fellow-patients.

When free from mania the patient is intelligent, and has a good memory.

5. This is really an asylum report, and as such calls for no notice. We have enough in our own country. Still, there is one point that may be spoken of. It, like many other foreign asylum reports, contains most elaborate statistical tables. These might be of service to the members of a committee on statistics, appointed a year or two ago by our society.

7. This review, by Dr. Ingels, of an official report, is interesting, and may be consulted by any one anxious to know how asylums are administered in Holland. It cannot be said that the report points out any features of management which English superintendents would like to see adopted in this country. The Government inspectors report strongly against members of religious communities being employed as attendants.

PART IV.—NOTES AND NEWS.

REPORT OF THE THIRTY-FOURTH ANNUAL GENERAL MEETING OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

The thirty-fourth annual general meeting of the Medico-Psychological Association was held on Wednesday, July 30th, at the Westminster Palace Hotel, Dr. Lush, M.P., presiding. After the meeting of the Council, the general meeting assembled at eleven o'clock, the following members and visitors being present:—Drs. Burman, Bayley, Blandford, Bodington, Boyd, Bucknill, J. C. Browne, Beach, J. A. Campbell, Cassidy, Clouston, Courtenay, Chapman, Clapham, E. Eager, W. Eager, Evans, J. E. M. Finch, M. Finch, H. Gill, Glover, R. B. Gilland, Hingston, Johnson, Kirkman, J. M. Lindsay, J. G. McDowall, T. W. McDowall, D. Mackintosh, H. F. Manning, Mickley, Mould, Monro, Mickle, H. H. Newington, Orange, Paul, Parsey, Pedler, S. R. Philipps, Rayner, Rutherford, W. H. O. Sankey, Savage, Stocker, Sturge, Swain, Strange, Stewart, Sutherland, Hack Tuke, Harrington Tuke, Urquhart, J. B. Ward, Whitcombe, Wallis, Wickham, Walford, T. O. Wood, Yellowlees.

Dr. CRICHTON BROWNE, the retiring President, expressed his thanks to the officers of the Association for the manner in which they had lightened his duties during his year of office, and congratulated the members of the Association generally in having so able and worthy a President to take his place during the ensuing year.

Dr. Lush, M.P., then took the chair amid much applause.

The General Secretary, Dr. Rayner, presented the minutes of the last annual meeting, which were printed in No. CVII. of this Journal (October, 1878).

The minutes having been taken as read, were confirmed.

Dr. BUCKNILL moved that the hearty thanks of the Association should be tendered to Dr. Crichton Browne for the admirable manner in which he had conducted the business of the Association during the past year. His fairness, industry, diligence, and deep interest in the welfare of the Association were known to them all.

The motion being seconded by Dr. HACK TUKE, was carried unanimously, amid general acclamation, and was suitably responded to by Dr. CRICHTON BROWNE.

The next business being the appointment of a President for the ensuing year,

Dr. CLOUSTON rose and said that it had been suggested among members of their body that there was one important class of interests which had been hitherto unrepresented in the presidential chair—viz., the registered hospitals for the insane. These were very important institutions, and, therefore, should be represented—at all events, occasionally. A member from the North of England was to have proposed the name of the gentleman he was about to name, but unforeseen circumstances had prevented that member from being present, and it accordingly fell to his lot to propose the name of Mr. George W. Mould, Medical Superintendent of the Royal Lunatic Hospital at Cheadle. Mr. Mould was in every respect worthy to fill the chair. In his own district he was looked up to as an authority, and members present had had opportunities of judging of his capabilities. It was thought that this year they ought to have a good man to preside over their deliberations—a particularly good man—on account of the possibility of lunacy legislation. Mr. Mould lived at Manchester, which was within easy reach of London, and he was a gentleman who would take any amount of pains in the interests of the Association.

Dr. BLANDFORD seconded the motion, which was put to the vote and carried unanimously.

Mr. MOULD, in thanking the Association for the honour conferred upon him, stated that he would do his utmost to fulfil the duties of the office to the best his ability.

It was resolved, upon the motion of Dr. MURRAY LINDSAY, seconded by Dr. CAMPBELL, that Dr. Paul be re-appointed treasurer.

It was resolved, on the motion of Dr. RAYNER, that the present editors of the Journal—viz., Dr. Clouston, Dr. Hack Tuke, and Dr. Savage—be re-appointed for the ensuing year.

Dr. Boyd and Dr. Lindsay were re-elected auditors.

Dr. Rayner was re-elected general secretary, Dr. James Rutherford secretary for Scotland, and Mr. Maxiers Courtenay secretary for Ireland.

The PRESIDENT stated that three members of the Council would have to be elected in the place of Dr. Lalor, Dr. Rogers, and Dr. Fraser, who retired.

The following gentlemen were thereupon elected, without opposition, members of the Council:—Mr. E. Swain, of the Three Counties Asylum, proposed by Dr. PAUL; Dr. T. W. McDowall, of the Northumberland Asylum, proposed by Dr. MURRAY LINDSAY; Dr. Ashe, of Dundrum, Ireland, proposed by Dr. COURTENAY.

It was then resolved, on the motion of Dr. BODINGTON, that the next annual meeting should be held in London.

The Association then proceeded to the discussion of the new Rules, proposed by the Council, printed copies of which had been forwarded to the members prior to the meeting.

It was resolved that the proposed new Rules should be read by the General Secretary and considered chapter by chapter. (The Rules, as finally settled by the Association, will be found at the end of the Journal.)

After some discussion on Clause 2, Chapter 1, it was decided to strike out from the end of the clause the words, "and the protection of their interests, so far as these are in accordance with the other objects of the Association."

Upon Clause 3 being taken, a Member asked whether any duly qualified medical practitioner would be eligible as a member of the Association? when the CHAIRMAN pointed out that the wording of the clause would admit any person being a properly qualified medical practitioner.

Dr. STEWART thereupon enquired whether it was intended that they should admit lady practitioners? The words, as printed in the draft, were "medical practitioners," and with a view to avoid anything like a personal question, which might hereafter arise, he should propose that the words should be altered to "medical men."

The PRESIDENT observed that undoubtedly, as the words stood in the draft, any medical practitioner would be eligible, whether male or female.

Dr. HARRINGTON TUKE reminded the Association that some years back a question had arisen in reference to honorary members, who were not medical men. He should be glad to know what had become of those members.

Dr. RAYNER, the General Secretary, stated that one or two of them were still honorary members of the Society.

Dr. ORANGE pointed out that the question would arise at an election of members, but Dr. Stewart repeated that his object was to decide the matter at once, so as to prevent it coming up in that way as a personal question.

Chapter 1, as amended and printed in the Rules, was then agreed to.

In Chapter 2, Dr. CLOUSTON suggested that the Council should consist of the officers and *twelve* other members of the Association, instead of *six*, as proposed, *six* being a quorum, the Council to meet not less than *twice* a year. These suggested alterations were agreed to, and it was also determined to strike out the provision as to the Council voting by ballot.

In Clause 4 it was suggested by Dr. YELLOWLEES that the powers of the

Council in regard to the grant of investigation funds to committees should be limited, but Dr. HACK TUKE pointed out the difficulty which would arise if the Council had to wait till the General Meeting before the committees could be furnished with funds. Chapter 2, as amended, was then agreed to.

Chapter 3 was agreed to without alteration.

In Chapter 4 a new Rule was adopted, upon the motion of Dr. STEWART, seconded by Dr. WICKHAM, providing for the holding of intermediate meetings.

Chapter 4 was, with certain verbal alterations, then agreed to.

Chapter 5 was agreed to without alteration.

In Chapter 6 the Association decided, upon the motion of Dr. YELLOWLEES, to strike out a clause providing that one month previously to each Annual or Quarterly Meeting the Secretary should forward to every member a list of the candidates for admission as ordinary members, together with the names of the members by whom they were recommended. It was further decided to dispense with a composition payment of ten guineas as a life subscription, proposed in the draft Rules.

With certain verbal alterations, Chapter 6 was then agreed to.

Chapter 7 was passed in its entirety.

In Chapter 8 Dr. YELLOWLEES proposed, and Dr. MONTAGU FINCH seconded, that the clause, relating to diplomas to corresponding members, should be omitted; but after some discussion it was decided, by a majority of two, that the clause should be retained. Chapter 8 was then agreed to.

In Chapter 9 considerable discussion arose upon a proposed rule that the travelling expenses of the Secretaries for Ireland and Scotland, and of Members of Council, residing at a distance greater than fifty miles from London, should be paid to them from the funds of the Association, excepting in the case of the meeting of Council, held immediately previous to the Annual General Meeting.

Dr. CLOUSTON moved that this Rule should be struck out. It would cost so much money that it would very soon ruin the Association. He could say on behalf of the Scotch Members of the Council, that they did not consider that the funds should be spent in that way, but should be reserved for some useful purpose. Their balance sheet did not justify this heavy additional expenditure.

Dr. RUTHERFORD agreed with Dr. Clouston that the clause should be struck out, and seconded his motion to that effect.

Dr. MURRAY LINDSAY stated that the expenditure involved would not be so large as Dr. Clouston imagined. He would propose that the allowance should be limited—say to £15 a quarter. He referred to the advantage which the Association would gain in ensuring a more frequent attendance of country members at the Council Meetings.

Dr. BUCKNILL urged that the Rule should stand, it having been very carefully considered at the hands of the Council.

Dr. STEWART considered that Dr. Murray Lindsay had rather under-rated than over-rated the importance of bringing gentlemen from great distances, but he thought that the proposal would be a great tax upon the funds if the whole of the expenses were paid. He would consent to Dr. Murray Lindsay's limitation.

Dr. YELLOWLEES protested against the proposal as absurd.

Dr. HACK TUKE stated that he had opposed the proposed rule at the Council Meeting, and he should oppose it on this occasion. As to the compromise which had been proposed, he thought it unworthy of the Association. When those who were most concerned in the proposal which had been made, were altogether averse to it, he could not understand for what reason such a rule should be introduced.

The amendment by Dr. MURRAY LINDSAY in favour of the payment of the travelling expenses to a limited amount, was then put to the vote, and was lost by a large majority.

Dr. **CLOUSTON's** motion for the omission of the clause was then put to the vote, and carried. The clause was accordingly struck out.

Dr. **YELLOWLEES** then moved the omission from Clause 3 of a provision that if unable to attend personally a member might return his list for the ballot enclosed (without his signature) in an envelope, itself enclosed in another envelope containing also his name, addressed to the President, on or before the morning of the election.

Dr. **CAMPBELL** seconded the omission of the clause.

Dr. **PARSEY** referred to the difficulty of rousing the interest of distant members in this Association, diffused as it was over the whole kingdom. He hoped that the rule would be agreed to, as he felt sure that it would be attended by beneficial results to the Association.

Dr. **STEWART** supported the proposed rule, and referred to other Associations in which a similar arrangement existed.

Dr. **HACK TUKE** strongly supported the retention of the clause. If rejected, the Rule which preceded it would be so restricted in its operation as to render the proposed change in the election of officers almost nugatory.

Dr. **Yellowlees'** amendment having been put to the vote, was declared to be carried, and the clause in question was accordingly expunged.

Chapter 9, as amended, was then agreed to.

Chapter 10 was passed without alteration, as was also Chapter 11, with a small verbal alteration in the first clause.

In Chapter 12 Dr. **HARRINGTON TUKE** referred to the report of the proceedings at the Annual Meeting of the Association in 1877, and proposed that it should be clearly laid down that the General Secretary should be responsible for the correctness of the Reports of the Annual Meetings. A verbal addition to this effect was agreed to, and Chapter 12 was then approved.

In Chapter 13 some discussion arose upon the last clause which required that any member objecting to a decision of the Editor or Editors, or to the manner in which the Journal was conducted, or feeling aggrieved by any comments in the Journal, should submit any objections or complaints he might desire to make, to the Council before appealing to the General Meeting.

Dr. **HACK TUKE** said that although he thought the Rule as brought in by the Council was sufficiently clear, he had not the slightest objection to an amendment suggested by Dr. **BUCKNILL**.

The clause was ultimately agreed to in this form.

The new Rules, as finally amended and settled, were then declared to be adopted.

The next business being the presentation of the treasurer's accounts for the past year, Dr. **PAUL** submitted the balance-sheet, which will be found on the next page, the same having been duly examined and certified as correct by Dr. **Boyd** and Dr. **Murray Lindsay**.

M. Charcot, of Paris, and Dr. **Echeverria**, of New York, having been proposed as honorary members, in accordance with the Rules, by Dr. **HACK TUKE**, were unanimously elected.

The election of new ordinary members was then proceeded with to the number of 26, viz. :—

Clarke, Henry, L.R.C.P., Lond., H.M. Prison, Wakefield.

Roots, William Sudbury, M.R.C.S., Canbury House, Kingston-on-Thames.

Higgins, William H., M.B., C.M., Asst. Med. Officer, Leicester County Asylum.

Blanchard, E. C., M.D., The Asylum, Charlotte Town, Prince Edward's Island.

Crampton, John S., L.R.C.P. Edin., Assist. Med. Officer, Boro' Asylum, Newcastle-on-Tyne.

Kay, Walter S., M.B., Asst. Med. Officer, South Yorkshire Asylum, Wadale, near Sheffield.

Hicks, Henry, M.D., Hendon House, Hendon, Middlesex.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

The Treasurer's Annual Balance Sheet, 1878-79.

RECEIPTS.	£	s.	d.	EXPENDITURE.	£	s.	d.
To Balance—Cash in Hand	479 9 7	By Annual and Quarterly Meetings	...	...	36 3 6
To Subscriptions received	227 17 0	By Editorial Expenses	...	...	12 12 0
By Secretary for Ireland	32 11 0	Printing, publishing, engraving, advertising expenses, and postage of Journal	...	...	328 8 1
By Secretary for Scotland	48 6 0	By Printing and expenses of circulars for Meetings	...	...	15 14 8
By Sale of Journal, Messrs. Churchill	118 16 0	By Treasurer	...	...	6 6 0
				By Secretary for Ireland	...	...	0 4 6
				By Secretary for Scotland	...	...	7 4 6
				By General Secretary	...	...	0 19 6
				By Purchase of £205 7s. 10d. 3 per cent. Consols	...	...	200 0 0
				By Balance in Treasurer's hands	...	...	299 6 10
			<u>£206 19 7</u>				<u>£206 19 7</u>

Audited and found correct,

E. BOYD,
J. MURRAY LINDSAY, } AUDITORS.

J. H. PAUL,
TREASURER.

LONDON, July 30th, 1879.

Forrest, J. G. Stracey, L.R.C.P., Asst. Med. Officer, Camberwell House.
 Granville, J. Mortimer, M.D., 18, Euston square.
 Dodds, William J., M.D., D.Sc. Edin., Asst. Med. Officer, Royal Asylum, Montrose.
 Ronaldson, J. Bruce, L.R.C.P. Edin., Med. Officer, District Asylum, Haddington.
 Wood, William E. Ramsden, M.A., M.B., F.R.C.S. Edin., Bethlem Hospital.
 Lewis, W. Bevan, L.R.C.P. Lond., Asst. Med. Officer, West Riding Asylum, Wakefield.
 Birt, Ernest, L.R.C.P. Lond., Asst. Med. Officer, West Riding Asylum, Wakefield.
 Campbell, Colin M., M.B., C.M., Asst. Med. Officer, The Retreat, York.
 Nicholson, W. Rumney, M.R.C.S., Asst. Med. Officer, North Riding Asylum, Clifton, York.
 Thompson, Arnold, M.D., Sudbury, Harrow.
 Cobbold, C. S. W., M.D., Leavesden, Herts.
 Clark, Archibald Campbell, M.B. Edin., Royal Asylum, Morningside, Edinburgh.
 Sankey, H. R., M.B., Senr. Asst. Med. Officer, Prestwich Asylum.
 Gwynn, S. T., M.D., St. Mary's House, Whitechurch, Salop.
 Peacock, H. G., County Asylum, Melton, Suffolk.
 Squire, R. H., B.A. Cantab., Asst. Med. Officer, Whittingham, Lancashire.
 Seed, William, M.B., C.M., Edin., Asst. Med. Officer, Whittingham, Lancashire.
 Parkinson, John R., M.R.C.S., Asst. Med. Officer, Whittingham, Lancashire.
 Hood, Donald, M.B., M.R.C.P. Lond., 43, Green street, W.
 The Meeting then adjourned until three o'clock in the afternoon.

AFTERNOON MEETING.

Dr. LUSH, M.P., the President, again took the chair. In thanking the Association for electing him their President, he observed that he did not pretend to any special knowledge in psychology, and he could not believe that it was on that account that they had done him that honour. Possibly it had been the position which it had been his good fortune to hold in the House of Commons. In the address which he was about to read to them, he did not propose to enter into matters of science, but he should draw their attention to a few facts and statistics. He believed that, generally speaking, the vast mass of the people of this country took really little or no interest whatever in psychology; they were disposed rather to ignore it as a nuisance, and, therefore, it was only within the limits of an Association like this that facts could be thrown together and inferences drawn for the benefit of their fellow creatures. He then read his address, which is printed at page 309 of this Journal. (Original Article, No. 1.)

Dr. BODINGTON congratulated the members of the Association on having so able a President. In his (the speaker's) opinion the subject of licensed houses had been dealt with in the Inaugural Address with great moderation. He wished to draw the attention of the Association to a statement which was made to the Select Committee on Lunatics in 1859, by Mr. William George Campbell. That gentleman stated (p. 380)—“I think that great care should be used, when we surround asylums with so many safeguards, that we do not degrade them, and also those who keep them; I speak of licensed houses. . . . It is desirable to try and induce persons of the highest character only to take licensed houses and receive patients. I am afraid that by degrading them, and showing such extreme suspicion of all those persons, by treating every one who has the care of an asylum or licensed house as a person who is *prima facie* a man who would take advantage of his patients, and deprive them of their liberty for profit, we shall be doing an injury to the cause.” He stated that there was a strong feeling among private asylum proprietors that they

would be glad to get rid of the unpleasant position in which they were placed. Speaking for himself, he writhed under the charges that were made in all directions, charges calculated not to drive them into honourable and upright practices current among gentlemen, but to bring out the bad qualities in man's nature. He wanted to be released from all this, but he entirely objected to be driven out upon false pretences, upon charges that were untrue and baseless. If they were to be driven out, it should be upon some definite ground, either by proving the charges made against them, or else by the simple weight of public opinion. He, for one, was perfectly willing to acquiesce with public opinion. If public opinion should drive out the licensed house proprietors, and afterwards find out its mistake, it would be for public opinion to rectify the mistake. Consequently, he, for one, should not hold up a finger against any measure that might be brought forward in a fair manner. It had frequently been asserted that they could afford to despise all charges made against them in all directions. Well, take newspaper articles—articles in newspapers were certainly sometimes despicable in the last degree. They would remember the case of Peter Chance, which was brought before the notice of the Select Committee. Being a man of means, this gentleman's complaint was that he was committed by the magistrates, in conjunction, if he remembered rightly, with a Poor Law officer, to the County Asylum at Worcester. Thereupon the Birmingham newspapers published rabid articles about Peter Chance being incarcerated in a private asylum; yet he was never in a private asylum in his life. All those things they could certainly afford to despise; but the case was different when it came to this—that articles were published in a leading medical journal making wholesale attacks upon them—attacks not less virulent than the attacks in those journals and novels with which they were familiar. It was said, again, that they could afford to despise the medical journals—that journalism and journalists, and everything connected with them, might fairly be despised, and that they might snap their fingers at them all; but he could not forget that the "British Medical Journal" was the organ of eight thousand members of the medical profession, and if they were silent as to what had been said lately in its columns, they might, perhaps, be taken to acquiesce in the charges made. Now he, for one, was not content to sit down quietly under those charges. The writer talked about private imprisonment; he compared them to the officers of the press gang; he asserted that if such and such things happened, the private asylums would fade away; and he adopted throughout a tone of sneering and abuse which was unjustifiable and indecent in such a journal as the "British Medical Journal." These articles included all private asylum proprietors in one vague charge, without any specification of cases. It was simply a random hitting and slashing in all directions. Everybody connected with private asylums was included in the early part of these articles; no exception was made. It was true that afterwards, to some extent, some exceptions were made, but was it fair first of all to accuse a body of men such as the private asylum proprietors—most of them medical men, members of a profession which treats its honour as its own good—was it fair to accuse them first of all, and then to acquit a few of those asylums, which, according to the view of this anonymous writer, were to be retained? It appeared that in the article of the 12th April the writer had taken the report of the Commissioners in Lunacy for the year 1865, and had in a most unfair way run through the complaints made by the Commissioners in that year against private asylums. Now, he (the speaker) maintained that those were the most ridiculous and trumpery charges possible. He would undertake to take the reports of the public asylums, treat them in the same way, and find out similar charges against public asylums. He felt that the private asylum proprietors were at bay. They were a small body of men—about one hundred at the outside—but they had their honour at heart, and must stand up for it. He begged to propose that the most cordial thanks of the Association be tendered to the President for his able address.

Dr. HARRINGTON TUCKER, in seconding the vote of thanks, referred to the position held by the President in the House of Commons, and congratulated the members of the Association upon having so able a gentleman to represent their interests.

The expression of the thanks of the Association was then conveyed to the President by Dr. Rayner, the general secretary.

Dr. MONRO observed that the representatives of both private and public asylums would agree in feeling the great honour which Dr. Lush had conferred upon them by occupying the chair. It was at the present moment of the greatest importance that they should have a voice in the House of Commons. He happened to be the proprietor of an asylum of one hundred and fifty years' standing (laughter). His father, grandfather, and great-grandfather had all had their interests identified with it, and he personally felt very much these ferocious attacks. It was, perhaps, not what might be termed a very glorious cause to fight in, and therefore he had never been in the least inclined to answer any attack, but that was not because he had not felt it (hear, hear). Now, the very first thing he ever wrote was upon the subject of "Reform in Private Asylums." He would have them subjected to the greatest amount of inspection. With all his heart he wished they were at an end; but he did not want them to be pushed aside with an ill grace. One thing in these late attacks had been very unfair—that which concerned Lord Shaftesbury's evidence. They all respected Lord Shaftesbury; there was not a man in the kingdom in whose good opinion they would wish to stand higher than in his. But his evidence in 1859 and 1877 was about as opposite as anything could well be. In 1859 there was hardly a word bad enough for him to use about private asylums, but when he gave evidence before the Select Committee in 1877, one of his last observations was that so high was his opinion of private asylums, that if it should please the Almighty to impose such an affliction upon him, he hoped he might be treated in a private asylum. Therefore it was very unfair for writers to bring up Lord Shaftesbury's evidence in 1859. He hoped that they had all improved in twenty years. He was anxious, if private asylums were dispensed with, that his fellow proprietors and himself should be allowed to go out in a pleasant and agreeable way! The majority of the gentlemen in that room were connected with public asylums, and they could not help looking upon the proprietors of private asylums as a little party of interested men who were thinking too much of their private interests. If they were to be driven out—and he hoped they would be driven out—he was most particularly anxious that they should go out in favour with the country generally, and especially in favour with this Association.

Dr. MURRAY LINDSAY had been connected with an excellent private asylum, and thought that those members who were engaged in public asylums ought to tender their deep sympathy to those private asylum proprietors whose feelings had been so deeply wounded, and who had been, he thought, so unfairly and unjustly treated by the Press.

Dr. HAYES NEWINGTON said that he did not think that Select Committees were of any use unless the opinions given by the witnesses were held to with some consistency. A very eminent witness had already been quoted—viz., Lord Shaftesbury. There was another eminent witness who was present at this meeting; he referred to Dr. Bucknill. Would he be in order in reading what Dr. Bucknill had said before the Select Committee?

The CHAIRMAN ruled that under the circumstances the evidence proposed to be read would be admissible.

Dr. NEWINGTON then read the following statements made before the Select Committee by Dr. Bucknill, in answer to Mr. Dillwyn:—

I mean that private asylums in fact should be under County Boards, the same as pauper asylums?—"That resembles the constitution of a hospital for the insane. I think that there is ample room for the existence of both classes of institutions. I cannot express too high an opinion of the hospitals for the insane. I think that side by side with them the private asylums may

contrive to exist very well, performing a somewhat separate function."—In any case do you think it desirable that keepers of asylums should have a direct pecuniary interest in patients confined in them?—"If you had to begin *de novo*, I should say it would be a bad principle to adopt; but the thing exists, and there is a large interest in it, and it would be very difficult, and, I think, undesirable, to abolish it. The right policy, I think, is to try and improve these places as much as possible."—Would it not be desirable to get rid of them by degrees?—"I should be sorry to see them got rid of."

May I ask why?

"Because the best of them serve a very useful purpose. I do not know that the hospitals for the insane would quite replace them; certainly they would be very far from replacing some of the private asylums with which I am well acquainted."

Dr. BUCKNILL stated that he still entirely agreed with what he said at that time. There were many private asylums which he considered had served an excellent purpose, and it would be very difficult to replace them by public ones; but he was also obliged to add that there were many private asylums as to which it would be for the public benefit and the interest of the insane that they should be shut up as soon as possible. The difficulty seemed to be to determine which those should be. Members present would remember Lord Shaftesbury's description of some of the large asylums in the Metropolitan district. It was certainly long ago, but those asylums still existed.

Dr. BODINGTON asked if his lordship had not recalled his opinion?

Dr. BUCKNILL said that upon the present occasion he should be very sorry to enter more fully into the matter, but Lord Shaftesbury had stated in his evidence in 1877 that all that he had said in 1859 he adhered to.

The PRESIDENT—Do you mean he reiterated that that was existing in 1877 which he described in 1859?

Dr. BUCKNILL—No; he said, "All that I said in 1859 I adhere to at the present time," or words to that effect.

The PRESIDENT—He adhered to the truth of his statement; but did he mean to assert that that was the condition of things existing in 1877?

Dr. BUCKNILL—Yes, I so understood him.

The PRESIDENT—That was not the impression which Lord Shaftesbury's evidence left upon the minds of the Committee, or they would not have made the report they did.

Dr. BUCKNILL went on to say that the interests of private asylum proprietors were not so large as they appeared. There were 98 private asylums in England and Wales, and only one-half of them were licensed to medical men alone. The others were licensed to laymen or to women, or to medical men in partnership with medical men. Then all those licensed to medical men were not actually owned by the medical men they were leased to; so that the question was a very small one for this Association. The Association represented a very large body of men interested in the treatment of the insane. There were 500 public appointments connected with the insane in the three kingdoms. Besides that there was a vast number of men interested in the matter who did not hold public appointments. Looking at the 49 medical proprietors of private asylums, many of whom were not proprietors in any sense, it really became a very small matter.

Dr. SANKEY (Cheltenham) protested against this view, and said that it did not signify whether the private asylums belonged to the superintendent or to a company; to a few or to many; these were attacks upon the honour of the medical superintendents, and they were not only attacks upon private asylum proprietors, but upon public asylum officials, and, practically, upon every man who was a medical man. They were all interested in maintaining the honour of their profession.

Dr. HACK TUKE remarked—turning to quite another aspect of the Address—that he thought the President had taken a somewhat too gloomy view of the future in regard to the increase of lunacy. Members were aware that during the last few years there had been many causes for an *apparent* increase of insanity, and there was, he hoped and believed, no reason to suppose that there would be anything like the same ratio of increase in the future, although

he feared there was some real, as well as apparent, increase at the present time. In the nine years between 1859 and 1868 the increase of lunatics was 24·43 per cent., but between 1868 and 1877 it was only 16·83 per cent., showing a decline of 7·6 per cent. in the ratio of increase. The causes of the rise in the registered number of lunatics did not exert the same influence in the latter period, and he thought that a hundred years hence the reported number of lunatics would not be found to have increased in anything like the ratio at which it had been increasing during the last 50 years.

The next business on the agenda paper was a resolution proposed by Dr. Clouston, "That this Association petition the General Medical Council to have mental diseases made a subject of examination for all degrees and licenses to practice medicine in the United Kingdom." Dr. Clouston said that the present was a very good time to bring this subject forward, for the whole question of medical education was now undergoing a searching enquiry, and the subject of mental disease had attracted the attention of many members of the Medical Council as being a subject with which every medical man should be well acquainted.

Dr. BUCKNILL had great pleasure in seconding this proposal. It was a matter in which he had taken a strong interest, and he was very glad to find that it had the support of practical and energetic men. He had done what he could at the College of Physicians of London to get mental disease recognised as a subject for a license, as it is for a membership, and it would have been done some time ago had it not been for the Conjoint Scheme. Now that the whole matter was in its present state, he thought it was a happy and propitious time for the Association to advocate this very necessary extension of medical education.

After some further discussion, Dr. Clouston's motion was carried unanimously.

At this point Dr. BUCKNILL asked to be allowed to express the regret of his friend, Dr. John Gray, of Utica, that he had been unable to be present at the meeting to-day. He referred to it in connection with the preceding matter because Dr. Gray was one of the most successful of the teachers of mental disease. That gentleman had a very large class of students and medical men, consisting sometimes of 500 people, and patients were sent to him to examine and make his diagnosis before his class.

On the motion of Dr. BUCKNILL, an expression of the thanks of the Association was accorded to Dr. Blandford for the great time and trouble he had bestowed in compiling an Index to the "Journal of Mental Science." It was very carefully and thoroughly made.

The PRESIDENT said that before passing away from the question of private asylums, he should like to say a few words. He recognised a genial and kindly feeling on the part of all the speakers, and if on the side of the private asylum proprietors it had appeared that there was some little irritation and consequent warmth and energy of speech, it must not be wondered at, as it was a very natural condition of the human mind. As regarded Lord Shaftesbury's evidence, there was no doubt—taking it as an isolated portion of the text—that the observation quoted by Dr. Bucknill did fall from his Lordship's lips; but he (Dr. Lush) distinctly understood Lord Shaftesbury to make a most honourable retraction of all those charges as applicable now. He said—"I may name Ticehurst as being an asylum which it would be a national loss to do away with." They might extend his Lordship's observations to other asylums besides Ticehurst. He (Dr. Lush) felt satisfied that the whole tendency of the evidence of the Commissioners, and of Dr. Bucknill himself, and others who had a right to speak and to be believed, was that the charges against private asylums had fallen to the ground; the allegations which led to the formation of the Select Committee were without basis; and the opinion of the Committee was that the less vigour or strength there was in the report, the

more it would appear to the public that they had no reason to be alarmed ; and that thus Charlatanism would be checked. This was the reason that the report was so framed. It had had the effect of wonderfully quieting the public mind in the matter. There were, of course, a number of dissatisfied persons— that was a characteristic of our race—but he could not help thinking that if some of the writers on these matters since the examination of the Select Committee, had taken the trouble to read the evidence, a great deal of the writing which had appeared since would not have appeared at all. He thought that the matter should not be shirked. Although but “ a small question,” numerically speaking, still it was a high and lofty principle which was involved, and he did not consider it right that a body of men, who had worked for the public good should be reprehended and insulted in the way in which they had been.

The next business being a series of Resolutions to be proposed by Dr. Murray Lindsay,

Dr. LINDSAY said that the subject which he was about to bring before the Association was one of very great interest to those who were engaged in County Lunacy administration. It had been discussed lately at the Quarterly Meeting, and several resolutions had been submitted to that meeting, but eventually only one was passed ; but it was passed unanimously :—“ That in the opinion of this meeting, the granting pensions to the officers and staffs of County and Borough Lunatic Asylums should be no longer permissive, but compulsory.” Since that Quarterly Meeting that resolution had not satisfied him. If it were incorporated in an Act to-morrow, it would be of very little service to them. Something more definite was needed. He had, therefore, drawn up the series of resolutions which would be found on the Agenda paper. He had also communicated a copy of these resolutions to every Superintendent of Public Asylums in England, Ireland, and Scotland, asking for their opinions or suggestions. There were 109 in all. He had also been in communication with a large number of his professional brethren, and he was satisfied that there was a very general feeling of dissatisfaction with the present regulations. In one country they had a permissive system ; in another country they had a compulsory scale, but it was very unsatisfactory, and in Scotland there was no provision at all. He had accordingly come to the conclusion that the time had arrived when pauper lunacy might be considered to be public service, and when all the asylums in the three countries might be treated as in the same class. It might be interesting for members to know that the total number of replies from the 109 Superintendents had been 92. A few others declined to sign the circular, although in favour of some parts of the resolutions ; so that the percentage of replies was for England, 90·6 per cent. ; for Scotland, 73·9 per cent. ; and for Ireland, 77·2 per cent. The suggestions which he had received had been very numerous and very excellent, and he had modified his resolutions so as to embody, as far as possible the suggestions of his numerous correspondents. He would now propose his first resolution, viz. :—“ That the Clauses in the Lunacy and other Acts affecting the Superannuation of the Officers and Servants of County and Borough Lunatic Asylums and Metropolitan District Insane or Imbecile Asylums in England, the Royal Chartered, District, and Parochial Asylums in Scotland, and District Asylums in Ireland, require revision and amendment. That legislative provision as regards superannuation should include, and be made equally applicable to, the officers and servants of all the said Pauper Asylums in the United Kingdom.” He might mention that taking the total of his replies to the circulars, he found that in England all but one were in favour of this resolution, whilst in Scotland and Ireland all were in favour of it.

Dr. RAYNER seconded the resolution, which was carried.

Dr. MURRAY LINDSAY then moved Resolution No. 2, viz. :—“ That the power of granting retiring allowances to said officers and servants should no longer be merely permissive, but they should be entitled to claim pensions, as a

matter of right, after a certain period of service, and according to some fixed or known scale." Of the replies received from English Superintendents, all but two were in favour of this resolution, whilst in Scotland and Ireland the whole of the replies were in favour of it.

Dr. McDOWALL seconded the motion, which was carried.

At the suggestion of the PRESIDENT, No. 4 Resolution on the Agenda was made No. 3, and it was accordingly moved by Dr. LINDSAY, as follows:—"That Medical Officers should be placed under the Civil Service Superannuation Act, and at least on the same footing and scale with regard to pension as the Commissioners in Lunacy, and other first-class civil servants, viz., one-sixtieth for every year of service, ten years being added on appointment as Medical Officer. In estimating pensions, the whole of the several emoluments of the office, as well as the salary or wages, being the total value of the office, should be taken into account."

Dr. MURRAY LINDSAY stated that 84 per cent. of the replies in England, 94 per cent. in Scotland, and the whole of the Irish replies were in favour of this resolution. He might also mention, in reference to the proposal in the motion for adding ten years on appointment, that they might, perhaps, fairly claim fifteen or even twenty years. In Section 4 of the Civil Service Superannuation Act of 1859 provision had been made for special service, a designation in which he thought that their own service might properly be included. The words were "not exceeding twenty years." The whole of the section read thus:—"It shall be lawful for the Commissioners of the Treasury, from time to time, by any order or warrant, to declare that for the due and efficient discharge of the duties of any office or class of offices to be specified in such order or warrant, professional, or other peculiar qualifications, not ordinarily to be acquired in the public service, are required, and that it is for the interest of the public that persons should be appointed thereto, at an age exceeding that at which public service ordinarily begins; and by the same, or any other order or warrant, to direct that when any person now holding, or who may hereafter be appointed to such office, or any of such class of offices, shall retire from the public service, a number of years not exceeding twenty, to be specified in the said order or warrant, shall, in computing the amount of superannuation allowance which may be granted to him, under the foregoing section of this Act, be added to the number of years during which he may have actually served, and also to direct that, in respect of such office, or class of offices, the period of service required to entitle the holders to superannuation may be a period less than ten years, to be specified in the order or warrant; and also to direct that in respect of such office, or class of offices, the holder may be entitled to superannuation, though he may not hold his appointment directly from the Crown, and may not have entered the service with a certificate from the Civil Service Commissioners. Provided always that every order or warrant made under this enactment shall be laid before Parliament."

The PRESIDENT suggested that it would be a simpler plan to adopt the words of the Section, and say "not exceeding twenty years," and with this verbal alteration the resolution, having been duly seconded, was declared to be carried.

Dr. MURRAY LINDSAY then moved Resolution No. 4:—"That the regulation of the salaries, emoluments, wages, and pensions of the officers and servants of county, borough, district, and parochial asylums should be transferred to the Imperial Government, and the Treasury Capitation Grant of 4s, instead of going to the Union, or Poor Law Guardians, should be applied to the payment of said salaries, emoluments, wages, and pensions, as well as to the payment of the repairs of the fabric, alterations, and future extensions of the buildings." Seventy-nine per cent. of the replies from English superintendents, 70 per cent. of those from Scotland, and all of those from Ireland were in favour of this resolution. A few of his correspondents had objected to it, and raised the question as to how far the superintendents would be better off under Govern-

ment than under their present supervision; but it appeared to him that this was not a question as between magisterial and Government administration, for he thought that in a year or two some change would be inevitable, and they must make up their minds between administration by Government and administration by guardians. The management of guardians would not tend to raise the asylums.

Dr. KIRKMAN seconded the motion.

Several speakers having referred to the difficulty which would result from any attempt to divert the Capitation Grant of 4s. per week from its original source, Dr. MURRAY LINDSAY agreed to strike out from his motion that portion of it which related to the grant, and it was ultimately resolved:—"That the regulation of the salaries, emoluments, wages, and pensions of the officers and servants of county, borough, district, and parochial asylums should be transferred to the Imperial Government."

Dr. MURRAY LINDSAY then moved Resolution No. 5, viz:—"That service should be considered continuous or unbroken, notwithstanding change from one pauper, imbecile, or public asylum to another, or appointment to the Lunacy Board, and should reckon towards pension, but such service should be of not less than three years' duration in any one public asylum." Nearly all the replies he had received were in favour of this resolution.

Dr. RAYNER seconded the motion, which was carried.

Dr. MURRAY LINDSAY then moved Resolution No. 6:—"That there should be compulsory retirement after a certain age, or after a certain period of service, at least in the case of medical and other superior officers."

Dr. MURRAY LINDSAY stated that of the replies he had received 79 per cent. from England, 94 per cent. from Scotland, and 82 per cent. from Ireland were in favour of the resolution.

After discussion it was, however, negatived, on the motion of Dr. STRANGE. It was then resolved:—"That a copy of these resolutions, signed by the President, be forwarded by the General Secretary of the Association to the Home Secretary, and to the Commissioners in Lunacy for England, Scotland, and Ireland, and that a deputation be appointed to wait upon the Commissioners in Lunacy on the subject of these resolutions. That these resolutions be printed, and copies sent to all Members of Parliament, and to the Committees of Visitors and Asylum Boards of all the county, borough, chartered, district, and parochial asylums in the United Kingdom."

Dr. F. A. CHAPMAN then moved:—"That this Association should petition both Houses of Parliament, and present a memorial to the Home Secretary, calling attention to the present state of the law under which criminal and ex-criminal patients are sent to county asylums, and praying that it be remedied, and that if any deputation on this subject to the Home Office be formed, that this Association be represented in it." In moving the resolution, Dr. Chapman said that as time was running short, and the matter had been before the Association some five or six years ago, when a committee of the Association was appointed to carry out similar action to that contemplated in the resolution moved, it would be unnecessary to enter into the merits of the question, but he would only explain that there was a somewhat influential movement being at present made in the matter by visitors and superintendents of county asylums, and that it would be very desirable for the Medico-Psychological Association to add the weight of its influence and opinion. He did not advise the verbatim adoption of the petition drawn up by asylum visitors, as there were some expressions in it he could not recommend the Association to adopt, although the general sense of the petition was in harmony with the views held by the Association.

Dr. YELLOWLEES, in seconding the motion, observed that criminal lunatics were most undesirable inmates of a county asylum.

The motion was carried unanimously.

Owing to the lateness of the hour, it was resolved that the two following papers, which were to have been discussed at this meeting, should be taken as read, and printed in the Journal, viz :—

1. By Dr. J. Wilkie Burman, "On the Desirableness of providing a Detached Hospital, for special purposes, in connection with every large Public Lunatic Asylum." (See Original Articles, No. 2.)

2. By Dr. Fletcher Beach, "On a Case of Tumour of the Brain, associated with Epilepsy and Catalepsy." (See Original Articles, No. 3.)

The proceedings then terminated. The Members of the Association dined together in the evening at the Ship Hotel, Greenwich.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

The Quarterly Meeting of the Association was held June 18th, 1879, at the Rooms of the London Medical Society, Chandos Street, at 8.30 p.m., Dr. CRICHTON BROWNE, President of the Association, in the chair.

Dr. SUTHERLAND exhibited a case of chorea, in a woman of advanced age (See Clinical Cases). Twenty-five years ago the patient had an attack of chorea, which was produced by her anxiety concerning her husband, who was a soldier in the Crimea. From that time until recently she had had no attack, but six months back she trampled a nail into her heel, and this accident resulted in her present attack, from which she was recovering. Tetanic symptoms had followed immediately upon the injury to her foot. The movements were most violent on the left side of the jaw and the left leg. She was very much debilitated, and could hardly walk, although before her accident she sometimes walked twenty miles a day. It was somewhat unusual to meet with a case of chorea in a woman of her advanced age. Of course the case was very much mixed up with hysteria.

The PRESIDENT remarked that the mere appearance of the head might suggest paralysis agitans rather than chorea, and referred to the effect which fear and apprehension had in producing tetanus. This disease was much more prevalent among South Sea Islanders prior to their conversion to Christianity.

Dr. SAVAGE thought that an attack of paralysis agitans coming on insidiously in that way would not have improved as this had done. Under all the circumstances it might, he considered, be called chorea, but he doubted whether all movements of this kind would continue to be thus classed. This case was, at all events, a very important one.

The PRESIDENT, in opening the discussion, alluded to the presence of an eminent medical gentleman from the other hemisphere, the Editor of the "American Journal of Insanity," Dr. John Gray. The Members of the Association were under considerable obligation to that gentleman on account of the aid which he had rendered those of their number who had visited America, and it would give all present great pleasure if they might look forward to his presence at the Annual Meeting of the Association.

Dr. GRAY thanked the President and the Members of the Association generally for the cordial reception accorded to him, and stated that he hoped he might be able to be present at their Annual Meeting to listen to their discussions, and to learn all that he could in regard to lunacy treatment in this country. As regards the question immediately under discussion, he was sorry to say that in America they had no pensions. Perhaps they were too young for that. He trusted that the English Lunacy doctors would succeed in establishing a thoroughly satisfactory and just system of pensions, and their American brethren would then be only too thankful to take up that system and apply it to themselves.

Dr. LINDSAY stated that in order to narrow the discussion, he proposed to

submit to the meeting the following resolution :—"That in the opinion of this meeting it is advisable that the regulation of the salaries, emoluments, wages and pensions of the officers and staff of County Pauper Lunatic Asylums should be transferred to the Imperial Government, and that the Treasury capitation grant of 4s. per week, instead of going to the Union Guardians, should be applied to these purposes, as well as to the payment of the repairs, alterations, and future extensions of the fabric. Further, that Medical Superintendents of County Asylums be placed on the same footing and scale with regard to superannuation allowances as the Commissioners in Lunacy, viz., one-sixtieth for every year of service, and ten years allowed on appointment as Medical Superintendent. And that a Committee be appointed to arrange a deputation to the Home Secretary on the subject."

The PRESIDENT remarked that the case of the Commissioners in Lunacy was hardly a good one to take as a precedent.

Dr. LALOR said that the Commissioners in Lunacy were frequently promoted from other offices in connection with the treatment of lunacy, but the fund out of which their salaries were paid being the Consolidated Fund, their years of service as resident medical superintendents and so forth, were not allowed to be counted when their claims to superannuation were considered. If the change proposed by Dr. Lindsay were carried out, the Commissioners would be allowed to count those former years of service. It was clear that there ought to be uniformity in regard to the payment of the different medical branches of the lunacy service, all being paid by the Government and all being allowed to reckon the years of service given in any department.

Dr. BUCKNILL stated that he had listened with great pleasure to what Dr. Lindsay had said with regard to the uncertainty of pensions, for it agreed with the opinions which he had many years ago advocated as Editor of the Journal. If the members would take the trouble to refer to the early numbers of the Journal they would see that the principle of a certainty, which might be looked forward to by the officers, had been advocated in its pages year after year, and it had been one of his greatest disappointments to find, when legislation did take place, that that important principle was sacrificed to the far less important one proposed by the Commissioners in Lunacy, viz., the reduction of the period of service from twenty years to fifteen years. The subject of the Parliamentary grant of four shillings a week had been advocated by the Deputation which appeared before Mr. Sclater-Booth, and was not unfavourably received by him—there was a good deal to be said in favour of it. It must, however, be remembered that the grant was given as a sort of bribe to the parishes and unions to send their patients to the County Asylums, instead of keeping them in the workhouses; and there did not appear to be any reasonable expectation that a grant, established for that purpose, would be diverted into such a different channel as that now proposed. He was struck by Dr. Lindsay's apparent inconsistency in finding fault with the action of the Visiting Justices, whilst, at the same time, appearing to object to the transfer of their powers to another body. For his own part, taking everything into consideration, he thought that the Visiting Justices had behaved with liberality to the Superintendents of the County Asylums. There had been individual instances in which they had erred in one way, but there had been also instances in which they had erred in another way, for they had known cases in which persons had received from counties large pensions of which, perhaps, they had been scarcely deserving. If the cases in which the pensions granted had been less than the officers had a right to expect, they had one brought home to them in the case referred to by Dr. Lindsay, of their old friend and colleague, Mr. Ley, of Littlemore. He was one of the ablest of Superintendents; he was a man without a blemish on his character; he had the fullest claim to an ample recognition of his services; but he did not receive that recognition, and he suffered severely from the painful feeling that he had been ungenerously

treated. Such things must occur whenever the granting of pensions was left to the determination of any body of men, without strict rules to go by; but when those strict rules were laid down they were never likely to be very liberal. There were some strict rules now. He would like to ask the Irish members whether they were satisfied with the strict rule in Ireland. There was also a strict rule in the Civil Service. Were those strict rules liberal? Depend upon it, looking to the spirit of the times, any absolute claim admitted by Parliament would not be a liberal one. He (the speaker) would be far more inclined to leave his case in the hands of men whom he had served, than leave it in the hands of the Treasury. He had never heard of any one being satisfied with the rating of the Treasury in such matters. With respect to continuity of service, that was a principle to which he could give his most hearty concurrence. If an officer had served the public as a Medical Superintendent of a County Asylum, and in another capacity as well, it was but fair and just, when the reckoning took place between that officer and the public whom he had served, that the whole of that service should be taken into consideration.

Dr. LUSH, M.P., said that he had come very strongly to the conclusion that the present system was unsound, and ought to be amended. Here was a large body of gentlemen who were devoting themselves to a very serious and brain-working occupation; and, they were liable—whenever it might become necessary for them to give up that occupation—to be practically dismissed the public service with very insufficient remuneration. It ought never to be forgotten that gentlemen who take office in any way under the public can rarely resort to any other means to obtain a livelihood; and thus the great bulk of this special class find themselves dismissed to a retirement in which they have no means of adding to their income. He (the speaker) had, in another branch of the profession, had experience of the caprice and the want of generosity which was so often evinced in this matter. He referred to the Poor Law. In one case, which occurred a few weeks ago, a medical gentleman was thrown from his horse, and was so seriously injured that he was incapacitated from discharging his duties. He had been for a long time in the poor law service. Upon resigning his appointment under the Guardians, he applied for a pension. The answer was, that although it was a very painful case, it would be a bad precedent to set, and therefore they could give nothing. The County Board system would add to the doubtful generosity of the Magistrates, the undoubted want of generosity of Poor Law Guardians. A very strong proportion of the members of County Boards would be the Guardians proper, and he (Dr. Lush) had, two years ago, very plainly expressed his strong objection to giving to members of County Boards the right of dismissing gentlemen of experience and value into obscurity, by dismissing them without a pension. The County Board would be worse than the Visiting Justices, and the Association ought to oppose in every way the County Boards having anything to do with the assessing of retiring allowances. Dr. Bucknill had stated that hard and fast rules laid down would not be beneficial. Now, a very noble instance, bearing upon this point, had recently occurred—the case of a learned judge, who, in his early life, might have realised a large fortune by keeping to his private practice. His salary was £4,500 per annum, and his retiring allowance was £3,500 per annum. Now, if this was admitted in the legal profession, why should it not be admitted in the medical profession? For his own part, he (the speaker) thought it would be better to let the present system go on, than have any new system which should perpetuate an injustice. Better times might come. In regard to Dr. Bucknill's remark that the grant of 4s. a week was intended as a bribe to the parishes to induce them to send their patients to the County Asylum, it might indirectly have had that effect, but the main ground for that grant was the transfer of local taxation to imperial taxation.

Dr. LALOR, speaking as one of the Irish members, stated that in regard to

uncertainty of pensions he did not think the Irish lunacy staff had anything to complain of. In Ireland the principle was admitted that the words of the Superannuation Act "may and shall" were compulsory, and when the conditions prescribed by the Act had been complied with, the governing Boards did not consider that they had any further responsibility in the matter. The Irish Members had this grievance: That whereas in England the officers of lunatic asylums could get two-thirds of their salary and allowances at the end of 15 years, in Ireland they could not claim two-thirds until after the lapse of 40 years' service. It was plainly a discrepancy to the disadvantage of the Irish physicians.

The PRESIDENT—How much can they claim after 15 years' service?

Dr. LALOR—The Civil Service allowance for 15 years, viz., fifteen-sixtieths. One-sixtieth for every year of service, that would be fifteen-sixtieths at the end of fifteen years.

The PRESIDENT observed that there was this difference between England and Ireland in respect to superannuation, viz., that while the officers in Ireland could claim their pensions and get them, those in England could claim them, but did not always get them.

Dr. RAYNER said that if superannuation were made compulsory, asylum attendants, as a class, would be very much benefited, and their character generally raised. It frequently happened that day-labourers, who had nothing whatever to do with the patients, were pensioned off at a higher rate than the attendants, who were engaged daily and hourly with them. A similar inconsistency existed also in the higher ranks. Thus, a medical officer would enter the service of an asylum after many years of study in his special line of the profession, and at the end of his service would be pensioned only on his service in that asylum. Side by side with this case would be that of a lay officer, who enters the service of the asylum as a mere lad, and who, after rising to the highest lay rank, would be pensioned off according to the full length of his service. There could be no doubt that the original intention of the Legislature had been to give very liberal pensions to officers engaged in lunacy treatment. The tendency in the opposite direction had to some extent been due to the extension of large pensions to persons for whom they had not been originally intended. He trusted that if the present scheme continued in force some mode of appeal would be given against such inequalities of pensions.

Dr. BOYD fully concurred in the observations of Dr. Lindsay. In his own case, before he went to the County Asylum, he had been twelve years in the Infirmary, which, on his retirement, made twenty years of service. He did not receive quite two-thirds; something less than that. During his service at the asylum a class of patients were received and treated, for whose maintenance there was charged an excess over the ordinary maintenance rate of five shillings per head per week, and out of the fund thus created (which amounted, while he was there, to sixteen thousand pounds) the asylum authorities built a wing for 70 or 80 patients, as well as a detached infectious hospital, and all without the least assistance from the county. His pension amounted to a very small percentage of the large sum which had been thus saved. There was a gentleman present who had been thirteen years in another asylum, prior to his last appointment, and yet that 13 years' service went for nothing.

Dr. PARSEY stated that in Ireland the opinion of the Law Officers of the Crown was that the years of service in any asylum could be added, and in one asylum, which he cited, two female attendants had been superannuated, and had been allowed for years of service which had been given in another asylum.

In reference to a proposal to the effect that the salaries, emoluments, wages, and pensions of the officers and staffs of County Lunatic Asylums should be charged to the Consolidated Fund, the PRESIDENT pointed out that this would open up a very serious question involving that of the transfer to the Government of the appointment of officers, &c., and it would be scarcely fair at such a

small meeting to pledge the Association to a decision upon that point. He suggested that the resolution should be couched in more general terms.

Dr. BUCKNILL asked whether the medical officers would like to be placed under the Local Government Board, or any such department. He had no doubt that, on the whole, the pensions granted by the Visiting Justices were in excess of those given under the statutory claim of their brethren in Ireland.

In reply, Dr. LINDSAY stated that he had as high an opinion of the Visiting Justices of County Asylums as Dr. Bucknill, and he had never hesitated to express that high opinion; but he had not the same faith in the Quarter Sessions, because the Justices there did not know all the circumstances; they were liable to be unfavourably influenced, and were not always able to take such a just view of the matters in question, as those justices who, being members of the Visiting Committees of the asylums, were thoroughly acquainted with the officers. Moreover, changes were inevitable, involving the transfer of the asylums to County Boards, or, perhaps, to the Local Government Board.

After some further discussion as to the resolution,

Dr. LINDSAY said that, acting on the suggestion of the President, he should amend his proposition, so as to make it more general. He therefore begged leave to move—"That in the opinion of this meeting, granting pensions to the officers and staff of County and Borough Lunatic Asylums should be no longer permissive, but compulsory."

The resolution having been seconded by Dr. BRUSHFIELD, was carried.

BRITISH MEDICAL ASSOCIATION.—ANNUAL MEETING, CORK, 1879.

SECTION OF PSYCHOLOGY.

*Discussion on the Prevention of Insanity.**

The discussion was arranged under the following heads:—(a), Ascertaining and classification of causes; (b), the legitimate prevention of hereditary transmission; (c), the influence of bad sanitary conditions; (d), the effect of the teaching of elementary physiological principles; and was opened by Dr. HERBERT C. MAJOR, who urged that the importance of the subject could not be over-estimated. While increase in the proportion of persons becoming insane was still open to some doubt, there could be no doubt of the annual growth of the insane population from the accumulation of incurable cases; and if such accumulation was to be checked, it was to be done by preventing, by every possible means, the occurrence of fresh cases. It was not sufficient, when insanity had once supervened, to insist on early treatment. This, although most advisable, would in many cases fail to bring about a cure, with our present knowledge, from the fact that oftentimes there existed with the onset of mental symptoms grave or incurable cerebral lesions. Taking up specially the question of the ascertaining and classification of causes of insanity—a subject which must form the starting point for all efforts at prevention—the importance in the first place of the adoption of a satisfactory scientific system of classification was alluded to, as also the utter inadequacy of the system adopted in most asylum reports. While the difficulties and uncertainties attending the forming of a correct idea of the cause inducing insanity in our cases were often very great, this was no argument against continued

* For this report we are indebted to M.S. placed at our disposal by the *British Medical Journal*.

patient investigation. But the value of results thus obtained would depend very much upon the adequate expression in statistical tables. It was therefore greatly to be desired that without loss of time a system of tabulation should be devised which might fairly meet the requirements of the case. Further, that such a method having been recommended by competent authorities, should be adopted in all asylums, not in this country only, but also in our Colonies; and thirdly, that the results thus elicited should be made known for the guidance of medical men and (through them mainly) of the community. The tables of the English Commissioners in Lunacy were doubtless a valuable step in this direction, but more remained to be done; and it was for asylum physicians, by their individual efforts, to render such statistics of still greater public utility and benefit.

(A Paper by Dr. Rabagliati was read by Dr. Major in the absence of the writer.)

The first part, which referred to the classification of causes of insanity, was not read for want of time. In the second part—dealing with heads (b), The legitimate prevention of hereditary transmission; (c), the influence of bad sanitary conditions; (d), the effect of the teaching of elementary physiological principles—Dr. Rabagliati spoke of the present deplorable state of the country, where one in every 25 or 30 of the population is a pauper, and stated that in Yorkshire alone there were 2,900 pauper lunatics in the county asylums, besides those in the workhouses. He considered that the ratepayers would be quite justified in insisting on a forcible limitation of such a state of things, and suggested that in the present ignorant state of the mass of society, marriage should be prohibited with persons who had ever been insane and at any period of adult life chargeable on the rates. He even thought there ought to be no objection offered to apply such a provision to all insane persons whatever, on the ground that the individual liberty should never endanger the common good. Nevertheless, he felt that compulsory legislation was to be deprecated where people were sufficiently educated to be convinced by moral persuasion and argument, and thought it was very desirable that public opinion should be educated by a fair and truthful statement of the facts regarding the progeny of diseased persons. His own opinion, based on a careful examination of facts collected in the out-patient room of the Infirmary, was that insanity is only one group of a large class of closely allied diseases, such as scrofula, consumption, cancer, and perhaps syphilis. It might seem unreasonable to interfere forcibly with the marriage of persons affected by any of these diseases, but there is already generally a strong feeling against such marriages, and much might be done by education to develop and strengthen such a feeling. He thought, however, that there was an aspect of this question which was often overlooked—that even the children of unhealthy parents might be brought up in good sanitary conditions, with well-selected food, properly arranged work, sleep, exercise in the open air, in a suitable climate, and so develop a more healthy constitution than that which they inherited. Doctors were apt to forget that the race may thus be developed upwards as well as downwards, because, though they are constantly consulted in the cases of unhealthy children, when unhealthy parents have children who turn out healthy, medical aid is not required, and therefore such cases do not come under their notice. He thought it quite possible that by skill, judgment, and constant care, the delicate children of unhealthy parents might be developed into healthy adults just as readily as unhealthy children, through ignorance and neglect, are constantly developing these very diseases. Care in bringing up children was the chief agent in making healthy men and women, and he thought it, therefore, most necessary that the principles of sanitary science, of feeding, clothing, exercising, working, and resting children, and their various powers and requirements, should be taught in the higher Board Schools, as also the responsibilities and capacities of parents. This, which would benefit the whole country,

might well be done at the country's cost. In order, however, to give such care to their children, parents must have the means to do so, and with very large families this would generally be impossible. He felt this to be a most delicate part of the subject, but its importance made it necessary to speak plainly. It was far too common to hear of large families of whom nearly or more than half died in infancy. Among the lower classes especially this was generally the case. Such instances often came before him every day. Half the children born in the country die before the age of five years. This system was, to say the least of it, a wasteful one, even from a pecuniary point of view, and considering the neglect of even the surviving children from want of means and time on the part of the parents, and the too frequent ill-health and premature death of the over-wrought mother, its consequences were most sad. He thought that in our over-peopled country the number of children in a family should average three, who could then be properly cared for; but were the present high death-rate to continue, then the average number should be five or six. He had heard it objected that such a course would only be followed by the prudent and thoughtful, who would then soon be swamped by the idle and profligate still multiplying without check; but this was a shallow argument, and overlooked the lessons of history and the influence on the masses of such men as Wesley or Cromwell, or the ten who would have saved Sodom. Were he asked how he would effect this limitation of families, he would reply in the words of him who said, "The time is short; it remaineth that they that have wives be as though they had none." Abstinence should be advocated to bring about this desirable result; no other measures could command respect from rightly disposed and high-minded persons.

Mr. MOULD—One cannot but feel that to attempt to deal with passion, feeling, and emotion is one of the most difficult problems we have before us. It is simply impossible to attempt to interfere with the individual liberty of the subject in these matters; it is generally a matter of feeling, and rarely of judgment. People marry not because they have found, after careful enquiry and due consideration, that they are perfectly healthy, but from other and more emotional considerations; and I feel assured that it is both injudicious and inexpedient for scientific men to interfere with the relations between the sexes, and especially the regulation of the number of children. In the prevention of insanity there can be no doubt that very much can be done to assist the healthy growth of children both in the middle and lower classes—in the former with suitable food, in the latter with both suitable and sufficient food and healthy surroundings. In this manner, by assisting the healthy growth of the body, we so assist the healthy growth of the mind; and it has often been a source of astonishment to me that some means should not be taken by those in authority to feed as well as to educate children, especially those of tender years. I have been very much struck since I have been in Cork with the healthy appearance of all the children I have seen (and they appear very numerous), and I would attribute it to a full and sufficient freedom they seem to have from the confinement of the immediate neighbourhood of their small and of necessity frequently unsavoury dwellings, and one would wish that in our large manufacturing counties greater attention should be paid to the forcible observance of the plain, simple, and natural laws of health, more especially in healthy life. Unfortunately in asylum practice we have but little to do with the prevention of insanity—our efforts are more directed to its cure—and that generally in the acute or advanced stages; but we can treat, especially in our medical schools, what we know to be so essentially necessary to the healthy condition of mind of those who, either from hereditary transmission or from unfortunately acquired causes, are peculiarly liable to mental disease.

Dr. ASH—I think some fallacy must underlie the Malthusian doctrine supported by Dr. Rabagliati. The strength of the sexual instinct seems to me to prove that the intentions of the Creator on the subject are unmistakeable, and

not to be set aside without serious consequences resulting. In accordance with the doctrine of natural selection, a great superabundance of life is required, from which the individuals most fit for survival are selected. The compulsory separation of husband and wife, suggested by Dr. Rabagliati, could only result in one of two things; either the substitution of irregular and illicit relations between the sexes for those which are regular and lawful, or else in other and still more serious deviations from the design of Nature, having a still greater tendency to fill our asylums. I think that with a view to the prevention of insanity it will be necessary by further research to correlate insanity with other abnormal or diseased conditions, and after having thus arrived at a truly scientific classification of insanity, to base a sound therapeutic system thereon, and, having done so, to spread this scientific knowledge of the disease amongst general practitioners, so that the earlier stages may be brought under a sound and rational system of treatment.

Dr. BODINGTON—It will be agreed on all hands that one chief means of the prevention of insanity is to diffuse a knowledge of mental physiology amongst the public. The ignorance on all questions concerning the mind is great and wide-spread. It is impossible under present conditions to get people to entertain the view that the phenomena known as mind are dependent on brain function, and should come under treatment upon the ordinary principles of medicine. They persist in speaking and thinking of "the mind" as an entity quite distinct and apart from the body, to be dealt with on different grounds and by other methods. Again, there is a consensus of opinion amongst us that lunacy should be regularly taught in all medical schools as a branch of medicine. This is desirable, not only for the sake of lunacy practice, but also that medical men, coming as they do into the most intimate contact and relation with families, may be competent to influence them to take what precautions are necessary for the forestalling and prevention of attacks. With that object in view, it might be desirable for lunacy practitioners, through the medium of the Medico-Psychological Association, to suggest to the authorities of medical schools that they should at once make lunacy a part and parcel of the ordinary course of instruction in medicine. The diploma and degree granting bodies seem little likely to make it compulsory, but the schools might, if they chose, exact a course of lectures and clinical instruction in insanity from all their students. I perfectly concur with all Mr Mould said regarding the value of good food, but, of course, it should be remembered that insanity occurs among all classes of society where food is as substantial and abundant as can be, and hence other causes must be looked for. Amongst these, over-forcing of young brains must be reckoned; it is one, I think, very rife just now, and it has led to many unhappy consequences. Cases of suicide occur, to my mind, as distinctly traceable to this cause. I am told by an Oxford Fellow and tutor that one or two cases of suicide by undergraduates assuredly occur yearly in that University, and in his opinion they are mostly due to the fatigue, anxiety, and distress arising from excessive brain-work, and undue competition struggles. A year or two since I had a Cambridge undergraduate under my care, suffering from mania, distinctly traceable to overwork, wanton sacrifice of sleep, and anxiety about examinations as the exciting cause. Instances of premature breakdown of mental capacity, as well as of the general health, occur to me. Parents send little boys to preparatory schools, and insist on having them finely ground and polished in classics and mathematics, without reference to their capabilities, so that they may make a figure on the public schools. I have it on the testimony of the master of a large preparatory school, that boys thus forced break down frequently at 15 and 16, and do nothing more thereafter. He tells me that it is a pain and grief to him to be teaching Latin verses and Homer to little boys of 13, obviously unequal to the task. He is, however, helpless; the great public schools still demand these things, and parents unwisely insist on them. On the other hand, I am acquainted with a public school—Giggleswick School, in Yorkshire, where science and modern languages hold a prominent place. The

first science taught is botany, after that, chemistry, and, subsequently, experimental physics. I am assured, on good testimony, that the teaching of botany to little boys is found to be most valuable in helping along the dull ones in their school career. It cultivates, of course, their powers of observation, but it also excites their interest and relieves the tedium of the dreary round of classics and mathematics, and promotes industry and happiness. I cannot help thinking that one of our greatest means for the prevention of insanity is healthy education. While I quite concur in all that has been said with regard to food and hygiene, we must, by no means, neglect the early training of the mind, which, in my view at the present moment, is, in too many instances, unwise, injurious, and even barbarous. As physicians treating insanity, and desiring to do all we can to prevent it, it is, I think, our bounden duty to set our faces against the brain-forcing, now so common, and generally to endeavour to get the education of the young established on a sound footing, and conducted by healthy methods.

Dr. MURRAY LINDSAY—Dr. Major has directed our attention to a very important and, at the same time, very difficult subject, the prevention of insanity. Those engaged in asylum practice have chiefly to deal with the cure of insanity, but prevention of disease is even more important than its cure, and our best effort should be also directed towards aiding in any measure that will tend to the prevention of insanity. I must endorse the able and practical observations of Dr. Major as to a more satisfactory classification of the causes of insanity and greater uniformity in the statistical tables of asylum reports. It is very desirable that psychologists should be able to instruct medical practitioners, but, before being in a position to do so, we must first arrive at a better understanding amongst ourselves as to some standard and greater uniformity of statistical tables. With regard to such tables, the result of my experience is that the causation of insanity is generally compound, several causes frequently operating in producing mental disorder. The same holds good with regard to the causes of death in those dying in asylums. In filling up such tables it is desirable to put down all the causes operating to produce insanity in each case, as well as the causes operating in producing death in each individual case. In order to obtain greater accuracy and uniformity in this respect, it is incumbent on asylum medical officers to do their best to obtain as careful and accurate histories as possible of the cases admitted, and to ascertain the causes of death in as many cases as possible by post mortem examinations, which appear to be neglected, or for some reason, not carried out in some asylums. In conclusion, I would say that with regard to the prevention of insanity medical officers of health should be able to render very valuable aid in this direction.

Dr. OSCAR WOODS—I acknowledge the great benefit to be derived from a careful classification of the causes of insanity, and regret that it is impossible to classify the causes very accurately in the Irish asylums, owing to the want of information in the committal forms, few facts being stated, and the medical man, as a rule, certifying on hearsay, not on facts observed by himself. Friends rarely accompany patients to the asylums, they are brought in charge of the police, who know nothing of their history. I hope that when the report of the Commissioners, lately laid before the House of Commons, is being considered, the committal forms for dangerous lunatics will be done away with, and a form similar to that in use in England be adopted instead. Much good might also be derived from the tables recommended by the Medico-Psychological Association being generally used in Irish asylums.

Dr. RINGROSE ATKINS—It is acknowledged on all hands that, like other diseases, to which the human organism is heir, the causes of insanity must be definitely ascertained—those various and diverse influences, be they simple or multiple, which lead up to or bring about the mental alienation—before any steps can be taken to successfully combat their attacks or reduce their influences for evil; and it is in this ascertainment of causes on the very threshold of the enquiry, as it were, that we Irish asylum physicians are met by difficul-

ties which, it seems in the present condition of things, almost impossible to overcome; difficulties due to the insufficient or absolute absence of information as to what the attack in any individual case or cases may be ascribed to. This state of things outside the asylum the physician himself appears to defend upon two conditions; on the one hand, the comparative ignorance or want of aptitude on the part of the certifying medical practitioner who, in his student career, had learned as regards the subject of insanity little more, if even so much, as the meaning of certain terms which he subsequently uses most loosely or perhaps improperly, while he is quite unacquainted with the investigation of those intricate factors which are at work in the production of the cerebro-mental disorder, and on the other hand, to the unthinking and often wilful concealment of all important facts and information on the part of the friends of those afflicted. The prelude, then, to the prevention of insanity should be the dissemination of a knowledge of insanity during their student careers, amongst those who may be afterwards called upon to cope with the disease in its incipient manifestations, or to give advice which, if judicious, may prevent an attack, as well as teaching the public generally the nature of brain structure and brain function in health, and leading them to see in mental derangement, actual disease of organic structures, and not merely mental alterations which should be concealed as much as possible, as being outside the true domain of medical science, and indicative of Divine wrath and displeasure. They will then realise the delicacy of those nervous structures, know how to conserve their functions, and when derangement does ensue, be able and willing to give such information as may aid the physician in his search for the cause, which may, in many cases, be but of a temporary or removable character. I entirely concur with the remarks which have fallen from Mr. Mould; if the young brain is to ripen and develop to maturity, it must have pabulum from whence to draw that nutriment on which the developmental processes depend, and it must be surrounded by such influences as will allow these developmental processes to have free play and power in its growth; however, it must not be worried or forced; if it is, its functions may indeed appear to bloom when they should be but budding, but they will fade before full fruition comes; too early development must pay the penalty of premature decay. I entirely agree with Dr. Bodington in his condemnation of the system of education now pursued in many schools and educational establishments. I think we must all regard the practice of teaching so largely by pure efforts of memory as most baneful in its effects. I would gladly see introduced the system of teaching by demonstration, of appealing to the intellect through the senses; and the information thus gained would, I believe, be far more permanent, far more interesting to the student, and far less injurious to the delicate organisation of the brain. If insanity can be prevented, if it is possible to lessen the ravages of mental derangement, we must begin by so building the brain—the organ of the mind—that when the wear and tear of after-life comes, its structures, nourished and healthy, may be able to stand the shocks to which it may be subjected while passing through the shoals and quicksands of life.

Dr. MAJOR replied on the part of Dr. Rabagliati to some of the criticisms made on his views regarding the limitation of the number of children, after which the discussion terminated.

The following papers were read and discussed:—

The Psycho-physiological Training of an Idiot Hand. By E. Seguin, M.D. (New York).

On Claustrophobia. By B. Ball, M.D. (Paris).

Metalloscopy in the Treatment of Hysterical Hemianæsthesia. By Ringrose Atkins, M.D. (Waterford).

On the Prevention of Suicide. By W. F. Wade, F.R.C.P. (Birmingham).

Intemperance in Study. By D. Hack Tuke, M.D. (London).

Osteomalacia amongst the Insane. By Ringrose Atkins, M.D. (Waterford).

BRITISH ASSOCIATION.—SHEFFIELD 1879.

SECTION—BIOLOGY.

SUB-SECTION—ANTHROPOLOGY.

The Cagots. By D. Haek Tuke, M.D. (London). The author detailed the results of a visit to the Pyrenees to obtain information on the origin and character of the Cagots, and strenuously opposed the prevalent notion that they are, or ever were, Cretins or goitrous. He also dissented from the opinion that they were the descendants of the Goths, from whom their name has been supposed to be derived ("dog of a Goth"). He found that the present representatives of these proscribed people, are recognised as such by tradition, and not by any defect or racial distinction. He concluded that while the solution of the problem was attended by much difficulty, the strong probability is that although nothing like leprosy has for long affected the Cagots, they were originally lepers, or the subjects of leucoderma; the form of the leprosy in the one case, and the simple absence of pigmentation in the other, accounting for their being regarded as in some respects different from ordinary lepers, though almost equally shunned. Many were, no doubt, falsely suspected of leprosy in consequence of some slight skin affection; others again, in later centuries, were members of families in whom the disease had at last died out. The writer particularly referred to the researches of the late M. de Rochas on this question.

AFTER-CARE OF CONVALESCENTS.

A Meeting was held on the 5th June, 1879, at the house of Dr. Bucknill, 39, Wimpole Street, to consider the subject of the "After-care of Poor and Friendless Female Convalescents on leaving Asylums for the Insane."

There were present Dr. and Mrs. Bucknill, Miss Cons, Dr. Lockhart Robertson, Dr. D. Haek Tuke, Mr. W. G. Marshall, Dr. Harrington Tuke, Rev. Haslooh Potter, Rev. G. H. Lee, and Rev. H. Hawkins.

A paper on the above-named subject was read by Rev. H. HAWKINS, and an interesting discussion took place.

It was moved by Dr. LOCKHART ROBERTSON, and seconded by Dr. HACK TUKE, that this meeting do form itself into an Association. The names of Dr. S. Duckworth Williams, and of Dr. Savage, were, at Dr. Robertson's request, added to those already given.

It was moved by Dr. ROBERTSON, and seconded by Mr. W. G. MARSHALL, that Dr. Bucknill be invited to take the office of President.

Also moved by Dr. HARRINGTON TUKE, and seconded by Dr. BUCKNILL, that the Rev. H. Hawkins take the office of Secretary.

These resolutions were unanimously carried.

The Secretary was instructed to communicate with members and others likely to take an interest in the subject, and, subsequently, to communicate with the President, with the view of calling another meeting.

On the 29th July a meeting of ladies, to consider the same subject, was held at 86, Portland Place, by the kind permission of Mrs. Müller. About fifteen ladies were present, and Miss Cons, of 17, Grittleton Road, W., consented to accept, temporarily, the office of Secretary. The paper on "After-care," referred to above, is printed in the present number of the Journal. (See Original Articles, No. 6.)

INDEX PSYCHOLOGICUS.

It is our intention to commence, in the next Number, a list of the titles of the principal current works and periodical contributions published at home and abroad, relating to Medical Psychology.

SUPREME COURT OF JUDICATURE.

COMMON PLEAS DIVISION.

(Before Lord COLERIDGE, and a Special Jury.)

NOWELL v. WILLIAMS.

This case, in which the plaintiff, Arthur Nowell, claims to recover damages for false imprisonment, on the ground that he has been confined in Northumberland House, he being at that time sane, has been adjourned to the 4th November. We reserve comment on the case till the trial is concluded; only remarking here on the extreme unreasonableness of such an adjournment.

Appointments.

BLAND, W. C., M.R.C.S. Edin., L.S.A., appointed Medical Superintendent of the New Lunatic Asylum for the Borough of Portsmouth.

HETHERINGTON, R. P., M.B., appointed Assistant Medical Officer, Sligo District Lunatic Asylum, vice Atkinson, resigned.

SMITH, C. C., L.K.Q.C.P., L.R.C.S.I., appointed Assistant Medical Officer to the Essex Lunatic Asylum, Brentwood, vice Burtonshaw, resigned.

CRALLAN, G. E. J., M.R.C.S. Edin., appointed Assistant Medical Officer to the Northumberland Lunatic Asylum, Morpeth, vice Croudace, resigned.

PEACOCK, H. G., L.R.C.P. Edin., M.R.C.S. Edin., appointed Assistant Medical Officer to the Dorsetshire Lunatic Asylum, vice Bland.

BARLING, G. H., M.R.C.S. Edin., appointed Clinical Assistant to St. Luke's Hospital, vice Jackson.

CAMPBELL, COLIN, M.B., appointed Assistant Medical Officer to the York Retreat, vice Prideaux, resigned.

COX, LL., M.R.C.S. Edin., appointed Assistant Medical Officer to the Wiltshire Lunatic Asylum, Devizes, vice Michell, resigned.

CHRISTIE, J. W. S., M.D., L.R.C.P., appointed Assistant Medical Officer to the Coton-Hill Institution for the Insane, vice Smith.

TATE, A. L., L.R.C.P. Edin., appointed Assistant Medical Officer to the Suffolk Asylum, Melton, vice Peacock.

THURNAM, FRANCIS WYATT, M.B. Edin., C.M., appointed Assistant Medical Officer to the City and County Lunatic Asylum, Stapleton, near Bristol, vice Levinge, resigned.

THE JOURNAL OF MENTAL SCIENCE.

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JANUARY, 1880.

Vol. XXV.

PART 1.—ORIGINAL ARTICLES.

On the Relation between Syphilis and General Paralysis. The difficulty of distinguishing General Paralysis from certain Syphilitic changes of the Brain. By Dr. ACHILLE FOVILLE, Medical Superintendent of the Asylum of Quatre Mares, near Rouen (translated and condensed by T. W. McDOWALL, M.D.).

In the article on General Paralysis in the “*Nouveau Dictionnaire de Médecine et de Chirurgie Pratiques*” (vol. xvi, p. 89., 1878), I thought I had settled the differential diagnosis of this affection when I said:—

“Multiple tumours of the brain, especially those of a syphilitic character, may be accompanied by motor and mental symptoms identical with those of general paralysis. More than once we have observed cases of this kind, and we believe that some do occur in which the differential diagnosis is impossible, except, perhaps, by means of the history. The autopsy alone discloses the error which has existed during the whole duration of the affection.”

This statement may excite incredulity or objections; at any rate, it must be supported by facts. The most important is the case of an officer, whom I had under observation at Charenton, from July to November, 1870. During the previous six months he had been under treatment at Gros-Caillou and Val-de-Grâce. At Gros-Caillou he was considered a lunatic, but I do not know if general paralysis was diagnosed. At Val-de-Grâce and at Charenton he was regarded as a general paralytic, and his symptoms were such that it appeared impossible to doubt the correctness of the diagnosis. At none of these three asylums did they think of subjecting the patient to anti-syphilitic treatment. Death occurred subsequent to a well-marked stage of dementia and paralysis.

The autopsy showed that the lesions characteristic of general paralysis were completely absent; but we found, in the interior of the hemispheres, multiple tumours, apparently syphilitic. I subsequently learned that he had had syphilis, and that shortly before his mental disease he had presented undoubted tertiary symptoms.

Struck by the exceptional importance of this case, I wrote it out very fully, and subsequent research confirmed me in my opinion as to its rarity and interest. I have delayed publishing this paper until now; but a paper by M. Fournier, in the "*Annales Médico-Psychologiques*" (Jan., 1879, p. 98), designated "*Pseudo General Paralysis of Syphilitic Origin*," calls attention to this subject. M. Baillarger thinks that we must wait the publication of new cases before we can discuss the doctrine of M. Fournier, and I know that he considers the study of the relations between general paralysis and syphilis as peculiarly interesting.

It appears to me that I should now publish the case which I observed at Charenton.

Syphilitic Tumours of the Brain simulating General Paralysis.—M. L., æt 37, an infantry lieutenant, was admitted into Charenton from Val-de-Grâce on 10th July, 1870. Dr. Colin certified him as suffering from general paralysis. On seeing M. L. next day, I was much struck by the fact that he suffered from left hemiplegia. The occurrence of hemiplegia in such an early stage of the disease was unusual, and deserving of attention.

State of Patient.—He is affected with incomplete hemiplegia of the left side: in the face the paralysis is almost imperceptible when the features are at rest. There is a very slight amount of flaccidity and flattening of this side; but when the patient speaks, and especially when he laughs and is animated, it is seen that the muscles contract more powerfully towards the right than to the left.

The left upper limb is almost motionless, the arm being pendant, the fore-arm flexed upon the arm; the hand slightly flexed on the fore-arm, and the fingers retracted. The whole limb has the appearance characteristic of chronic hemiplegia. The leg is much less affected; movement is difficult, but not impossible. The patient drags it *en fauchant*, but he is able to stand upright, and even to walk pretty quickly, though lamely.

The left pupil is much contracted, and almost motionless. The right appears normal. Nevertheless, the patient says that for several months he has scarcely been able to see with the right eye, whilst the left has given no trouble.

The general sensibility does not appear to be affected. The face is red, caused by marked injection of dilated capillaries; the ears are

red, hot and turgid; the eyes brilliant and injected; the saliva abundant.

The patient is very restless: during the three days he has been in the asylum he has seldom sat still, but has been almost constantly walking in the infirmary or on the terrace. He also speaks much, and almost exclusively about himself. The majority of the words are pretty distinctly articulated; but they do not follow one another very quickly, and they appear to experience a difficulty in coming out. Occasionally he hesitates in pronouncing a word, but this appears due to a difficulty in finding the word rather than to a muscular lesion of the lips, cheeks or tongue.

His conversation is not very coherent, but his meaning can be made out. He states that he has been ill since Christmas Day of the preceding year. At that time he was actively engaged in large business transactions in the extreme East, which promised to be very profitable. On the 25th December, after having dined temperately with his brother, he had during the night a severe epileptiform attack. Next day, however, he went about as usual, and resumed duty without difficulty. In about fifteen days another similar attack occurred, followed by paralysis of the left side of the body. He entered the military hospital at Gros-Caillou, where he remained about three months; he then left for home, convalescent. From there he was quite recently removed to Val-de-Grâce, and then transferred to Charenton. He adds that he cannot remain here, but must go at once to Paris to look after his affairs, and that a carriage is waiting for him at the door.

All this was related slowly, without spontaneity. He scarcely said anything except in answer to pressing questions.

The result of this examination was not decisive. The case might be one of simple dementia, due to an organic lesion of the brain, or one of paralytic dementia with hemiplegia, though I rather inclined to the former opinion.

From his brother I learned further that the patient had seen much service in Mexico, China, and Cochin China; that he had proved himself an excellent officer, but was often quarrelsome, had got into debt, and had been obliged to exchange several times. On account of his special qualifications, he had been appointed chief agent for a great commercial company. His prospects were splendid, when suddenly they were dashed in November, 1869. He was still greatly affected by this disappointment when he was seized by the epileptiform attack on Christmas night.

During M. L.'s first residence in hospital (Jan.-Mar., 1870), his mental condition attracted attention; he was extravagant and unreasonable. His family then took him home to the country, but with no good result. His speech was occasionally much embarrassed; he took no care of his person; his clothes were untidy; he ate ravenously at meals; during the intervals between meals he tried to lay hold of

bottles of wine and liqueurs. He next became disagreeable with women and children. At the same time he was insanelly religious. He wished to build a church; he heard angels encouraging him in his project, &c. He also exhibited peculiar alterations of the general sensibility, and complained of having a torpedo in his left foot and leg.

As his family could no longer take care of him, he was sent to Val-de-Grâce, where general paralysis was diagnosed, and in a few days he was transferred to my care. Further examination strengthened the diagnosis. M. L. was very excited, restless, and full of grand delusions. His speech was no longer distinct; articulation was evidently embarrassed. The whole head was always much congested. The pupils and visions remained unchanged.

M. L.'s condition rapidly became worse. On the 15th August I noticed a general enfeeblement; intelligence was completely deadened. He scarcely manifested any spontaneous idea; with difficulty he answered questions; his speech was more and more thick and embarrassed. He was often dirty, and though feeble he insisted on walking incessantly. A new symptom had appeared: when he rested on his pillow or in his arm-chair, he always rested his head on the left shoulder, the face being turned to the right and slightly upwards.

At this time the publication of a paper by M. Colin greatly increased my interest in the case. ("De la paralysie generale des aliénés consécutive à des lésions locales du cerveau, spécialement à l'hémorrhagie cérébrale." An abstract of this paper appeared in "Annales Médico-Psych.", 1872, vol. xiv, p. 286.) Although M. Colin relates the case of M. L., I do not think he establishes the occurrence of cerebral hæmorrhage.

During the following week his condition became rapidly worse. The head, always congested, was constantly retained in the position already described. There were occasional slight convulsive twitchings of the facial muscles. The left upper eyelid drooped, but not constantly. Difficulty in swallowing was a very marked symptom. From the end of September he was unable to take solid food. He died on the 1st November.

Autopsy.—In making this examination I expected to find, on the one hand, the lesions characteristic of general paralysis, and on the other, a unilateral lesion, to explain the hemiplegia, near the base or towards the medulla, implicating the origin of the spinal, the pneumogastric and glosso-pharyngeal nerves, and thereby causing the torticollis and dysphagia. But the brain did not exhibit a trace of the changes found in general paralysis, the important lesions which did exist were not those which succeed hæmorrhage, neither were they near the medulla.

The dura mater presented no special feature. The meninges were transparent and thin; there was no marked injection, no ecchymosis.

They stript readily everywhere, except at one limited spot. The surface of the convolutions was normal, rather pale than red, and of normal consistence; no trace of superficial ulceration. On scraping with a scalpel, it did not come away in films, and there was no granular softening of the middle layer of the grey matter.

Only on the external surface of the left hemisphere, towards the union of the posterior and middle thirds, there existed an abnormal spot, about the size of a two-franc piece. There the membranes adhered a little, but still could be detached. The grey matter of two or three convolutions was altered in texture, consistence, colour and appearance. It was hardened at various spots, yellow here and there, but more red and injected at other places—irregularly shrivelled. The cerebral substance was, here and there, infiltrated by a hard caseous substance, around which was increased vascularity. A vertical section showed that this condition was not clearly limited as to depth, that it penetrated to the white matter, and varied in thickness from 5 mill. to 1 centimetre.

The two hemispheres were then separated by vertical section of the corpus callosum. It was immediately evident that the optic thalami were the seat of profound structural change. On the right side, the posterior half of the optic thalamus was affected without any material change in form being produced. Its consistence was greater than usual; its form irregularly knobbed. Its colour indicated diffuse congestion. The cerebral substance appeared to form the basis of the tissue, but it was infiltrated here and there, and hyperæmic all round. A deep incision showed that the interior was like the external, and that the diseased tissue had no distinct limit.

In the left optic thalamus, however, it was the anterior half which was affected. As a rule, the morbid change resembled that already described in the other thalamus and convolutions. But there was, also, below and in front of the altered portion, immediately beyond the optic commissure, two hardened nodules, more resistant than the surrounding parts, and making a certain projection, the one a little in front, and the other considerably behind the optic tract. On section, one observed first a layer of hyperæmic cerebral substance; then a very resistant double nodule, yellow in colour, fibro-fatty in appearance, distinctly limited towards the surface of the optic thalamus, but, in the other direction lost in the cerebral substance, which was hardened in spots, whilst elsewhere it had a gelatinous appearance. These nodules were about the size of a small nut.

In all respects the remainder of the brain, the cerebellum, pons and cord were normal.

Remarks.—I. On observing these morbid changes, I immediately concluded that they were of a syphilitic character, and research confirmed this opinion. (For descriptions of appearances of syphilitic gummata, see the works of Zam-

bacho, de Gros, and Lancereaux ; also Fournier's "*La Syphilis du Cerveau*," p. 54 ; Paris, 1879.) As it was of the greatest importance to learn definitely if the patient ever had syphilis, I succeeded in learning that, during his residence in Cochin China, he had a very severe attack, followed soon by constitutional symptoms, which had required prolonged specific treatment. He subsequently had many relapses, and had been admitted to the Gros-Caillou hospital with tertiary symptoms, and finally, he had, during these latter years, been treated for a gummatous tumour in the base of the tongue, a growth which produced almost complete aphonia. (On the structure of syphilitic cerebral tumours, see also the article, "*Tumeurs de l'encéphale*," by Jaccoud and Hallopeau, in vol. xiii. of "*Nouveau Dictionnaire de Médecine et de Chirurgie Pratiques*.")

II. The absence of the lesions characteristic of general paralysis in the case of M. L., proves that the scruples which made me hesitate at first in my diagnosis, were well founded, and that I ultimately fell into an error in coming to the conclusion I did. But how could I have avoided this mistake ? All the symptoms were characteristic but one—the hemiplegia. It embarrassed me and made me doubt. But was it, in itself, sufficient to make me reject the diagnosis of general paralysis, in spite of all the other facts which appeared to indicate its existence ? It is worthy of special note that I cannot recall a single case in which genuine hemiplegia was associated with general paralysis, and, amongst the multitude of observations on record, I have only been able to find two. In one of these, the symptoms of general paralysis were not as well marked as in M. L. ; in both, as in M. L., the characteristic anatomical lesions were wanting. (See Parchappe's "*Traité de la Folie*" [1841], p. 184, and Calmeil's "*Traité des Maladies Inflammatoires du Cerveau*," vol. ii., p. 61.)

III.—I carefully studied the works on syphilitic nervous diseases by Zambaco and by Gros and Lancereaux, with the object of finding a case like M. L.'s. I found, however, nothing at all similar. Either the cases were those of general paralysis, presenting all the usual symptoms of this disease, and having had, at some time or other, syphilitic symptoms, which fact would be far from demonstrating the syphilitic nature of the disease ; or they were cases of localised changes of the brain, probably syphilitic, where the motor and mental symptoms had been mistaken for genuine general paralysis by careless or ignorant physicians.

IV.—Whether or not M. L.'s case resembles others on record, the fact remains that the mental symptoms during life were exactly those of general paralysis; and yet, at the autopsy, the anatomical lesions peculiar to this disease were absent. We are, therefore, forced to conclude that these symptoms are not absolutely dependent on these lesions.

But these mental symptoms must have had a cause, and it was, so far as I can see, connected with the disorders of the circulation, congestive in character, which were observed in this case. Judging from the facts already recorded, it is possible that he suffered from paralysis of the vaso-motor nerves of the head, which produced a habitual state of vascular distention, which was sufficient to cause the mental disturbances observed, and yet produce no recognisable structural change. In other words, we are led to admit, with M. Baillarger, that, occasionally, grandiose delusions may be due to simple cerebral congestion.

V.—The motor phenomena in this case were interesting. Whilst the hemiplegia was limited to the left side, disease was found in both optic thalami and on the external surface of the left hemisphere.

II.

The foregoing case, and its accompanying remarks, written more than eight years ago, appear to me to prove that, in certain cases, the diagnosis between general paralysis and syphilitic tumours of the brain is extremely difficult, if not altogether impossible.

Lancereaux, in his chapter upon syphilitic meningitis and encephalitis (*"Gazette Hebdomadaire,"* 1873), says: "Certain syphilitic lesions of the encephalon may produce a symptomatic ensemble greatly resembling the morbid conditions known as general paralysis and paralytic dementia."

Müller calls attention to the fact that, according to many writers, syphilis has a most decided influence on the development of general paralysis, and he adds that the differential diagnosis is often impossible. (See also Otto-Braus' *"Ueber Gehirn Syphilis"*; Berlin, 1873.)

Huguenin is of opinion that a number of cases of paralytic dementia have their origin in a chronic meningitis caused by syphilis. (*"Revue des Sciences Médicales de Hayem,"* vol. vii., p. 242, 1876.)

Erlenmeyer, in a work published in 1877, on the different forms of syphilitic insanity, describes three typical forms:—

1—Simple psychoses ; 2—Psychoses complicated by disorders of sensation and motion ; 3—Mental deterioration, to which may be added convulsive or paralytic symptoms. In many instances, the last class cannot be distinguished from general paralysis.

Julius Mickle's paper, in the "Brit. and For. Medico-Chir. Rev.," 1877, is to the same effect.

A. Voisin, in his recent "Traité de la Paralyse Générale des Aliénés" (Paris, 1879), discusses at length the differentiation between paralytic insanity in its first stage and secondary and tertiary syphilitic diseases of the brain. He remarks that the difficulty increases when the syphilitic lesions, instead of being limited, are multiple and diffuse, and especially when epileptic, or epileptiform attacks occur.

Numerous quotations to the same effect might be given, and I shall content myself by simply referring to the works of Wille ("Annales Médico-Psychologiques," 1872 and 1873), Heubner (*ibid.* 1872), Linstow ("Archiv. für Psychiatrie," 1873), Batty Tuke ("Journal of Mental Science," 1873), and Hughlings Jackson (*ibid.* 1873). I may as well also mention the opinion expressed in 1857 by Jessen and Esmark, that general paralysis is always and invariably of syphilitic origin. This assertion has—now, at least—no supporters.

Although Müller and Julius Mickle profess to be able to differentiate the cases by their clinical characters, I do not believe that they can. They do not base their diagnosis on the existence, in one case, of symptoms which are not found in the other, but only upon a difference of degree, frequency, and intensity of the same symptoms.

III.

As the result of further recent research, I have found but few cases at all like that of M. L., or bearing upon the relations between syphilis and general paralysis.

One of the least imperfect is recorded by Virchow, in his work on cerebral syphilis. ("Allgemeine Zeitschrift für Psychiatrie," 1861 ; abstract in "Annales Médico-Psychologiques," 1863, vol. ii., p. 115.) The leading features were secondary syphilis, pains in the head and bones, hypochondriacal melancholia. After three years, progressive general paralysis, with megalomania, with all the usual symptoms of a typical case. At the autopsy there were found multiple

lesions of a syphilitic character, pachymeningitis of the base, gummata of the dura mater, and secondary softening of the cortical substance.

Another case by Esmark and Jessen, reproduced by Renaudin, is not satisfactory, the diagnosis being doubtful.

A case by Müller is peculiarly interesting. A man was affected with typical general paralysis, and was regarded as hopeless, when an exostosis of the sternum showed the true nature of the disease. Iodide of potassium was given, and the patient completely recovered. ("Annal. Méd.-Psych.," 1875, vol. i., p. 464.)

It is, however, unnecessary to give further details. Those specially interested in the subject may look up the following references:—"Annales Médico-Psychologiques," 1873, vol. i., p. 323; 1870, vol. ii., p. 168; "Revue des Sciences Médicales de Hayem," vol. i., p. 245; "Lancet," 1874, vol. i.; "Medical Times and Gazette," 1872, 26th Oct.; "Allgemeine Zeitschrift für Psychiatrie, 1875; "Archiv der Heilkunde," vol. i.

IV.

M. Alfred Fournier has lately published a collection of clinical lectures delivered by him during the last few years in various Paris hospitals, of which the majority have already appeared separately in different medical journals.

The thirteenth lecture of this very interesting work is specially devoted to an affection, called by the author "pseudo-general paralysis of syphilitic origin."

This work is the most important which has yet been published in France, and certain of the ideas therein expressed are quite peculiar to the author.

M. Fournier begins by saying that if, in the present state of science, we attempt to explain the relations between syphilis and general paralysis, we find only obscurity and confusion. Besides, he adds, the majority of physicians in our specialty ignore the question altogether, and if, in their writings, syphilis is mentioned incidentally as one of the causes of general paralysis, this is done vaguely and as a matter of form.

This criticism is certainly not without foundation: M. Fournier has, therefore, done good service in bringing this question prominently forward.

It presents itself, he says, under two aspects.

The first group of patients includes those who are affected by genuine general paralysis, and who, at some period of

their life, have had syphilitic symptoms. Is that a simple coincidence, a pure accident, or rather a certain relation of cause and effect? There is some support for the latter idea, at least in certain cases, and syphilis may have its influence, like every other disturbing and debilitating cause, in the ætiology of affections of the nervous system, especially of general paralysis; but this is only a hypothesis, to demonstrate which is at present impossible, and whose solution is not of great interest. [A very curious remark!—TRANS.]

A second group, much more important from a theoretical and practical point of view, includes “cases of another kind, presenting, indeed, the majority of the characters of general paralysis, but differing from it in numerous features. The symptoms of this disease, it is true, resemble in certain respects general paralysis, even to simulating it; and yet they are removed and differentiated from it by other characters, so that it is impossible to confound them with it.”—p. 337-8.

“These cases, closely allied to, but differing from ordinary paralytic insanity, are those which I have distinguished by the name of *pseudo-general paralysis of syphilitic origin*.”—p. 341.

According to Dr. Fournier, we meet occasionally in cerebral syphilis types more or less complex in their symptoms, but capable of arrangement as follows:—

1st. *Intellectual disorders*.—Cerebral excitement alone, or complicated by incoherence, habitude, or maniacal delirium.

2nd. *Motor disorders* consisting in *uncertainty of movements without paralysis*, awkwardness of the hands, unsteadiness in walking, hesitation in speech, stammering, trembling, and certain partial pareses, transient or more or less persistent.

3rd. Phenomena more variable and less constant; congestive disorders, giddiness, vertigo, disorders of sight and hearing—epileptiform attacks—congestive or apoplectic strokes.

Here is, in a word, one of the possible types of syphilis of the brain. But compare this morbid type with general paralysis. Do not both present similar phenomena, the same combination of symptoms? Does not this type of cerebral syphilis recall, reproduce, in pathological features, ordinary general paralysis?

To support his theory by a clinical example, M. Fournier quotes a case published by M. Baillarger, in the “*Annales Médico-Psychologiques*” for Jan. 1879, p. 68. Finally, to complete the parallel, he adds that one finds at the autopsy, in the cases of syphilis of which he speaks, “exactly the

same morbid appearances as in general paralysis ; namely, on the one hand, the meninges are thickened, infiltrated, opaque, tough ; and on the other, the grey substance is strongly adherent to the membranes, and more or less infiltrated, softened, &c."

Is it not, therefore, difficult to see in what the one type differs from the other, and does it not appear logical to say that, since the resemblance of the anatomical lesions is added to that of the symptoms, we have to do with one and the same disease? Such, however, is not the opinion of M. Fournier ; the combination of all these points of similarity constitutes only, he thinks, a specious, fictitious identity, more apparent than real. Having shown the points in which the types are related, he undertakes to show in which they differ :—

I.—In relation to intellectual disorders, the characteristic grand delusions of general paralysis are, if not always, at least almost always absent in cerebral syphilis.

II.—As to disorders of motility :—

A.—Tremor is less common in cerebral syphilis ; it is almost never observed in the upper lip ; tremor, when it exists, is ordinary trembling, and quite different from the constant tremor, the fibrillar, vermicular quivering so characteristic of general paralysis.

B.—Paralytic disorders, in cerebral syphilis, consist of genuine paralysis, characterised by a diminution of the muscular power ; whilst in general paralysis, the modification of the muscular power is a defective direction of the force, and not its abolition. In other words, the muscular disorders are ataxic, and not paralytic.

C.—Cerebral syphilis can be recognised by the frequency of distinctly localised partial paralyses, and especially by ocular paralysis, and by hemiplegia.

III.—Besides the disorders of intelligence and motility, there are the following differences :—

1st.—Progress of the disease : cerebral syphilis often begins by apoplectic attacks, and sudden paralyses ; then, later, mental disorders make their appearance ; excessive variability of symptoms, and their succession, and the impossibility of foretelling their duration. General paralysis, on the contrary, begins with mental derangement ; its evolution is definite and regularly progressive ; its duration can be stated with tolerable accuracy.

2nd.—General state of the patients : in syphilis, a general cachectic alteration, more or less evident, often from the

beginning; in general paralysis, preservation of the physical health; surprising integrity of nutritive functions until the third stage.

IV.—Further, anatomically, the lesions chiefly affect the grey substance of the convolutions in general paralysis, and the membranes in cerebral syphilis; the pia mater is, especially, much thickened, opaque, resisting, tough; it may be described as a hyperplastic meningitis, a meningeal sclerosis.

Dr. Foville very justly objects to many of the statements of M. Fournier, especially in regard to the distinctions between the two diseases. He summarises his remarks as follows:—

I.—The distinction proposed by M. Fournier between classical general paralysis and another cerebral affection which he calls pseudo-general paralysis of syphilitic origin, is not justified in the present state of science.

II.—Indeed, the essential symptoms being the same, the seat and nature of the lesions presenting the greatest resemblance, the differential diagnosis can only be based upon shades or secondary details, none of which have any really pathognomonic value.

III.—On the other hand, there are some exceptional cases where syphilitic tumours, insulated in the cerebral hemispheres, lead to a collection of symptoms so like those of general paralysis that a differential diagnosis is impossible, at least by clinical signs alone, although the nature and locality of the anatomical lesions may be completely different.

IV.—The name of pseudo-general paralysis is much more applicable to these cases than to those proposed by M. Fournier.

V.—Whatever truth may be in these theoretical views, it is essential, in every case presenting the symptoms of general paralysis, to search carefully for syphilitic antecedents, and, if necessary, to apply a specific treatment.

[NOTE BY THE TRANSLATOR.—I have been tempted to make the above abstract, in the hope that the subject with which it deals may receive the attention of English asylum physicians. Any one familiar with foreign medical literature must have noticed that during the last few years there has been a growing tendency to regard syphilis as an important cause of general paralysis. My own experience would lead me a step further, and say that syphilis is the most important cause of general paralysis.]

My attention was directed to the subject whilst residing in the Perth District Asylum. It struck me as a very curious circumstance that all cases of general paralysis from purely rural districts had not been continuously resident there, but had been, at some time or other of their lives, resident in large towns or abroad. They had been soldiers, railway guards, &c., and exposed to the dangers of town life. I noticed that no man who had spent his life in a highland glen, or small country town, ever presented symptoms of general paralysis. During my subsequent residence in the Inverness District Asylum the same facts presented themselves to my observation, but I was unable to explain them. I was constantly asking myself: What essential difference is there between town and country life to account for the fact that general paralysis only attacks those who have lived in the former? It was, and indeed is in England, the opinion of the profession that general paralysis is due to two chief causes, excessive sexual intercourse and drunkenness. But it is notorious that in the rural parts of Scotland drunkenness and illicit intercourse prevail to a shameful extent. At last circumstances pointed to the prevalence of syphilis as a probable explanation. Two of my own friends, who had suffered severely from syphilis, broke down from general paralysis. About the same time I had under treatment in this asylum two women who were typical G. P.'s. Both these women were infected with syphilis by their husbands. Since that time I have examined every male patient for chancres, and have found them in the large proportion of general paralytics. My numbers are too small to settle such a great question, but I feel that they point to the conclusion that in the great majority of cases, say 8 in 10, syphilis is the cause of general paralysis.

This probability as to the cause of general paralysis receives support from a statement in a recent Report of the "Retreat," at York. It is, I think, undeniable that the Quakers, of all religious sects, lead the most "godly, righteous, and sober life." What is the result? Since the asylum opened, now eighty-three years ago, only *three* cases of general paralysis affecting the Friends have been admitted.

This is a subject of so much importance that it would be well if it were thoroughly examined. To do so would require the co-operation of every Asylum Superintendent in the Kingdom, and, therefore it would be well if the Medico-Psychological Association took it in hand.]

On the Separate Care and Special Medical Treatment of the Acute and Curable Cases in Asylums ; with Proposals and Suggestions for a Detached Hospital, for special purposes, in Connection with every large Public Lunatic Asylum.
By J. WILKIE BURMAN, M.D. Edin., late Medical Superintendent, Wilts County Lunatic Asylum, Devizes.

(Read at the Annual Meeting of the Medico-Psychological Association,
July 30, 1879).

(Concluded from p. 325.)

The principal arguments that may be brought forward against my proposal are—1st, that it is impracticable and inadvisable, as suggested by Dr. Conolly; and 2nd, that it would entail a considerable increase of expenditure.

Doubtless, should we attempt the *absolute* division of the curable and incurable patients in any asylum, we should fail, simply because *that is* impracticable. But I do not suggest the drawing of any such hard and fast line; for, in addition to the separate care and treatment of acute and curable cases, such a detached hospital might well be utilised, and advantage taken of its special arrangements, for certain of the chronic cases which from time to time, by reason of acute accession, and for other reasons, might be benefited by, and most require such special and separate treatment in the hospital—so long as this could be done without interfering with the more important claims of the recent and curable cases. For instance, all cases requiring artificial feeding, whether curable or incurable, might well, for convenience sake, be treated together in such a hospital; and in any case, chronic cases with acute accession, admitted into the hospital for better and more convenient treatment, would be returned to the main building as soon as the acute paroxysm had passed off.

I would not, as Dr. Conolly suggests, condemn any patients to what would appear to them to be a hopeless prison; for even after the limit of time we might reasonably fix for retaining patients in the hospital had expired, and they had been removed to the asylum, there is no reason why, on the perhaps unexpected appearance of any favourable symptoms, such cases should not again be brought back to the hospital to be the worthy objects of special solicitude and attention. Neither do I suggest or fear, as Dr. Conolly feared, any

diminution of that due and full attention to the care and treatment of the chronic and incurable cases, which, indeed, is scarcely likely to obtain under that humane system of dealing with such cases, which is now so firmly established in this country as the outcome of the praiseworthy efforts of Dr. Conolly himself, and of others whose names are too well known to require mention. I am quite sure that any economy that may be effected, as a result of the separate treatment of chronic and incurable cases, will not be at their expense, so far as their just claims are concerned; but will rather spring out of the separation from them of those cases for whom the heavier expenditure is required and may more worthily be incurred in respect of medical treatment and attendance, &c.

With regard to the increased expenditure likely to be entailed by the provision and working of such a hospital on a liberal scale, it must at once be admitted that such would be considerable; but, at the same time, that is no satisfactory and sufficient argument where such important issues are involved, if it be admitted that some such change of system is desirable and would be beneficial, and if it is fairly practicable, in a wide and liberal sense—as it was admitted to be by the majority of those giving evidence before the important Parisian Commission already referred to.

Besides, this increased expenditure ought to be so far met, and perhaps counter-balanced, by the saving that would be effected by the less costly separate care of the chronic and comparatively harmless, as distinguished from the other chronic, cases, which would still require, to a great extent, a continuance of the ordinary expenditure. And there is no reason why the increased expenditure should not be in part met, if needs were, by a *higher rate of charge* for the maintenance of all cases so long as they should reside in the hospital, and be the object of special care and treatment, and of special expenditure on their behalf with a view to their greater benefit. Such an extra charge would be both reasonable and feasible, under the circumstances, because in the great majority of asylums there is plenty of room within the statutory limits to permit of such a step being taken if considered necessary and advisable. In these two ways, then, I believe that any increased expenditure incurred on behalf of acute and curable cases might be readily and entirely met, to say nothing of the great saving that would be effected should a greater number of cures be brought about as the outcome of such special exertions and increased expenditure, and

should the rapid accumulation of incurable cases that is threatening to overwhelm us be thus happily more or less checked.

There are other important purposes, to which I have not yet referred, which such a detached hospital might be made to subserve, viz., to act as a "*Bureau d'admission*," as in the asylum of St. Anne, in the South of Paris, into which all fresh cases would be admitted, and there be primarily examined and kept under observation for a certain time, being discharged therefrom, without being at all committed to the asylum, in case the certificate should be faulty and beyond power of correction, or if, after due observation, the patient should not be found to be insane. Here, also, all cases would be carefully observed in their earlier stages, a diagnosis being made, and a prognosis in each case formed, after due time; and the probably incurable being committed, but not necessarily hopelessly so, to the asylum. All patients should, moreover, in any case, be detained here sufficiently long on *quarantine*, to prevent the possibility of any patient being admitted into the main building in the *incubation* stage of any of the more common communicable diseases, and to secure his immediate isolation, without risk to the great bulk of the patients, in a practically detached portion of such hospital shortly to be referred to. That such risk is not visionary, I can illustrate, from my own experience, at the Wilts County Asylum, where, on two occasions, within five years, patients were admitted in the incubation stage of small-pox and measles respectively. In neither case was there any symptom of such disease on admission, or any reason to suspect such. In the case of *small-pox* no symptoms appeared until the *fifth* day after admission, when the attack developed itself in the usual manner, and, the eruption becoming markedly confluent, the patient died on the ninth day of the actual disease, at the outset of the secondary fever. There was reason to believe that the patient contracted the disease in Shropshire a few days before her admission into the asylum. The case of *measles* was that of a man, over 40 years of age, who was so weak and ill on admission, from debility after excitement and chronic bronchitis (from which he had suffered for years), that he had to be carried into the asylum out of the conveyance in which he was brought, and never left his bed after admission. Though admitted on October 28th, it was not until November 10th that he was observed to be feverish, and in due time a copious rash of

measles made its appearance all over the body. He died on the 27th November, as might have been expected from his previous debilitated and exhausted condition. I should add that there was no other case in the asylum, of either form of disease, by means of which the disease might have been communicated, and also that the case of measles was well marked in all its symptoms, which could not be attributed to chloral (which I have known in two cases to cause a rash very much resembling that of measles), as none of that drug was administered to him.

Putting my ideas into small compass then, I beg to suggest that, in connection with all existing large Public Lunatic Asylums, not built on the pavilion system, it is advisable to have a detached hospital, to subserve the following purposes:—

1. The reception and detention on *quarantine* of all fresh cases, and the more careful and systematic observation of all cases in their earlier stages.

2. The special care and more systematic treatment of the acute and curable cases until, at any rate, convalescence should have become established, when they might be placed together in the hospital for infectious and contagious diseases, so long as it should not be required for its own special purpose, or in one of the better wards in the main building, as far as possible separated from the rest, or in some auxiliary building; also for the temporary treatment of certain chronic cases, when the subjects of an acute accession or requiring artificial feeding, &c., where such separate and special treatment might be considered advisable, and likely to prove both beneficial to the patient and convenient for medical purposes; and for the more careful clinical study of a few selected cases of general paralysis and epilepsy, admitted in a sufficiently early stage of the malady to warrant their separate and special treatment with a view to rescuing them, if possible, from the category of incurable cases.

And 3, and lastly (in a separate portion of the hospital, connected only by an open covered way, with free cross-ventilation), for the isolation and separate care of all cases of communicable disease, whether showing themselves during the period of quarantine, or, later on, in the main building.

In any existing asylum, constructed on the Pavilion System, or in any new asylum to be built on that system (as from its manifest advantages they are all likely, or ought to be, built,

in the future, according to Dr. Lockhart Robertson), the carrying out of such suggestion would, of course, be simplified, and it would be only necessary to fit up and utilise separate pavilions for the purposes indicated. And in all cases where a detached hospital for infectious and contagious diseases already exists, such an adjunct to the proposed special hospital would not, of course, be required. Neither, of course, is it necessary that such a hospital for infectious and contagious diseases should be connected in the way I have described with the special hospital, though it might be considered desirable for reasons of convenience and economy to have it so attached.

Time will not permit of my going into detail as to the arrangements of such a special hospital, and I shall have to content myself, on the present occasion, with merely indicating some of the general principles which, in my opinion, would require to be observed in its construction, general arrangements, and management; and

1. It should, of course, have a central part and two wings—one for each sex. The central part should contain rooms for a separate and extra Medical Officer, who should have no other duty than to carry out its management and the treatment of the patients therein contained, under the direction of the Medical Superintendent. In this central part would also be placed all necessary offices and appliances for special medical treatment under an exhaustive and improved system—such as baths, including Turkish, Roman, &c., electrical room, gymnasium, and the air chamber to be referred to shortly, &c., &c.

2. The proportion of single rooms would require to be large, and the general arrangements, as to superficial and cubic space, &c., should be of a liberal nature, and such as would facilitate supervision both by night and day.

3. One dormitory, on each side, and of sufficient size, would have to be fitted up for the quiet cases (not requiring single rooms), and for the special and continuous supervision at night of suicidal and epileptic cases and others requiring the adoption of such precautions.

4. A large proportion of good-class and specially experienced attendants would of course be required.

5. The adjoining portion for cases of communicable disease would require to be fitted up with complete separate and special arrangements according to well-known and existing plans.

6. The size of the building would of course be regulated by the circumstances of the case. All cases would have to be detained a fortnight at least for purposes of quarantine alone, and I presume that at the end of a month, or thereabouts, one would be pretty well able to decide, in the great majority of cases, as to the probable curability or otherwise. At the end of one month, therefore, in any case, and sooner in some decidedly incurable and far advanced cases, the cases deemed to be probably incurable would be drafted into the main building or asylum. Such being the case, it would seem that, if the hospital were constructed so that it would accommodate the *maximum monthly* number of admissions, or thereabouts, it would probably be sufficiently large for the purposes indicated—consistently with which it should, for hygienic reasons, be kept as small and as compact as possible; for, as Miss Nightingale truly says, “the smallest hospital is the best,” and the less sick people are aggregated together the better. The primary and paramount object of such a hospital should be the separate and special care and treatment of curable cases—as being most worthy the attention and time of the Medical Officer; all other uses to which I have referred, and to which it might or might not be put according to opinion, should be considered as subsidiary, and permissible only when it would not in any way prejudice the prospects of such cases; and the hospital should be sufficiently large, and capable of extension, as to provide against the contingency of its not being able, as it might perhaps not be, in times of pressure and under exceptional circumstances, to accommodate all such cases at any rate; but should any such contingency unavoidably arise, it might be met by the temporary removal to the main building, of as many as might be necessary, of the less hopeful and urgent cases—where they would, under such circumstances, be no worse off than they are at present. Such a hospital might be connected with the main building by a more or less open covered way (which could be used for exercising purposes in wet weather), in order that the general kitchen might be utilised for the hospital, and extra expense, under that head, be avoided. Such covered way would form a convenient means of access in all weathers.

It would be very desirable, for the proper and successful working of such a hospital, and for obvious reasons, that some separate buildings, or wards in the main building, should be set apart for the more suitable treatment together

of convalescent cases, apart from the rest as far as possible, which would relieve the hospital of their presence and make more room for acute cases requiring special treatment.

I am sanguine enough to believe that, should some such special arrangements be provided, and such special efforts made, and more systematic medical treatment adopted, as above indicated and to be shortly referred to, a considerably greater number of cures would be effected; and, at any rate, Asylum Physicians would then have the satisfaction of knowing that the paramount and more worthy objects of such institutions were not being neglected, but rather promoted to the utmost extent, which can scarcely be said to be the case at present, and is, indeed, by force of circumstances, generally admitted not to be the case—the fact being commented upon with feelings of lament.

As to the necessity there is for, and the desirableness of, more active and systematic medical treatment, and a more exclusive method of dealing with acute and curable cases, I may perhaps be allowed to make two or three quotations bearing on the subject, and which will, I believe, but be found to reflect the general opinion of Asylum Physicians in the matter.

Dr. Maudsley, in his well-known work on "The Physiology and Pathology of Mind," speaks very strongly and clearly of the desirableness of lessening the sequestration of the insane and of allowing many of the harmless and incurable to spend their days in private families with the comforts of family life and the blessings of the utmost freedom that is compatible with their proper care. He tells us that he thinks the future progress in the improvement of the treatment of the insane lies in this direction, and he then goes on to say that when it has been found possible to act upon such views—

"Then will asylums, instead of being vast receptacles for the concealment and safe keeping of lunacy, acquire more and more the character of *hospitals* for the insane, while those who superintend them, being able to give more time and attention to the scientific study of insanity and to the means of its treatment, will no longer be open to the reproach of forgetting their character as physicians, and degenerating into mere house-stewards, farmers, or secretaries."

Let me also quote what Dr. Clouston says on the subject in a paper "On the Medical Treatment of Insanity," published in the "Journal of Mental Science" for April, 1870. Advocating the more careful and systematic observation of

acute and recent cases, he remarks as follows in Carlylean style :—

“The last and by no means the most inconsiderable objection will be that ‘we have no time to do all this; that our book-keeping and building, our multifarious superintendence of servants and stewards, our distraction of mind from theatricals and water-closets, is such, that we cannot devote attention enough to carry out such a scheme of treating our patients.’ Then, I say, if that is the case, by all means let us neglect some of these things, and allow our patients a fair share of our time and mind. Surely we have been long enough organising and beautifying our *asylums*. It is the *patients’* turn for an innings now. We have heard of nothing for twenty years, in asylums, but bricks and mortar, ornamentation and recreation; it is surely time to fall back upon our almost forgotten employment as doctors.”

The only other quotation that I shall trouble you with, *à propos* of this subject, is from a very able review of the Lunacy Blue Books of the period, published in the Journal for January, 1873, in which the following remarks are made :—

“These reports show that, on the whole, there is an immense amount of thought, and care, and effort exercised in the treatment of the insane, by all who have to do with them. Year by year the efforts towards a more perfect system of treating and managing them seem steadily to increase in *all but one direction*. That spasmodic and individual efforts are made in this direction is true, but, on the whole, the medical treatment of the diseases which are comprised under the term insanity stands still, as compared with the asylum building, general managing, &c. So far as these Blue Books go (with some exceptions in the Scotch Report), they might be about any other evil that affects humanity than a well-marked disease arising from the disordered function of one of the organs of the body. Three books about a disease with nothing medical in them! Everything that concerns the treatment of those labouring under this disease, professedly gone into, and not a word about medicines! Talk of modern scepticism, the Reports of the Commissioners and Inspectors in Lunacy are the finest examples of medical scepticism extant; for they don’t deny, deride, or ‘damn with faint praise,’ they simply ignore the whole science and art of Physic and all its Professors. It may be that this will be better in the long run, for the study of the medical treatment of insanity as a disease; but it is hard to see it, if its practical effect is to encourage asylum doctors to ignore the medical aspects of patients, and sink into a state of lethargic indifference to the unsolved problems in brain pathology, diagnosis and therapeutics, that daily come before them. Every year physiology shows some closer connection between brain and mind. Every year psychology admits a closer

dependence of mind on brain. Every year medicine proclaims the increased importance of the agents that act on the nervous system. No one can doubt that the discovery of any agent that would cut short an attack of any one form of insanity, would do more good to humanity than all the Lunacy Blue Books ever written; that any mode of treatment, which would prevent the occurrence of any form of insanity, would be worth all the money ever spent on Lunacy Commissioners. And yet all the persons who have to study and treat that most common but mysterious disease, the elucidation of which might solve the problem of the connection of mind and matter, the cure of which would be the most blessed boon to humanity which ever the Angel of Mercy bore to earth, and the prevention of which would cut away the roots of untold crime and sin, and social misery—those persons are chiefly encouraged to look at the matter from the point of view of the comfort and quiet that can be produced in lunatic asylums by good arrangements well carried out. It does not seem to be realised that we now have good enough asylums for all useful purposes, and that we ought to have passed into a further stage of the care and treatment of the insane than mere asylum management, or even lunatic colonies and the boarding-out system.”

I must apologise for the length of the above quotation, which I have ventured to place before you in full, because it affords me such a general support in the views I have given expression to in this paper, and because it expresses in much more able and eloquent terms than are at my command, our present position with regard to the medical treatment of the insane, and the generally admitted desirableness there exists for some reform, either in the way that I have roughly indicated, without at present committing myself to details, or in some other more suitable and practicable manner, if such can be suggested. The difficulties to be overcome with a view to effecting such reforms do not, I am sure, arise out of the apathy and willing lethargy of Asylum Medical Officers, but rather are involved in the important question of ways and means, under the sole control of the Visiting Justices of asylums; and it remains to be seen whether or not, in the case of one or two of our large public lunatic asylums, the visitors may have sufficiently liberal views to allow of their being successfully advised to sanction such reforms—in which case a good example being set, and the experiment fairly made, we might, with confidence, expect happy results. There can be no doubt that the Commissioners in Lunacy (one-half of whom have had great practical and personal experience in asylums, and are, therefore, well qualified to deal with the subject), might, as the reviewer, above quoted,

suggests, well direct more attention to the supervision of the medical treatment of the insane, with a view to ascertaining whether or not *curative* agencies are adequately, and to the utmost extent, applied in asylums, and thus, by their weighty influence and suggestions, stimulate the energies of Asylum Physicians, and overcome the scruples of Asylum Visitors with regard to this important matter; as they have uniformly, in the main, done, with regard to the other matters which they have from time to time specially dealt with in their reports.

In concluding these already too lengthy remarks, let me just suggest, with a view to the promotion of the cure of insanity and the amelioration of the condition of the insane (so far as these are more or less under our control, by the use of therapeutic and remedial agencies) that in such a special hospital a further and more extended trial be given than has yet been recorded, to such powerful and important agencies as the following; and amongst remedies acting externally I would refer to—

1. Baths of all kinds, and the water treatment generally, including Turkish and Roman baths, medicated baths, the cold douche, wet packing, the ice-bag, &c. No one who has read the careful and elaborate remarks of Ringer on these forms of treatment, so largely used in French asylums, can doubt that such agencies are destined to a much wider and more general application in this country.

2. Electricity, in its various forms, whether applied directly to the brain or separately to the muscles and nerves.

3. Light and darkness, and the coloured light, as recommended by Ponza, agencies having well-known powerful effects upon the human economy, and especially upon the nervous system, and being, at the same time, easy of application.

4. Gymnastic exercises; and

5. Counter irritation in its various forms.

And amongst remedies acting internally I would suggest a greater use of such therapeutic agents as can be inhaled, (and thus produce quicker and more certain action), such as the nitrite of amyl and nitrous oxide gas, &c., and the more extended use, as far as possible, of the stable active principles of drugs, by subcutaneous injection or otherwise, rather than other preparations, which have been found to be so uncertain and less uniform in their action. The number of active principles, so available, are steadily increasing, and will continue to increase according to the demand there may be for them.

Amongst such, I conscientiously believe, from my experience, in its use, that with proper care and due precautions, conia (whether alone or in combination with acetate of morphia) needs only a fair trial to render its use, in subcutaneous injection, of great and decided benefit in cases of acute mania. I cannot find that any one has taken the trouble to test the value of my humble researches and observations with regard to the sub-cutaneous use of this alkaloid, as in the case of another important alkaloid, viz., hyoscyamine which I should also refer to as being worthy of more extended trial than it has even yet received at Bethlem Hospital, which appears to be one of the too few large institutions for the insane in the kingdom, that, it seems, can be roused to a healthy rivalry in the use of therapeutic measures and a determination to test and verify those "spasmodic and individual efforts" elsewhere made, and referred to by the writer of the review previously quoted.

Considering also the purely functional nature, to a great extent, of the disorders comprised within the term insanity, and that, in most cases, functional disorder must, at any rate, precede organic lesion, it is to my mind a matter for some little regret that we do not hear more of the use of such radical remedies as Belladonna, or its active principle—Atropia, Ergot of Rye, Calabar bean, &c., and that greater reliance should continue to be placed upon drugs having a more tangible effect, such as opium, and its derivative—morphia, chloral and bromide of potassium, the use of which, with the exception of the last mentioned, is of a temporising and palliative, rather than of a curative, nature, and productive of a not unalloyed benefit in cases of insanity, and is objected to more or less by some who consider those agents as but "chemical restrainers." I do not, for one moment, desire to underrate the value of these last-named drugs, and only suggest that they should be more largely supplemented, and more or less replaced, by the use of other drugs and external agencies which are better calculated to strike at the *roots* of the disease, and may be considered likely to bring about equally beneficial, if not better, results, without mental drugging and other well-known disadvantages. Another agent that I should like to see brought into use in asylums (and it is one that acts both externally and internally) is *compressed air*, the breathing of which (breathing as we do by *volume* and not by *weight*) means taking in an excess of oxygen,

and the increased pressure of which, upon the external surface of the body, gives rise to certain effects on the internal organs, which would be desirable in some forms of insanity, and of the bodily manifestations so often accompanying it; and, on the contrary, rarified air, if, as according to Parkes, it causes "quickened pulse, quickened respiration, increased evaporation from the skin and lungs, and, on the whole, a very marked improvement in digestion, sanguification, and, in nervous and muscular vigour," might be extremely useful in another class of cases of insanity: the treatment, in either case, being applied as in the establishments at Lyons and Reichenhall, and elsewhere, by placing the patients, for a certain time each day, in an iron chamber, with thick plate-glass windows, and compressing or exhausting the air by so many atmospheres as might be considered necessary and desirable.*

You may, perhaps, consider me visionary in making such suggestions, but I am none the less of opinion that such important agencies as these will not hereafter be discarded, simply because they would entail considerable primary expense in their application, and because their adoption could only fairly be warranted as a portion of the arrangements of a separate hospital, in connection with an asylum, specially adapted for promoting, to the fullest extent, the use of all means likely to conduce to a greater recovery rate amongst curable cases, and to result, perhaps, in the rescue from life-long insanity of many cases at present deemed incurable.†

It is evident we are on the eve of important reforms in the treatment and management of the insane, and I cannot but think that, when these have been effected, we shall find that the paramount claims of the curable cases will, in some way or another, be found to have received their due meed of

* Such a chamber would, moreover, be of service for the remedial treatment of patients by means of "air medicated with gases, or fine powders, or various amounts of watery vapour," when such a method of the treatment of disease (referred to by Parkes, in his "Manual of Hygiene," p. 358, as "sure to become more common") shall have become recognised and established.

† Since writing the above paper, my attention has been drawn to the important work, published in 1878, by Dr. Paul Bert, Professor in the Faculty of Science in Paris, entitled, "La Pression Barometrique, Recherches de Physiologie Experimentale;" for the elaborate researches summarised in which, Dr. Bert has recently been awarded the newly instituted "Cameron" Prize of the University of Edinburgh, in addition to other distinguished awards made for the same work, by the Academy of Sciences in Paris and the French Institute. For summary of this work, vide "The British Medical Journal" for Aug. 9th, 1879.

attention, *in addition* to the solution of the mere *pecuniary* problem of how best to provide for the chronic and harmless cases in some cheaper and yet suitable manner. Such reforms, to be satisfactory and effective, ought to facilitate an attempt to ascertain whether or not it be possible, by more special and systematic treatment, and a greater attention to *medical* duties, as distinguished from those of a general and administrative nature, to promote a larger recovery rate amongst the *curable* cases, and to stem the accumulation due to the rising tide of *incurable* cases. And it appears to me that in such an attempt, along with a larger adoption of the system of the care and treatment of certain classes of patients, by other well-known and more desirable means than indiscriminate sequestration, lie those radical and fundamental considerations, by a proper attention to which alone, shall we happily arrive at a satisfactory solution of the important and pressing problem—how best to deal with the ever-increasing population of our asylums.

Three Australian Asylums. By A. R. URQUHART, M.D.,
Physician Superintendent of the Murray Royal Asylum,
Perth.

In following up Dr. Manning's paper in the July number of this journal with these fugitive notes of a series of very pleasant and instructive visits, I would premise that the changes of three years have taken place since it was my fortune to spend a season in Australia—that most hospitable of countries. Victoria has lost Dr. Robertson, and Queensland Dr. Jaap—gaps not readily filled up in a remote and little-known service. Administrative changes in the progressive spirit of the Australian commonwealth have swept away faulty arrangements, but the struggle for improvement remains in able hands and with stout hearts.

As pointed out by Dr. Manning, in his exhaustive letter, lunacy at the Antipodes presents somewhat different aspects from the English type, and new phases arise to be combatted. The incidence of the Australian Superintendent's troubles is altered, not destroyed; to balance his faultless climate, splendid sites, ample boundaries, and abundant food supply, he is too often laden with the vexations of misgovernment in high places, and of plutocratic servants; is at his wits' end with deferred admissions, and the difficulties of discharges. The spirit of the people, the rawness of the land present new

obstacles to treatment, and the altered circumstances of every-day life find expression in types of mental disease and difficulties of management peculiar to the country.

Gladesville Asylum, Sydney.

The Metropolitan Asylum of New South Wales, so ably administered by Dr. Manning, has the varied advantages of site and climate. It is placed on a charming reach of the Paramatta River, about six miles by water from the city of Sydney. Communication between the asylum and the town is ordinarily kept up by means of a steam launch—all patients being so conveyed. The public river steamer sets one down at the hamlet of Gladesville, within easy reach of the establishment.

The first thing that strikes a visitor to Gladesville is the very picturesque and sequestered situation—though this is, perhaps, hardly the place to enlarge on the exquisite surroundings of Sydney—and the first thought of the specialist is a doubt as to the possible extent of the personal liberty of suicidal patients, with the daily temptation of a great flowing river at the foot of the garden. Suicides, however, are of the rarest occurrence; but the river is, of course, an undoubted bar to the full freedom of patients of this class. The great extent of unreclaimed bush that lies all round the asylum is a danger still more restrictive. Shortly before my visit a female patient had escaped, and eluded all efforts to discover her for several days, yet she was never more than a quarter of a mile from the boundary wall. And even when she was found and brought back, the condition to which she had been brought, by sheer starvation, had almost proved fatal. Both these causes, together with the roving freedom of Australian life, combine to restrict the exercise of many patients to the airing courts, and to diminish the number of out-door workers.

The grounds are highly ornamental, and pleasant with ferneries and rockeries, and green walks and orange trees.

At the foot of the garden a spacious bathing-house has been staked off from the river, so as to exclude the sharks that swarm beyond. Here, at times, laundry work is done. The boats and tiny pier are necessaries in this Antipodean Venice.

The estate was completely walled in on the building of the asylum; but the cemetery and a very extensive reserve of bush are still beyond these defences.

In a remote corner of the garden is a deep ash-pit, where the refuse of the house is carted and left to rot, the liquid part being drained off and used to irrigate the kitchen garden, the solid part being trenched into the earth in the usual way.

The land is naturally very uneven and rocky, the soil poor and light; but the greater part of it has been reclaimed—terraces of vines and orange trees taking the place of the virgin bush. This is the result of the work of the male patients, an average of fifty being so employed out of a population of 300.

Much blasting of rocks and much carting of *débris* have been done during the many years of labour this has involved. As an instance of colonial prejudice it may be remarked, in passing, that the use of a hand cart in this work has been found impracticable, the patients objecting to it as a relic of the bad old times of convict service. And Dr. Manning's attempts to introduce oatmeal porridge as an article of diet failed on similar grounds. It seemed to carry with it a suspicious resemblance to penal servitude.

The airing courts are extensive and pleasant, overlooking the gardens and the river beyond. The great sunshades in the centre are everyday wants where so much of life is spent under the verandah. Here, too, are many pets—kangaroos, emus, tortoises, birds of divers kinds in aviaries. These form one of the special features of Gladesville, a successful venture highly appreciated by the patients in the vast majority of cases.

Besides these well-wooded extensive airing-courts, there are several in the centre of the building all more or less cheerful, where the patients pass most of their idle time; and running round these courts are paved verandahs, where the lavatories are placed.

The asylum has been built with due regard to the demands of the climate, so as to give the greatest possible amount of *shade*. The quadrangular blocks are of one storey, and very narrow—too narrow in fact—giving day-room accommodation of the most meagre description. Herein is presented the greatest contrast to English asylums, the comparative unimportance and all but total absence of day-rooms, and the scantiness of the furnishings.

The single rooms and dormitories are much over-crowded, and the *latrine* arrangement seemed most undesirable. This consisted in a slop-pail, set in a shallow leaden trough in a

corner of each dormitory, instead of the usual chamber-pots ; and though the windows gave a good cross ventilation, there was a perceptible urinous smell throughout these rooms. The bedsteads are of iron, of a special pattern, the bedding warm and comfortable, hair gradually taking the place of straw, though Dr. Manning is not altogether favourable to the use of hair for wet patients. The earth-closet system is alone in use, and has been found wanting, though every precaution has been taken to ensure success.

The water supply is extremely scanty, being brought from Sydney, and eked out by the collected rain fall.

The Steward's stores and kitchen block have lately been repaired, remodelled, and enlarged. The laundry is very complete, being arranged on the French plan. The drying room is a spacious apartment with louver windows, and a large bore steam pipe running round. It is but seldom used for drying, but mostly as an additional ironing room.

A corrugated iron erection of unseemly appearance serves as chapel and amusement hall, but of late it has been called into use as a dormitory, owing to the crowded state of the house.

A sewing-room has been formed out of a cellar, and here a full complement of female patients work. Considerable difficulty is experienced in getting patients to employ themselves, notwithstanding the customary levers of encouragement—the tobacco, the snuff, and the amusements. The colonial working man, always thoroughly imbued with a deep sense of the market value of his work, abates none of his high-handed treatment of capital when bereft of reason, and considers food and clothing a very poor remuneration for the most ordinary labour. This, often a real difficulty in England, becomes a very formidable trouble in Australian asylums, a great drawback and hindrance to the efficiency of the house. Here no patients are employed as tailors or shoemakers.

There is no separate dormitory for epileptics. The infirmary, on the male side, is a cheerful room with a special attendant ; on the female side each attendant nurses her own sick. A piece of musquito gauze is laid over the face of such patients as will permit it. One patient was being fed with the stomach pump, and several were in strong dresses on my visit. Restraint and seclusion are used to a moderate extent, and shower baths given for medical purposes.

The diet scale is most liberal, more meat being set down

than seems at all necessary; and the increasing price of this item has rendered a re-consideration of the whole question necessary.

Dances, theatricals, and other amusements are held weekly, and occasional picnics and water parties are given.

The asylum is directly under the control of the Colonial Government, and is visited by three physicians from Sydney at intervals. At least one of them, Dr. A. Roberts, has for many years taken a most active and beneficent part in the care and treatment of the sick poor in New South Wales.

Dr. Manning, as Physician Superintendent, has supreme control over the working of the asylum, and is assisted by the usual staff; the Steward, however, being a more responsible officer than his English prototype, which change has been found to work well.

Salaries of officers are pretty much the same as at Melbourne and Brisbane, but the attendants are not quite so well paid, while the number is quite as large. The latter are liberally treated with regard to leave, rations, &c., and of course are all trained in the asylum. All officers are subordinate to the Medical Superintendent, and all servants and attendants are appointed and discharged by him.

Dr. Manning touches on the special difficulties in regard to admissions, and I cannot but think that the present system might be in some measure rendered less cumbrous.

After the capture of a lunatic wandering at large, many months often elapse before he arrives at Gladsville. He must be conveyed from station to station by the police, as they may find opportunity; and on his arrival at Sydney is certified in open police court by a medical man and two magistrates. Thence he is sent to the Lunatic Reception House, a small place under the shadow of Darlinghurst Gaol, where he remains several days. This house is under the care of a lay Superintendent, one male and one female attendant. Should a patient recover (*e.g.* the case having been one of drunkenness), he is discharged under certificate of the Medical Officer, who visits twice daily.

The Reception House is a cottage building containing a day-room and two three-bedded dormitories, with a padded room on either side—a limited verandah being used as an airing court—giving a *quasi* freedom to the seclusion. Five men and two women were here on my visit; one man had recovered, the others were to be sent on to Gladsville. Communication is kept up between the two places daily, a

telegraph wire connecting the asylum with the central post-office. Formerly pauper lunatics were remanded to the gaol. Violent cases are sent to the asylum with the least possible delay, but some remain in the Reception House for 10 or even 14 days.

With regard to the discharge of patients, no provision is made for trial on probation—the discharge must be absolute. This is the effect of the wide range of country, and the unwillingness or want of friends to take charge of imbeciles or of convalescents.

The cost of maintenance at Gladesville was £29 in 1868, increasing to £31 in 1874.

Kew Asylum, near Melbourne.

It is necessary to preface these notes on the Victoria Asylum at Kew, near Melbourne, with the remark that, at the time they were taken, Dr. Robertson, the esteemed Superintendent, was a confirmed invalid after a long service of twenty years; and the onus of the management of the place really lay with the Colonial Government, whose proceedings have of late been attended by such unpleasant notoriety.

The Kew Asylum is an imposing building, finely placed in park-like grounds near the River Yarra, about five miles from Melbourne. The general plan of the building is on the English model, so that one feels more at home than in the bungalow-like Gladesville. But with the building the resemblance ceases, for the interior is as bare and empty as can well be imagined. The root of the evil undoubtedly lies in the form of government, for, as in America, politics are intimately mixed up with every public office, and the clamorous loafers are rewarded with places. Universal suffrage and salaried members of Parliament are the stumbling-blocks in the way of the Medical Superintendents of Victorian asylums.

The attendants are few in number, and preposterously over-paid. They are appointed by the Government of the day, and may not be dismissed by the Medical Superintendent, save through the Home Office. With such a system discipline is impossible. At the time of my visit an enquiry was on the *tapis* that had already endured many months. An idle, maligning nurse had been discharged after the usual *formulæ*, and had retaliated with wholesale charges against the entire asylum staff. The evidence of patients was taken freely and indiscriminately, and the result was lavish per-

sonal abuse and gross mis-statements flaunting in the columns of rival newspapers. One of their reporters, too, had played the amateur casual (as an attendant) and made his experience the basis of numerous sensational articles after the style of the once notorious "Man and Dog Fight."

Such circumstances are certainly not conducive to the *morale* of a large public establishment, and may account in some measure for the backward state of the asylum.

Personal liberty is much restricted, and the number of working patients very limited. At the time of my visit one man, in camisole and gloves, was tied in his chair. Several wore gloves alone, and many were in strong dresses. All sorts and conditions of men were represented—the Western nations and the Eastern, English, French, Chinese, Germans, Lascars, and Aborigines in one motley troupe.

Many were extremely violent and excited. There were nearly 1,000 patients in the building altogether; 200 of the worst class of males were assembled in an airing court with only three attendants. The closets in this court were most offensive. Earth closets are used throughout, but are not found to work satisfactorily. In the airing court in front of the house are fine sunshades, but no such provision was made in the place above mentioned.

The bedding and beds are clean and tidy, but throughout there is a want of home-like comfort that strikes one harshly. The patients, however, are scarcely in the house save to sleep and to eat, so that these things may be of less urgent need; and an administration with a due regard for economy cannot furnish freely at present Australian prices. The floors are varnished once a year, and partly covered with cocoanut matting. Shower baths are open to the attendants, but are only given by medical order.

The dining hall is spacious and cheerful, and here there are frequent amusements. A noticeable feature was a grand piano, encased in a rough wooden shell for its better preservation.

The male hospital ward, with 1,000 cubic feet to each bed, contained 67 patients on our visit, a great number being general paralytics. The extra diet list was ample and extensive.

Lunacy increases in a very rapid ratio, and the asylums are full to overflowing. There are many chronic and harmless patients that would do well elsewhere could suitable arrangements be made.

Woogaroo Asylum, near Brisbane.

The Woogaroo Asylum for the accommodation of the insane of the Colony of Queensland is finely placed on the lofty banks of the river Brisbane, about a mile from the township of Goodna, and ten miles from the capital. The late Superintendent had many just complaints as to the building itself and the mode of government; and, in fact, his first remark to me was deprecatory of the state of affairs.

Though it had been then open for ten years, no proper roadway had been constructed from the village to the asylum, nor had an intervening creek been bridged over, save for foot passengers; though this could easily have been done by patients' labour were certain ironwork forthcoming that had been applied for repeatedly by Dr. Jaap. The asylum, of course, belongs to the Colonial Government, and is directly under the control of the Ministry, who manage it through the Colonial Under-Secretary. This official is laden with the care of many and various interests, and their conflicting claims clash sadly. Thus in the case of the dresses for female patients at Woogaroo, instead of being made at the asylum, they are fashioned by the female convicts, the question here being one of Convicts *v.* Lunatics, the former carrying the day in accordance with the idiosyncrasy of the Under-Secretary for the time being. Work must be found for the prisoners without regard to economy, comfort, or comeliness, not to speak of the primary object in providing work for the patients being entirely lost sight of.

Again, door-locks were required for a new wing. Locks were certainly supplied, but each required a separate key, the reason assigned being that it was a new idea of the Colonial Secretary's, and sent to see how it would work! There is unfortunately no difficulty in multiplying instances of this mismanagement of centralisation. It has ever been a sore subject with the Colonial Government that there should be lunatics to care for, and amid the many and pressing claims on the attention of a young colony it has been too much lost sight of.

A responsible and unchanging Board of Management is much required, formed of men who are not oppressed with multifarious callings, who will view their asylum as a hospital for the treatment of mental disease, and not as a prison for the total abolition of lunacy; who will not turn from the sub-

ject with ill-concealed disgust or meagre tolerance. With an ever-changing body such as Colonial Ministers are, and where the plans and promises of one party are not considered at all binding on its successors in power, no lasting reform can be made.

The general plan of the asylum is extremely scattered and rude in detail, expensive to maintain, and quite inadequate to the wants of its inmates. The male department is nearly a mile distant from the female division, thus necessitating two kitchens, with appropriate staff and apparatus, and entailing manifold encumbrances to proper control and discipline. It strikes the eye of a visitor as unfinished and temporary, and repels feelings of homely comfort as he toils along the rugged approach and tottering bridge; and yet the estate has every natural advantage, and might be made one of the pleasantest spots in Queensland.

The style of architecture is that of our older asylums—the minimum of space, convenience, and comfort, with the maximum of confinement, unfitness, and aggravation. Though there is great overcrowding, however, there were on my visit but few on the sick list, it being the healthy season.

Since the opening of the asylum the average death rate is 15 per cent. per annum, though for 1875 it was only 5.21, as stated by Dr. Jaap in his report, an exceptional year.

The single-room accommodation is perfectly inadequate, a detached series built of stone being uninhabitable in hot weather, and some old wooden shanties much preferred, though their rough boarded walls are riddled with chinks and crevices. The stone cells were built by the Colonial Architect without reference to their purpose, and however useful they might be as punitive places of solitary confinement for refractory convicts, they are useless as sleeping places for asylum inmates.

The water supply is most defective, for though an immense reservoir has been formed by the patients' labour, no pipe yet connects it with the female division, and all water is conveyed in barrel carts, thus rendering washing and bathing most difficult of achievement, notwithstanding the proximity of a two years' supply of water. There is, indeed, a bathroom under a large iron tank at some little distance from the male department, but it is not large enough for the population, and though in use for a considerable time, it is not yet finished.

The hot water for the infirmary wards is got by the primitive method of boiling it in the open air.

It would be easy to instance many other faults, but it is more grateful to turn from these to note the cleanliness and order in a house so utterly unsuited to its purpose—to find the patients so well cared for under these numerous disadvantages.

During my visit all were in the open air, in pleasant, though somewhat limited, airing courts. These have been formed by the patients' labour, many tons of earth having been removed in levelling, the result being terraced gardens overlooking the noble stream beyond. The large proportion of working patients and the few excited cases speak volumes for the system of household management; and, considering the difficulties of possible escapes to the bush and suicides in the river, an immense amount of farm and estate work has been done.

There is no chaplain attached to the institution, a kindly clergyman visiting once a month. There is no chapel, amusement hall, nor amusement fund.

The closets are on the dry-earth system, and, being made of the most flimsy materials, are constantly out of order.

One or two patients were wearing gloves, and one or two were in seclusion. The clothing was well adapted to the climate, though defaced with a great L.A. and broad-arrow imprinted most conspicuously.

The dietary is liberal, but vegetables are still scarce. This is, indeed, a common ground of complaint against Australia as a country. Except in the large towns, vegetables are hard to get, and are quite unknown in the backwoods.

The same difficulties in regard to admission and discharge, the same meagre furniture, the same effects of remoteness, are here to be noted as in the other colonies; only in Queensland these are aggravated by reason of the comparative newness of the country, and the balmy air of Sydney is exchanged for the oppressive heat of Brisbane.

I may not end this paper without a word in acknowledgment of the labours of Dr. Jaap, a trifling tribute of well-earned praise from one who was hardly more than a passer by. The earnest work of so many years cannot be well summed up in a few lines, but a continued heroic struggle in face of swamping difficulties that I have but faintly outlined, should not pass unnoticed in the Journal of his order.

Diffused Cerebral Sclerosis. By T. W. McDOWALL, M.D.,
County Asylum, Morpeth.

In the course of my asylum experience, this is the best example of the disease I ever met with, and I am therefore tempted to place it on record.

Diffused cerebral sclerosis has not attracted much attention of late years, and is, as a rule, only referred to incidentally as one of the causes of idiocy. I know of no works where it is systematically described, except two, both American. The account given by Hammond is very full and interesting, that by Hamilton is more condensed. Hammond gives numerous references to the literature of the disease, mostly French and German.

At the time of making the post-mortem, I was not fully alive to the importance of a microscopic examination, not only of the cerebral convolutions, but also of the ganglia and spinal cord. Such an examination could not have failed to afford most valuable information as to the secondary affection of these parts. So, for some purposes, this record is admitted to be imperfect. Only one or two small portions of the frontal convolutions, where the disease appeared most advanced, were prepared for further study, and I must take this opportunity of thanking my friend Dr. Major for preparing the sections and giving me great assistance in arriving at a correct idea as to the nature of the morbid changes observed.

The following history is abridged from the Case Book :—

W. B., æt. 18, admitted 19th Sept., 1877. The medical certificate states that he is quite deaf and unable to answer questions; in fact, is quite idiotic. His mother says that he eats his shirts and clothes when he can get at them. *History* (from father).—He is the eldest of six children, and was a strong, healthy lad until about three years ago, when he sustained a severe injury of the head (left occipital region), by falling from the top of a lime kiln. He was able to walk home after the accident; but whilst telling his parents what had happened, he was seized by a succession of severe fits. For six months they recurred at irregular intervals, and during that time he was confined to bed, his mind gradually becoming weak. At last he began to improve, and became so well, both in body and mind, that he was almost fit for work again. Eighteen months ago he went to bed in his then usual condition; when he awoke he was paralysed on the left side. Since that time he has gradually become worse in every respect.

For the last six months he has shouted much at night. He is now, and has been for months, dirty in his habits. Since the paralysis

occurred, speech, with other manifestations of intelligence, has gradually left him. Except two vulgar words, he had said nothing for several months, when, last night, much to the surprise of his friends, he shouted "thimble."

State on Admission.—He is a typical case of organic dementia. Every trace of mind appears to be gone. He lies in bed all day, unable to move, a perfect skeleton. Whenever he can manage to get a piece of sheeting &c., near his mouth, he immediately begins chewing it. If care were not taken he might choke himself, for it is surprising to see the amount of cloth he can draw into his mouth in a few minutes. He frequently swears: this is his only manifestation of intelligence. All his limbs are contracted; his arms are strongly flexed across the chest and his knees almost touch his chin. The fingers are flexed, and press against the palm. When he wishes to get hold of a sheet he can stretch out his arm slightly, and catch it by bringing the thumb and side of index finger together. Grinding of the teeth is nearly constant. As he lies in his bed he rolls his head from side to side, and utters a sound something between moaning and humming. The attendant says that the song, "Not for Joe," can be occasionally recognised, but, as a rule, the humming is meaningless. He takes his food readily, but without evincing any pleasure; his jaws move freely, and he swallows mince, &c., with ease.

There is no squinting, but left pupil is slightly larger than right.

There is no external indications of any head injury, but there is a purulent discharge from the left ear.

5th Oct. Still confined to bed: wet and dirty. At night he is generally very noisy, shouting and screaming as if in pain.

2nd Nov. He has rapidly become more feeble; bedsores have appeared, and he is rapidly sinking. To-day he had two fits, but beyond the fact that they were severe, no description of them can be obtained from the attendant.

5th Nov. Died at noon.

Post-mortem Examination 22 hours after death. Weather cold and unsettled. Post-mortem rigidity well marked in the lower limbs. The body is much emaciated, and there is an extensive bed sore over the left trochanter, and there are smaller ones over the right and left iliac crests. There is no mark of injury. A considerable quantity of thick purulent discharge has escaped from the right ear.

On reflecting the scalp, a marked inequality on the surface of the left frontal eminence was observed. It has the appearance of an old punctured wound. Calvarium is of average thickness and density. The punctured depression observed on the outer table has not implicated the inner one.

During the removal of the brain, a large quantity of serum escaped. The arachnoid is slightly opaque in every direction, and is everywhere adherent to the convolutions. There is no trace of atheroma of the vessels at the base. The consistence of the brain is quite altered; this change is specially marked in the convolutions of the frontal and

parietal regions which feel quite hard. The whole of the cerebral hemispheres appear atrophied, even the occipital and temporo-sphenoidal lobes; but these are less affected than the superior and anterior. On section the grey matter is much atrophied, dark, and hard to the touch in most places. The white matter is also firmer than normal. In the middle of the right centrum ovale, on a level with the floor of the lateral ventricle, there are two small patches of softening. Both lateral ventricles are much distended by fluid, and their lining membrane roughened. In the floor of the right lateral ventricle, at the junction of the corpus striatum and optic thalamus, there is a patch of yellow softening. Superficially its area is very small, but it penetrates rather deeply, about $\frac{1}{2}$ inch. The floor of the fourth ventricle is markedly granular.

Heart.—Very small, otherwise normal.

Lungs.—Somewhat œdematous and congested posteriorly.

Liver.—Gall-bladder distended by dark thick bile; normal but firm.

Spleen.—Normal but firm.

Kidneys.—Normal.

Bladder.—Considerably distended and coats thickened.

Intestines distended by flatus; numerous common thread-worms.

Weights.—Brain, $38\frac{1}{2}$ oz.; heart, $3\frac{3}{4}$ oz.; right lung, 10 oz.; left $16\frac{1}{2}$ oz.; liver, $18\frac{1}{2}$ oz.; spleen, $1\frac{1}{2}$ oz.; kidneys, each, $2\frac{1}{2}$ oz.

Remarks.—In his work on diseases of the nervous system, Dr. Hammond quotes at length several cases recorded by Pinel the younger, and others. It is worthy of special remark that they are all, with one exception, idiots in whom the disease began in early infancy. The exception is that of a gentleman, æt. 43, who had been ill six months, and in whom Dr. Hammond diagnosed diffused cerebral sclerosis; but, the patient being alive, no post-mortem notes are forthcoming to certify the correctness of his conclusion, and I must confess that the short history he gives does not conclusively set the question at rest.

Its predisposing causes are unknown, and the same may almost be said of its exciting causes; but “injuries of the skull from falls or blows and hæmorrhagic cysts appear to have some influence in originating the disease, but more generally it is developed, so far as we can perceive, spontaneously.” P. 273.

Relative to its morbid anatomy, it may be remarked in passing, that Pinel makes the curious statement that the diseased process does not invade the grey matter. This is not in accordance with my experience. In the present case the hardening and atrophy of the grey matter were very marked, and the same was true in some idiots’ brains I have

from time to time seen, but in these the lesion did not by any means involve such a wide area.

The microscopic characters of the lesion are well known, and to these I would not have referred, had it not been for the fact that the section prepared for me by Dr. Major was studded by those curious bodies first described by Dr. Batty Tuke as miliary sclerosis. It is now several years since I had the pleasure of examining Dr. Tuke's sections, and whilst I could not deny the accuracy with which he described the appearances, I always had a doubt as to the correctness of the name he had attached to them. During the eighteen months I worked as pathologist at the West Riding Asylum I never succeeded in getting a section containing the bodies described by him. During a late visit there, however, I saw several sections in which they existed in a variety of conditions, some of them still undescribed. Opinion differed widely as to their nature and conditions of development, and it was even suggested that they might be the products of putrefaction. It is, however, satisfactory to know that Dr. Bevan Lewis has taken the subject up; we may, therefore, look forward to some further additions to our knowledge.

As the section interested me, I submitted it to several microscopists. Dr. Batty Tuke agreed that it was an illustration of what he had described, miliary sclerosis in the first stage, a morbid condition he had often noticed. He considered that along with the history of the case the preparation was very interesting.

On consulting Dr. J. J. Brown, of the Fife and Kinross Asylum, he had the great kindness to prepare a complete report of the appearances. From his letter I make the following extracts:—

“The spots are, I think, unilocular miliary sclerosis (B. Tuke), and are quite distinctly seen to be such in the large spots; their margins are irregular, and the brain substance just external to the margins is slightly of a deeper hue, which is the case in miliary sclerosis. This, of course, is not well marked, as the disease is not far advanced; or perhaps I should rather say, the spots being small have not caused the same amount of compression of the surrounding brain-substance as is the case in larger spots, and so the brain-substance takes on a deeper stain. The spots themselves are unstained, which puts amyloid bodies out of the question, as they, as a rule, stain deeply; besides, their margins are different.

“These miliary spots do not take on the stain in your

slide, which is the case with this disease, but they are not of the transparent appearance which characterises colloid bodies. Colloid bodies have clearly defined, regular margins; they are as like boiled sago grains as they well can be. By varying the focus and shades of light the larger spots have a slightly yellow tinge, just resembling miliary spots when large or advanced in age.

“There are some smaller spots in this section which are more difficult to deal with, they being smaller, more circular, more transparent, and altogether resembling colloid bodies. But these, I think, are the miliary spots in the first stage of the disease. Curiously enough, the last two brains I have examined have been exactly similar to this slide of yours, and I was very much puzzled by these smaller, somewhat transparent spots, with almost circular margins; but from an examination of many sections and various stainings, I believe they are the early stage of miliary sclerosis, and exactly the same degeneration as exists in your case. At first I thought they might be albuminoid, but I have not been able to make this out.”

The accompanying illustration is only intended to show the position and shape of some of the spots. They measure from $\cdot 018$ to $\cdot 023$ mm., and appear covered by a fine fibrillar network on shallow focusing. Had a complete drawing been made it would have shown, 1st, the fibrous transformation of the outer part of the first layer of the cortex; 2nd, large and numerous Deiter cells in the same region; 3rd, spots of miliary sclerosis scattered throughout the grey matter.

In concluding the record of this case, it may be well for me to point out the utter confusion which now exists in the terms in use in the literature of sclerosis. Microscopists attach to “unilocular” and “multilocular” certain meanings; systematic writers, as Charcot, attach others; and to make matters perfectly hopeless, in translating Charcot’s work on Sclerosis, the writer confounds the terms. In the original there is “unilocular,” in the translation it appears as “multilocular.” Again, by some writers miliary sclerosis is confounded with grey degeneration or diffused sclerosis. (See Dr. Kesteven’s paper, “Miliary Sclerosis,” in the “Brit. and For. Med. Chir. Rev.,” July, 1874).

DESCRIPTION OF PLATE.

Fig. 1.—First (outermost) cortical layer, showing spots of miliary sclerosis. 450 diameters.

Fig. II.—Portion of the same section at the level of the third cortical layer. Patches of miliary sclerosis with crenated edges, are seen scattered among the nerve cells.

Intemperance in Study. By D. HACK TUCKE, F.R.C.P.

(*Read in the Psychological Section at the Annual Meeting of the British Medical Association in Cork, August, 1879.*)

Having met from time to time with cases of brain-fag, and also actual insanity, arising from excessive mental work, I wish to direct attention to-day to this cause of disordered mind, not because it is so wide-spread a cause as many others, but because for this very reason it is in danger of being treated with indifference, whereas at the present moment I regard it as a serious evil, although comparatively restricted in its operation in consequence of the great mass of the people falling under opposite influences; still I fear that it is in schools and colleges as well as in the cottage of the labourer and manufacturer, among students as well as among those who delve and spin, that we must seek for the causes of mental disturbance if we wish to understand them thoroughly.

It would occupy too much time to detail the cases to which I refer; I must ask you to take them as "read." For my present purpose it is sufficient to say that they have taken the form of brain-fag, mental excitement, depression of spirits (sometimes suicide), epilepsy, and chorea. I have recently known a case of acute mania distinctly due to this cause, confinement in an asylum becoming necessary. Of suicidal melancholia I could cite some painful instances, and as regards epilepsy, I could detail the history of some marked cases resulting from over-work; and I may state that at the National Hospital for Epilepsy in London, pupil teachers have been admitted labouring under this disease, brought on by mental strain. Two medical officers, resident in the institution at different times, spontaneously drew my attention to the fact.

I fully admit that in many instances of mischief from excess of study, this results from anxious worry as well. The subject "preys on the mind," as people say; but then it was the study of too large a number of subjects or of subjects beyond the power of the student to master within a given time which was to blame for this harass.

Here I wish to anticipate an objection which may be raised to my own observation and experience on this question. How is it—it may be fairly said—how is it that, if over mental work is often to blame for attacks of insanity, there are not

more statistics at hand to prove it? To this I would reply:—

1st. The principal statistics in regard to the causes of insanity are derived from asylums for the uneducated classes.

2nd. An attack of excitement caused by mental strain in the young is often temporary, and is treated privately.

3rd. When suicide is successful before the patient reaches an asylum, the case is not to be found in lunacy statistics.

4th. Cases of epilepsy often remain at home; and the same remark applies, of course, to brain-fag and general nervous exhaustion.

In regard to one of these points I would observe that when I have been able to examine into the causes of cases of insanity admitted into non-pauper asylums, I have found a considerable number traceable to excessive mental work either as a predisposing or an exciting cause. No doubt this is often associated, as I have just said, with anxiety and other emotional states. It is sufficient, however, for our present purpose if it be admitted that a considerable number of attacks occur in connection with over-work, although complicated with emotional excitement. It must be remembered that the mischief thus done is only one part of the evil wrought by the intemperate pursuit of knowledge. The lungs and other organs also suffer. Dr. Andrew Clark writes to me:—"I am a witness to the grave, and sometimes irreparable, mischief done at schools and in working for competitive examinations. As an illustration," he adds, "of the evil effects of over-work for competitive examinations, I can say that of the young men passing the Civil Service Examination for Indian service, and afterwards sent to me by the Civil Service Commissioner for health certificates, 10 per cent. during the last three years have had temporary albuminuria."

I have before me tabular statements of the school hours and the subjects taught in some of the principal English public schools, as well as in private seminaries. It is utterly impossible to present them to you in the brief period allotted me; I can therefore only offer a few general remarks upon them, and refer to two or three by way of illustration.

The number of hours actually spent in school does not (as a general rule) appear to be excessive in our large public schools. There are exceptions, but this evil, and the multiplicity of subjects taught apply rather to the private schools. Where the chief danger seems to lie in most schools is in the

encroachment made on the play hours. In some day schools the lessons set to learn at home are absurdly long and tedious. I find that in other schools, public and private, a great deal of work is done during the period nominally allotted to recreation only. This is a very important part of the actual school system, and one which requires great care on the part of masters. I will now take the school hours of the 6th Form in one very excellent school for the middle and higher classes. There is an hour's work before breakfast, three hours in the morning, four hours in the afternoon, and two hours in the evening; making a total of ten hours for study. Between breakfast and supper there are about two hours allowed for recreation. While it must be remembered that when we speak of boys being engaged in study for ten hours, those who are lazy are not closely and continuously engaged in their work, and that if the master is not strict the strain is not necessarily severe, I cannot but think that it would be better for the health of the scholars in this school if the total amount of time engaged in school or study did not exceed eight or at most nine hours. I am quite alive to the danger attending too liberal an amount of time being left at the disposal of school boys; they do not find it difficult to get into mischief. Still, under proper supervision, three hours' relaxation between 9 a.m. and 9 p.m. does not seem to me an extravagant allowance for growing lads.

I have referred to the encroachment of book-work on play hours. Having taken great pains to get at this point in various schools, my conclusion is that what with back lessons, impositions, and extra subjects, this encroachment becomes in many instances a serious burden. I have been puzzled at first to explain the ill-health of some boys when I examined the time-table, and did not succeed in explaining the mystery till I discovered how much of the play time was really spent by them in work. This is, no doubt, often the fault of the boy, who has not properly learnt his lessons, and has to re-learn them when he might have been at play. It would be well, however, if the masters would consider whether they do not sometimes, by the amount of work set the boys, render it difficult to those who have only average ability to do all that is expected of them without encroaching on the time of recreation.

In one school I find, as might be expected, that some boys do and some do not complain of the pressure put upon them

out of school. I believe this arises in these instances from a difference in facility of learning and not indisposition to work. One pupil, who has left school, and loyally observes, in writing to me, "I feel bound to stand up for a system to which I owe so much," reluctantly admits that the number of lines of poetry and prose which have to be committed to memory is quite unreasonable. The danger of over-tasking the brain is here, I believe, by no means an imaginary one. The repetition, which goes on gradually accumulating during the term, of some 16 or 18 lines of Greek or Latin verse at each lesson, becomes at last a heavy load for the memory; and my informant adds—"At the end of term I have known over 1,000 lines demanded, with only a day's time to look them over in, the usual amount being 400 to 700 lines in the upper forms on the classical side." Another scholar, in a different school, writes:—"I have never known more than 30 new lines of Greek or Latin set for one lesson. No time is specified for learning the lines, but they have always to be done between evening school one day and morning school the next, unless the master chooses to set the lesson before." Here we see how important it is, if we wish to estimate the real amount of brain activity in the 24 hours, to enquire into the out-of-school tasks, for while, when looking only at the timetable, we may picture to ourselves a boy comfortably asleep in his bed, he may in reality be engaged in hammering his Greek lines into his brain. The same pupil writes:—"The extreme variableness of the work makes it not improbable that some boys (as I did myself at one time) have to work the whole day without intermission (*i.e.*, of course during whole school days), and many, especially in winter, work all the evening, from a quarter past six to ten o'clock, with only an interval for supper."

A teacher of languages in England complains that his son, who is at the Grammar School at —, has lessons given him to learn which occupy him until ten at night. A gentleman in Devonshire informs me that his boy brings home from school, tasks which frequently keep him up till midnight. At a High School in a large town, I know that some of the pupils have suffered from over work; two in one family have recently died from "brain fever," due, it is considered by a medical man, to this cause. Dr. Fayette Taylor, of New York, has drawn a graphic picture of what the Americans are suffering from intemperance in study, and we should do well to take warning from it. "Girls arrive at 12

or 14, and at the threshold of the most important period of existence, utterly unfitted for passing through it. Excitable, with wide-open eyes and ears for every sight and sound which can excite feeling, vapid and intense in mental activity, with thin limbs, narrow chest, and ungainly back; we meet these 12-year-old products of civilization going to school with an average of thirteen books under their feeble arms—for I have found by actual count that thirteen is the average number of studies which they 'take' now-a-days."

I may here record the hours of a school for girls, which appear to me to exceed what is wholesome, and to be well calculated to lessen their mental elasticity and interfere with their healthy development. These girls rise at 6.25; prayers are at seven, and breakfast at a quarter to eight. Their studies commence at a quarter past eight and last till twelve, with a break of a quarter of an hour; then dinner, during which silence is enjoined and a book read aloud; then an hour's recreation is allowed. Needlework and school work follow for two hours; half an hour's recreation succeeds, and then come two hours and a half of study and instruction of various kinds. The next meal after the twelve o'clock dinner is at half-past six, and this is the last. It is succeeded by half an hour's recreation, and this by half an hour's study. Prayers end the day at half-past eight. Here we have nine and a half hours (including religious exercises) of sedentary occupation and only two hours and a quarter for recreation and one hour and a half for meals. I think we shall be agreed that a little less school and a little more play would be desirable, and that there need be no cause for surprise to find that many of the scholars suffer from headaches, anæmia, arrested development, and various manifestations of exhausted nerve force.

Then there are the school *examinations*, and these, I am satisfied, require great care, while most useful means of rendering the knowledge acquired by the pupils definite. A former pupil in the Sixth Form writes:—"With regard to examinations, an hour's examination in each subject was supposed to take place once a month. At the end of the term we had from a week to a fortnight's examination in all subjects prepared during the term. *Making fellows learn up all their repetition at end of term, and keeping them back if they fail to say it, I consider a piece of barbarism.*" I believe that in many schools the examinations

at the end of the term embrace so many subjects, and lead to so much cramming of minute details, that from these causes and the spirit of emulation excited, the brain is often unduly stimulated, and a state of commotion induced which is highly undesirable. It is true that a long holiday then comes to the scholar's relief, but even an extremely long holiday does not render it safe to undergo extremely severe mental strain. I suspect that with some it is thought to do so, but it is most important that this error should be clearly pointed out. A schoolmaster recently remarked to me that a boy would sometimes answer the first paper in the examination *very well*, the next *not so well*, and by the time he was engaged in the last questions he would be *muddled and stupid*—"He seemed to have got to the end of his brain," as the master aptly expressed it.

I wish now to refer to the present system of *medical* education. How can it be otherwise than injurious when we consider that during recent years the amount of knowledge which it is necessary to master has prodigiously increased in every department, while the length of time in which to acquire it remains the same?

In regard to some examinations, a tremendous burden is laid upon the memory. There is a long period of strain, the climax of which is reached when the period of examination arrives, during which the student's mind has to hold in solution the details of knowledge on many subjects. It is often a solution saturated with minute facts and figures, many of which are of no permanent use, and, indeed, cannot be remembered any longer. The mind is cramped and narrowed by this mischievous cramming, as must necessarily happen when the issue of an examination is made largely to hang upon a retentive memory.

While no one proposes to go back to the old system of medical education, it may well be doubted whether the character of these examinations is calculated to develop the best practitioners or physicians, loading the memory, as they too often do, at the expense of breadth, depth, and originality. The lectures delivered in the medical schools are, of course, influenced by the examinations, and is it not notorious that these now give so many different hypotheses and enter so much into detail that the student is often perplexed? And (if report may be credited) the lecturer himself sometimes becomes perplexed also.

Too rapid an acquisition of knowledge—the attempt to

master too many subjects—is a part of that Jehu speed at which we are now driving, whether in business or science. Knowledge so gained “proves but of bad nourishment in the concoction, as it was heedless in the devouring.” So said Milton in his day. What would he have said now? Competition is not confined to trade. Our examination boards have, in truth, not escaped from its influence. It is melancholy to see that the errors we deplore are perpetrated by men whose knowledge of physiological laws ought to have prevented them pursuing so disastrous a course. Professor Humphrey has protested in terms of strong disapproval against the system of examinations now too generally pursued, and we of all men ought to join our voice with his in the endeavour to stem the current of this excessive and indiscriminate brain-stuffing. “Knowledge grows, but man stands still; that is to say, the intellect and powers of man are no greater now than they were in any of the known past ages; in the days, for instance, of Homer or of Plato, of Confucius, of Buddha, or of Moses; no more powerful to mould the material at hand, whereas the material has vastly increased. . . . Had Hunter been trained upon the present system, had he been weighed down by tightly compressed facts when a student, and subsequently, by out-patient-seeing, on the one hand, and pupil-cramming on the other, it is scarcely to be supposed that even his mind could have burst the iron fetters, and could have regained its elasticity and love of work, or that even he could have found time for those reflections which gave such impulse to the science and practice of surgery.” (“Hunterian Oration,” Feb., 1879). One source of mischief lies in the fact that an examiner constantly forgets that the department in which he examines is only one of many, and hence he requires a degree of perfection which is simply absurd—one which, however suited to honours, is totally unreasonable in a pass examination; and it must be remembered that the severity of an examination cannot be gauged by a reference to the questions which happen to be asked at a particular examination. The student has to prepare himself for all possible questions, ranging over very wide areas of knowledge, and involving an acquaintance with a multitude of speculations put forth by Continental as well as English writers. Hence it is not surprising if, in the anxiety to pass the ordeal, success is too often won at the risk of prolonged mental prostration. Failure, on the other hand,

involves besides this, the dangers arising from disappointment and chagrin.

I should not have thought it at all probable when I commenced this paper that before I concluded it I should have listened to far stronger remarks than any I have indulged in, in an assembly of medical teachers and practitioners in London at a meeting of the Metropolitan branch of this Association, under the presidency of Dr. Andrew Clark. On this occasion Mr. Huxley said that to expect students to pass an examination in the subjects on which they are now examined, after only four years' study, was little short of "*criminal*." He characterised the attempt "to cram the student with all these subjects as utterly preposterous. The amount of work expected is simply gigantic." Mr. Hutchinson said, "The best memories stagger under the present load." "That after four years' study a student can be expected to bear his subjects in mind is simply an *absurdity*."

But it is time to ask, What is the remedy for these evils?

First of all it is necessary to make them widely known. Educators and examiners must at least have no chance of sinning from ignorance, although, as I have said, some who know most of the laws of physical and mental health are the chief culprits. It must be insisted that they are oftentimes putting too heavy a weight upon the camel's back, and it is for them in the first instance to consider in what way they can best diminish the tension, and as regards medical education, re-arrange the curriculum. What I complain of is that at the present moment the tendency in certain quarters is to render this curriculum, and consequently the examinations, harder and harder—more and more unpractical; so that many can feelingly unite with the Earl of Ellesmere, who said to a friend shortly before his death, that he was not sorry to go. The world was clearly becoming very disagreeable; everybody was going to examine everybody, and he was sure *he* should be plucked!

In the second place there must either be a change in the character of medical examinations, or the period of time occupied in study must be extended. I believe that the first is absolutely necessary, and that the second is in any case highly desirable. As regards the change in the character of the examinations, it should be in the direction of lessening the demands made upon the memory; and as regards length of time, I think a year more than is now required

would be a great advantage. It would also be an immense gain to the student if, while he is engaged in hospital work, he should have no examinations hanging over him, except "medicine" or "surgery." This means the sub-division of medical examinations.

Mr. Hutchinson proposes that students should be thoroughly examined during their curriculum (by hospital teachers or travelling examiners) on the various subjects, and bring up certificates of proficiency to the Examining Boards. These would accept the certificates as proofs of competency in details, and would give a good, general, practical examination before granting a diploma. If this course be adopted, and is not overdone, it will certainly be an immense improvement on the present system, and would prevent students leaving too much of their work undone till the last year.

Thirdly, it seems to me of great importance that the number of subjects examined upon at the same time should, in some instances, be reduced. The original idea of the London University in arranging the subjects for the examination of M.D. was excellent—namely, to spread them over a sufficient number of years and to present them successively in a natural order of gradation. But now that the mass of knowledge demanded has so vastly increased, this division of labour only partially meets the difficulty of the student, for he has now to be prepared to answer questions in the course of a few days which demand a painful retention of an enormous number of facts in the memory. Some relief would be obtained here by a longer interval being allowed between the days of examination on different subjects.

In the recent discussion on medical education to which I have referred, Mr. Huxley urged that one mode of relieving the present strain would be to make the preliminary subjects (in an elementary form) necessary parts of school education. Thus a boy ought to know a bone or a muscle when he sees it. My fear is that by so doing we should intensify the labours of school work, unless it is on the distinct understanding that these subjects are not added to, but take the place of some which are now taught at school; otherwise it is merely cutting off one end of the plank and fastening it on to the other. Mr. Huxley's proposition assumes, of course, that it is well to introduce these studies into schools as a part of the education of all, whether intended for the medical profession or not.

Fourthly, whatever course is adopted, it is, I would hope,

unnecessary to say that the crotchets of individual examiners should not tinge the questions, or rather the judgment formed of the answers. If the questions which are now asked are not too severe when taken alone, they are regarded by many competent judges as frequently too severe when taken in combination with the other subjects examined upon, and also that they are sometimes calculated to puzzle the student, from the form in which they are worded. Not long ago an examiner at the London University, speaking to another examiner, boasted of the puzzling questions he had been ingenious enough to ask, whereupon the other replied, to my great satisfaction, "You should try and find out *how much*, not how little, the students know." I should have no fear of the questions being unreasonable when put by a wise, common-sense Professor like this, whereas some learned men expect a student to reach in a few months the level of their own mature knowledge.

I would adopt the language, once more, of Professor Humphrey, and say, "With Democritus 'we should strive not after fulness of knowledge, but fulness of understanding;' that is, that we should strive for good, clear, solid, intelligent, producible and available knowledge, of the kind that will be useful in after life; not so much the *refinements* of chemistry, anatomy and physiology, which stupify and then pass away like chaff before the wind, but the essential fundamental facts and principle, welded together, and so woven into the student's mind that he can hold them firmly, and wield them effectually; and that he is conscious of them, not as the goods of other men, or as dogmas which he has because they were imposed upon him, but as his own possession, of which he appreciates the value because he knows how to use them."

In conclusion, I would express the hope that the expression of opinion in the Psychological Section of this Association will strengthen the hands of the Metropolitan branch, which has taken up this question with much earnestness, and although starting from a different standpoint from my own, has been equally impressed with the evils attending the present system of medical education. I am moved by the conviction that its influence upon the mind is injurious; *they* by the fear that it fails to produce the best men, and the belief that it is altogether unreasonable.

CLINICAL NOTES AND CASES.

Syphilis and Mental Alienation; further Cases illustrative of their Relationships. By W. JULIUS MICKLE, M.D., M.R.C.P., Medical Superintendent, Grove Hall Asylum, London.

(Concluded from No. 75, Oct., 1879, p. 398.)

CASE IV.—*History of Syphilis: namely, venereal sore; sore throat; and subsequent general "rheumatic" pain. Later on, melancholia and suicidal propensity. Severe and prolonged cranial, and mainly nocturnal pain, with local tenderness, relieved by specific treatment. Hepatic disease; incipient pulmonary phthisis. Recovery.*

A case somewhat similar to the last will now be briefly recorded.

J.S., admitted in May, 1875, had been a private in the 69th Regiment, was 30 years of age, and had been 12 years in the service. Mental derangement had existed for a year before his admission here; had been vaguely attributed to "predisposition," and had been treated at Gibraltar and Netley. The patient was said to be suicidal. His character in the Army had been good, and his habits temperate. It was stated that "he appeared to have had syphilis." Always thought to be eccentric and unsociable he was never supposed insane until he attempted suicide when in hospital for bronchitis, and was then found to be the subject of hallucinations of sight and of hearing, and of delusions as to designs on his life by poisoning, and as to his incessant torture at night, by means of mysterious agencies, and effected by men, of another regiment, who followed him everywhere. These symptoms, with dulness of perception and memory, continued up to the time of his admission.

On admission.—Melancholia still existed, and a suicidal tendency. Delusions similar to the above were still evinced; the patient said that clocks ticked in his head, that his persecutors followed him as spirits, and that poison was placed in his food. Hallucinations of hearing existed as before; "voices and trumpets," he said, "were blown into his head." The memory was impaired.

Height, 5ft. 8in.; weight, 138lbs. Omitting details; the conjunctivæ were yellowish, and he said he had been jaundiced several months before. There were signs of incipient pulmonary phthisis. The second heart-sound was accentuated, and the apex-beat was below and slightly to the left of the left nipple. Small old cicatrices were seen on the nuchal, interscapular, and gluteal regions. The patient gave a history of two or three attacks of gonorrhœa, whilst

in the army; of several venereal sores; and of a sore-throat nine or ten years previously. No decided chancre-scars were found. He suffered, he said, from pain in the temples and top of the head by night, and sometimes by day, and had been thus suffering ever since his admission into hospital a year before. Occasionally he had pain about the right side; the liver was enlarged, but not very definitely tender. Subsequently, when better, the patient gave a history of several simultaneous sores, incurred about the year 1864; of sore-throat, about a year afterwards; and of general "rheumatic" (perhaps syphilitic) pains, about the year 1869.

R. Potassii iodid., grs. viii.; ammon. carb., grs. vi.; sp. chlorof. m. xx.; ter in die.

This he took for more than three months. He was also ordered a mixture containing cod-liver oil, perchloride of iron, and dilute hydrochloric and hydrocyanic acids.

The cranial pains disappeared gradually under this treatment.

The headache complained of after admission varied in character. Sometimes it was continuous for a day or two, at others sharp and intermittent. It affected principally the temples and the vertex, and was accompanied by great tenderness. At first, he sometimes said it was worse by day, at others he said it was worse at night, but when mentally better his testimony was that the pain had been mainly nocturnal.

The patient was obstinate and inclined to make mischief; the depression and melancholia lessened very much, and finally disappeared, certain of the delusions remaining for a time thereafter.

Six weeks after admission he had gained thirteen pounds in weight during that period; five months later he had lost eight pounds of this increase, and the cod-liver oil, omitted for some time, was resumed.

Nine months after admission the phthisical signs were greatly improved, the pulmonary disease being arrested, and, in part, resolved. The liver was now of normal size, and almost free from tenderness. The delusions and hallucinations were partially in abeyance.

Subsequently, he continued for a long time more or less peevish, discontented, and apt to trump up charges against attendants; but was finally discharged, recovered, nineteen months after admission.

Remarks.—Probably the syphilitic disease only acted in concert with other causes in the production of insanity in this case. Incipient pulmonary phthisis, hepatic disease, and slight cardiac displacement were present.

This paper will now be concluded by the recital of two cases in which syphilis apparently caused mental disease as well as inflammatory changes in the cranial bones, in the dura-mater, and, to a less extent, in the soft meninges.

In the former case syphilitic toxæmia, cachexia and painful lesion evidently played an important part, not by causing any acute outburst worthy of mention, but a slow and prolonged depression of the psychological powers.

In the latter case active inflammation of the cerebral meninges brought about acute symptoms, and cerebral lesions from which only a very gradual and incomplete recovery was made. Thus the acute symptoms of the onset (mania, stupor), and the chronic symptoms of the succeeding period (incoherence, hebetude, irritability), each possessed features sometimes assigned to separate forms of syphilitic mental disease.

CASE V.—“*Rheumatism*”; *anæmia*; “*meningitis*”; *melancholia*.
No signs of syphilis on, or for long after, admission. Cerebral and general anæmia; syphilitic cranitis, pachymeningitis, and pericranitis; slight local palsy; hemiplegia. Syphilitic disease of liver. Death from pulmonary and abdominal tuberculosis, ascites, and peritonitis.

P.M., 60th Rifles, admitted June 15th, 1872, then aged 35; single; previously a potter; said to be suicidal, but not epileptic. This, the first, attack of mental disease had existed since Feb., 1872, and had been treated in India, and, during seven weeks, at Netley, before his admission here. An attack of *meningitis* was the cause assigned.

When under treatment for rheumatism in India meningitis was said to have come on, and to have been followed by melancholia. Extreme mental depression and hallucinations of hearing were the principal clinical facts reported from Netley.

On admission.—Height, 5ft. 10½in.; fairly nourished; somewhat feeble; tongue clean; pulse 48; respiration feeble; equal and dilated pupils. Brown scars on the shins; scar of bubo in left groin, which he attributed to a simple traumatic bubo incurred eight or nine years previously; small scars on the arms, which he accounted for as the traces of anodyne hypodermic injections for “rheumatic” pain a year or two before he came to us. No cranial pain or tenderness; no throat cicatrices.

The patient was depressed and apathetic; he sat by himself; never spoke unless previously addressed, and took no apparent interest in his surroundings. His ideas were limited and confused, and his memory was defective, especially as to dates and to lapse of time since certain occurrences in his recent history. He fancied he heard strange blowing noises and shouting from over the walls at night. At this time neither syphilitic history nor signs were before us, and the patient was placed on quinine and perchloride of iron.

Under this treatment there was considerable physical improvement,

and slight amelioration in the mental state. Towards the close of the year a mixture of morphia and quassia was tried; and, again, morphia alone in 1873; and, subsequently, perchloride of iron. There was some improvement during this year, 1873, but once an outburst of mental excitement supervened.

1874, Feb. He suddenly rushed into a room and smashed a mirror and some panes of glass with his boot.

March. Slight signs of pulmonary phthisis were observed. The patient now refused medicine.

Later on, in the course of the summer, he became extremely depressed, miserable; feeble, even to prostration; was sleepless; lost appetite entirely; and complained of severe pains below the liver. Chloral was employed as a hypnotic, then morphia, and, finally, chloral hydrate dissolved in brandy, which seemed to act better. Wine, ammonia, and iron were also ordered.

Aug. 16th, 1874. Was sallow, anæmic, emaciated, and complained of pain about the lower part of the left side of the head, which he sometimes said was worse at night, and sometimes said was not. The pain was localised, sharp, "shooting," "stooning," as he described it, and not increased by the heat of the bed, and, in fact, he covered up the head at night. No tenderness was elicited by percussion over the site of the pain. The infra-hepatic pain was far less severe now than formerly. The left pupil was dilated. A mixture of potassium-iodide and ammonium-carbonate was ordered. The wine, morphia, and quassia he was then taking were also continued.

Under this treatment the pain soon disappeared, and cheerfulness, appetite, and muscular activity returned in some degree. The iodide of potassium was discontinued, and, on Oct. 13th, the morphia also.

Oct. 26th, 1874. Ordinarily the pupils are wide, especially the left, but they contract almost normally under a bright light. The eyes are pallid, the face pallid and somewhat sallow; the heart-sounds are deficient in force and loudness, the second sound at the base is thin and short; the pulse is 96 and feeble; the hands are chilly, but not livid. Occasionally the patient sighs; he is drowsy by day, and his sleep is deficient at night, but dreamless, he says; pains in the flanks occur at times; and also pain in the left side and front of the head, both by day and night, a somewhat constant, "stooning" pain, he says. There is disinclination to move, muscular lethargy, or "paralysis of energy," accompanied by pains "all over his insides." There is no vomiting, and now no constipation and no palpitation. The expression is one of sadness and misery, and he says he feels depressed about his ill-health and detention. He states that he drank, and perhaps had syphilis, while in the army.

Simple melancholia and anæmia cerebri were, therefore, the more obvious conditions then present.

Towards the close of 1874 he again refused to take any medicine. The signs of pulmonary phthisis were now more obvious, the left

pupil generally, the right occasionally, was the larger; and once the tongue pointed slightly to the right when protruded.

1875. Still refused medicine; later on, severely affected by "bizzing" cranial, and other pain, he took the remedies already mentioned, including the potassium-iodide. For some time slight right (lower) facial paralysis was noticed, and the left leg, he said, was slightly the weaker. The pupils were sluggish and irregular; the left generally, the right occasionally, was the larger. The skin presented the same dull, lustreless, sallow pallor. Again, he improved under treatment.

1876, Feb. Slight palsy was now observed about the mouth, tongue, and lower part of the face, on the right side. A pericranial node had appeared on the right side of the occiput. Refused medicine. Left pupil larger.

April. He suffered from a sudden attack of right hemiplegia, preceded for some days by pain in the limbs, and pain and a node at the cranial vertex. While walking he fell paralysed, but without loss of consciousness or convulsion. For several days afterwards there was occasional vomiting. From this hemiplegia he gradually made an almost complete recovery. Right pupil now the larger.

July 2nd, 1876. Recently had again been taking K.I., and, with it, brandy; and iron, also, was again ordered. Had now a pericranial node at the occiput, and cranial pain, but was improving in respect of both. There were still slight traces of the right hemiplegia of the common form; the right pupil was dilated, both were sluggish, and the left one was of irregular shape. During July painless abdominal tympanites occurred, and fluid effusion in the peritoneal cavity. The decubitus being nearly always sinistral, yet tenderness and a puffy swelling were observed to the right of the umbilicus. The skin became slightly jaundiced, and the liver-dulness was $2\frac{1}{2}$ inches in the nipple line. Purpuric stigmata appeared on the legs. The urine was non-albuminous, and ample in amount.

During the several succeeding weeks the patient was frequently tapped by the aspirator, and from 6 to 18 pints of peritoneal fluid were withdrawn on each occasion. Occasional mucous diarrhoea was succeeded by stools of a "dysenteric" character. From slight peritonitis some abdominal pain was now also complained of, and vomiting occurred at times. Restlessness was extreme, and delusions were evinced as to the hostility, the desire to injure and annoy him, and the general malevolence, of those attending him. The skin was dry and covered with whitish, shining flakes and scales. Finally, dark-green fluid was vomited; the appetite was still bad; the pulmonary tuberculosis was making advances. The patient gradually sank, and died on Oct. 4th, 1876.

Abstract of necropsy.—Calvarium unduly thickened, dense, and heavy, the portion removed weighing $19\frac{3}{4}$ ozs. There were numerous areas of syphilitic caries, and some of necrosis, on the external surface

of the skull. One was an inch above the middle of the left supra-orbital ridge, forming an irregular depression on the surface of the bone, of the area of a sixpenny piece, with shelving borders marked by radiating lines, the central and deeper portion being occupied by a yellow fibrous material and soft granulation tissue. From the central parts minute sequestra disjoined themselves, and here the outer table of the skull had entirely disappeared; there were fibrous adhesions between the skin and the tissues in this depression. Similar depressions existed: one, an inch higher up; another, one inch to the left of the median line; another at the summit of the frontal bone; four on the right parietal bone; and four on the left. Several, also, were observed on the occipital bone, especially a large one on the right side of the bone, and opposite to this the *internal* surface of the calvarium was irregularly carious, and the dura-mater was adherent thereunto; while, externally, the pericranium was adherent opposite to the same area. On the internal surface there was also a thick, yellowish-white, adventitious membrane, rather larger than a 5s. piece, adherent to the bone above and opposite to the right parietal eminence, the bone beneath being superficially eroded. On the left side there was a similar, smaller area of erosion, but there the false membrane was firmly adherent to the dura-mater. There were also other smaller areas of erosion affecting the internal surface of the left side of the occipital bone and of the left parietal. The dura-mater was somewhat thickened, and unduly opaque, and was firmly adherent to the calvarium at parts, especially at the vertex. The basal arteries had a healthy appearance.

The frontal and parietal convolutions of the superior and external surfaces were slightly wasted, and the pia-mater covering these parts was œdematous, the arachnoid faintly opaque. The meninges were fairly vascular. The cortical grey matter was of fair depth; its external layers were rather pale in the frontal region, its deeper layers of a faint lilac hue, while the sections of the posterior part of the cerebral cortex yielded a pale hue throughout. The white matter was moderately vascular, the consistence of the brain generally was lessened. The basal ganglia were alike on the two sides. Considerable vascularity existed about the floor of the fourth ventricle. The cerebellum was rather pale. Weights:—Right hemisphere, $22\frac{1}{2}$ ozs.; left, 22ozs.; cerebellum, $6\frac{1}{2}$ ozs.; pons and med. obl., 1oz.

For the rest, it may be briefly stated that the *heart* weighed $8\frac{1}{2}$ ozs.; the aortic valves were slightly coarse and thickened, and the corpus Arantii of one segment was enormously hypertrophied; on the right and posterior aspect of the commencement of the aortic arch was an irregular, rough, projecting, yellowish-white, and partly calcareous mass beneath the inner coat of the aorta. The heart-muscle was rather pale, yellowish, flabby, and friable.

The apices of the lungs were both puckered, partly cirrhotic, partly occupied by encapsulated cheesy masses. Around the latter, and

scattered through the upper parts of both lungs, were clusters of grey and dirty-whitish granulations, which also invaded the upper parts of the lower lobes. Old pleuritic adhesions at the apices; bronchial glands enlarged. Right lung, 25½ozs.; left, 23½ozs.

Abdomen. Peritoneal tuberculosis and slight peritonitis, with fluid effusion, and a few lymph-flakes.

Mucous membrane of large intestine thickened, congested, of dark hue, and the site of superficial erosions, especially in the cœcum and sigmoid flexure.

Spleen firm, large, 21ozs., of a deep chocolate hue; local yellowish thickening of its capsule.

Kidneys; each weighed 5½ozs.; the left was of a dull, yellowish-fawn colour, its capsule slightly adherent; in the right a white depression, filled with fibrous tissue, traversed the cortex.

Liver cirrhused, lardaceous, and fatty (microscope). On the upper surface of the right lobe was a deeply puckered cicatrix extending into the parenchyma of the gland, and a smaller one on the upper surface of the left lobe. Weight, 39ozs.

Remarks.—In this case, besides other and non-syphilitic morbid changes, were found :—Syphilitic osteitis, ending in caries and necrosis of skull; syphilitic pericranitis, syphilitic pachymeningitis externa, and traces of syphilitic gummata of the liver. No syphilitic history is recorded of the conditions leading to brown scars and stainings of the shins. But the so-called “rheumatic” pains, which had tortured the patient so much before he became insane, as well as the meningitis preceding his mental attack, and said to have caused it, and the anæmia whilst he was under my care, were, probably, all of them evidences of constitutional syphilis. So also were the severe cranial pains, from which he suffered from time to time during 1874, '75 and '76. These, even when most localised, had not always, however, the typical features of chronic syphilitic pain; but they were always relieved when the patient could be induced to take KI. The obstinacy of the patient as to the taking of medicine and of food was a source of much difficulty in the case.

There was no history of syphilis obtained with the patient, and no sufficient evidence of its existence when he was admitted. It was not until 1874 that other symptoms arose which suggested syphilitic disease, and not until 1876 that further indications proved its existence and activity. Nor could I ever ascertain when he had incurred the primary infection; certainly the patient himself never could tell. In, and from, 1874 the KI was used.

The course of events was probably as follows:—Secondary syphilitic lesions developing internally, rather than on the exterior of the body; general pains, syphilitic anæmia, syphilitic “meningitis,” mental disease (melancholia), pulmonary phthisis, syphilitic periostitis, cranitis, and pachymeningitis, slight paralysis. Relief of these, and improvement of general health and mental state, under specific treatment; relapses, syphilitic pericranitis, hemiplegia, refusal of medicaments, pulmonary infection from the old caseous masses, tubercle of peritoneum, peritonitis, death.

Thus the features of this case differed widely from those of cases I have elsewhere* described, in which there was syphilitic disease of the arteries of the brain, both of the basal and of immense numbers of the *minute* cerebral arteries, together with local lesions, the secondary consequences of the arterial disease, and, in some cases, syphilitic infiltration of the cortical substance of the brain.

In explanation of the attack of right hemiplegia 5½ months before death, and of the preceding slight paralysis about the lower part of the face, on the right side, one can only refer to the greater amount of pachymeningitis on the left side, and the closer adhesion of the false membrane to the dura-mater, rather than to the cranium, at the left parietal region than at the right; hence, perhaps, a greater degree of compression of the subjacent, and left brain substance during the periods of inflammatory turgescence.

CASE VI.—*Attack of stupor and of other acute symptoms, promptly followed by profound dementia. Later; recurring pericranial nodes, and intense cranial pain, with mental dulness and insomnia. Ozæna; atrophied testicle with apparent fibroid changes, irregular tibiæ; cupreous psoriasis on calves of legs. Post-mortem indications of syphilitic intracranial inflammatory processes.*

J. M. Private 1st Batt. 60th Rifles; admitted November 1, 1873; æt. 33; married; service 9 $\frac{4}{12}$ years. This attack of mental disease was stated to be the first, to have existed from June, 1873, and to have been previously treated from June to October, at Dover, and during October at Netley. The patient was stated to be neither suicidal nor epileptic, but to be dangerous to others. In the statutory “statement” the “supposed cause” reads thus:—“Believed to have been drugged in some public-house; he was found insensible in a court outside.” There was, however, some discrepancy here, inasmuch as in the “abstract” of his case, forwarded with the certificates

* “Brit. and For. Med.-Chir. Rev.” July and Oct., 1876. Abstract in “Journal of Mental Science,” Oct. 1877.

as to insanity, the attack is said to have "developed suddenly (as mania in the commencement) with homicidal impulses." This latter partially agrees with the statement made to me verbally that the patient was found naked in a brothel, in a state of great mental excitement.

At Netley he was restless, meddlesome, dirty in his habits, extremely foul and obscene in his language, utterly irrational, with loss of memory and confusion of thought, with incapacity to answer questions, and with occasional outbursts of excitement. Forgetful of his immediate surroundings, he fancied every night that he was "out of barracks on a pass."

On Admission. — Abstract of Notes.—Height, 6 ft. Extremely weak and emaciated. There appears to be slight palsy about the tongue and lower face of the right side; speech hesitating, and quasi-stammering; tongue a little tremulous when held protruded; gait slow and careful; pupils small, irregular, sluggish, the right slightly the larger; features small and shapely; venules dilated over the malar prominences; the edge of the aural helices withered and undulate.

The patient is fatuous, his memory an utter wreck. He wears a vacant, fatuous look, entirely fails to appreciate lapse of time, or to recognise persons or places; he imagines he is out 'on pass,' or that he has lived here all his life, or that he works regularly in the vicinity. He uses most profane and obscene language, and urinates in bed.

Abstracts from a few of the further notes of the case.—This patient was placed under perchloride of iron from admission in Nov. 1873, until March, 1875, during which period he improved immensely in physical condition, and very considerably in mental state, and latterly was usefully employed in his ward.

Oct. 17th, 1875.—The patient, now unusually dull and confused, complained of frontal pain, which he said he had had for several days, but he was too stupid to give any very trustworthy account of it; he said it was not worse at night, and was not increased by the application of heat. The forehead, slightly swollen, was tender on percussion. The very slight right facial paralysis persisted; the pupils, still sluggish, were of medium size. Tongue slightly tremulous, speech accompanied by faint occasional tremor of lip, and faint hesitation, but clear and distinct. Post-nasal and pharyngeal ozoena was also observed. An old scar on the shin was inflamed, deep red, and had a scaly surface.

R. Potassii iodid., grs. vi.; ammon. carb. grs. vi; tr. myrrhæ ʒ ss.; ter in die.

22nd. Temp. 98.2°; better, no pain in head.—23rd: slight return of pain. Weight 158lbs. — Dec. 7th. No pain since. Omit the iodide mixture.

Feb. 25th, 1876.—The tibiae were coarse and irregular. On outside of right calf, and over front of the middle of right tibia, were

coppery psoriasis patches. The skin of the lower limbs was dull, purplish, and mottled, especially behind. The testes were atrophied and irregular.

There was still great loss of memory, and the patient was occasionally irritable, quarrelsome, or excited, and his language was extremely foul and obscene. Later on in this year slight morbid signs were observed at the pulmonary apices.

Dec. 22nd, 1877.—For two nights he had had severe cranial pain, causing insomnia. The pain was worse at night, and was mainly frontal. There was tenderness all over the vertex as far back as the posterior fontanelle, but most marked about the forehead, and especially at the right temple. He walked heavily and unsteadily, and said the left leg was the weaker. The legs were much mottled by purplish discolouration; pulse feeble, soft, and rather frequent. Mental dulness and confusion were now more marked than usual.

R. Calomel gr. $\frac{1}{4}$ every hour, for 16 hours. Also,

R. Potassii iodid. grs. vi.; ammon. carb., grs. ii.; three times a day. This mixture was continued until May 6th, 1878, and, latterly, was increased in strength.

Under this treatment the pain and other symptoms rapidly cleared away.

While still taking the iodide he suffered in March, 1878, from a severe whitlow on the thumb. In April an abscess appeared in the right thigh, which was opened and dressed antiseptically. Subsequently, an enormous abscess appeared in the left lumbar region, which was frequently tapped by the aspirator under carbolic spray, the punctures being closed by collodion, until it disappeared. But simultaneously there were noticed the physical signs of bronchitis; also crepitation at the base of the right lung, and pleurisy at the base of the left. Evidence of tubercles still existed at the apices of the lungs. The patient was now taking quinine and brandy, also iron and quassia, and, subsequently, morphia. To be brief: he recovered from the active febrile condition, and the right leg, affected with stiffness sequential to the abscess, was treated by friction, bathing, and passive motion.

Sept., 1878.—Heart's pulsation somewhat irregular; also intermittent, omitting about every fourth or fifth beat: apex beat at about usual site. Weight, 147lbs. Still taking the iron and quassia mixture of April.

Jan., 1879.—Emaciation, general bronchial rales, signs of some consolidation and cavitation of the apex of the right lung, and of softening tubercles in the apex of the left.

April.—Edema of legs; no albuminuria; irregular diarrhoea.

May.—Peritonitis; tympanites; "sharp" abdominal pain; dulness and fluctuation in the flanks, but not changing with change of decubitus; œdema of back of trunk and of legs; low temperature, 98.3° sinking to 94°; feeble, frequent, pulse; (morphia and terebinth). Died May 24th, 1879.

Abstract of Necropsy.—Body emaciated. Calvarium thick, especially in the frontal region, of worm-eaten appearance along either side of the grooves for the superior longitudinal sinus, and for the middle meningeal arteries; weight of portion removed, 15ozs. The arachnoidal villi were enlarged, and at the vertex the dura-mater was intimately adherent to them, to the visceral arachnoid, and to the skull. The dura-mater was thickened, and its inner surface, especially on the left side, was the site of rusty staining, and of slight adherent, though separable, delicate films of false membrane. These were observed in both anterior fossæ of the base of the skull, still more in the left middle fossa, and very slightly in the left posterior fossa. Laterally, and also beneath the vault of the cranium, the same condition was slightly more marked on the left than on the right side. The posterior tip of each lateral lobe of the cerebellum was attached by a false membrane to the external wall of the lateral sinuses.

The arteries at the base of the brain were apparently healthy. The olfactory bulbs were softened and atrophied, the olfactory tracts atrophied and flabby, The inner meninges were thickened, opaque, and œdematous. The opacity of the visceral arachnoid was patchy, and extended over nearly the whole of the superior and external surfaces of the cerebral hemispheres, and was slight on their internal surfaces. The fronto-parietal pia-mater was œdematous, and the sulci were widened there. The membranes stripped readily, except at the vertex adjoining the great longitudinal cleft, where their removal left the grey cortex eroded in a tract corresponding with the above-noted adhesive fusion of the several membranes, and comprising the upper ends of the ascending frontal, and ascending parietal convolutions, and part of the anterior $\frac{3}{4}$ inch of the postero-parietal lobule, on either side. Similar erosions were seen on the posterior $1\frac{1}{2}$ inch of the left first frontal gyrus. A few minute adhesions also existed on the left orbital surface, and over the second and third right temporo-sphenoidal convolutions. There was considerable wasting and flabbiness of the brain. The cerebral grey cortex was mottled, and was somewhat wasted in the superior fronto-parietal region.

There were: yellow softening of great part of the corpus callosum as seen from above; a patch of yellow softening on the anterior part of the ventricular surface of the left optic thalamus; and yellow softening, with surrounding slight induration, in several minute portions of the left cerebral cortex.

The medullary substance of the brain was flabby and moderately vascular; the cerebellum flabby and soft, its cortex rather pale. Each cerebral hemisphere weighed $17\frac{1}{2}$ ozs; cerebellum, $3\frac{1}{2}$ ozs.; pons and med. obl., $\frac{1}{2}$ oz. Four fluid ounces of blood and serum escaped from the skull and brain.

Heart: weight 11ozs.; heart muscle pale, friable, and fattily degenerated (microscope); apparent hypertrophy of right ventricle; slight atheroma of aorta.

Right lung, 31ozs; old adhesions; advanced phthisis; with some pulmonary cirrhosis at the apex. *Left lung*, 23½ ozs; a few adhesions; traces of lateral pleurisy; less advanced phthisis than right lung.

Abdomen.—Small intestines much distended; large intestine less so; numerous tubercular ulcers in small intestine, and several in the coecum, of which one was perforating, and was evidently a source of the peritonitis with serous and lymphous effusion. A few tubercular ulcers were also found in the colon. *Liver*, lardaceous and cirrhotic; weight, 70ozs. *Spleen*, 15½ozs; large, rather firm, somewhat "sago-like," the orange-red sections exhibiting somewhat translucent spots, but only a few patches turned of a mahogany hue with the iodine solution. Traces of slight former perisplenitis were also observed. *Kidneys*, each 4½ozs; not lardaceous; cortices mottled, pale; capsules slightly adherent.

Remarks.—In this case a patient who had had a sudden attack of stupor, probably followed by maniacal excitement, was admitted in a state of extreme dementia, and with persistent pupillary changes and slight right facial paralysis. Two years afterwards severe cranial pains and tenderness, and slight pericranial nodes were observed, and other evidences of syphilis both past and present; and the existence of syphilis was then for the first time indicated, and an anti-syphilitic treatment was adopted with prompt relief. Similar symptoms again arose two years later, and were relieved by similar means. In due course the patient died of another affection. After death, the following lesions were assigned to syphilis: internal and external cerebral pachymeningitis; partial arachnitis and meningitis, and, perhaps, the traces of perisplenitis. Unfortunately, the irregular and atrophied testicles were not examined. No doubt of the syphilitic nature of their lesion was entertained during life.

The course of events was probably in this wise:—During the late secondary period of syphilis, pachymeningitis, and to some extent meningitis, produced acute symptoms, and were followed by extreme dementia due to cortical impairment, from which partial or incomplete recovery was made as the meningeal morbid processes subsided. Subsequently, recurrences of pachymeningitis and of pericranial nodes, with mental heaviness and dulness, were relieved by anti-syphilitic treatment.

The patient was admitted here during what Mr. Jonathan Hutchinson would call the third stage, or "interval of latency or of relapses" of syphilis; but subsequently tertiary symptoms arose.

In each of the above cases have been recorded the history and traces of any venereal affection from which the patient may have suffered, and without prejudice to the distinctions usually drawn between true syphilis and mere venereal sores.

Myxœdema and its Nervous Symptoms. By GEO. H. SAVAGE, M.D., Lond.

In this short paper I have no idea of adding one to the already too numerous class-names of insanity, but I am anxious that asylum physicians should have their attention called to a clinical type of disease which may exhibit mental symptoms, and may thus add to the small store of useful knowledge of the subject.

Physicians practising among the insane rarely have good chances of seeing the slighter and earlier mental symptoms, and thus often have difficulties in comprehending the development of the symptoms, and physicians to general hospitals have but scanty experience of insanity, and so the borderland is neglected, yet this borderland is the region where most may be learned and where most good may be done.

Insanity, till recently, was looked upon as a disease of the brain, and not of anything else, and that a man being mad, was so primarily from disease of his brain. But, as Sir W. Gull said to me one day, the brain, like a gentleman having many servants, was often badly served. The brain suffers more or less in all bodily diseases, as seen in the melancholy with some cases of mitral disease, and the suspicion in some phthisical cases. Indigestion may colour a man's views of the world, and repeated gout may affect a country's welfare through its statesmen.

Authors have already begun to notice that many of the physical disorders of the body have special ways of affecting the brain, and no longer do we hear that kidney disease is never seen in the insane.

Most useful results must follow such work as that of Dr. Ord, to whom we are indebted for a careful examination of the disease he calls Myxœdema. I presume that most of my readers do not know the disease, and I will therefore refer them to Sir W. Gull's first paper in the report of the Clinical Society for 1873, "On a Cretinoid State supervening in

Adult Women," then to Dr. Ord's papers in the "Medico-Chirurgical Transactions," Vol. lxi., page 57, and his most recent paper before the Clinical Society in October, 1879 ("Lancet," p. 578.)

With all these descriptions a single view of a well-marked case is required, and I doubt not that most will at once say, "Why, of course I know the disease, but never before saw its special nature."

Dr. Ord has most kindly provided me with the original photographs, from which the accompanying autotype plates are taken, and has most considerately allowed me to see and examine his cases, and shown me his specimens and explained fully his views.

The patients hitherto have all been adult women, but I have one male case now in Bethlem, whose disease is very nearly allied to the one described, if not the same.

The essence of the disease is a deposit of a peculiar mucoid tissue, or a mucoid change and overgrowth of a connective tissue, first noticed in the skin, and Dr. Ord has pointed out that this deposit or transformation is seen in all parts of the body, so that the liver tissue is separated by similar wavy, ill-defined tissue, and the same is seen in muscles, glands, skin, and certainly in the spinal cord, and probably in the brain. The patients have puckering about the eyelids, and you suspect albuminuria and renal disease, but find early in the disease at all events, no albumen, and you also find the œdema is apparent, and does not pit on pressure, but is firm and resisting; the face assumes a shape that is well described by the term cretinoid, the lips become thick and extended, the cheeks over the malar bones have bright congested capillaries, the alæ nasi are thick.

The skin of the whole body is dry and harsh.

The temperature is below normal.

The expression of patients is dull, and they are very slow in appreciating and answering questions.

Their speech is slow and peculiar, so that at first I fancied the patient had a provincial mode of speech, till I found the same occurred in all; the memory becomes defective, and the gait staggering, though there is no "limb paralysis."

The patients feel the increasing feebleness, and are distressed about it, nervous and perplexed at their inability to do their work or to avoid dangers; they feel wretched and tired of life; though there are not generally hallucinations; there are perversions of taste and smell.

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Fig. 1.

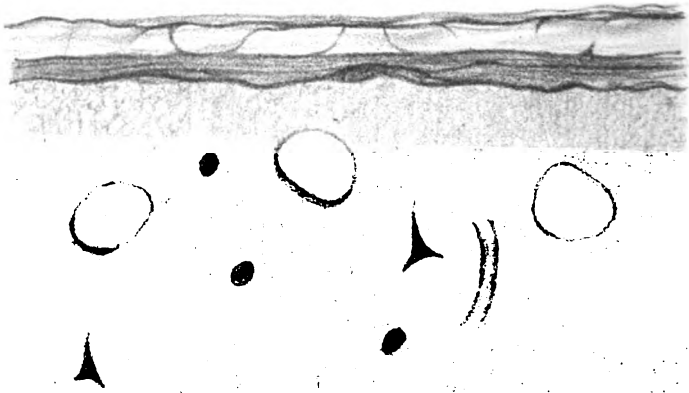
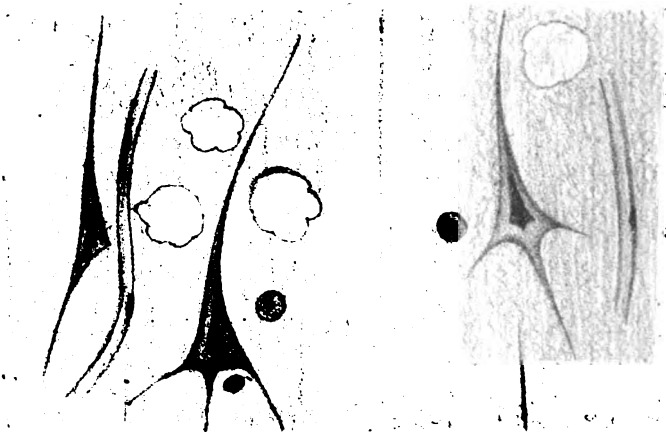


Fig. 2.



Some cases recently in St. Thomas' Hospital were troublesome on account of delusions; they mistook people about them for their daughters, and were violent if prevented going to see them; they talked to themselves, and were restless at night, often getting out of bed and wandering about in an objectless way.

One case was distinctly maniacal—sleepless, incoherent, violent at night, and fairly reasonable in the day-time. She was so troublesome she had to be removed. Dr. Sharkey pointed out these facts to me.

One very important question to be decided is, whether the mental dulness is due, as Dr. Ord thinks, to the padding of the peripheral extremities of the nerves, so that the constant healthy nerve stimulation is cut off, a kind of central nerve starvation, or whether the mental symptoms are due to primary disease of brain or padding round the nerve-cells of the centres.

The question of the annihilation or reduction of peripheral sensations as a cause of delusion is, at present, much interesting me, for in early general paralysis we often see local anæsthesiæ, and I believe these explain some of the symptoms.

Voisin and others have pointed out the frequency with which general paralytics think they have lost their insides, and we have one early case now in Bethlem where the patient is distressed because all his food turns to water, and pervades his body as such, mounting to his head.

Such cases are supposed to be like the miller who could not sleep when the constant noise of his mill was stopped, so the general paralytic becomes conscious of his visceral sensations when these are cut off. I will not longer theorise about the point, but suggest that others should be on the look out for such cases and report them.

My own feeling is that dulness and delusions are more likely to arise from primary brain change, or, at all events, to change of nutrition in the brain. We know that toxic bodies produce such peculiar sets of hallucinations, and I believe that not only alcohol, lead, and similar substances produce these false impressions, but bile and urea may also.

PLATE.

Two autotype reproductions of cases of Myxœdema under the care of Dr. Ord, St. Thomas' Hospital. (Figs 1. and 2.)

Cases of Hysteria, with Paralysis, treated by Metallotherapy.
By Dr. FRANZ MÜLLER, Second Physician to the General
Hospital at Graz. Translated by WILLIAM SAMUEL TUKE,
M.R.C.S.*

One of the most interesting discoveries of recent times in the department of Neuropathology is indisputably Metalloscopy, of which, as is known, Burq† is the real founder. But Burq did not possess the needful scientific authority, and immediately on its first timid appearance, in 1851, Metalloscopy was banished to the region of the impossible and of fancy by scepticism on *à priori* grounds, and, hardly born, disappeared into complete oblivion after a very ephemeral existence. And thus it remained, till at length, two years ago, Charcot, the great French neuropathologist, resumed Burq's researches, and not only confirmed them, but gave them an important extension. The twice-repeated reports‡ to a commission appointed by the Société de Biologie, as well as the numerous publications of Charcot, Vigouroux, and Landolt on this topic, are already become the common property of the medical public.

Regnard's§ labours have dissipated all that was "mysterious" in metallic applications, and the latter are brought somewhat, if still only slightly, nearer our comprehension, whilst, in consequence of these labours, a physico-physiological explanation is facilitated by the discovery of the fact that, in metalloscopic experiments, currents arise which are measurable by the galvanometer, a fact which Eulenburg|| has also demonstrated by similar experiments, performed in a very exact way upon healthy persons.

The numerous French communications were followed by others from Thompson,¶ Broadbent, Westphal,** Bennett,††

* Dr. Müller has sent us the following article, which has also appeared in the "Berlin Klinische Wochenschrift," 1879, No. 28. As the writer is a most careful observer, we attach great importance to his experiments as bearing on the vexed question of Expectant Attention.—[Eds.]

† Burq, "Nouvelle Doctrine et Nouveau Traitement des Maladies Nerveux." Paris, 1851.

‡ "Premier Rapport fait à la Société de Biologie," 1877. (Reprint.) "Second Rapport fait à la Société de Biologie," 1878. (Reprint.)

§ Regnard: De l'action des Courants Faibles sur la Retour de la Sensibilité. "Gaz. Méd.," No. 10, 1877.

|| Eulenburg, Ueber Metallotherapie, "Deutsche Medic. Wochenschrift," No. 25 M. 26, 1878. Metalloscopie und Metallotherapie, "Wiener Medic. Presse," No. 1, 2, 4, 5.

¶ Thompson; Broadbent, "Lancet," 1877.

** Westphal, Ueber Metalloscopie, "Berl. Klin. Wochenschr.," 1878, No. 30.

†† Bennett, Brain, Oct., 1878, "British Medical Journal," 1878, 23 Nov.

Maragliano e Seppilli*, v. Hesse,† who, however, differ from one another in really important points. Allow me to multiply somewhat the small number of other than French observations (a number sufficiently accounted for by the great scarcity of suitable material, for one does not come across patients with hemianæsthesia too often), and communicate briefly here the results of my experiments and observations, made on two patients of the General Hospital in this place, in the division of Dr. Platzl, the chief physician, whom I do not forget here to thank heartily for his kindness in giving them up to me.

These may contribute not a little to the explanation and extension of the subject we have approached.

1. Maria Manninger, aged 23, country servant girl, was first admitted 23rd Oct., 1878.

History.—1. Neither in the direct nor the collateral line have nervous or mental diseases been observed. The parents died from irrelevant maladies. Patient is the younger of two children, and up to an attack of pneumonia she always enjoyed the best health as a child. She has never suffered from convulsions.

At 17 the catamenia appeared, and, although always very scanty, they were quite regular. Since puberty she complains of intense spasmodic cephalalgia, cardialgia, ascending feelings of heat, impressibility, and emotional excitement.

These symptoms were intensified at each menstrual period. At the beginning of 1878 she was delivered of a child, which immediately died. Pregnancy, parturition, and the puerperal state presented nothing pathological.

In July of the same year, she again became pregnant, and until the 23rd Oct. showed no trouble worthy of mention. On this day, after being extremely excited on crossing a ditch, she fell so violently with her right loin against several blocks of stone, that persistent though not excessive metrorrhagia made its appearance, as well as intense pains in the region of the right ovary.

On the night of the 24th Oct., patient had her first fit of clonic spasm, on which followed a lethargy lasting two days, thus described by those about her :—The patient lay motionless, with completely relaxed limbs, and eyes firmly closed. During the whole time complete abstinence from food and ischuria continued. She might have been taken for dead, as no respiratory movements were visible. After two days she awoke suddenly, apparently in a state of complete amnesia.

* Maragliano e Seppilli, "Studi Clinici a contributo dell'azione delle correnti elettriche dei metalli, e delle magneti in alcuni casi di anesteria, Rivista sperim.," 1878, p. 36.

† V. Hesse, "Centralblatt für Nervenheilkunde, Psychiatrie," etc., 1879. (Reprint.)

As the convulsions, which were only twice followed by the lethargic state, recurred frequently, she sought hospital aid. Her complaints referred to violent headache, feeling of constriction in the neck, and pain in the right ovarian region.

In neither motility nor sensibility could anything anomalous be observed; only pressure in the right iliac fossa produced intense pain. Patient quitted the hospital after 17 days, without any important change in her condition having occurred.

When at home a convulsive attack, with a two days' lethargy, again came on, as the sequel of a fresh metrorrhagia, and she was again brought to the ward.

What a different picture did she now present! I only extract from the notes what is interesting for our present purpose.

Motility.—No inequality of innervation in the region supplied by the facial. Tongue and palate with normal power of movement.

The right hand, in which no movements have occurred, is notably less powerful than the left.

The dynamometer indicates only 4 kgrm. on the right side, as compared with 25 kgrm. with the left hand.

The right leg seems to be in a state of complete paralysis and relaxation. When patient is on her back, it can at the most be lifted high enough for the heel to be two finger-breadths above the horizontal line. Relatively speaking, the movements of the hip joint have suffered least, those of the knee already more notably, but the muscles supplied by the peroneal nerve the most.

Patient is unable to walk unless supported, the right leg hitches in the floor, and on attempting to proceed, is merely pulled along and dragged after her in an awkward manner.

Sensibility.—The whole right half of the body, exactly to the middle line, proves anæsthetic. The paralysis of sensation consists in anæsthesia, thermo-anæsthesia, and analgesia. Similarly the muscular sense is abolished. There is pain in the right ovarian region, which is notably intensified on pressure. The corresponding mucous membranes participate also in the anæsthesia. (The cornea, as also a spot the size of a lentil on the nasal septum, are sensitive.)

The acuteness of hearing with the right ear is considerably diminished. The right eye is amblyopic, and reads Jäger No. 19 (whereas the left reads No. 3 with ease); there is complete right-sided achromatopsy as far as red.

The ophthalmoscopic report is negative. There is, moreover, complete right-sided loss of taste and smell.

Reflexes.—On the right half of the body the skin reflexes, as well as the abdomen reflex are completely abolished; the patellar tendon reflex is highly intensified.

Faradaic and galvanic excitability both of nerve and muscle is fully maintained, and no difference is shown between the two sides.

Action of bladder and rectum normal. Temp. 98.6° F., pulse 84, small.

On account of their completeness, the to and fro convulsive attacks

may be considered, though briefly, and a short sketch of them may not be without interest.

After a striking change in disposition, showing itself in fretfulness and moroseness, has lasted some hours, patient begins to complain of violent pain in the right iliac fossa, which quickly increases, and radiates towards the epigastrium. When intense palpitations, precordial oppression, throbbing in the temples, ringing in the ears, and pitiful whimpering have come on, patient suddenly turns pale, and with a deep inspiratory sound, audible afar off, loses consciousness.

The hands, as though still seeking for something to lay hold of, now suddenly become motionless and tetanized, as well as the arms and legs. Soon the chin begins alternately to rise and fall; twitches are evident at both angles of the mouth, particularly the right; the eyelids vibrate; the extremities on the right side, and especially the arm, are the seat of short clonic discharges, while the left half of the body remains in tetanic stillness. Frothy saliva issues from the mouth; the face is cyanotic, the abdomen excessively tympanitic. As the difficulty of breathing diminishes, powerful, extensive, apparently purposive movements of the upper extremities come on, and are so violent that the hands, as a rule, are injured. Then the pelvis rises in rhythmical jerks, in such a way that for a moment the extended body only touches the bed with occiput and heel. Whilst these spasms continue, she begins to cry out, and abruptly to pronounce expressions and sentences—for example: "Thieves," "Shut the doors," "Money already stolen," "Chest's empty;" in short, expressions which plainly show that her morbidly-excited brain is the scene of wild delirium, having the character of persecution, and reflecting itself in her face, from which fear and anxiety seem to speak.

Profuse weeping, violent hiccough, and return of consciousness, announce the conclusion of the attack. Her intense desire for a drink of water satisfied, she sinks into a shorter or longer sleep, from which she wakes perfectly well. forcible and deep pressure on the abdomen in the right iliac region mitigates and shortens the attack, without quite arresting it.

In the intervals between the attacks, similar pressure at any time, and without exception, gives rise to the before-mentioned aura.

I have intentionally avoided the use of the recognised terms, ovarian hyperæsthesia and ovarian compression, because it seems to me improbable, to say the least, for reasons it is needless to mention here, that the ovary in this case plays a chief part.

The patient thus presented the classical picture of aggravated hysteria, (so-called hystero-epilepsy of the French authors), with all its clinical symptoms, with complete hemianesthesia, which was all the more interesting from the fact that it co-existed with extreme motor paralysis of one extremity without contraction.

The patient was now subjected to metalloscopic experiments.

I wish to remark at once that she had neither heard nor read of metalloscopy, nor had any presentiment what the application of the metal plates might mean. It must be further mentioned that I naturally resolved to select such a method of experimenting, that, on the one hand, I was protected and secure against every fraud and illusion on the part of the patient, and that on the other, the powerful influence of imagination, of heightened attention and expectation, could be excluded. The cardinal importance of both these points needs not to be specially insisted on—everybody knows that, with the hysterical especially, the morbid inclination to create attention and awaken interest is a fruitful source of intentional and unintentional delusions and marvellous stories.

Thus, examples enough are found in illustration of the great power of imagination, and of the attention which is carried to the pitch of exaggeration—the “expectant attention” of English authors—in their normal physiological degree as well as in morbid proportions, as may be noticed in the not scanty literature of this subject; in connection with which I refer only to the newest, and certainly the most complete work of this kind by Hack Tuke.*

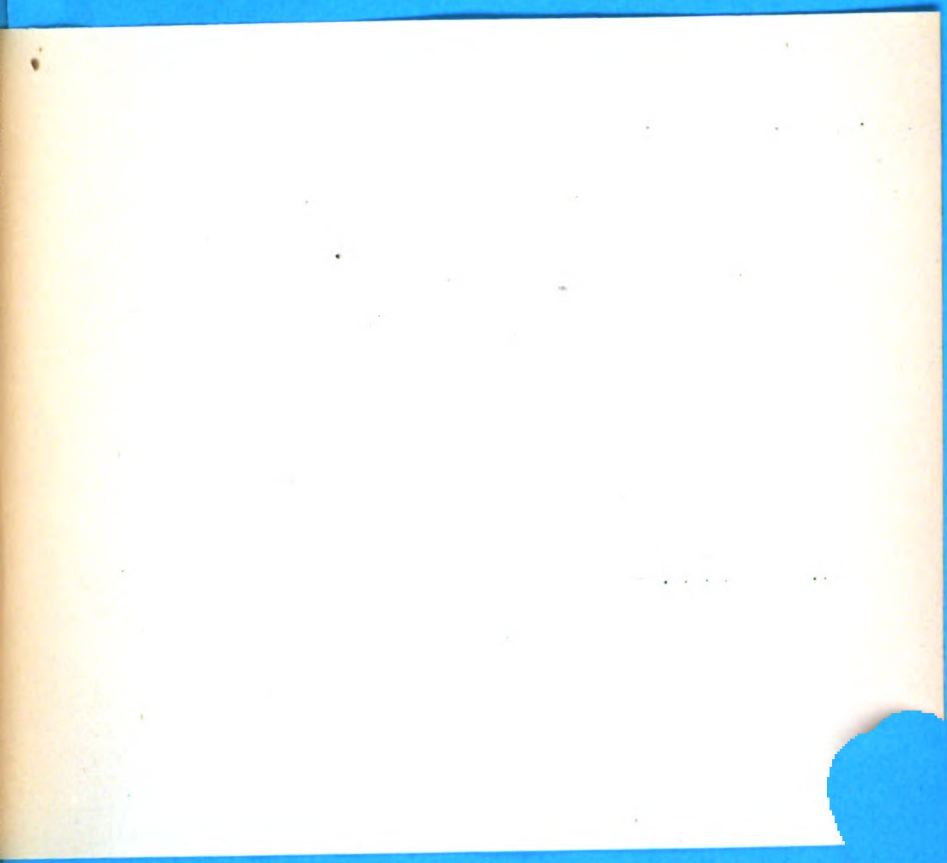
(To be continued.)

Case of old Nodule in Left Hemisphere. Dr. F. NEELSEN
 (“Arch. für Klinische Medicin,” Bd. xxiv., p. 483).
Contributed by EDWARD G. GEOGHEGAN, M.D.

This case which is an interesting contribution to the study of the psycho-motor centres is an example of an old encapsuled nodule in the left hemisphere, resulting from a lesion in childhood, which destroyed the superior parietal convolution, and produced atrophy of the superior portion of the postcentral and para-central convolutions. The right leg was paralysed, but regained its function to a certain extent, while the right arm became completely useless. The paralysed extremities atrophied. There was atrophy of the right lateral and of the left anterior columns of the spinal cord. Descending degeneration of the pyramidal tracts.

This nodule was about the size of a cherry, and, in addition to the destruction of the above-mentioned gyri, had dislocated

* “Illustrations of the Influence of the Mind upon the Body in Health and Disease.” London: Churchill.



NOWELL v. WILLIAMS.

Since the sheets of the Journal have been printed, the Court has granted a Rule *nisi* for a new trial, principally on the ground that some of the evidence was improperly received. Whether there will be a new trial depends upon the argument when the rule comes again before the Court. It is due to the plaintiff in the action to state that our article on the trial is, throughout, only based on the assumption that the verdict of the jury was justified by the legal evidence brought before them. Apart from the evidence, no opinion is expressed. However, assuming that the evidence is worthless, instead of assuming as we have done, that it is trustworthy, the legal points of interest bearing on the signers of the order and medical certificates for which this case has served us as a peg on which to hang our remarks, remain precisely the same.—(Eds.)

the surrounding convolutions, bringing the gyrus angularis to lie internally to the supramarginal, and immediately posterior to the postcentral. It consisted of chalk and cholesterol chiefly. The cells of Betz were completely degenerated on the left side.

In regard to the localization, this case quite agrees with Ferrier's observations, and goes against Hitzig, who places the centre in the præcentral gyrus. It supports Charcot, too, as regards the implication of the paracentral lobule in a permanent paralysis of the leg and arm. Neelsen explains the partial recovery of the leg by Soltmann's observation, that very young dogs, deprived of the motor centres of one hemisphere, can, after a time, move the legs of both sides with the remaining centre.

OCCASIONAL NOTES OF THE QUARTER.

Nowell v. Williams.

"Diseased nature oftentimes breaks forth
In strange eruptions."

HEM. IV., Act iii., Sc. 1.

It is astonishing how a medical case, simple in its character, obvious in its nature, and of which the diagnosis does not present serious difficulty to a mental physician, may become lost in a fog, and obscured by a number of irrelevant questions, when it comes into a Court of Law. Conflicting interests, the contention of lawyers, the technicalities which bar the admission of this or that particular fact in evidence, which is important in a scientific investigation—in which truth alone is the object of the inquirer—the mass of details which are crowded into the case, the probable ignorance and obtuseness of some of those who have to form a judgment; the necessarily imperfect medical knowledge of counsel, and also of the Judge himself; the prejudice of the public in regard to asylums for the insane—all these circumstances combine to prevent a dispassionate and scientific inquiry into a case of alleged lunacy. Under such circumstances, the wonder perhaps is not that juries often blunder on questions of lunacy, but that they manage, as often as they do, to blunder on the right side. So has it been in the action of *Nowell v. Williams*—in which the plaintiff sought to recover damages for false imprisonment on the ground that he had been confined in Northumberland House, he being at the time sane. He was in medical practice in Cornwall Road, London. He passed the College of Surgeons and the Hall in 1860-61, and became L.R.C.P. (Edin.) in 1865. His age is 43.

The extent of his practice was warmly disputed. It appears to have been always small, but he estimated it at some six or seven hundred pounds a year, which would have enhanced the damages for depriving him of his liberty.

Divesting it now of the side issues which have been raised in the course of the trial, let us look at the whole case from a simply medical point of view, and as one not of legal quibbling but of common sense. For an outline of the case the reader is referred to the Judge's summing up (Notes and News). We wish we were in possession of more medical facts in regard to Mr. Nowell's family. What is sworn to, however, is, if true, significant. It was stated that he had had two brothers, both of whom died from the effects of drink, one being quite out of his mind. The natural desire to keep family histories as private as possible may have prevented any disclosures in regard to the plaintiff's ancestors. The mental physician would deem it probable from what is alleged of three members of the family, that ancestral mental disorder would be found if sought for. If he did not say, with Sergeant Parry, that he was "created" insane, he would not be surprised to learn that he came into the world with a taint in his blood. That Mr. Nowell himself was by no means temperate in his habits, was stated by several witnesses; and it is rather surprising that his counsel should, in his opening speech, have maintained that the accusation of inebriety was altogether groundless. Indeed, one might have thought that the wisest course for him to pursue would have been to explain away Mr. Nowell's insanity by admitting this part of the evidence to be true. At what period his alleged intemperance began was not stated. The evidence went to show that for some time he had taken stimulants to excess, without actually being tipsy, in the vulgar sense of the term. It was stated that he was a frequenter of public-houses, and that he drunk very freely in the evenings at home. We will not suggest that the Solicitor-General's denial of his client's asserted taste for beer and whisky was after all only in the sense of good Matthew Prior's line—

"They never taste who always drink."

Nor will we apply to the Solicitor-General the lines of the same poet—

"Till their own dreams at length deceive 'em,
And, oft repeating, they believe 'em"—

because even in his impassioned tirade against "asylum keepers" and "the mad-doctoring interest," which he averred was put "in quite a twitter" by this trial, he could hardly conceal the good-humoured twinkle of his eye, and when most forcibly engaged "in making the worst appear the better reason," it was sufficiently easy to discern in his utterance the mere license of the advocate. Probably no one's conscience was more agreeably set at ease by the verdict of the jury

than his. He had done his duty to his client, and succeeded in doing so without causing a grievous injury to the defendant. That the plaintiff's habits (admitting the evidence), injured his mind, and that there was in the family some mental disorder, notably in this direction, are the first facts of importance in this case (*i.e.* if true) which must be recognised in order to understand the subsequent history, from a mental point of view. If the question were to be discussed whether his mental constitution caused the alleged recourse to stimulants, or the recourse to stimulants caused his insanity, we should reply that both positions would be alike indicated by the evidence. We believe it would be correct to say that his insanity and his alleged toping sprang out of his mental constitution, but that the former was fanned into a flame by the latter.

Contemporaneous with the unwholesome amount of imbibition deposed to, we find that his affections were by no means warm, and that Mrs. Nowell had for long been treated with considerable coolness, if not suspicion. She was, to her credit, reticent on this head, and evidently desired to make the best of her husband's conduct. But if we read rightly between the lines, then that which is said to be the only bliss of Paradise which has survived the Fall—domestic happiness—had taken flight a considerable period before the time from which the legal history of the case commences—that is in 1874.* The first actually proved difference between husband and wife was in that year, when they were staying at Brighton. It appears that Mr. Nowell one day took a return ticket for London, but instead of returning that evening, as expected, he did not come back for three days. Mrs. Nowell of course supposed he was at his house in London, but a letter directed to Mr. Nowell arrived, forwarded by the servant in Cornwall Road. Mr. Nowell when he did return flew into a passion with his wife for having opened the letter. He was annoyed at the servant for having let out his not being at home by forwarding the letter. How did Mr. Nowell show his animosity to these persons? By not speaking to his wife, and by occupying another bedroom—while he subsequently made a serious charge against the servant (that of having caused the death of his child), and apparently bore her a grudge ever after. Yet as it turned out the charge was not substantiated. He quarrelled after awhile with an aunt, a widow lady, with whom he acted as trustee, about whether her boy should be sent to a public school, or a private one kept by a master who was related to one of his friends, a patient (Lawrence), in respect to whom he then or subsequently entertained the delusion that he was on terms of intimacy with his wife. At Christmas, 1874, a choir, to which Lawrence belonged, went to plaintiff's house and carolled him. He appeared pleasant and kindly, and behaved just as he ought to have done. But even then he eyed Lawrence with jealousy, though the latter was unaware of it till the following March. He

* "I had lived a tolerably happy life with my wife" (Plaintiff).

had no delusion about being followed before this Christmas. He accused his aunt of abusing his father, grandfather, and other members of the family. Some of his letters to her are written in August, 1874, and others in May, 1875; in the latter occurs the passage which is the key-note to his then state of mind—"If any attack is to be made upon me, I prefer that it may be done personally, and not upon my wife through the medium of third parties."

So matters went on till June 15, 1875, when his daughter died, due, he said, to the servant having thrown her down. It is in evidence that this event depressed him, and aggravated his morbid mental condition. That it must be taken into account in estimating the exciting causes of this unfortunate man's malady is no doubt true; it must not, however, lead us to overlook his previous mental state. One witness stated that four years before he was very strange. His mind therefore was not only now, but had for some time been, unhinged. If not already a dangerous lunatic he was perilously near being so. Sergeant Parry made the observation that if refusing to speak to his wife, or live with her as his wife without any good reason, were not proofs of delusion, they were the materials out of which lunacy is manufactured. They show that he was brooding over certain supposed injuries—injuries of which not a shadow of proof was forthcoming at the trial. Thus brooding he became, it is affirmed, increasingly suspicious and jealous. And the grotesque form the delusions assumed—the order or procession of events in the man's mind—were in themselves calculated to render the charges transparently preposterous and the mere coinage of an insane brain. Because the plaintiff preferred a public school for his cousin, his aunt set the disappointed master of the private school and some of his relatives to persecute him. They were, indeed, in his aunt's pay. And how could these people more effectually annoy and injure the plaintiff than by rendering his wife unfaithful? Alienated though he was from his wife, he was indisposed to blame her in this matter. She was not criminal. She was the victim of low cowardly wretches. Such, at least, was his theory, although his acts soon proved that he did not carry it consistently out. As Lawrence came occasionally to the house, it was easy to misconstrue the simplest occurrences and connect them with the conspiracy to which he now gave credence. Fed by whisky (admitting the evidence), these delusions assumed at last an acute form. At this time his wife went from home for a change. The servants left in the house were soon frightened out of their wits by his outrageous conduct—rushing about the house screaming, and drinking. "He was always more excited after drink." He thought men were surrounding his house. He fancied people pointed at him and grinned at him. For three nights the servants did not undress, but slept in their clothes. At last matters became so serious that they telegraphed to his wife to return, which she did. It was then, on the night of the 25th of July, 1875, that he rushed into his wife's bed-

room dressed, with his hat on, and a candle in his hand, in search of the supposed intruder. That he was at this period on the verge of *delirium tremens* is suggested by the evidence. But whether this be so or not, his acts were regarded as insane; he heard men's voices in his wife's room, not one voice only but as if there were fourteen or fifteen. He saw or found one in the bed, which not only his wife but his daughter, a girl of thirteen, occupied. He believed men were secreted under the bed. Then and on other occasions he heard what nobody else heard, and saw what nobody else saw. Sometimes he had illusions; at other times hallucinations, visual and auditory. He implied he could have made a sketch of the main intruder, but was no draughtsman. He saw in the early morning this intruder escape over a wall in the back garden, being helped over by that servant towards whom he had conceived so insane a dislike. She placed a chair for him to stand upon.* Connected with this is the curious and characteristic circumstance that the plaintiff changed his opinion as to who this man was, though adhering to this day to the allegation that some one was in his house and escaped over the wall. He found he was mistaken as to his being the relative of the schoolmaster supposed to be set on by his aunt. He became a strange man, who subsequently turned up in numerous places—London, Gravesend, Yarmouth, Ramsgate, Dover, Ipswich, and Harwich—whom he in vain endeavoured either to escape from or to bring to justice, a phantom of his disordered fancy, a Will-o'-the-Wisp, which now and again on the point of being secured, as often eluded his grasp. Most striking occasion of all, when just within his reach—or at least within shot—he disappeared among “the bushes” of Linden Grove! Plaintiff was, however, only a companion in misfortune, with no less eminent a member of his profession than Sydenham himself, for even he while sitting one day, smoking by his window which looked out on the Mall, with a silver tankard on the table, was persecuted by a thief, who, snatching up the tankard, escaped with his prize. “Nor was he overtaken,” it is recorded, “before he got among the bushes in Bond Street, and there they lost him.” Who shall dispute there being bushes in Linden Grove? Our very last wish is to provoke a smile—our only feeling is compassion. We confess, however, to an

* It is proper to say that a letter written from Mr. Nowell to his wife next day, which appeared to prove his dangerous state of mind, may possibly not, it would seem, bear this construction. He wrote—“I consider your return here impossible and dangerous. Mary is your friend to please others. So beware. I will not be answerable for any consequences if you come here.” This was construed to mean threatening his wife. It might be argued that he was warning her of the danger she would run by returning to a house where she was sure to be interfered with by a particular man. It may be that on the occasion of the plaintiff being asked in the witness-box what he meant by this, he did really tell the truth when he replied, “I meant that if she came, he would come to.” At the moment he wrote the letter, the side of the delusion which represented his wife not as criminal but as an unwilling victim, was on this hypothesis in the ascendant. Mrs. N. quitted the house July 26.

unsuccessful search in this locality for any sufficiently arborescent refuge for even this dexterous fugitive.

Be it remembered, to go back to the suspicion regarding the man or men in his wife's room, that the transformation actually amounted to a private detective, who was there simply for the purpose of planning with his wife the best means of watching him and dogging his footsteps. If likely to occur, a sane idea would have suggested the conference taking place in the day when her husband was on his rounds; an insane idea prompted the theory that he came to her room in the middle of the night—that room being next to that of the man they were secretly plotting to persecute by incessant watching!

It should have been mentioned that in the interval between his child's death and the excitement on the night of the 25th of July, Lawrence called to pay his account in consequence of "an insulting letter" he had received from him. He told him he knew what he had come for. Lawrence said, in his evidence, "I saw he was mad." The plaintiff was abusive in his language, and pointing to one part of the room he made use of the words, "I've got something in that cupboard which will settle you in two minutes," and greatly alarmed his visitor.

Subsequently Mr. Nowell wrote a letter, in which he says that his aunt, with whom he had quarrelled, had set Lawrence on to injure him from the side of his wife. In his evidence, referring to this autumn, he swore that a man was constantly watching him in Cornwall Road, where his house was situated. He overheard old women talking about his wife's misdemeanours and made a note of it.

In October, 1875, a medical certificate was obtained, but the second certificate fell through by reason of some difficulty arising when the examination was made. At that time he asserted he was followed about by gangs of detectives; that he had got into a train with seven, who wanted to arrest him, but they could not serve the warrant upon him because he changed his coat before he came out, and therefore the description did not agree with that in the warrant. Why did they want to arrest him? For child murder, or something of the kind; he did not exactly know what.

In January, 1876, he believed that while going in the boat to Gravesend, a man was watching him, and he called him a spy. Not long after this, he and his wife and family went to Ramsgate, and, with the exception of occasionally visiting London, resided there until February, 1877.

Fortunately for the ends of justice, the plaintiff kept a diary, and this alone would have been sufficient, from the inherent and monstrous absurdity of the entries, to satisfy any sane man of the writer's insanity, even when interpreted by himself in the witness box.

One entry, "What did you say you would do for me?" were words he asserted he heard in his wife's room on July 25, 1875, uttered as he finally thought by a private detective. Again and again he

heard voices. When at the Queen's Hotel, Yarmouth, he made the entry, "Two fellows followed. Went into coffee room and said 'There he is.'" Again, "Followed till 9." And again, "Followed in hansom; insulted in Kensington," which referred, on his own admission, to the same ubiquitous individual who always pursued him. On December 27, "Man in garden" whom he did not know. "Man in 'bus, as in train to Swindon," who followed him. "Two men at Pegwell," who pursued him there. "January 14, 1876, Man in smoking room," who also, plaintiff believed, had been following him. "February 6, Paddington-green Church. Went to Delancy Street. Man in 'bus spoke to passengers. Same as went to Ramsgate." When asked in Court to explain this, he replied, "He pointed to me and whispered to the passengers. He walked up Delancy Street close to my heels."

In vain to tell the unhappy diarist that these people never pursued him:

"Nor no such men as you have reckoned up,
And twenty more such names and men as these
Which never were, nor no man ever saw."

Like the bewildered Sly, he would answer, "What, would you make me mad? What, I am not bestraught!" And the reply would be—

"Hence comes it that your kindred shun your house
As beaten hence by your strange lunacy."

In March, 1876, a circumstance occurred which elicited the fact of his carrying a pistol. When walking past the Elgin Arms, he heard a voice, "Hollo, Doctor! going home?" and a man pushed him twice. The man who had followed him to Ramsgate then came up. This was succeeded by an assault upon a man who was proved to have been entirely inoffensive. Plaintiff was found to have a pistol, and did not deny it on being cross-questioned. Again, "Red man," was explained to be a red whiskered man who followed him. "16 April, 1876, 'bus along New-road; man in it, and told him so," which he stated to be the same person. April 20, "Man in cloak; cats—cats!" "Man at the tea-gardens." The same man. "Man with shiny hat passed with straps under his arm." The same man.

Suspecting—jealous—prepared at any moment to attack imaginary spies—frequenting public-houses when he walked out; so lived the plaintiff while at Ramsgate, and no wonder that in such a condition of mind he should, on the night of the 5th July, 1876, have rushed into his wife's bedroom in search of some intruder, and roused her with suspicious enquiries. He then put his hand to his pocket. One of the children, sleeping with Mrs. Nowell, having reason to think he had a pistol, cried out, "Don't, father, don't." Another of the children gave evidence that "Pa had hold of her by the throat," and that he had to be pushed away. Such are the scenes enacted, such the deeds wrought, by men whose removal to asylums is becoming increasingly difficult in consequence of the ignorant outcry of

a section of the community, including the mischievous cackle of a few flighty women.

It was several months after this scene, that the servant, in making plaintiff's bed, discovered a pistol and took it to her mistress. Mr. Nowell said it was only for shooting gulls, but Mrs. Nowell was not credulous enough to believe him. It was afterwards found that from constantly having his pistol in his trousers pocket, he had worn out the lining, and had lined the pocket with wash-leather.

We need not dwell on the extravagant fancies with which Mr. Nowell's brain teemed in regard to his wife's relations with the inmates of the adjoining cottages—the seeing her carried there in a chair by six men—the supposition that persons mounted from below to his wife's window, which in consequence he nailed up—but pass on to the 19 Dec., 1876. In the evening of that day he had asked about where his daughter would go during the holidays. He angrily maintained that his wife was such a low character that she must not remain with her, and, becoming more and more excited, used foul and exasperating language to Mrs. Nowell, in the presence of the children. She burst into tears, and fearing violence, left the house for ever, turning out, on a miserably wet December night, to seek refuge in the house of a neighbour. As Lord Coleridge feelingly observed to the jury, if what Mrs. Nowell had told them in the witness-box had not impressed them, then nothing that he might say would. All he could say was, it had impressed him. Perhaps he may have thought of the lines of his illustrious kinsman—

“The night is chill, the cloud is grey!

* * * * *

Hush! beating heart of Christabel!

Jesu, Maria, shield her well!”

That Mr. Williams should have taken steps to obtain a medical examination of Mr. Nowell, with a view to his being confined, was surely natural and right. They, however, unfortunately failed at that time, and it was not until Feb. 16 of the following year, that two certificates were procured, and he was placed in Northumberland House, the order being signed by Mr. Williams. It might, of course, have been signed by the wife, but it was thought this would add to the irritation of the patient's mind whenever he should return home. As it was destined that everything—or nearly everything—connected with this unfortunate case should turn out unpleasantly to everybody concerned in it, the certificates must needs, in the opinion of the Commissioners, be so doubtfully legal that fresh ones had to be obtained in March, when precisely the same monomaniacal delusions of persecution were expressed, notwithstanding every inducement to conceal them. And here we would observe, that as it is obviously wise not to allow a lunatic, whom the Commissioners consider dangerous, and for whom fresh certificates must be procured, in consequence of an informality, to be free from control, it would be better that he should either be honestly re-certified in the asylum, or be out of it under

police surveillance during his re-examination. Otherwise the asylum goes with him. The existing mode of procedure is certainly open to the charge made against it by the Solicitor-General, of being a farce, and to the caustic observation of the Judge to one of the Lunacy Commissioners, who maintained there was a clear distinction between being out of the asylum and in the asylum—that it was a distinction without a difference.

It remains to add that, while in Northumberland House, the plaintiff gave expression to the same delusions of persecution; that he thought poison was put in his coffee, and adhered to the belief in his wife's misconduct. Twice he escaped and was brought back. In November, 1878, there was a Commission of Lunacy, but this attempt to prove to a jury that he was of unsound mind failed. Strong facts were then deposed to, but the limit of two years which the law requires at an inquisition, excluded some of the evidence. Lord Coleridge demurs to the wisdom of this law, passed, no doubt, to set some bounds to the expense of conducting an enquiry. We certainly think the period might be extended to three or four years with advantage.

As already intimated, it is not our object to give a history of this case, further than to bring into prominence its most salient features, or to enter into questions of personal interest to the medical men concerned, which were raised in the course of the trial. The question of whether, in the first instance, there was or was not a *bond fide* separate examination was brought before the Commissioners, and was by them decided in the negative. On the question whether, in the re-certifying, there should or should not have been all the facts stated, we shall express an opinion shortly.

Turning now to the Verdict, while it is satisfactory that the evidence brought forward succeeded in convincing the jury, we by no means think that the position of medical men who sign certificates of lunacy is reassuring. Nothing but an overwhelming mass of evidence turned the scale. Many are the instances in which dangerous lunatics ought to be confined, where the same conclusive proofs—laymen being the judges—could not be obtained. Although the question of "danger" affects primarily the signer of the order, we believe that the number of medical men who refuse to risk the annoyance to which they may be subjected by legal proceedings, will be increased by this trial. And, unfortunately, it is not those who are worst, but those who are best qualified to form a judgment, who will be deterred from committing themselves to possible consequences, as unjust as they are annoying.

The reluctance thus induced will operate injuriously upon the public in two ways. It will prevent, in many instances, the removal from a family of a member who is a constant source of misery and of danger. And it will have the effect of transferring the signing of certificates from men who are best able to sign them, but who have a character to lose, to men who have nothing to lose and may gain, but who are not equally competent to examine a lunatic. We are not blind, as members of the general community, to the danger attending too facile

a system of incarceration in an asylum. But if, in jealously guarding the liberty of the subject, the guards thrown round this liberty are so tightly drawn as they are now—we are not complaining of the Lunacy Laws, but the interpretation of these laws in the Courts—then we say the security of families from insane violence is vastly lessened, and that, in the almost indiscriminate vituperation of “mad doctors,” now so fashionable, the public are indulging in a dangerous, however pleasant a game. The mistake may be, and no doubt will be some day discovered, but not before a fearful amount of suffering has been endured, an unjustifiable demoralization of family life been caused, and a luxuriant crop of homicides and suicides been committed. The pity is that a mass of the intolerable misery caused by unrestrained lunacy never comes to light, and is only known to the family medical attendant, who sees clearly enough what ought to be done, but is met by the difficulties which now present themselves in the attempt to place the cause of all this misery under medical treatment from home, and under conditions in which no further mischief can be done.

If we could weigh the agony caused by all the lunatics in all the asylums in Great Britain at this moment in one scale, and the sum of human woe endured by the sane, occasioned by the action of the manifold phases of delusional and emotional insanity, in the other, we are deliberately of opinion that the latter would far outweigh the former. A father once affectionate, now passionate or actually cruel; a mother, hitherto all that a mother should be, causelessly jealous of her husband and harsh to her children; or a son eccentric, wayward, and morally insane; here are the skeletons in the cupboard of many a home—the materials of the miseries which are to be found, if sought for, around many a family hearth, and which require wise medical interference for their removal. But if the medical advice given is to be represented as the mere desire for filthy lucre; if the medical certificates are to be subjected to a verbal criticism which the Queen’s Speech could rarely if ever stand; if an action at law, harassing and expensive, even if unsuccessful, is to be hanging over the heads of those who put their names to the paper, these evils will not be interfered with when they ought to be interfered with, but will continue to bear their unhappy fruit. These remarks apply also, of course, *mutatis mutandis*, to those who sign the order. Even in the present instance, in which the action was not successful, we are informed that the defendant will be some £3,000 out of pocket. Is this just? That, however, is not the point we wish to urge at this moment. Whether just or not, a brother desiring to protect a sister from her husband’s outbreaks of mad violence, will be very loath to do it. Indeed, in spite of this action having failed, we doubt whether many brothers will now be found to act the considerate part the defendant has acted, for they have the fact patent before them, that he ran a great chance of being defeated in the action, and that, while winning, he lost disastrously, both time and rest, and money, and has only the *mens conscia recti* to sustain him—honourable as that possession is.

The recommendation of the jury, that the medical certificates should be on separate pieces of paper, naturally followed the remarks of the Judge (before he knew to the contrary) that such no doubt was the fact.* If it is intended that one signer shall not know what the other has written, the recommendation is no doubt consistent. Otherwise it seems uncalled for, seeing it has nothing to do with a separate examination. Certainly, a separate piece of paper—and a tolerably large one—will be required, if, as the Judge holds, the Act of Parliament requires, *all* the facts upon which the physician bases his opinion of the patient's insanity, are to be given. It is difficult to poor unlegal minds like ours to see why "facts" should be interpreted to mean "all facts." If counsel were arguing in support of a certain proposition, could he not be truly said to have cited "cases" if he had only cited two out of half-a-dozen which might be within his knowledge? Even the manufacturer not supposing that "wool" will be understood as meaning altogether woollen, takes care to label his fabric "all wool." And so we think would the legislature have specifically stated "all facts," instead of "facts," had it ever intended that they should all be inserted.

As the history of this case was first sketched by the Solicitor-General, a very shocking story of incarceration in a lunatic asylum seemed to be made out. A wicked conspiracy had succeeded. Wife, brother-in-law, servants, detectives, tradesmen, persons wholly unconnected with Mr. Nowell, had one and all leagued together to watch him, follow him, dog his footsteps wherever he went, and conspire with only too successful a result, to deprive him of his liberty. The story, indeed, sounded so plausible, that Court and jury were evidently strongly moved by it. At the present moment, too, when a set of noisy agitators, assuming, but really only aping, the character of genuine reformers of the amelioration of the condition of the insane, are trying to convince the public that mental physicians are dangerous foes to the liberty of the subject, such a case was greedily seized upon by these poor pensioners on the bounties of an hour, and a most temptingly comfortable *nidus* was supposed to be discovered in which to lay their eggs. Alas! it proved a veritable mare's nest.

" Anon, out of the earth a fabric huge
Rose like an exhalation."

But when examined in the full light of day, it proved to be a house of cards. A Monomania of Persecution, familiar enough to every mental physician, partly induced, if the evidence be true, by inebriety,

* We commend this little circumstance to those who are enamoured of *a priori* modes of approaching the investigation of alleged discoveries. A clear-headed Judge deciding in his mind from his past experience what should be and therefore is, arrived at a conclusion the exact reverse of the fact. "It is highly unlikely—exceedingly unlikely—that the two certificates should be on the same piece of paper. Anything more calculated to lead to the law being broken I cannot imagine." Another illustration of the truth that the unlikely is always happening.

but persisting in a diseased brain, long after the main cause was removed, explained the whole.* And the plaintiff was not only a lunatic, but a dangerous one, as the jury, in fact, found. Morally speaking, the loss of his cause was the plaintiff's gain, for the outrageous conduct which, on the theory of his sanity, could but excite detestation and disgust, only excites, when he is proved to be insane, the pity due to an irresponsible being.

A few words in conclusion on the important question which has been raised once again by this trial as to whether the person signing the order must, in self-defence, prove that the patient is not only a lunatic but a dangerous lunatic. In spite of the ruling of the Lord Chief Baron in *Nottidge v. Ripley and Nottidge*, we believe that most persons have entertained the opinion that whatever may be the restrictions of the common law, the Lunacy Acts contain no such limitations. That such is the opinion of the Commissioners is well known. When the Chief Baron made the declaration above referred to, they addressed a spirited remonstrance to his Lordship, in which they said that the subject of the Lunacy Acts "is not so much to confine lunatics, as to restore to a healthy state of mind such of them as are curable, and to afford comfort and protection to the rest. . . It is of vital importance that no mistake or misconception should exist, and that every medical man who may be applied to for advice on the subject of lunacy, and every relative and friend of any lunatic, as well as every magistrate and parish officer, should know and be well assured that according to law *any person of unsound mind, whether he be pronounced dangerous or not, may legally and properly be placed in a county asylum, lunatic hospital, or licensed house, on the authority of the preliminary order and certificate prescribed by the Acts.*"

And Mr. Danby P. Fry, in his "Lunacy Acts," reads the statute in the sense of the Commissioners, as overriding the common law.

We may observe that the case of *Fletcher v. Fletcher* does not support the opinion that the signer of the order must be in a position to prove that the patient is a dangerous lunatic. The question raised at this trial was, whether it was a sufficient plea to urge that he acted *as if* he was insane. And it was ruled by Lord Campbell, the other three judges agreeing, that he ought to have proved that he was insane. In other words, you are not justified in shutting up a man if he only pretends to be insane, or if his conduct is so eccentric that he conducts himself as if he was insane. Lord Campbell does not say a word about "a dangerous lunatic," in his judgment, nor do the other judges, except Mr. Justice Wightman. He, to

* That insanity arising after the antecedents deposed to at the trial, is likely to assume the form of a monomania of persecution, is pointed out by the distinguished Austrian mental physician, Dr. von Krafft-Ebing, in his "Lehrbuch der Gerichtlichen Psychopathologie," 1875. "Nicht selten kommen solche Erkrankungen [Wahnsinnszuständen der Verfolgungswahnsinn] auf degenerativer, nämlich alkoholischer und hereditärer Basis in primärer Entstellungsweise vor."

all appearance, quite inadvertently used the word "dangerous" when he said the defendant must prove that the plaintiff "*was*" a dangerous lunatic, laying emphasis on the word italicised in the report, and not on the word dangerous. It does not appear possible therefore to cite the case of Fletcher in support of the opinion that it is necessary to prove the patient to be a dangerous lunatic. The ruling, however, in the case of Nottidge v. Nottidge remains, and now we have that of Lord Coleridge who, however, only referred to Fletcher v. Fletcher, and not to Nottidge's case.

It is then of the utmost importance that this question should be free from the slightest doubt. And if the opinion of the Commissioners is really not assented to by the judges, every effort should be made to have the law altered, and brought into accord with common sense and with common practice. A lunatic who squanders his property, is placed in an asylum, not being dangerous either to himself or others; is it to be tolerated that those who place him in restraint are liable to an action, in which the judge will rule that the plaintiff, under such circumstances, is entitled to a verdict?

We have supposed an extreme case, but we hold that whether a non-dangerous lunatic squanders his money or not, his friends should be warranted, in law, in placing him in a hospital for the insane if he is likely to derive benefit from such treatment, provided they conform to the Lunacy Acts.

If the law is really such as the ruling of our most eminent Judges assert it to be, then in the order words ought to be introduced in accordance with it, so as to put the unwary signer of the order on his guard. It will be seen that the Commissioners considered that the ruling of the Judge applied to the certificates as well as the order ("every medical man"). Although, however, medical men cannot fail to be influenced thereby, we believe the Judge's ruling had sole reference to the order. The Commissioners, however, are still logical in their view, for if an order is only valid when made for a dangerous lunatic, the medical certificates must in all other cases be at least so much waste paper, although they may not be actionable.

At all events, the present condition of the law, or the want of accord between the common law and the statutory provisions of the Lunacy Acts is to the last degree unsatisfactory—here, we grant "Lunacy Reform" is required—and until it is placed on a satisfactory footing, the best course mental physicians can pursue is *se mettre en grève*, for even if the Act does protect them and not the signer of the order in the case of a harmless lunatic, an action may be brought against them for not enumerating all the facts on which they have formed their judgment, and on other grounds. This course might, perhaps, open the eyes of the public to the service which they render to the State; and practically illustrate the consequences which will befall the community when lunatics, who unhappily ought to be under restraint, are allowed to indulge their insane wills at large.

PART II.—REVIEWS.

The Physiology of Mind. Being the first part of a Third Edition, revised, enlarged, and in great part rewritten of "The Physiology and Pathology of Mind." By HENRY MAUDSLEY, M.D., F.R.C.P.

(Second Article.)

In the April number we criticised the psychological side of Dr. Maudsley's work in this volume from the point of view of a merely idealist, or, as he would call it, "metaphysical" theory of knowledge.

We endeavoured to show, first of all, that, though he did rightly in assailing the "Introspective" school of psychologists, and in maintaining that an adequate knowledge of Mind cannot be got by a mere inspection of Consciousness (after the manner, for example, of the Scotch school), yet he was in error when he confounded all other idealistic positions with this one. The truth is that Kantianism is not a whit less utterly opposed to Hamilton than it is to Hume. We tried to sketch out some of the chief points in which the "physiological" explanation of mental facts falls short, and fails to explain the phenomena, always confining the question, however, to the side of *knowledge*, and leaving *ethical* difficulties apart. The argument amounts, in brief, to the following simple and clear position. The scientific explanation of the world demands to be based on "facts," but it fails to explain to us what a "fact" is. If that be analysed, it will be found that it implies at least this: An entity within us beyond the brain or beyond mere sensations, which relates sensations together, compares and contrasts them, attends to them, and makes us "conscious" in the higher sense of what they have to tell, and builds them up, in fine, into that regulated whole which we call "Experience." All this, which is implied in any "fact" as a condition precedent thereof, is what we in England are apt to call "*a priori*" truth, and despise accordingly. But in so thinking we do foolishly. For all this is not inconsistent with physiology; and that for the simple reason that it makes no assertions whatever, either about the organism in itself, or about the mode whereby this further entity—the Mind, or Self—is related to its bodily organ. These are, indeed,

problems of the last difficulty, and are admittedly unsolved. We say merely that to seek, as Dr. Maudsley does, to solve them by eliminating the non-bodily factor is not to explain, but to explain away; and that his solution, therefore, so far forth, solves nothing.

But this entity, which we call non-bodily, and name Self, has another side besides that of Consciousness; it expresses itself also as Will. And it is on this side—the side of Ethics, Duty, Responsibility—that the Physiological School fails most patently. Since Hume—and resting on his errors—some men have believed that they found means, so far as *knowledge* is concerned, to resolve Experience into a series of sensations, and sensations again into “vibratiuncles” of nerve matter. But to resolve Duty and Remorse into mere physical facts is not easy; and to make Will fit into such a scheme it is necessary to deny it altogether. Let us see, then, what account Dr. Maudsley has to give of this Ethical side of human life.

To get at it, we have to pick our way through much vigorous and violent denunciation. “A self-determining will,” he says, “is an unmeaning contradiction in terms, and an inconceivability in fact.” But he proceeds to explain that he regards that term as implying that a man who acts by such a will is supposed not to be influenced by reason, a theory which every advocate of freewill would repudiate. He relies on the fact that men’s characters are fixed, and their actions thereby, to a certain extent, predictable, and that sane society, in fact, is based on the assumption of such fixity; and from this he proceeds at once to draw the somewhat violent conclusion that any sort of self-determination, anything, in fact, but the inevitable fatalism of natural causation, is a delusion and a snare. It was a true philosophic instinct that led Dr. Maudsley to look at the question from the point of view of Character. Character is the key to the problem of Free Will. But before we can use it safely for such a purpose, it is necessary to take a deeper view of “character” than the author does. Character to him is another name for organisation. We are saints or sinners according to the configuration of the nerve tracks concerned. Ethics is as much a matter of machinery as the basest mechanic process; only the machine is cunningly made, and improvements are transmitted by generations.

This method, once for all, is doomed to failure. It cannot explain the very facts which constitute the problem—duty,

responsibility, remorse, and the moral law. Why should there be any ethics or any moral factor in our lives, if we are a superior sort of steam-engine? That we *do* care about good and evil, that we *do* feel the call of duty and repent of sin, is the very fact to be explained. Dr. Maudsley has here no theory of life that does not end by speciously denying the patent facts it started to describe.

The acute philosophic sense that enabled the author to see that the question rested, after all, on the ground of Character, would have led him to a truer result had he made a distinction which is vital to the whole problem, and which, nevertheless, is almost always either ignored or blurred by writers of every school. Dr. Maudsley harps upon the damning fact that the "Free Will" of the Libertarians is "a power which, in so far as it gives a preponderance to one of two motives, is *entirely* arbitrary, *absolutely* exempt from all influence, *supernaturally* infused, *free!*" If this were so, well might he say, in his wrath, that it was "as wild a dream as ever entered into the imaginations of metaphysicians to conceive." But it is not so, after all. This strange power is not the Free Will that we claim to defend. It has another name, and that name is Caprice. Whether there is such a freedom of caprice in human nature or no, it is hard to say. Of course, as Dr. Maudsley naturally points out, there are all manner of subtle influences, organic and extraorganic, which *may* be determining me when I seem to myself to be determining in sheer and objectless caprice, to lift my pen or to lay it down. It is difficult to prove a negative. It is also peculiarly difficult to demonstrate that in every case there are such influences, and that they actually do determine. It is an ingenious hypothesis, like so many others that adventurous science hazards, and it is incapable of proof. In reality, what proof there is goes rather the other way. For after we have allowed all possible scope for such occult impulses, there remains still the old scholastic case of the ass and the bundles of hay. There are circumstances where, for the sake of experiment, a man may place himself in such a position that the motives balance with the finest possible accuracy. In such a case, if our volition were nothing but a mechanical resultant of balancing forces, we should either, ass-like, stand irresolute in the middle, or, at most, should feebly gravitate for some infinitesimal reason to the preferable side. But, on the contrary, we find in such a case that all men take a sportive pleasure in throwing the sword of their capricious

will into the scale, so that we may almost say that men decide with most volitional force when there is least reason for the decision.

This, however, is by the way. So far as it goes, it may serve to show that there is more to be said for the existence in the human mind of a power of arbitrary self-determination, properly called Caprice, than Dr. Maudsley cares to admit. But what we are chiefly concerned to say is, that the question whether there is or is not such an arbitrary power, is *not* the real question at all. *This arbitrary Will of Caprice is not the "Free Will" which we contend for in the interests of Ethics, and in explanation of the fact of Duty.* And in regard to the debate between Libertarian and Necessitarian schools, the confusion of the two is fatal.

What then do we mean by Free Will? Stated in plain terms and reduced to a minimum, it comes to this: My acts are determined by volitions, and these again by what we call vaguely "motives." But a motive may mean either of two wholly different, and indeed contrary things. It may mean an influence or desire which comes upon men with all the force of the confluent currents of outward circumstances and bodily organisation, my Self being therein passive merely. In that case, unless we can act by Caprice, we are the slaves of Necessity—"stones gravitating consciously." It may mean not at all a passive datum, but rather that idea of an object of desire which I, my rational Self, have formed and set before my practical Self, as that, which if attained is fitted to satisfy me, and to fulfil the conception I have framed of my happiness. If that be what motive means, then our acts obey a command not laid upon us by the blind powers without, but rising from the rational power within. Our Will is, in the Kantian phrase, "autonomous." We are a law unto ourselves, and thereby we are free.

The theory of Free Will then, is that *in every determination to act which constitutes a volition* (as distinct from those mechanical organic movements where motion immediately proceeds from stimulus, "without ideation," as Dr. Maudsley would say) the determinant *is not* a mere datum of nerves, or sense, or passion, but *is* an idea actively taken up, formulated as an adequate end, and stamped as an element of happiness, by that non-bodily entity, which we call Self. This is what the Germans mean when they talk of Reason as "entering into the constitution of the object of desire." This is the simple key to the whole problem of Responsibility. For this

“non-bodily entity called Self” has, as we said, its two sides, or aspects, the side of thought and the side of act, of theory and practice, of reason and will. From the Greek philosophers to the Churchmen of the Middle Ages, everyone recognised this great fundamental dualism that runs through life, and it is only a delusive thirst for simplicity, such as would fain resolve black into white, and white into no colour at all, that threatens to obscure it to the modern mind. It is, to use a dangerous metaphor, the polarity of the Ego, and in every true volition that polarity is found; there are not two Selves, but one Self that is two-faced, that is equally called the Rational Will and the Practical Reason. It is not that there are two “faculties” in separate brain pigeon-holes, the one called Reason, or Thought, or Consciousness, or Ideation, and the other called Will. Reason is Will in its inception, and Will is Reason in act. It is the one same spiritual force, which gathers from all the delicate nerve impulses that flow in from the material world their momentary, blurred, and as yet unknowable data of sense and desire—which takes them up into consciousness by that unifying act of perception wherein first they have relation to one another and to the whole cosmos of experience before and after—which selects again, by its arresting and intensifying power of Attention, the relevant memories out of the linked myriads of suggestion that every moment rouses to insistent life—which builds out of all these elements the conception of an act to be done, an end to be gained, “an object of desire,” and sees that that conception harmonises and fits in with what theory it has of “happiness—” and which, therefore, having so constructed, actively and for itself, as best it could, this, its own “motive” for the coming act, accepts the full responsibility thereof before Heaven and before man, utters its creative “fiat,” and becomes Will.

This is not the place, nor would it be possible within the limits of a review, to follow all the problems which such a theory raises, or the proofs on which it is held to rest. But it is necessary to state it, definitely and in full, because the author of the *Physiology of Mind* has fallen deep into an “Ignoratio Elenchi.” Has he not been stoutly belabouring a windmill long disused? Against the theory, as here stated, which is in substance the theory now held by those whom he calls “the metaphysical school,” he has said nothing, except that he assails on general grounds the idea of Free Will in any form, and commits himself to what to us

seems even a humorous paradox. "Brethren could not dwell together in unity; human society, in fact, would be impossible," unless men could rely in each other's conduct as a physical necessity, as perfect as, and in fact the same as the absolute bondage of physical causation! We feel inclined to invert the sentence, and say that human society would be hopelessly impossible if life were in truth any such mental clockwork. It would be a world, we submit, like that which "Theophrastus Such" imagines in the age when machines can repair and reproduce themselves. In either kind of Iron Age, Consciousness would be a feeble and otiose superfluity, and would, doubtless, in a little time, according to the happy dispensation of the Survival of the Fittest, follow the already effete ghosts of Duty and Religion across the river of Lethe. This supposed chief human faculty of Consciousness, in fact, is altogether of so little visible use in Dr. Maudsley's theory of Mind, frankly automatic as it really is,* that we are tempted to compare it, as he does the doctrine of Free Will, "with certain bodily organs, like the thyroid gland, which have their functions in early development, and then, not being wanted afterwards, undergo atrophy." Let not the Pessimists be afraid. If all these things are true, the reign of the Unconscious must be at hand.

Dr. Maudsley does not concern himself much with Consciousness or its uses; but he seriously advances the theory that the belief in Freedom of Will, which amounts to a seeming testimony of self-consciousness in its favour (*vide* pp. 414-416), is a kind of embryonic faculty which served in earlier days "to promote the evolution of the social organism." Indeed its uses are not yet over. The delusion of "Freedom and its Responsibilities was necessary, and perhaps still is, to make for man a higher necessity than that of his passions." This salutary check was not necessarily always believed in by the superior altruistic man, but he kept up the deception, and invented "the most vivid pictures of the unspeakable joys of heaven and the endless torments of hell," in order to supply his not yet altruistic brother with a powerful body of motives, and manufacture him into a moral man.

Now all this is very odd as it stands—and yet a very little

*He even says in terms (p. 419) that "the aim of education is to produce a nature in which spontaneity shall disappear in automatism." Cf. also the Definition of Will, on p. 430.

difference would bring these pages of our ablest English medical psychologist into accord with the profoundest of his foes, the metaphysicians. The difference is this. Dr. Maudsley insists on seeking the solution of every mental problem in the body, and there only. He puts aside, and keeps out of sight, by every point of statement or nomenclature possible, the idea of any non-bodily entity, such as we call the Self. Yet he never even pretends to disprove the existence of such a presence, beyond and in and through the organism which he sees and can dissect. Nothing therein refutes the existence of a soul. The very theory of Free Will, which we have stated, is perfectly consistent with the whole known physiology of the brain. It does not, it is true, pretend to say how Mind may act on Matter—in what mechanical sense the “fiat” of Will becomes a cause of physical motions in the brain, through which it may in due time move the world. The acts of self-determination, which are what we here in strictness mean by acts of Will, are not events in the phenomenal world at all; their laws are other than the physical laws of Matter, and the order to which they belong is a moral order, to which we have as yet only a slender clue. It is perfectly true that there *is* a moral order, and hence it is nowise wonderful that we should be able to rely *in the main* upon an even tenour of social life and even of historic evolution; for in all these things, as we most strenuously maintain, there is an underlying Reason which is working itself out, whether you choose to call it Providence, or the Philosophy of History, or the Science of Sociology. There is no Unreason in this universe, not even in a madman, as Dr. Maudsley himself has so often and so clearly shown. Yet it by no means follows that a man cannot do wrong. He does his best to put back the wheels of the world, but they only come round again and crush him. Being free, we can sin—but the sin recoils upon our own head; and the moral order remains.

All, therefore, which Dr. Maudsley says concerning Character is true. It is the same doctrine which Aristotle taught his students in the Lyceum. Character is formed by repeated acts, and it becomes to us more or less of a binding necessity—never fatal, for we can always break with it, as witness the constant phenomena of religious “conversion”—but still exercising on us a continual strain which in the main, determines our ways of life. Yet all this is still perfectly consistent with the theory of Free Will stated

above. Again, as a proof of the closeness with which Dr. Maudsley sometimes approaches, by a just instinct, the very theories he holds himself bound to assail, compare the following sentence from page 427 :—

“Speaking psychologically, the definite will is the final issue of the process of reflection or deliberation which a man’s life-culture has rendered him capable of; it represents a *conception* or *idea* of the result with *desire*, such as have been determined by the character of the reflection.”

Is he, then, a convert to the theory of the Autonomous Will? By no means; for he proceeds to ignore the possibility of the non-bodily* factor altogether, and so reduces the definition rapidly to this (p. 430) :—

“The final reaction after deliberation, which we call Will, is . . . a *resultant* of a certain molecular change in a definitely constituted nervous centre”—or in other words, “I am a reproductive steam-engine.”

This, therefore, is the sole key to his intense detestation of that “effete superstition and offshoot of ignorance, mischievously drawing men’s minds away from the beneficial recognition of the universal reign of law and of their solemn responsibilities under the stern necessity of universal causation.”† Brave words, truly, but surely difficult to explain. Dr. Maudsley has already confessed, and rightly, that our responsibility is bound up with our freedom. If we are the children of stern Necessity, then Duty, and Responsibility, and Moral Right or Wrong, are words full of sound and fury, signifying nothing. The stones that fall have no duty—because they have no choice. To the flowers of the field, Yearning and Remorse are alike meaningless, for all they want they have, and all they do is right—or, if not right, at least inevitable. We alone hear the voice which says “Thou shalt,” and “Thou shalt not”—the hard imperatives of the Moral Law—because we alone have a causal power that is above the reach of circumstance, and always, in the last resort, determines its own act. Because it stands with me, and not with fate, to say whether this crime shall or shall not be done upon the earth, I am justly and inevitably held responsible for it, not merely to the State, but to a higher morality also, call it what you will. We do not blame the

* We use the term “non-bodily” rather than “mental,” in this paper, because Dr. Maudsley especially insists on making no distinction between “mental” and “organic,” in this differing from Dr. Hughlings Jackson.

† P. 421.

bullet that followed its fated curve—that is Necessity: we blame the hand, or rather the Will that fired it, for that was free. If Dr. Maudsley answers that the Will might will and yet could not fire, if one nerve current was stopped, our answer is all the stronger; for even though the “fiat” did not effectuate itself in fact, we blame the murderous intention nevertheless, because it was a free act of Will.

In bringing this long and perhaps over-critical review of Dr. Maudsley’s powerful book to a close, we cannot refrain from quoting, in justice to the author, a marvellously true and powerful passage from the end of this same chapter on Volition. It may serve to show how far after all we Idealists can really go with Dr. Maudsley, although he rails at us, and we say hard things of him. After stating many pregnant points concerning the power of a well-directed Will, always on the same Necessitarian hypothesis, he acknowledges that in such an ideal Will there is always something of “an upward nismus”—

“If we ask whence comes this impulse, we can only answer tamely that it comes from the same unfathomable source as the impulse which inspires or moves organic evolution throughout nature. He who reflects upon himself and upon the universe is forced in the end to the recognition, in the workings of the world, of a power from which all life and energy proceed, which has been from the beginning, is now, and so far as we can see, ever shall be; and which cannot be comprehended or controlled by human thought or will, but comprehends and controls human thought and will. We recognise an impulsions outside ourselves, working also in our wills, which is the moving energy of the evolution which went on through countless ages before man appeared, which is going on now in his progress, and which will doubtless go on through countless ages after he has ceased to replenish the earth and subdue it. We come back indeed to something which, however we may name it, or forbear to name it, is very like the theological Trinity—God the Unrevealed and Unrevealable, God the Revealed, and God the Revealer. In human thought and will, nature has arrived at self-consciousness, but the power which impels the highest evolution of life, as manifested in the highest reach of human thought and will, is fundamentally the same power which impels the evolution of the lowest forms of life.”

Well might a “metaphysician” cry out on reading these solemn lines, “Is Saul then also among the prophets?” But

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 Paralyse 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 périencéphalite 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 separating 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 disastrous 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 coît*” 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.

The Lunacy Blue Books.

Thirty-Third Report of the Commissioners in Lunacy, 1879.

Twenty-First Annual Report of the General Board of Commissioners in Lunacy for Scotland, 1879.

Twenty-Eighth Report on the District, Criminal, and Private Lunatic Asylums in Ireland, 1879.

The Annual Reports of the Commissioners in Lunacy possess a special interest to those who are engaged in the care and treatment of the insane, taking, as they do, a comprehensive survey of facts which can ordinarily be viewed only from a limited standpoint; and they have a general interest for the public, because these facts bear a distinct and an intimate relation to questions which materially affect the wellbeing and progress of society. At no period has this been more the case than at the close of a year, which has been marked by a concentration of public attention upon the seclusion and treatment of insane persons such as has not occurred since the passing of the Lunacy Acts towards the middle of the century. Moreover, the burden of insanity has been yearly increasing, and its fiscal relationships have assumed an importance which the diminished prosperity of the country has brought into more than ordinary prominence.

It will, therefore, be especially interesting at this time to bring under review the mass of facts to which the Lunacy Reports introduce us, and, so to speak, balance our accounts, and ascertain what promise they hold out to us for the future.

It appears then that, while on the 1st January, 1878, the number of registered persons of unsound mind was 68,538, they had increased on the 1st January, 1879, by 1,347, or to 69,885; this increase being in the proportion of 86 private patients to 1,261 of the pauper class. Large as it absolutely is, it compares favourably with that of last year, which was 1,902, and with the average increase of the preceding ten years, which was 1,753.

“The private patients have increased in County and Borough Asylums by 13, in Registered Hospitals by 40, and in licensed houses by 63; whilst this class has decreased in Naval and Military Hospitals, and the India Asylum, by 18; in the Broadmoor Criminal Asylum by 10; and as single patients in private charge by 2.

“The pauper patients have increased in County and Borough Asylums by 1,095, in Registered Hospitals by 19, in licensed houses by 380, in the Broadmoor Asylum by 11, and as out-door paupers by 16; whereas, on the other hand, the pauper patients have decreased in numbers in ordinary workhouses by 162, and in the Metropolitan District Asylums by 98.”

As bearing upon these statistics, the Commissioners suggestively remark that “the increase of 380 in the number of paupers maintained in private houses, as compared with the same date last year, has been due to an insufficiency of Public Asylum accommodation, more especially in Essex and Surrey,” and that “the experience of another year has confirmed the opinion already expressed in previous reports that the parliamentary grant of four shillings per head per week made to the Guardians towards the cost of every lunatic maintained in an asylum, has, in many districts, tended to promote the removal of chronic cases from workhouses and private dwellings into asylums, and thus, in some counties, it has contributed to render necessary a considerable extension of asylum accommodation.”

While the proportion of total paupers to population has a little increased this year, as compared with that of the three previous years—although it is still much below the average of the preceding period—the percentage of pauper lunatics to paupers has decreased considerably in comparison with that for 1877 and 1878.

The ratio of persons of unsound mind to the population has increased from 27·57 in 1878 to 27·77 per 10,000 in 1879, or from 1 in every 362 to 1 in every 360, as compared with 1 in every 535 in 1859, and 1 in every 418 in 1869. This increase has been largely confined to pauper patients; but it must be remembered that the incentives to, and the opportunities for, concealment are much greater in the higher than in the lower ranks of life, and that many cases of insanity, in patients of the private class, thus run their course unregistered, and officially unknown.

The ratio of registered private patients to population has remained stationary during the past three years, and in the last six has shown but small tendency to increase.

This would be a most significant circumstance if it were not modified by the fact that, insanity being a certain and rapid pauperizer, and the provision for patients just above the pauper rank being very inadequate, large numbers of

persons who would otherwise be classed as private patients, and swell their percentage, are necessarily sent to pauper asylums—the unions either paying altogether for their maintenance or receiving contributions from their relatives.

The distribution of insane persons on the 1st January was as follows :—

WHERE MAINTAINED ON 1ST JANUARY, 1879.	PRIVATE.			PAUPER.			TOTAL.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
In County & Borough } Asylums	216	260	476	17462	20933	38395	17678	21193	38871
In Registered Hospitals	1422	1298	2720	69	48	117	1491	1346	2837
In Licensed Houses— Metropolitan	1058	862	1920	174	382	556	1232	1244	2476
Provincial.....	790	825	1615	238	316	554	1028	1141	2169
In Naval and Military } Hospitals and Royal } India Asylum	325	17	342	—	—	—	325	17	342
In Criminal Lunatic } Asylum (Broadmoor) }	184	49	233	190	60	250	374	109	483
In Workhouses— Ordinary Work- } houses	—	—	—	5014	6683	11697	5014	6683	11697
Metropolitan Dis- } trict Asylums ... }	—	—	—	1971	2337	4308	1971	2337	4308
Private Single Patients	192	280	472	—	—	—	192	280	472
Out-door Paupers.....	—	—	—	2378	3852	6230	2378	3852	6230
Total'	4187	3591	7778	27496	34611	62107	31683	38202	69885

The Commissioners give a series of valuable tables showing the occupations of patients and their social position, sex, age, and condition as to marriage; the forms of mental disorder; cases of first attack; number affected with epilepsy and general paralysis, and who are suicidal; the assigned causes of insanity; and various other particulars, so arranged that as facts accumulate—and extending over so wide an area they will accumulate very rapidly—a most valuable series of statistics will be available, from which generalisations of the utmost scientific interest and social importance may be deduced.

The total admissions into asylums during the year 1878

were 15,102, of which 1,532, or 10·14 per cent. were transfers, and 1726, or 11·42 per cent. re-admissions.

The patients discharged and transferred were 8,796, of whom 5,332 were returned as recovered.

The deaths of the year were 4,715, and in 2,349 of these post-mortem examinations were made. Suicide in asylums was the cause of death in twenty instances, but 3,809 of the patients admitted during the year had exhibited a suicidal propensity.

The proportion of recoveries to admissions, excluding transfers and re-admissions, is stated to have been 45·02 per cent., the rate for women being upwards of 12 per cent. in excess of that for men.

The proportion per cent. of deaths to the daily average number resident and to the total number under treatment respectively, was, in County and Borough Asylums, 10·4 and 8·1, and in hospitals 6·3 and 4·7; the percentage for men being from 2 to 4 per cent. in excess of that for women. The Commissioners remark that while, as compared with population, insanity, congenital and acquired, is somewhat more frequent among males than among females, the rate of recovery is higher among females than males, but the mortality is so much higher among the latter than among the former, that the females largely preponderate over the males in the total number under care. The women exceed the men in numbers by 6,519.

The Commissioners state that the weekly cost of maintenance in County and Borough Asylums has not been so low since 1872. It has averaged 9s. 10½d., or 3d. per head per week less than in 1877.

A series of important observations are made by the Commissioners with reference to licensed houses, which are entitled to great weight in the present state of public feeling upon the subject, and are possessed of more than ordinary interest. They say—

A system which places the insane in charge of persons who derive profit from their detention is, no doubt, objectionable in theory, and in practice may be open to abuse. But, as far as regards the licensed houses in England and Wales, we are convinced that, under the strict supervision and the safeguards which the Lunacy Acts provide, no such abuses are possible as have been in some quarters seriously alleged, such as the 'incarceration' of sane persons, or the prolonged detention for corrupt motives of insane persons who have entirely recovered their reason. Nor are the proprietors of licensed houses open to the sweeping charges of dishonesty and self seeking

which have been brought against them as a body. It should not be forgotten that these persons are, to some extent, competing with each other and with the hospitals in a business which, to be remunerative, must be conducted on principles of ordinary prudence and common honesty. Moreover, in the vast majority of cases, the speedy cure of an insane patient is, on pecuniary, if on no higher grounds, an object of the greatest importance to the persons with whom it rests to decide where to place him under treatment, and every cure that can be shown becomes in fact the best advertisement of the establishment in which the cure is effected.

Our own opinion is that the licensed houses supply at present a social want; and that their abolition, without the substitution of other and better establishments, would assuredly multiply cases of illegal charge, and consequent neglect and ill-treatment of lunatics, and would also lead to the clandestine removal of many such persons to foreign parts. Were asylums for the reception of private patients erected at the public cost, we doubt whether such institutions would be more acceptable to the friends of wealthy patients than the hospitals now registered under the Lunacy Acts, which do not receive many patients of large fortune. What these substitutes should be is a matter of more difficulty. Certainly the experience of past years does not show any disposition on the part of the public to increase the number of institutions such as the present hospitals.

The Report naturally deals at considerable length with the recent report of the Select Committee on the lunacy laws; and the Commissioners make a series of suggestions with reference to changes in the laws, which it may not be unprofitable to reproduce here *in extenso*.

In some quarters it has of late become a practice to somewhat repudiate the authority of the Board of Commissioners, and assume that they are so wedded to old habits of thought and to an antiquated *régime*, that their opinion upon any modern question affecting the insane should be viewed with suspicion as coming from a prejudiced, if not an unenlightened, source. It does not come within our province to act as counsel for the Commissioners, but it is a matter of common justice to state that nothing can be less in accordance with a long series of well established facts than this assumption.

The whole existence of the Board has been marked by a persistent endeavour to adopt, and gradually to extend, the more enlightened methods of treating the insane; and the amelioration in their condition, and the improved state of institutions for the insane in this country has been largely due to their persevering and judicious procedure.

To their vigilance and, of course, to the generally high

character of those to whom the more immediate care of the insane is officially entrusted, is, no doubt, due the necessary conclusion of the Select Committee that "allegations of malafides, or of serious abuses, were not substantiated."

The Commissioners remark, with reference to the Report of the Select Committee—

For ourselves we are not disposed to advocate any radical changes in the existing law regarding the care and treatment of the insane, and, in particular, so far as our present experience extends, we are quite satisfied that the present system of certification, both of private and pauper lunatics, and of visitation of the asylums, hospitals, licensed and unlicensed houses, where they are received, affords, in practice, ample safeguards as well against the admission of persons of sound mind as for the discharge of the insane patients without undue detention. At the same time we are far from thinking that no improvements could be made in the existing regulations. On the contrary, our daily experience of the working of the Acts has induced us to note many points where amendments would be useful.

They then proceed to make a series of suggestions, of the principal of which the following is a summary:—

1. That in the medical certificates the names and addresses of the persons furnishing facts indicative of insanity, not observed by the certifier himself, be given.

2. That in all cases where it is possible, the order shall be signed by a relative of the patient, and that, where this cannot be done, there should be a clear statement of the reason for the signature by a person who is not related. The Commissioners to have power to inquire into the circumstances of the signature, and to permit the substitution, as the person entitled to discharge, of some relative, or of the person making the payments for the patient's maintenance. No minor to sign an order. The person signing the order to undertake to visit, either personally or by deputy, once in every six months. In the case of pauper patients the Justice signing the order to see the patient, and to have notice given of any case in which an order is to be signed by an officiating clergyman and the relieving officer.

3. That the prohibition against the admission of private patients on certificates signed by certain relatives of the person signing the order, or taking charge, be extended to connections by marriage.

4. That the "statement," to be sent after two clear days, be made more precise, so as to constitute in fact an addi-

tional certificate; and that a second report be sent at the expiration of a month after the admission of a patient.

5. That any extension of the Registered Hospital system on its present basis should be accompanied by stricter provisions, both as to foundation and management, of which the following is a summary :—

- (a) All hospitals to be registered as at present, but application for registration to contain information as to nature of hospital, names of founders, constitution of governing body, proposed class of patients and their payments.
- (b) Plans of buildings and estate to be deposited with Commissioners.
- (c) Prior to registration, premises to be inspected.
- (d) Registration not to be compulsory.
- (e) Refusal to register to be referred for decision to Secretary of State.
- (f) All registration to be at first provisional for six months, or until the regulations of the hospital have received the approval of the Secretary of State.
- (g) On approval of regulations a complete certificate of registration to issue.
- (h) All existing hospitals, except Bethlem, to deposit plans of land, and to re-deposit on fresh purchases. No building to be considered part of hospital unless situated wholly on land of which plans have been deposited.
- (i) Audited accounts of hospitals to be printed annually, and a copy sent to Commissioners, with list of governors, &c.
- (k) Commissioners to have power, with consent of Secretary of State, in case of wilful neglect of, or disobedience to regulations, to prohibit further reception of patients for six months; and then, if necessary, to close the hospital.
- (l) No person supplying goods to the hospital, and no medical officer thereof, to be a member of the governing body.

6. That the practice of sending patients from licensed houses and hospitals to the seaside and elsewhere in relays be distinctly legalised, notice being always given to the Commissioners.

7. That in the event of the death of a person having the charge of a single patient, power be given to transfer the patient into the care of another person without fresh certificates.

8. That the Commissioners have authority to discharge single patients.

9. That the carnal knowledge of a female patient by an officer or servant be made an indictable offence.

10. That power be given to relax rules as to residence of medical officer, and as to constant entries in case-books and medical journal, in the case of hospitals and houses where only idiot children and congenital imbeciles are kept.

11. That power be given to appoint a temporary substitute for a Commissioner.

The Commissioners "see no objection" to certain other suggestions of the Select Committee which are not embodied in their own, but they lay no special stress upon any of them, with the exception of that which provides that all letters of patients not forwarded by the Medical Superintendent should be sent, unopened, to the Commissioners. To this they take decided objection, for obvious reasons. The superintendents of all large institutions for private patients would doubtless thankfully concur in this arrangement, or in the still more comprehensive plan of sending *all* letters direct to the Commissioners for distribution. But we cannot help thinking that if this has become necessary the Committee would have been justified in recommending much more drastic measures than any which their report contains.

The Commissioners conclude an able report, which affords unmistakable evidence of a year's earnest, practical work, by recording the appointment of Dr. Williams and the resignation of Messrs. Wilkes and Campbell, by whose continuance at the Board, as unpaid Commissioners, "their colleagues and the public will continue to enjoy the advantage of their long experience in all matters relating to the care of the insane."

The report of the Commissioners in Lunacy for Scotland is, as usual, a thoughtful, careful document, following much in the lines of the English report, but departing widely from it in certain respects, notably in the absence of very voluminous statistical tables. It also gives evidence of a year's honest work, and generally of a state of asylum management and treatment of patients which is creditable to the sister country.

The report opens with a tribute to the memory of Sir James Coxe, to whom the lunacy system of Scotland is under deep obligation; and it records the appointment of Dr.

Sibbald as Commissioner and of Dr. Lawson as Deputy-Commissioner.

The number and distribution of the registered insane in Scotland on the 1st January, 1879, are shown in the following table:—

Mode of Distribution.	M.	F.	Total.	Private.			Pauper.		
In Royal and District Asylums	2729	2923	5652	588	571	1156	2144	2352	4496
In Private ditto	72	180	202	72	180	202	—	—	—
In Parochial ditto	522	617	1139	—	—	—	522	617	1139
In Lunatic Wards of Poor houses	294	363	657	—	—	—	294	363	657
In Private Dwellings	603	905	1508	43	67	110	560	838	1398
	4220	4938	9158	700	768	1468	3520	4170	7690
Lunatic Department and General Prison	40	17	57	—	—	—	—	—	—
Training Schools	109	62	171	63	47	110	46	15	61
Totals	4369	5017	9386	763	815	1578	3566	4185	7750

The total number of registered lunatics on the 1st January is thus seen to have been 9,386, of whom 1,578 were private, 7,751 pauper, and 57 criminal patients. The total increase during 1878 was 272, consisting of 7 private and 265 pauper patients.

Upon these figures the Commissioners remark that—(1). “There is no evidence of any tendency to rapid increase in the number of private patients. (2). The population of private asylums has slightly decreased. (3). The rapid increase in the number of pauper lunatics which characterised the previous three years shows no abatement. (4). The pauper patients are all provided for in public establishments. (5). There has been a slight increase in the number both

of private and pauper lunatics provided for in private dwellings."

It seems that the number of registered lunatics has increased since January, 1858, from 5,823 to 9,386, which, after making some necessary deductions, is a net increase of 2,563, or 61 per cent., the increase of population having been only 19 per cent.

It is a curious fact that during the last triennial period the increase in registered lunacy was 76 per cent. above the increase in registered lunacy in the preceding three years, and that this was entirely due to an increase in pauper lunacy. This is directly opposed to the statistics of the English Report, which shows an increase in a decreasing or stationary ratio. The ratio of lunatics to population has increased from 1 in every 523 in 1858 to 1 in every 392 in 1879, as compared with one in every 360 in England and Wales. The Commissioners, however, observe with truth that an increase of registered lunacy does not necessarily imply an increased amount of mental disease, but may be due in large measure to an increasing readiness to place patients in establishments. While the proportion of paupers to population has increased this year in England, it has still gone on decreasing in Scotland, whereas the ratio of pauper lunatics to paupers has increased considerably in Scotland, and decreased as considerably in England.

The percentage of pauper lunatics to paupers has increased in Scotland from 6.8 in 1861 to 12.6 in 1879.

The Report deals at some length with the question of the topographical distribution of nervous diseases, and the Commissioners, in the result, express their opinion that the figures which they have examined show that insanity exists to a much larger extent among urban than among rural populations.

They give a useful note of warning with reference to statements as to the comparative prevalence of insanity in different countries. "Such statements," they say, "are necessarily based on statistics such as we are now examining. And it is evident, from what we have seen of the differences in the numbers referring to localities where the statistics are gathered under the same laws and the same administration, that when the statistics have been gathered under various laws and various administrations they afford no proper basis for comparison."

The English and Scotch Commissioners appear to be in

practical accord with reference to the Parliamentary grant and its effect upon the increase of registered lunacy. The report under consideration thus alludes to it:—

Though the statistics show that there has been an exceptionally rapid increase in the number of pauper lunatics since the Parliamentary grant came into operation, we cannot prove that the greater rapidity has been wholly due to the grant. The fact is, however, of sufficient importance to be carefully noted; and there can be little doubt that one of the effects of the grant has been to produce a certain amount of increase. There has also come under our observation a tendency to take an undue advantage of the grant, by the placing of persons on the register of pauper lunatics whose mental condition is not such as to fairly justify this step.

On the other hand, the Commissioners think that the grant has been useful in enabling them “to insist much more effectually on the regular supervision of those pauper lunatics who are resident in private dwellings, and on the provision for their care and treatment being made satisfactory.

The rate of recoveries upon the admissions during the year, among all classes in asylums has been 40 per cent. as against 33·8 in the 10 years between 1869 and 1878. The death rate, 9·7, as compared with 9·05 in the 10 years already specified. With reference to the death-rate, the Commissioners remark, “though we should be cautious in drawing inferences from a comparison of the death rates in different establishments, we regard the rate presented in each Institution as worthy of careful attention. A notable and persistent fall in the death-rate suggests that some improvement has taken place in the administration of an establishment, or that the class of patients of which the inmates consist has been undergoing a change. A notable and persistent rise in the death-rate, on the other hand, suggests a deterioration in the administration, or change in the class of patients of which the population of the establishment is composed.”

In a useful table, in which the history of those patients who were admitted into the Scotch Asylums in 1868 is traced, it is shown that the annual death-rate among patients who have been less than four years inmates of asylums is, on the average, from 12 to 17 per cent. of the number resident, and that, among those who have been more than four years and less than 11 years inmates of asylums, the annual death-rate is only from 3 to 8 per cent. of the number resident. As

the Commissioners observe, "this shows the importance in considering the death-rate of any establishment of taking into account the average length of residence of the inmates."

The Commissioners make a series of interesting and suggestive observations upon "the general nature of the changes which have taken place during late years in the structure and management of Scotch Asylums, and in the manner of treating the patients, which we will give in their own words.

In our last report we indicated the general nature of the changes which have taken place during late years in the structure and management of Scotch Asylums, and in the manner of treating the patients. We showed that these changes had been chiefly in the direction of removing, both from the structure of the buildings, and the mode of life of the inmates, some of the more distinctive features which were deviations from the conditions of ordinary life. In regard to the buildings we had to record the decreasing use of walled airing-courts as places of exercise for patients. Many asylums were then unprovided with such arrangements, and there were others in which, though they still existed, they were never used. In several instances the airing-court walls had been pulled down; and in the case of no recently-erected establishment had any walled airing-courts been provided. The practice of surrounding the general grounds attached to asylums by high fences was also stated to be decreasing in frequency, in some cases the ground which had been thus enclosed having been opened up, and no new fences having been recently erected for this purpose.

We also drew attention to the fact that the practice of keeping patients while indoors always under lock and key had been undergoing important modification. In some asylums the key scarcely required to be used during the day, and in most the necessity for its use had greatly diminished. Great liberty was also accorded to the patients by a larger number being permitted to go about on parole; and in the medical treatment of the patients the use of stimulants and narcotics was not so much resorted to as it had previously been. All these changes are in the direction of substituting moral for physical restraint, and of relaxing the discipline of asylums in its prison aspect, and introducing in its stead a greater amount of intelligent supervision and guidance.

The changes which have taken place during the past year have been in accordance with the spirit which dictated those of previous years, and we regard them as having conduced to the well-being of the inmates of the establishments in which they have been carried out. The practice of secluding patients in single rooms is resorted to in some asylums more than in others. It is still regarded as the most judicious mode of treatment for a certain class of cases, though it appears to be received by medical officers generally with decreasing

favour. In some asylums it is seldom used, and its disuse is chiefly to be observed in those where mechanical restrictions have in other ways most notably diminished.

The system of unlocked doors, and the absence of airing-courts and fences to grounds, thus referred to by the Commissioners, are elements in the treatment of insane persons the importance of which can be scarcely overstated, but with reference to which, to some extent in Scotland, and certainly in England, a wide diversity of opinion prevails.

The idea, in its full sense, suggests an Utopia in asylum life, but, if unlocked doors and the entire absence of fences mean what they seem to mean, to an outsider it would naturally occur either that classification and constant supervision must be impossible, accidents frequent, and the comfort of quiet, harmless, patients scarcely attainable, or that the number of attendants and average cost of maintenance must be largely increased; unless the Scotch character and education have so modified lunacy that it is altogether different in its manifestations from the same disease in England.

The Commissioners, however, tell us unmistakably that the unlocked doors, &c., are a fact, and that none of the consequences we have suggested have ensued, and we find that the cost of maintenance of pauper patients in Scotch asylums only exceeded that of England by 5½d. per head per week.*

It is, of course, customary in all asylums to modify restrictions upon liberty according to the condition and habits of patients; and in an asylum for patients of one class, it would be easy enough to do away with the locked doors in certain parts of the house, or with selected patients, but it would be both interesting and instructive if some competent person would give us the benefit of a narration of detailed observation upon the system of unlocked doors and absence of enclosures, as applied to all classes of cases, and all ranks of patients—specifying more clearly than has been done the limitations of its use and its practical possibilities.

The number of pauper lunatics in private dwellings in Scotland was 1,398 on the 1st January, and represented 39 per 100,000 of the general population, the proportion of such patients in England being only about 25 per 100,000. In Scotland they constitute 18 per cent. of the total number of pauper lunatics, and in England only 10 per cent.

In Scotland the Parliamentary Grant is given in respect of

* The Scotch rate in the Royal Asylums includes interest on buildings and the repairs of fabric.

the maintenance of all pauper patients whom the Commissioners certify to be adequately provided for; while in England it is only given for those who are maintained in asylums. This difference results in Scotland in a very obvious benefit to the ratepayers, and a probable advantage to a certain class of patients, and it seems difficult to suggest any very practical objection to the extension of the Scotch system to England.

The report, to which we have not space further to refer, contains, as usual, the entries made by the Commissioners at their several visits to the various asylums, and other receptacles for the insane, most of which indicate an enlightened and progressive treatment and general management.

A curious entry appears with reference to one asylum, in which a very unequal and unnecessary combat seems to have been proceeding:—"A disagreement of a serious character, which may injuriously affect the patients, exists between the medical superintendent, the matron, the head male attendant, and the steward, *on the one side*, and the gardener *on the other*."

There may be some difference of opinion as to the desirability of so much attention to minute detail on the part of the Scotch Commissioners, as is evidenced by this report, but there can be none as to the collective ability which it indicates, and the care taken of persons of unsound mind in Scotland, of which its pages give assurance.

The 28th Report on the District, Criminal, and Private Lunatic Asylums in Ireland, is, as usual, of very moderate dimensions, when compared with the Blue Books of Scotland and England, containing, as it does, but 98 pages, while that of Scotland fills a volume of 197, and England of 443.

The Insane in Ireland, according to the Inspector, were thus distributed on Dec. 31, 1878:—

	M.	F.	T.
In District Asylums	4,550	3,857	8,407
In Central Asylums	140	37	177
In Lucan Government } Asylum.....	4	18	22
In Private Asylums	257	385	642
In Poorhouses	1,320	2,017	3,337
Total.....	<u>6,271</u>	<u>6,314</u>	<u>12,585</u>

On the corresponding date of 1877, the total numbers of those similarly classified amounted to 12,380, giving an increase for the year of 205.

There thus appears to be an increase of inmates in the above Institutions amounting to 205, of which increase District Asylums, in consequence of additional accommodation, have most largely participated, while there has been a small decrease of 35 in Poorhouses. The increase of residents in asylums is not altogether owing to the admission of primary or acute cases; other causes have tended to it.

It appears from the above classification, that account is only taken of the insane under the immediate supervision of the Inspectors. No mention is made of private single patients, or out-door paupers, but, on turning to the 26th Report, we find that in the year 1876, the numbers of the insane at large in Ireland amounted to 6,607, and though this number showed a tendency to decrease from year to year, it cannot as yet be supposed to have entirely disappeared. In order, therefore, to find the proportion of the insane to the general population, allowance must be made for this very numerous class, under no public supervision. The Inspectors give the proportion of insane to sane in Ireland as 3 in 1,200, but they do not state whether this embraces only those under control or the total number of insane in Ireland. This is a pity.

With regard to the authority for admission, an important consideration ought not, perhaps, to be omitted here. The more correct practice, *as in England*—that by order of a Board, has in great measure been superseded in Irish asylums—ninety out of a hundred cases being taken in as urgent by resident physicians or through magisterial committals.

What does this mean? There is no authority for admission to English County Asylums, except the order prescribed under Act 16 and 17 Vic., c. 97, in which no reference is made to any Board whatever, and which is generally supposed to be applicable to the requirements of every case. In Ireland, on the other hand, with three different forms, we have complaints from year to year of the defective information given as to chargeability and past history, and of the delay in the admission of the patient. We cannot understand why this state of things, condemned by all, should continue; why the different forms of admission should not be abolished, and a simple and comprehensive Order of Reception introduced.

The Inspectors state that but little variation has occurred during the last decade in the percentage of cures in district asylums—ranging from 44 to 47 on recent cases—a proportion which does credit to all engaged in the management of these Institutions.

With reference to the mortality the Inspectors state—

It may be here remarked, with respect to the mortality in Irish asylums, that, generally speaking, it is lower than in like Institutions elsewhere by nearly 1 per cent. In 1878 the deaths, 817, upon the total under treatment, were $7\frac{3}{4}$ per cent., being somewhat less than in the preceding twelve months.

On comparison, however, we find the death-rate for England to be 10 per cent., and for Scotland 7.3. If we take into consideration the large proportion of deaths which occur in English asylums from general paralysis of the insane, a disease which is said to be of very rare occurrence in Ireland, the average mortality in the three countries will be found not to vary to any very great extent.

According to the statement of the Inspectors, it would appear that the proportion of patients with suicidal tendencies reaches a much lower average than in England.

Very nearly 7 per cent., or 572 patients in confinement at the close of the year, were deemed suicidal.

During the whole year the number who succeeded in committing suicide was only two.

According to the Report of the English Commissioners, the proportion per cent. of the number with suicidal propensities to the whole number admitted was 28.6.

Referring to the objection so often brought against asylums that they are overcrowded with incurable patients, the Inspectors remark—

It should be remembered that incurables from physical and incurables from mental affection are not altogether in the same category, though the identity of terms tends to place both before the public in the same light—the lunatic being irresponsible for his actions both morally and legally, must be judged of by his peculiarity of temperament, equally as it affects himself and society. Hence, when it is said, and truly said, that an asylum is crowded with patients not likely to recover, the question should be asked—Are the individuals safer and better circumstanced, both personally and socially, than if they were located in a less guarded establishment?"

The erroneous impression induced by dividing the insane into curable and incurable, cannot be too strongly deprecated, as tending to suggest to the public mind the idea that those deemed incurable (who form the great proportion of the insane), require nothing more than merely to be clothed and fed, and that all the labour and skill displayed by medical

men in their case, is thrown away. Much has been said against asylums of late, as being merely repositories for harmless imbeciles, and as to the waste of public money in their multiplication for the accommodation of incurable idiots, ignoring the fact that the chief advances made in the treatment of insanity during the past century were not confined to curable cases only—that every public asylum is an evidence, not, perhaps, of the success of the medical profession in effecting a greater number of cures from year to year, but in raising the condition of our fellow-creatures from one lower in many instances than that of the animals, to be respectable members of the community in which they may happen to be placed. Who can compare the description of the condition of the insane a hundred years ago with their present treatment, without being convinced that a great work has been done, even though the greater number still continue incurable?

We cannot, therefore, too strongly recommend this part of the Inspectors' Report for perusal, showing, as it does, how impracticable it would be to remove the incurably insane to workhouses, as regards their safety and cure, and how doubtful as regards any saving of public money.

With reference to workhouses, the Inspector state that—

The total number mentally affected of all denominations, as obtained through the Local Government Board, was 3,335 on the 31st Dec., 1878, being 37 less than in 1877.

They consider that the treatment of the insane in these institutions has improved, so far as the restricted capabilities of workhouses permit; but that a material benefit would result were paid attendants employed. On the vexed question of providing accommodation for the harmless and incurable insane, scattered through these various institutions, they suggest—

The best solution of the difficulty might probably be found by allocating wholly or partially, one or more workhouses in each district according to its size, to the reception of harmless idiots, epileptics, and the utterly demented or fatuous, who are now diffused through no less than 163 unions in most unequal proportions. Many years ago, and subsequent to the inquiries of a Special Committee of the House of Lords, the erection of four provincial hospitals for idiots, imbeciles, and a certain class of incurables, was adverted to in a report to Parliament. In our opinion provincial depôts would not prove so successful as might be wished; the number of counties attached to them, as for example, twelve in Leinster, would cause much embarrassment in

their working, while unavoidable expenses and inconveniences consequent upon the conveyance and return of patients from remote localities, perhaps from 100 to 120 miles distant, must constitute very serious objections. It appears to us more feasible that lunatic districts should have each its own receptacle for chronic cases.

The Central Criminal or Dunderum Asylum is reported to progress in the same satisfactory manner hitherto noticed, but additional provision against growing pressure may soon be urgently needed, for which two alternatives are given, either to discharge the old, decrepid, harmless, and inoffensive—Government paying for their maintenance elsewhere—or to allocate a portion of a prison to convicts who become, or pretend to be insane while under confinement.

On turning to the tables, we cannot but reiterate our feelings of extreme disappointment at finding that no attempt whatever has been made to assimilate the statistics on the subject of insanity in the three divisions of the United Kingdom. It must be evident that nothing would add more to the usefulness of these Reports, compiled with so much care, than to have the corresponding information of the causes, the results of treatment, the increase or decrease of insanity in the three divisions of the United Kingdom uniformly arranged. Nor can it be said that to present the information given in these tables, in the same form, would add to the labour of compiling them. No difficulty could be experienced in giving a comprehensive view of the statistics of insanity for the past ten or twenty years in the Irish, as in the Scotch or English Reports, showing the distribution, the ratio of persons of unsound mind to the general population, the percentage of pauper lunatics to paupers, the number of recoveries, discharges, and deaths amongst the insane, or in assimilating many of the other tables by giving the returns for the number admitted, and not for the total under treatment. On the other hand, we would recommend some of the tables comparing the dietary and expenditure in Irish District Asylums to the consideration of the English Commissioners.

Handbuch der Physiologie. (Encyclopædia of Physiology.)
Edited by Prof. L. HERMANN. 1879.

We wish chiefly to call the attention of the readers of this Journal to the appearance of the second volume—the Physiology of the Nervous System. Since the appearance of Wag-

ner's Encyclopædia, 30 years ago, there has been no similar venture till the present. Probably encouraged by the success of Ziemssen's sixteen volumes, the publishers have undertaken the publication of an exhaustive treatise on Physiology in six volumes, to be finished in 1880. The writers are over twenty in number, and all eminent teachers, and the whole is edited by Hermann. The names of Hoppe-Seyler, Pflüger, du Bois-Raymond and Ludwig do not, for obvious reasons, appear amongst the contributors. The first part of the second volume contains Hermann's "General," and Prof. Sigmund Mayer's "Special Nervous Physiology." Both articles (300 pages together), are well worthy of their authors. The second part includes the spinal cord and brain (exclusive of cortex), by Prof. Eckhard, and the cortex cerebri, by Prof. Exner. Vol. 2 and part of Vol. 1 only are published. Each volume can be had separately.

E. G. GEOGHEGAN.

Topische Diagnostik der Gehirnkrankheiten, Eine Klinische Studie. (Topical Diagnosis of Cerebral Diseases, a Clinical Study). By HERMANN NOTHNAGEL. Berlin, 1879.

This clinical study of 600 pages supplies a much felt want. Professor Nothnagel has published several hundred cases, many of them his own, bearing on the localization of brain disease. They are arranged according to the parts of the brain affected. Thus, he commences with the cerebellum, and brings forward a number of cases which he classifies under the heads of recent hæmorrhage and embolus, stationary hæmorrhagic centres, etc. Then follows an analysis of these cases. The other parts of the brain are successively treated in the same manner. Any reference to physiological experiment is studiously avoided, and in the introduction we are half promised the physiological part as Vol. 2. The whole introduction on the subject of what cases can be utilized for localization should be read by anybody who wishes to turn his cases to advantage.

As a fair criticism would occupy too much space, we refrain altogether, merely advising everybody who takes an interest in the subject to read the book. It certainly deserves to be translated, and a good translation ought to repay the publisher.

E. G. G.

PART III.—PSYCHOLOGICAL RETROSPECT.

1. *German Retrospect.*

BY WILLIAM W. IRELAND.

The Retrospect has been done from the following periodicals and papers; but is not yet finished in the following pages:—

“Allgemeine Zeitschrift für Psychiatrie,” xxxv. Band, 5^{tes} und 6^{tes} Heft. Berlin, 1879.

“Irrenfreund,” Nr. 1 and 2, 3, 4, 5, 6, 7. Heilbronn, 1879.

“Centralblatt für Nervenheilkunde, Psychiatrie, u.s.w. Nr. 7, 8, 11, 12, 13. Leipzig, 1879.

“Separat Abdrücke aus dem Archiv. für Psychiatrie.” von Dr. C. Westphal.

“Zur Statistik der Geisteskrankheiten in Württemberg.” von Dr. J. L. Koch. Stuttgart. 1878.

Visual Functions of the Occipital Lobes.—As we learn from the “Centralblatt für Nervenheilkunde,” Nr. 13, 1879, Dr. J. Stilling has demonstrated that numerous nerve fibres pass directly from the optic thalami into the white substance of the occipital lobes. He also found that a part of the optic nerve ends in the pons cerebri, and he describes a considerable number of the fibres of the optic nerve as issuing in the form of club-shaped processes from the grey substance of the tuber cinereum.

Sensibility of the Cranial Sutures.—Dr. Fraenkel (“Centralblatt für Nervenheilkunde,” Nr. 8), in measuring the brains of persons, both sane and insane, discovered that there is a greater sensibility around the sutures than at other parts of the skull. This is especially marked at the junction of the sagittal with the coronal suture. In some individuals who suffer from hyperæsthesia there is such a tenderness of the sutures that the condition might be named raphalgia. This sensibility does not seem in ordinary cases to be great enough to enable us to determine the sutures in the living head, but the author thinks that a careful exploration of the sutures in some cases of insanity may yet assist us in diagnosis.

Remarkable Wound of the Brain.—In the “Centralblatt für Nervenheilkunde,” Nr. 8, there is a report from a Russian Medical Journal of a remarkable case of injury of the brain. A Russian soldier throwing his iron ramrod at a bat, it alighted on the head of an Armenian girl of eight years of age. She immediately lost consciousness, but had convulsive movements of the limbs, “like a cock with its head cut off.” Her mother pulled the ramrod out of the child’s skull. Half an hour later there appeared paralysis of the right arm and leg, while the convulsions continued on the left side. On examination, twenty-six hours after, the girl’s condition was found

to be as follows: The ramrod had entered at the meeting place of two lines, one of which ran from the outer angle of the left eye upwards for five centimetres, the other from the left tragus upwards for eight centimetres. The wound itself was about eight centimetres in length. The ramrod had not entirely made its way out through the skin; but there was a raised spot at the back of the head, which in the course of a few days was converted into an open sore. This was situated 2.5 centimetres along a line drawn from the external occipital protuberance to the right and a little upwards, above the insertion of the trapezius muscle. Blood and portions of brain substance issued from these two openings. The pulse was found to be 180, irregular; and the pupils did not react to light. There was paralysis of the right side, and slight convulsions on the left side, especially in the flexor muscles. The muscles of the face and the sphincters were unaffected. Urine removed by the catheter was found to contain sugar, but no albumen. Temperature at rectum 38.6 C.

The child remained unconscious for about a week; in eleven days the upper wound healed up, but it was seven weeks before the lower opening closed. At this time motion had returned to the paralysed leg. She could stand, but not walk, unsupported. The right arm remained completely paralysed, and her general health was said to be good, but five days after she was seized with cholera, from which she died. An examination after death could not be had.

The editor of the Russian paper believes that the following was the course of the wound: The ramrod went through the second frontal gyrus on the left side, and then through the white substance, below the upper third of the anterior median, then through the corpus callosum and the right centrum ovale till it reached the right occipital lobe, where it penetrated the skull. The fibres injured, which transmit the impulse of the will, were those of the anterior median gyrus. Here we have the psycho-motor centres for the opposite arm, which agrees with the paralysis observed in this case. The paralysis of the foot, which disappeared in a few days, can be explained by injury to the posterior median convolution in the standing course of the wound. The centre for the muscles of the face, lying in the middle of the anterior median gyrus, had escaped injury, on which account the muscles of the face were unaffected.

Peculiar Form of Neuralgia.—Dr. O. Berger ("Centralblatt für Nervenheilkunde," Nr. 12) has described a peculiar disorder of sensibility, which he has met with six times. It consists in uneasy feelings in the legs compared to the creeping of ants, a stinging, or more rarely a burning feeling. The attacks seem generally to come on after sitting or standing for some time, but not after walking. The uneasy sensation begins either at the head and descends to the toes, or goes from the toes upwards. The arms are seldom affected. Sometimes the pain is on one side, or more severe upon one side than another.

It is accompanied with a feeling of weakness in the legs which makes movement difficult. The attack generally lasts some minutes, and often returns. In two cases the pain was felt in the region of the heart, and was accompanied by painful feeling of constriction. The general health was not affected. Some of those affected had the fidgets, "anxietas tibiaram," the well-known feeling of unrest in the legs and feet.

The complaint is a distressing one, all the more so that it almost entirely prevents the patients working at their trade. Dr. Berger regards it as a peculiar form of cutaneous and muscular paræsthesia, and places the seat in the spinal cord. No benefit was derived from any medicine, save arsenic, and this seemed only a palliative. Of the six patients, four were men and two women; their ages were from fourteen to thirty-three, and all belonged to the educated classes.

Cystic Tumour of the Pineal Gland.—A married woman, of thirty-five years of age, applied for admission to Dr. Nieden ("Centralblatt für Nervenheilkunde," Nr. 8). She complained of double vision, which had lasted for several weeks. It was accompanied with giddiness, which had diminished in the course of the last week. There was some mental disorder, and great pain at the occipital region. Speech was somewhat slow and stuttering. The general health was not good. The vision was put down to a paresis of the fourth nerve on the right side, as a result of which double images appeared, especially when she looked downwards, and to derangement of the right side. There was no hemiopia, nor any other disease of the eye. The hearing was not affected, nor was there any diminution of the motor or sensory functions.

The disease was recognised as of central origin. Although syphilis was not suspected, the treatment consisted of iodide of potassium with the red biniodide of mercury.

After six weeks the double vision had disappeared, the headache much diminished, and the patient could resume her occupation of a sempstress.

Two months later Dr. Nieden saw his old patient in the Augusta Hospital obviously affected with a severe cerebral disease. She was delirious, and cried and raged so that it was necessary to seclude her in order to keep her quiet. Her rest at night was disturbed by maniacal attacks, while during the day her consciousness was often clear, when she answered slowly, but correctly, any questions put to her, always complaining of violent headache. She was very weak, and took little nourishment. She soon sunk to her bed; no paralysis or loss of sensibility was noticed. She died in an unconscious state. The posterior chamber of the eye was normal.

On opening the cranium there was considerable adherence of the dura mater to the osseous surface, and a stronger union of its inner surface to the left hemisphere of the brain. The arachnoid was œdematous; the pia mater injected, and the cerebral sub-

stance sound and compact, both grey and white matter being normal. In the lateral ventricles there was a moderate amount of serum, and great development of the choroid plexus in the left posterior cornu. The vault of the third ventricle seemed tense, raised by a pasty mass, which soon began to sink. On removing the fornix, the whole of the third ventricle was found to be filled with a reddish-grey swelling about the size of a walnut, which had contracted numerous and stiff fibrous adhesions with the inflamed choroid plexus. The tumour was of a roundish form, taking on its upper part the shape of the walls of the ventricle. On pressure a fluid escaped. It was a cystoid degeneration of the pineal gland. On examination it was found to consist of a fibrous tissue, containing in its interstices from twenty to twenty-five cysts full of serous fluid. There was no gritty matter found, nor any traces of entozoa. The parts around the third ventricle were somewhat flattened, but there was no destruction of tissue, save in the superficial part of the anterior corpora quadrigemina.

Dr. Niden remarks that this case is interesting on account of the rarity of this form of localised tumour of the pineal gland, as well as the symptoms confined at first to the result of pressure upon the origin of the fourth nerve and the later signs of brain disease and derangement of nutrition.

Delirium from Loss of Sight.—Dr. Schmidt Rimpler (“Archiv.,” ix. Band, ii. Heft) quotes Sichel, the celebrated oculist, to the effect that seven or eight times after extraction for cataract in old people he had observed delirium without fever, apparently caused by closure of the eyelids. The patients did not know any more where they were, or what had happened to them. They rushed about, tearing their bandages off, crying, and insulting those about them.

The delirious fit came on in the evening, and lasted during the night. There was no trace of cerebral congestion. Some of these patients had been habitual drunkards. He had never seen this delirium in patients younger than sixty years of age. Other oculists had met with cases of the same kind.

Dr. Schmidt-Rimpler had one patient, a woman of seventy-six years of age, who suddenly rose in the night after having been operated upon for extraction of cataract, and tried to tear away the bandages, crying out that she was on fire. In consequence of her reckless behaviour the eye was lost.

The author considers the cause of delirium to consist in the absolute blindness, or deprivation of all light, and the cutting off of all visual impressions, though the amount of light which patients suffering from cataract receive can never be great. We ought also to take into consideration the intense mental strain and anxiety naturally attending so important an operation.

There are no doubt instances where the loss of sight overthrows the reason which was probably previously unstable; and indeed this has

been observed in animals, for the dogs used in polar voyages of discovery sometimes became insane during the six months' night of an arctic winter.

Abscesses in the Brain.—Dr. Köhler (“*Irrenfreund*,” Nr. 3), observes that the symptoms of abscesses of the brain ought to be carefully studied, as they are generally only detected by examination after death. The number of cases collected by writers on pathology is not very numerous.

Meyer was the first to attempt to make a differential diagnosis between the symptoms of abscess of the brain and those diseases with which it has been confounded, such as typhus, intermittent fever, epilepsy, apoplexy, chronic encephalitis, and tumours of the brain. He puts the causes of cerebral abscess under three heads:—1. Injuries to the skull involving the brain. 2. Bounded abscesses either idiopathic, or the result of tumours or apoplectic cysts, or the sequel of softening of parts of the brain. 3. Caries of the bones of the skull, especially at the base. 4. Embolisms of the smaller or larger vessels, with derangement of nutrition of the parts supplied by these vessels.

Dr. Köhler then gives a description of eight cases of abscesses of the brain, to which he adds the following remarks:—

1. What is striking is the continued latency of the symptoms in very considerable destruction of the brain substance; in this all observers are agreed. The less common symptoms, the localised or general pains in the head, which, however, may be wanting, the somnolence, the general loss of tone and will, are of a very uncertain nature, and often accompany quite a different disease.

2. The mental disturbances, where they exist at all, do not stand in any definite relation to the local disease apart from the febrile symptoms.

3. Diagnosis is, in most cases, impossible, and only can become probable where there is external injury or caries of the bones of the skull.

4. In the embolisms there are generally several abscesses independent of one another, and in different places.

5. The prognosis is fatal in all circumstances if the disease run its course.

Recovery from Insanity after a Fall.—Dr. Jaworski (“*Allgemeine Zeitschrift*”), received a young lady, 23 years of age, into the asylum at Leubens, who had been insane for four months. She was naturally of an excitable disposition. The symptoms were hyperæsthesia of the skin, pain in the back of the head, with delusions that a nerve in her arm was torn through, or that everything was torn through within her. There was a tendency to suicide. The delusions continued after her admission. She was melancholy and restless. Having escaped from the notice of her attendants, she sprang from a window sixty feet high. She is believed to have landed on her feet, and then upon the gluteal region a little upon the left side, and finally upon both elbows without striking the head on the ground.

She was able to rise without assistance, but walked with faltering steps. There was a little bleeding from the right nostril, with slow respiration, weak and slow pulse, and coldness of the skin. She had no recollection of having thrown herself over the window. The urine contained albumen and a "moderate" amount of hyaline corpuscles. These disappeared in the evening, when temperature and pulse rose to the normal height. She complained of pain in the back for several days, saying that her back was broken. In ten days she was able to rise from bed. Her attention was more directed to the state of her health instead of her old delusions, and in five months she left the asylum cured, and has since continued quite well.

Paralysis Agitans.—Dr. Westphal, in a reprint from the "Charité Annalen" (IV. Jahrgang), describes three cases of paralysis agitans. In the first of these the trembling had come on very suddenly, and lasted with greater or less severity for fifteen years. There were shakings in the head and under jaw and lips, and in the fingers of both sides. For two months the shaking of the head was so severe that it had to be artificially fixed in order that he should be fed. In this case the head is strongly thrown backwards, making at the same time a vibrating movement. There seemed no nervous complications. The trembling in the hands ceased on voluntary movements being made; that in the head was suspended when he looked steadily at an object.

In the second case described, a woman of 70, the paralysis agitans followed upon hemiplegia of the left side, the result of her being thrown over by a railway train. After this followed trembling of the head and left arm, which gradually spread to the right one.

In the end, the motions of the right arm were much more rapid than those of the left. Dr. Westphal remarks that Charcot's observation that the head is not affected in paralysis agitans is at variance with these cases.

A third patient had, after a burn in the left arm, trembling of the same arm, with slight shaking of the leg. The trembling took the form of pronation and supination, and bending and stretching of the limb. At first the motions went on day and night, but afterwards they ceased at night. The strength of the arm diminished, while the sensibility remained unimpaired. It was determined to try stretching of the great nerve-trunks of the arm. The operation was performed by Bardeleben, who ascertained, by the application of the interrupted current, that he had reached the trunks of the radial, median, and ulnar nerves, which were vigorously pulled both upwards and downwards. The wound healed under the antiseptic method without any complication, but no benefit was derived from the operation. In the case of the paralytic woman, Westphal tried propylamine, but also without effect.

Aphasia with Slow Recovery of Speech.—Dr. Kelp ("Irrenfreund," Nr. 4), describes two interesting cases of aphasia. Elizabeth Schafer, ten years of age, was seized with an epileptic fit, extending over the whole body, apparently the result of a fright. After the fit

had passed off, the child seemed to be deranged, tearing everything which came within her reach. This condition did not last long, but the power of speech was wanting, while her intelligence seemed unaffected. She could not be got to utter a single word, although she was evidently anxious to do so. At the same time there was no paralysis of the muscles of the voice, as she now and then uttered sounds. After eight days she began to be able to speak, with great exertion, words of one syllable, like "yes" and "no;" then she began to be able to pronounce her name, and to attempt words of more than one syllable, pronouncing each syllable with obvious exertion. Her progress in thus recovering her speech was slow but progressive, and it was a great pleasure to her when she succeeded in getting out a difficult word. The pronunciation of sibilant sounds caused her most exertion, and it was some time before she could do this readily. In the end she spoke distinctly and with considerable fluency, but slowly resting on every syllable. She was also taught to write, which she found difficult at first, but continued improving. The principal treatment consisted in making her read out every day. In the asylum it appears that she understood what was said to her; her intelligence seemed sound, and her behaviour was good. In five months she was quite restored to her normal condition. Dr. Kelp remarks that aphasia was the only symptom observed by him. He believes that it was of central origin. There was some account of her having had an affection of the throat with an eruption, surmised to have been scarlatina; but this Dr. Kelp treats as having no bearing on the after condition of the patient.

The second case was a woman of 46, belonging to the educated class, whose mother had died insane. This lady suffered from consumption, and had an epileptic attack, which left behind it aphasia without any paralysis.

She could not utter a word, although she understood what was said to her, and knew how to make herself understood by gestures and movements of the head. She could not understand what she read, and could not follow what was read to her. The only thing she understood was a small sentence, pronounced loudly, and some of the words read to her, without comprehending their connection. A letter written by her was only intelligible in part. In general the words seemed to have no connection with one another. She herself confessed that what she had written was nonsense, without being able to correct it.

By degrees she succeeded in speaking several words, and in expressing the meaning of her thoughts, though often unable to hit upon the correct words. As her powers of making herself understood returned, the melancholy with which she was affected passed away, but she retained an uneasy feeling of her incapacity of expressing herself.

She continued to look after her household, and check her account

books. She was active with her hands, and finished everything with the greatest skill, only she could not distinguish distant objects, but her power of sight gradually returned. She remembered distant events better than later ones. Sometimes she could express herself with greater ease than at others. Sometimes, in speaking, she misplaced words, but when corrected she saw the error. She found counting very difficult; even simple addition. If one asked how much three times eight were, she could not answer immediately. In order to make the calculation, she first reckoned eight and then counted eight with her fingers by putting together four fingers on each hand; then she added both the eights together and wrote down sixteen in order not to forget it; then she renewed the same procedure (I suppose by again counting the eight on her fingers), in order to make out the sum of twenty-four.

She was never sure that what she pronounced was correct. If she asked for a drink of water, she was annoyed with the doubt whether she had used a right word. The weakness of her thinking powers, however, showed itself more decidedly, and after six months there does not appear any hope of improvement in this respect.

Dr. Kelp treats this case as one of amnesic aphasia, the first one as ataxic aphasia.

In amnesic aphasia, the association of the word and of the idea is impeded, because the memory of the sound, *i.e.*, the word as an acoustic symbol, is wanting. The connection between the centre of sound and the motor centre has been deranged, and the words come in disorder and confusion. Amnesic aphasia has been rightly described as aphasia of the memory; as Bierner has well remarked, it is the opposite of the verse of Mephistopheles—"Wo die Begriffe fehlen, stellt ein Wort zu rechten Zeit sich ein." Where the ideas fail, there comes in a word at the right time. The idea is there, but the proper word does not come to the memory.

It is very common with aphasics, as in this case, that they have more difficulty in recalling the names of persons or sensible objects than verbs, adverbs, conjunctions, and other such expressions. The more concrete the idea, the more readily the word symbol is lost, because the representation of persons and visible objects are more loosely connected with their names than abstractions of conditions and qualities, for the name brings little to the apprehension of persons and objects. Abstractions, on the other hand, are only gained by the help of words which gives them a clear shape. On this account, verbs, adverbs, and pronouns are of a more abstract nature than nouns.

On the St. Vitus's Dance of the Middle Ages.—Dr. Witkowski ("Zeitschrift für Psychiatrie") has made a new study from old books and manuscripts, of the epidemics of the dancing mania which occurred in different parts of Germany. He shows that the St. Vitus dance in Strasbourg, described by Hecker, and all writers who followed him, as

taking place in 1418, actually appeared a century later, in 1518. Hecker had been misled by a misprint in a book. This great nervous epidemic thus occurred in the midst of religious disquiet of the commencing Reformation, and about a century and a half after the great epidemic of the dancing mania on the Lower Rhine (1374). He observes that the women who began the dancing were subject to nervous attacks, and compares the contractions of the lower muscles of the abdomen described by the old chroniclers, with the "compression ovarique" of hysteria.

A number of children and weak-minded people joined into the dances thus begun by hysterical women. Their numbers were swelled by all sorts of vagabonds and impostors. These manifestations belong to the same class as those of the Devoti (1260), and Alciati (1602), in Italy, the Geissler Societies (1260-1350), the Children of Michael (1458), and the religious revivals in England and America, and the Camisards and Convulsionnaires in France.

Dr. Witkowski is not prepared to admit that merely witnessing displays of abnormal mental excitement should be a cause of real insanity, but he thinks that the deep impressions such scenes were fit to make might determine the cast of the mental derangement in individuals disposed to neuroses. He gives the example of a woman in his asylum who assumed the same kind of melancholic delirium and delusions which her husband had two years before. A little later her insanity assumed another character, with delusions of jealousy and hallucinations of hearing.

Hemianæsthesia Hysterica cured by the application of a Magnet.
—Dr. Hesse ("Centralblatt für Nervenheilkunde," Nr. 7), had a patient 22 years old. The uterus was small, and the vagina narrow, and she had never menstruated. Until the last four years she had been in good health. She became affected with diminished sensibility to touch and to cold on the left side. There was amblyopia in the left eye, with diminished perception of colours, as ascertained by a careful examination. There was tenderness over the region of the left ovary.

She was treated with a horse-shoe magnet, weighing two pounds, applied to the back of the arm, and in twenty-five minutes sensibility returned to the whole half of the body. There was no transference of anæsthesia to the other side. The left eye recovered its visual capacity and power of distinguishing colours.

Dr. Hesse observed that the parts pricked after the application of the magnet bled freely, whereas similar punctures made the day before left no mark on the skin, and did not bleed. The author concludes with a statement of his belief in the efficacy of the treatment of hysterical hemianæsthesia by the application of magnets or weak galvanic currents, which he had himself witnessed in Charcot's clinique at the Salpêtrière in the spring of 1878.

2. *Italian Psychological Literature.*

BY J. M. GASQUET, M.B.

In the *Archivio* Dr. Porporati communicates two papers on insanity in women connected with the physiological changes of the sexual organs. The most novel part of these are his observations on insanity beginning during pregnancy. In most of his cases this was characterised by hatred of the husband, against whom groundless accusations of cruelty were made. The patient sometimes recovered after delivery, but this was more frequently followed by no benefit.

Dr. Monti gives six interesting observations of *the temperature in the acute diseases of lunatics*. These were cases of pericarditis, erysipelas, tuberculosis, catarrhal and fibrinous pneumonia, and the temperature rose only slightly, if at all, above normal. He connects this apyrexia with the rarity of traumatic inflammation in the insane, ascribing them both to a state of irritation of the sympathetic, which prevents the usual vaso-dilatation.

Dr. Tebaldi gives a detailed account of the "*convulsionnaire*" of *Ampezzo* in the Italian Tyrol: a woman of middle age, who for many years has had a severe attack of hystero-epilepsy every day at the same hour. At 8 a.m. a state of partial stupor begins; at 11.36 there is a sensation of violent precordial constriction, and she suddenly throws herself out of bed, endeavouring to beat her head on the floor; her eyes rotate wildly, and she utters a guttural cry. At noon there is an interval of comparative quiet, and this is followed by a series of violent rhythmical movements of the whole body, in which she strikes the occiput violently against the wall. After every few blows she pauses for a short time and drinks a little water, cursing and abusing those around her. These are followed by rotatory and other acrobatic movements, which gradually subside; and the whole attack ceases at 1.25. The cervical and dorsal muscles are a good deal hypertrophied in consequence of their excessive use, and the scalp is much thickened at the points which are struck; but she seems to have suffered in no other way.

Dr. Toselli gives the result of his examination of *the religious tendencies of epileptics*, founded on 28 cases. He finds them most strongly marked where the epilepsy has been produced by some moral shock, and more particularly connected with vertigo and petit mal than with the fully developed disease. He ascribes this exaggerated religious sentiment to the unconscious influence of the terror produced by a malady which is still considered by the public to be supernatural and mysterious. Religious delirium is most common in the larvate forms of epilepsy; it is attended with vivid but fleeting hallucinations of sight and hearing.

Professor Albertoni has performed a series of experiments in the physiological laboratory of Sienna, whence it appears that hæmorrhage into the joints (akin to the arthritis of locomotor ataxia) is due to injury of the spinal cord, whereby the vaso-motor centre of the part

is paralysed, and the articular vessels dilate and rupture. It may also be produced by injury to the cerebral cortex (what part is not specified) or peduncle, which acts indirectly through the cord. Quinine will check these articular hæmorrhages as well as those in the stomach which may be produced in the same way.

The following are the chief papers in the *Rivista Sperimentale* :—

Maragliano and Seppilli have been experimenting on *metalloscopy*, with the following main results :—In hemianæsthesia of cerebral origin the sensibility is restored, not merely at the point of application, but over the whole side. The special senses are restored as well as touch. The restoration of sensation is more permanent in cases of organic than in those of functional anæsthesia. They ascribe the action of the various substances employed to the development of electrical currents, which influence the vaso-motor and sensory nerve fibres.

Professors Luciani and Tamburini have made a series of elaborate experiments upon the *cortical motor centres* in the ape, dog, and cat, and come to the following conclusions :—The motor area is subject to considerable variations, not merely in different animals, but in the hemispheres of the same brain. There is no special “epileptogenous area” in the cerebral cortex, epilepsy being produced by irritation of any one of the cortical centres, and beginning usually with spasm of that group of muscles supplied by the centre stimulated.

The movements caused by stimulation of the cortical centres are too uniform and co-ordinated to be due to any reflex action, on the hypothesis that the centres are sensory and not motor.

Dr. Maragliano writes on the same subject, but from the clinical side. The most novel point he makes is that cortical lesions, even if extensive, may be compensated by the sound hemisphere, especially if that one be the left. This compensation is effected by means of certain fibres which go directly from either hemisphere to the same side of the body. He lays down the following symptoms as diagnostic or cortical lesions :—Local convulsions, occasionally spreading to the whole body, without loss of consciousness, followed by local paralysis; aphasia, temporary increase of temperature in the paralysed parts; pain, or tenderness, or percussion in some limited point in the head.

Dr. Luciani has performed a series of experiments, which lead him to infer that *epilepsy* is primarily caused by direct or indirect stimulation of the motor area in the cerebral cortex, and that stimulation of the medulla oblongata is a secondary but necessary link in the chain.

Among the many interesting papers in the *Rivista Clinica* of Bologna there are only two that bear on our specialty, and which I therefore have any excuse for noticing.

From a series of careful observations on “*Cerebral Thermometry*” it appears that the temperature of the left side of the head is slightly but decidedly higher than the right, the frontal region being the warmest on the left side, the parietal region on the right. The tem-

perature is always rather lower in women than in men, and falls as age advances, but is subject to continual fluctuations according to the mental activity of the individual. Further observations on the temperature in disease are in progress.

There is a very interesting review of Professor Severini's essay on *Vaso-motor Dilatation*. I regret exceedingly that I have not had the advantage of seeing the essay itself, but it would appear that he holds the phenomena of vaso-dilatation are not produced by direct nervous action, but by the nutritive changes in the part. He holds that the capillaries are capable of contraction from the movements of Goluben's fusiform nuclei, and that (as Tarchanoff has shown) oxygen causes these nuclei to enlarge, and so contracts the lumen of the capillaries, while carbonic acid has the contrary effect. Some explanation of this kind, he urges, is necessary to account for the local hyperæmia which may be produced by irritating a limb after its removal from the body, or when it is only connected with it by the artery and vein, as well as for the vaso-dilatation produced by touching the surface of an egg, on the fourth day of incubation, with nicotine (Vulpian).

Dr. Herzen has sent two pamphlets for review. In the one on *The Physical Conditions of Consciousness* he interposes in a controversy between Dr. Maudsley and Mr. G. H. Lewes. As is well known, the latter physiologist believes that consciousness always accompanies the activity of every nerve centre, while the former considers it to be only a frequent concomitant of such activity. On a closer analysis of the phenomena, Herzen points out that the molecular action produced by the impressions conveyed by an afferent nerve has two phases, in the former of which nerve elements are disintegrated, while they are re-formed, and energy stored up or transmitted, in the second. He believes that consciousness only accompanies the former of these phases, never the latter, and that its intensity is in constant proportion to the degree of disintegration, which is very variable in different cases.

In his paper on the *Nature of Psychical Activity* he sums up briefly the various experiments made by Helmholtz and others to test the time required for acts of perception, and he more fully describes those performed by Schiff to test the effect of sensory impressions on the temperature of the brain. From these it would appear that the temperature is invariably raised by any sensation, and that it rises in direct proportion to the novelty of the sensation, and to the emotion of fear or pleasure produced. From these two series of experiments he concludes that all mental phenomena are correlated to the other forces of the universe, and, like them are merely a special form of motion.

Professor Lombroso has collected into a handsome volume—*"Pensiero e Meteore"*—the observations on the influence of meteorological conditions on insanity, which I have from time to time noticed in this Retrospect.

PART IV.—NOTES AND NEWS.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

The Quarterly Meeting of the Association was held on November 18th, 1879, at the Rooms of the Medico-Chirurgical Society, Berners Street, at 8:30 p.m., Dr. Lush, M.P., President of the Association, in the Chair.

The following three gentlemen were elected ordinary members, in accordance with the New Rules, viz. :—

J. W. Stirling Christie, M.D., Assistant Medical Officer, Coton Hill Asylum, Stafford.

Dr. Barton, Ticehurst, Sussex.

Dr. Agar, Barman House, Henley-in-Arden.

Dr. WILKIE BURMAN read a paper "On the Separate Care and Treatment of Acute and Curable Cases in Asylums; with Proposals and Suggestions for a Detached Hospital for Special Purposes, in Connection with Every Large Public Lunatic Asylum." (Original Articles, No. 2.)

Dr. SAVAGE said that the subject for discussion appeared to divide itself under two heads, viz., structural changes and therapeutics. As regards the first, the suggestion as to a separate building where the electrical and other apparatus was to be placed, he found practically that it was a matter of great difficulty to move patients to the batteries; the batteries had to be taken to the patients. Then, as regards the ophthalmoscopic room, it was necessary to have one for each sex, so that a central building, such as that suggested, would require subdivision; and if these and other arrangements, such as Turkish baths, had to be multiplied, there would be considerable difficulty. As regards single rooms, he quite agreed with Dr. Burman. At Bethlem there were scarcely any other rooms, and the patients took great interest in giving them a good appearance. He thought that too much stress had been laid upon the possible use of drugs. He did not think that insanity was in every case produced by lesions that depended for their removal upon drugs, but he felt that for the cure of their patients they depended more upon suitable general treatment than therapeutical treatment. He hoped that they might be able to find out something efficacious. Certain drugs had been found beneficial in some cases; other cases might, he supposed, as in France, be relieved by shaving and blistering; and other cases by hot baths, for if there was any treatment calculated to depress an extremely excited case it was this last. He could not quite agree with the author of the paper, that all the acute cases should be placed together. Sometimes great benefit had ensued from a judicious distribution of these cases. At the present moment he had placed in a quiet convalescent ward an imp of mischief, and he had said to patients and officers alike, "You have got to cure this case." She would probably recover more rapidly, there would be less horror of the past, and less chance of a recurrence of the disease. Then, as to the Commissioners being a kind of consulting physicians to asylums, he did not think it would work. He had said once or twice, chaffingly, to the Commissioners, that he supposed they ought to have an architect and a journeyman carpenter attached to their number, to assist them in inspecting the stencilling and painting. They had sometimes retorted, "Well, you wouldn't like us to come and criticize your prescriptions." As to electricity and coloured light, he hoped they would be useful; he was afraid they would not. It was the duty of each one of them to try all things, and, as junior editor of the Journal, he would say to them, "Do try, but do not keep your failures in the dark;" for a full knowledge of the results of their experiments was absolutely necessary to their progress.

Dr. HACK TUKE said he hoped this suggestion would be responded to. He

should like to have a corner in the Journal headed "Our Confessional," as in the "British Medical." As regards the valuable and interesting paper they had just heard, he thought it was evident that the proposals contained in it, however desirable in some instances, might not be so in others; in fact Dr. Burman had himself made an exception in regard to asylums built upon the pavilion system. In these it was not necessary to have more than blocks set apart for recent, or curable, and for chronic cases; but then it would be very desirable that the attention of the Medical Superintendent should be drawn primarily to those patients requiring active treatment. In one asylum which he had visited he noticed that the Assistant Medical Officer spoke of "my case," and said, "We consult Dr. — in any urgent case, but he more especially takes the acute cases and treats them, and we do not trouble him in regard to a large mass of the cases." Now that was a very good plan to carry out, and it would prevent the Medical Superintendent being worried in "everlastingly looking after chronic cases," as Lord Shaftesbury feelingly expressed it, in his evidence before the Select Committee in 1877. As regards asylums not built upon the block system, but which were of old construction and not fitted for the treatment of recent cases, Dr. Burman's plan might come in very well, but as regards ordinary asylums recently built and calculated to contain a provision for the treatment of recent cases, it would be well to allow those asylums to remain much as they were, and to merely carry out the division of labour between the Superintendent and his Assistants, to which he had referred. In most asylums of modern construction there was nearly everything required for the active treatment of the insane, and therefore in such cases there need not be the expense of building a separate hospital, but the Superintendent would adopt the means at his command for the treatment of recent cases, whether spread over the building (following Dr. Savage's experience) or concentrating them in certain wards. If it were necessary in this case to have more room, another block or a wing should be built for chronic cases, not a hospital for recent or so-called curable cases. Take the present Essex Asylum as an illustration, which contains 860 patients. It is proposed to have a new one for 150 men and 150 women, the estimated expense being, say £60,000, or rather more than £200 per head. In that case he would not think it wise to be at that expense. He would still use the present asylum for patients supposed to be curable—that is to say, so much of it as was requisite for them, and the rest for old cases (not more than 10 per cent. of the cases now in the Essex Asylum would be regarded as curable); and, in addition, he would build a cheap construction for the chronic cases—say at £85 per head; the site to be determined by local considerations. In some instances it would be best on the grounds of the original asylum, in others at a distance. Therefore he thought Dr. Burman's plan must not be adopted in at all an unqualified way, but be used in accordance with the circumstances of the case, and with regard to the existing accommodation of the county. As regards that aspect of the question which more directly referred to stemming the accumulation of chronic cases, he thought that workhouses might still, in many localities, be used as they were, without any detriment to the patients. He had visited many workhouses in order to ascertain the condition of the insane inmates, and his conclusions were, on the whole, favourable. He should most certainly deprecate the treatment there of any class of patients indiscriminately. He was assuming what he strongly held should be done, that all patients would, in the first instance, be brought to the County Asylum, and then drafted off to the workhouse at the discretion of the Medical Superintendent—excluding *delirium tremens*. By this simple course the wrong use of workhouses would be reduced to a minimum. This question was not to be regarded from a purely medical point of view, but also from the ratepayers' standpoint. Taking the case of Essex again; he found that in the workhouses the cost per head was usually under 4s., and in the County Asylum, 10s. or 10s. 6d.; if the 4s. grant were

deducted it was still as high as 6s. He was not including the charge on construction. The Guardians had often said to him what possible temptation could they have to send their cases to the County Asylum when they could get them well treated in workhouses at a lower rate. The condition of lunatics—those, that is to say, who are imbeciles and chronic dementals—is exceedingly good in the Essex workhouses. So that, whether considering the question from the point of view taken by the author, in that part of the paper in which he said there was a universal wail from Dan to Beersheba, or from any other point of view, it was clear that his proposal must be adapted to the individual requirements of particular counties.

Dr. MORTIMER GRANVILLE said that upon the threshold it struck him as a very difficult subject. First, as regards the block for curable cases; they had since been called "recent" and "acute" cases. He knew what an acute case was, but what was a curable case? Here was a very difficult matter, not only as regards diagnosis, but prognosis; and he questioned whether two months would be sufficient to arrive at a satisfactory conclusion. Supposing that they could be separated from the milder and better conducted classes, as Dr. Savage pointed out, they would lose an enormous advantage. If they were put in a separate portion of the institution and kept quite apart from the others, the one part would be a madhouse proper, and the other part one of those places where the inmates had been described as "drifting pleasantly into dementia." It was certainly well to have a detached block, and it was within the discretion of every Medical Superintendent to use that block. It surely was not uncommon to have a block of that description, which was used sometimes for convalescent cases and special treatment. If, however, that block were set apart for special treatment, with all the appliances of electricity, &c., there would be not only the difficulty of bringing the patients to that part for treatment, but the patient who would unfortunately have passed out of the acute hospital into the other block would stand no chance whatever of cure. If the proposed detached hospital were set apart for so-called curable cases, many of those cases recovering late—perhaps from the disease dying out—would lose the advantage altogether. It was certainly very desirable that drugs and all sorts of remedies should be used, but the moral aspect of the case was in danger of being overlooked. When Dr. Conolly introduced into England the abolition of restraint, he proposed to adopt a system of moral treatment. This had never since been developed. If there was to be a growing reliance upon drugs, it seemed to him they would lose the value of moral treatment, which, by the way, consisted to a certain extent in placing acute cases in a certain stage in the midst of other patients whose influence would be salutary to them. The subject must be regarded not only from the purely medical point of view, but also from what he would term the socio-economic one; and even supposing it possible to find the money requisite, there would arise this difficulty—that by taking the curable cases out of the great body of the insane, the others would be left branded as incurable. He could understand the block being used as a kind of admission house, where they might be treated for a short time, but that plan was open to objections. At all events, he did not see any advantage in setting apart one block in a building where the patients were treated as curable, while those in other blocks were not to be treated as such. Anything that would tend to discourage the growth of the moral system of treatment—the mental system—would be, perhaps, rather disadvantageous than otherwise.

Dr. STEWART observed that he was sure Dr. Hack Tuke would be the last to try and put the cover of his authority over such a statement as that all workhouses were like the Essex workhouses, for a very large proportion of the Union workhouses in England were sadly defective in the treatment of insane cases. He thought they must all admit that a detached block would be certainly most necessary, and should be at the disposal of every

Superintendent of any large institution for the treatment of the insane. He purposely avoided the use of any term, such as "asylum" or "hospital," because he thought they might err on both sides—that of speaking of it entirely as a hospital, and also of speaking of it as an asylum. They had committed themselves in this country to the last-named appellation. On the other side of the Channel they had pretty generally adopted the plan of calling them hospitals. It was clear that after a little while the hospital ceased to be a place of treatment, but rather a mixed place where the large proportion of patients consisted of those who might be said to be incurable. While it was clear that there would be a very considerable advantage gained by having a detached block, at the same time there would be a very great objection to that detached block being divided into particular departments, namely, for treatment by Turkish baths and various other special methods. It would be far better that it should be left to the discretion of the Medical Superintendent for the time being. One man might think it would be best made use of as a school-house, another for some other purpose; one Superintendent would succeed another and the building would have to be altered. That would be a constant objection from the ratepayer. As regards, however, that bugbear—the ratepayer—he felt that it should not be allowed to stand in their way. They should stand boldly forward and let the ratepayer see that they were determined (whatever the cost might be in the first instance) to do their duty. The expense would be less in the end. It was certainly aggravating and disheartening to a man who wished to treat the insane scientifically, to have everything brought against him which the economist could bring up. It would be wrong for them as an Association to do anything to damp the ardour of those who wished to adopt plans suggested by science. He knew two large County Asylums in which there were separate buildings, at all events, one which was quite separate, and one of those buildings might have had written over it "All hope abandon ye who enter here." That was, in his opinion, very objectionable. Patients felt when they went from one to the other, that they would not have the same chance as they had at the other place. In a modified sense the same might be said of what would be the great bulk of the accommodation which Dr. Burman would have provided in the future. It was an objectionable thing for one building to be looked upon as an acute place, after leaving which their chance of recovery would be less. The moral effect would be very bad, and would counteract a great deal of the benefit resulting from it. He thought they were under great obligation to Dr. Burman for giving them so much food for thought.

Dr. RAYNER agreed with Dr. Burman's proposition that newly-admitted cases should be treated with the greatest possible care, but, as to the provision that should be made for that purpose, it would have to be considered in connection with existing conditions. By this means, a diminution of insanity would result, but if Dr. Burman's recommendations with regard to treatment by drugs were followed out, there would be an increase in the number of chronic cases, and especially in very troublesome ones, for the most troublesome cases of insanity were those which had been manufactured by the improper use of drugs. One important feature in the subject had been overlooked; that was the employment of trained and skilled attendants. Until the asylums were furnished with trained and skilled attendants there would not be the large percentage of recoveries which they ought to have. As to the results of moral treatment, he could say that within the last ten days he had had the satisfaction of transferring to the quietest ward a man who, three years ago, when he commenced "moral treatment" upon him, was a centre of excitement, and caused more mischief in the asylum than any three other patients together. He was simply the dread of the whole place. By being put under the care of one man and otherwise being broken into habits of order, this patient had been greatly improved, and in a very short time there would not be a better patient in the

place, although he was an incurable one. As regards treatment by drugs, he thought that the hope to relieve at one sweep, by means of a drug, the accumulated malnutrition of months and years was utterly fallacious, and was simply on a parallel with the search after the "philosopher's stone." That a man who for ten years had been living irregularly, and whose brain-cell nutrition had been out of gear all that time, should be summarily cured by the administration of three or four or forty or fifty doses of drugs, spread over a few weeks, was utterly unhopeful. Such a belief was very much on a par with the negro's belief in his fetish, the negro perhaps having the advantage, as no swallowing was involved.

Dr. Hicks said that there should be some form of a hospital or infirmary, in which some cases, at least, might be treated for a time, in order to see whether infectious disorder might be at the root of the mental disease. Under these circumstances such separate blocks would be exceedingly advantageous, but they need not be upon a large scale. They should be small places, with the object of being tentative.

At this point, the further discussion of Dr. WILKIE BURMAN'S paper was adjourned to the next Quarterly Meeting.*

Dr. HACK TUKE exhibited a brain preserved by "Giacomini's method." This specimen which was, so far as he knew, the only one in England preserved in the way he was about to explain, was sent to him from Canada, by Professor Osler, of the McGill University, Montreal. The process of preparation consisted of three or four stages. It was first immersed in a strong solution of chloride of zinc, then, after forty-eight hours' immersion, the membranes having been removed in the solution, it was cleaned and replaced in the solution, until becoming harder, it sinks no longer. It was then placed in alcohol, where it remained for ten or twelve days, being frequently turned over, to prevent deformity, the spirit being changed several times. By that time it would be somewhat shrunk, but on being placed in glycerine for twenty or thirty days it would absorb the glycerine and swell out again. It should be removed when just level with the liquid. It was finished by the application of several layers of gum elastic varnish, or marine glue, diluted with alcohol. But before it was varnished it should be set aside for a few days until the surface is dry. The brain was now hard without being brittle, and showed the form of the convolutions beautifully. The weight of the brain was much the same as at first, and this was a special advantage in this mode of hardening, as by other methods the weight of the brain was considerably reduced. Professor Rolleston had used chloride of zinc and alcohol in his preparations, but he believed he had been accustomed to employ glycerine in addition.

Dr. BURMAN referred to the method of preparing the brain by nitric acid.

Dr. HACK TUKE observed that the objection to that process, as compared with Giacomini's, was that it contracted the brain much more.

SUPREME COURT OF JUDICATURE.

(Common Pleas Division.)

(Before Lord COLERIDGE and a Special Jury.)

NOWELL V. WILLIAMS.

(Summing up of the Judge.—November 18, 1879.)

Lord COLERIDGE—A great deal of the evidence they had heard was really not relevant to the only question they had to determine, and he would pass over it with great brevity. What was the simple dry matter of fact involved in the action? This was an action of assault and false imprisonment. Arthur

* The proposals of the Charity Organization Society, on this subject, has been brought under the notice of the Association at the Annual Meetings, 1877 and 1878. The action of the society was encouraged, in general terms.—EDS.

Henry Nowell was the plaintiff, and George Williams, his brother-in-law, was the defendant. The plaintiff said he was assaulted—not violently, but by being arrested—in February, 1877, when the first two certificates were obtained, and again in March, when the re-examination and re-certification were made at the Midland Hotel, and he said he was also assaulted in Suffolk and again at York, after his two escapes from the asylum and recapture. For these four separate assaults and false imprisonments the action was brought. The whole defence arose on the plea that at the times stated the plaintiff was of unsound mind, and a man who was dangerous to himself and to others, and that he had been detained on two certificates as required by the law. In a further plea the defendant said that at all events he honestly believed that the plaintiff was of unsound mind, and that therefore he was justified in doing what he had done. He had to tell them that the latter plea was no defence. To defend himself successfully the defendant was bound to establish by proof the fact which he alleged—namely, that on the four occasions in question the plaintiff was a dangerous lunatic. If he had not established that fact, he must fail. Now, without referring to the defendant, he would suppose a case in which a man acted humanely and kindly in setting the law in motion—he did so at his own peril, and was bound to show not only that he was well-minded, but that he had acted legally and that the man he placed under restraint was a *dangerous lunatic*. Excellence of intention and purity of motive was no defence in an action of that sort—that was established law, decided in the case of “Fletcher v. Fletcher,” of which they had already heard. It was true that the statute contained a provision to the effect that if the law was properly observed its protection should be extended to those who set it in motion. If they acted in accordance with the requirements and provisions of the statute, then *bona fides* was a complete defence. The real question, therefore, was this—was the plaintiff a dangerous lunatic when he was confined in the asylum? The plaintiff said, “I never was insane.” The defendant replied, “You always were a dangerous lunatic.” The question was not to be decided by this or that particular fact, this or that entry, or this or that bit of evidence. Taken altogether, did the plaintiff make out that he was a sane man? Taken altogether, did the defendant make out that the plaintiff was at the times named insane? In an ordinary case it lay with the plaintiff to establish the issue; but in that case, without denying that the plaintiff had to establish that he had been assaulted and falsely imprisoned, still substantially the burden of proof lay on the defendant. The subjects of the Queen being sane, were not to be shut up. Here was a subject of the Queen who had been locked up by the defendant, and the defendant could only defend himself successfully by showing that at the time he locked the plaintiff up he was a dangerous lunatic. A great deal had been said, not unnaturally, not blameably, as to the manner in which the plaintiff had been treated, that his brother-in-law had employed doctors who had acted extremely improperly, and had not observed the law. Now, it was his duty to inform them that that was in one sense irrelevant. Assuming that there had been ill-treatment, haste, and evasion of the law, as had been vehemently and powerfully urged, it was irrelevant, because if a man was insane and dangerous, he did not cease to be a madman because he was shut up hastily, unkindly, arbitrarily, even cruelly if they would, although that was not alleged. The question was one substantially of sanity or insanity. He quite agreed with the Solicitor-General that in a certain sense the treatment of the plaintiff was a material circumstance for their consideration. It was so in this way. It might be that the way in which the imprisonment of the plaintiff was procured and the mode in which he was treated by those who were the chief actors in the shutting of him up, might throw a very considerable light on the whole proceeding, and therefore upon the great question whether he was insane, for if the conduct of those who shut him up showed *mala fides*, it would be strong and cogent evidence in favour of the plaintiff, as showing that they

were actuated, as the plaintiff alleged, by unworthy motives. But the question of treatment was not relevant if they believed that the plaintiff was at the time a dangerous lunatic ; but he told the jury that the man who put the law in force was answerable for the consequences, and, if the person was not insane, answerable also for any violation of the law on the part of those he employed. It might be that the action of the defendant was most proper, and that the action of the two doctors first employed was most reprehensible, and that for that reprehensible conduct the defendant was not answerable. They had been addressed on this footing—that the plaintiff was sane, and that they were to find for him because the law allowed persons to do acts of which they could not approve. But they were not there to pass any censure upon the law. If the law were a shocking one and capable of abuse, as indeed all laws were, that was a good reason for an alteration of the law, but that was not a topic which could properly be urged before a jury. They were also subject to the operation of the law, and if it was a bad law, let them do their utmost to get it altered ; but they were not to blame a defendant who acted according to the law if that law worked towards a particular plaintiff some injury. But it seemed to him that, so far from there being any great ground of complaint of the present state of the law, without at all saying that it was perfect, he thought that if they looked back to the history of the lunacy laws they would find that, far from there being anything in them discreditable to the country, or to Parliament, there was a great deal to show to any right-thinking man that those laws were creditable to the country and to Parliament. If they came to the conclusion that the plaintiff was sane, then all that was done presented grave cause for complaint. But there were two sides to every case. If they came to the conclusion that the plaintiff was a proper subject for detention, how was the defendant to blame if they thought that the detention was somewhat summary, or, if they pleased, was wrongly brought about ? The proprietors and keepers of lunatic asylums were human beings, with passions and tempers and all those feelings which men and women possessed ; and they all knew that even persons who were sane were sometimes exceedingly provoking. It might be that people confined in asylums were sometimes harshly and cruelly treated, and that was matter for grave and deep indignation ; but it was not a matter that was charged against Northumberland House, or anyone connected with it or with the case. Now, what had the defendant done ? He heard that his sister, to whom he was most tenderly attached, had been outraged and insulted by her husband in the most extreme manner, and as to some portion of the insult the plaintiff still persisted in it, and before the jury maintained the truth of some of the most offensive imputations he had made against his wife. The defendant heard that his sister's home was utterly wretched, and her life was rendered intolerable ; that the plaintiff's moderate fortune was being squandered, and that his business was neglected. He knew that all this led to the great injury of the family, and at last it reached him that the life of his sister, if not attempted, had been threatened by the plaintiff. She gave him a most piteous account, if it were true, of outrages to which she had been subjected in July, 1875, and in July and December of the following year. What could be more wretched and melancholy than the accusation as to fifteen men being in her bedroom ; of a man being under her bed ; of a man being in bed with her and her daughter ; of a private detective consulting with her in her bedroom in the middle of the night ? If they credited her evidence, what could be worse than the filthy names he called her, and that at a time when, rightly or wrongly, entertaining a belief that he was spied upon, followed, and watched, he carried about with him a loaded revolver ? What was the brother to do under these circumstances ? He determined to take steps for the protection of his sister, who had left her husband's house for him, and that for the second time. He would now refer them to the evidence, of which they were the sole judges, confining himself as

much as possible to undisputed facts—facts proved or not contradicted, and to the documents in the case. His lordship then drew attention to a letter which the plaintiff wrote to his wife after she had left his house, in which he said—“Your return is impossible, and would be dangerous.” “I will not be answerable for the consequences;” adding, “So beware.” For his part he could not explain what the meaning of that letter was if it did not mean that if she returned to her home her life would be in danger. Then, again, did they believe the assertion of the plaintiff, deliberately made in a letter he wrote, that William Lawrence was in bed with his wife and daughter? Did they believe—it was entirely for them—that such a charge was consistent with sanity or safety? Of course, if they did, then it accounted fully for all the indignation which the plaintiff exhibited. Did they credit the statement of the plaintiff that fifteen men were in his wife’s bedroom—that he saw a man under her bed? He offered no opinion upon the subject. The duty and responsibility of doing so rested with them. Mr. Nowell, in the witness-box, did not shrink from the expression of his belief—he asked for the verdict of the jury on his belief that his wife was guilty of immoral conduct. If she were, then the violence of his conduct was amply accounted for. If, on the other hand, they regarded the accusations as unfounded, and that the plaintiff was labouring under a delusion, then, of course, he was irresponsible and they could only pity him; but if they held those accusations to be inherently and monstrously incredible, and that Mr. Nowell when he made them was sane, then no words of his could describe the iniquity of the man who could make such incredible charges and persist in them. The evidence of Mrs. Nowell had been confirmed by the two servants, Mary Ann Griffin and Anne Bacon. They were not now Mrs. Nowell’s servants, and the jury would have to conclude whether they were telling the truth or were deliberately committing perjury. They would not lose sight of the fact that several medical gentlemen had been called to express their opinion, as they had done, that Mr. Nowell was sane. Perfectly honourable and intelligent gentlemen they were he frankly admitted. They had, on the other hand, letters of Dr. Nowell [several of which his Lordship read], and they would have to say whether they did not furnish cogent evidence that at the time they were written the writer was a man of unsound mind. The Solicitor-General had urged that while no one had an interest in locking up pauper lunatics, it might be very different in a case where property was concerned. But here the property was very moderate indeed; and who had an interest in locking up Mr. Nowell—who could benefit by it? Certainly not his wife and five children, who were interested, on the other hand, in the professional income which would be cut off by the confinement of the plaintiff. Not Mr. Williams, for it was not pretended that he could benefit pecuniarily to any extent whatever; and they knew he had been put to the heavy charge of supporting his sister, Mrs. Nowell, and his five nephews and nieces. From the course that was taken, as a matter of fact, no one of the parties could be benefited to the extent of a single farthing. In reference to the diaries, his Lordship said that they were cardinal in the case, as showing the state of mind of the plaintiff from day to day. [His Lordship then read the various entries in the diaries.] They afforded strong proof that, rightly or wrongly, the plaintiff believed that he was followed and watched. It was for them to consider whether that strong impression of his was well founded or was a mere delusion, and to come to a conclusion on that subject they would have to consider the evidence they had heard on the subject and the evidence which the diaries contained. They remembered the statement of Mrs. Nowell—and there was no attempt made to contradict her—that her husband declared to her his belief that only their eldest child was his; that the others were the children of other men, among them of Mr. Donne; and he actually went to Mrs. Donne and asked her to take that child because she was the child of her husband. If the plaintiff could contradict that assertion, why had he not called Mrs. Donne

to tell whether it was the truth or was not? What did they think of such a statement? If they thought Mr. Nowell was sane, then the accusation was an abominable one. If, on the other hand, they thought he was not of sound mind at the time, then, of course, he was not responsible for what he said or did. Several witnesses, residents in Ramsgate, had been called to prove that the plaintiff stopped them in their walks and accused them of being spies, which they swore they were not; that he threatened one of them with violence, and to one of them said that he had something in his pocket which would do for him. The plaintiff accused his wife while resident at Ramsgate with misconduct with two young men named Cricket. They were called, and swore that there was no ground whatever for the accusation. Then they had the account Mrs. Nowell gave of the outrage which happened in July—that her husband rushed up to her room, caught her by the throat, and put his hand in his pocket, when his little son Peroy, who was on the bed, called out, "Oh, don't papa!" and that then the plaintiff threw himself on the bed and slept in his trousers—a fact which he duly recorded in his diary. That evidence was confirmed by the plaintiff's daughter. With reference to being followed the Solicitor-General had relied on the letter of Mr. Addison, but that gentleman's explanation in the box was that he had seen Mr. Nowell's letters to Mr. Williams alleging that he had been followed, and he took for granted that that was the fact. To another part of Mrs. Nowell's evidence it was necessary to direct their attention. She stated that on the 19th of December the plaintiff abused her, called her foul names, and accused her of bringing up their daughter in the way she should not go; and she swore that, seeing his violence and knowing he carried a loaded pistol, she feared for her life. Here again she was confirmed by her daughter. The result of what occurred was that Mrs. Nowell again left her husband, and went for protection to her brother. Was this violence of the plaintiff caused by the truth of his accusation? If so, then it was fully accounted for. If, on the other hand, they were the result of delusions, then they would say whether at the time of the terrible scenes of July and December, 1876, Mr. Nowell was or was not a dangerous lunatic. Mr. Williams hearing what occurred proceeded to Ramsgate with two men whom he left at the Albion Hotel, where he and the plaintiff subsequently dined, and then Mr. Williams returned to town with the two men. It was because of that transaction, which happened on the 20th of December, that the plaintiff's learned counsel sought to cover the allegations as to being followed by men with shiny hats, red faces and red whiskers. Well, these two doctors gave their certificates, and if they were trying whether those gentlemen had fulfilled the spirit of the Act of Parliament, he believed that every one of them would return a negative answer hostile to them. The Act required that the examination should be by two medical men separately and independently, and by men who had not directly or indirectly any interest whatever in any private asylum. The Act was conceived in a most wise spirit. It allowed the removal of a lunatic to an asylum, but it took care that that should occur only after separate and independent examinations by men totally without interest in any private asylum. Most unquestionably nothing could be worse than the proceedings adopted by those two men. Dr. Sabben was practically interested in Northumberland House to the extent of £700 a year, and as to the examination, it was true by the card that they examined the plaintiff separately, but they were like the figures in a Dutch barometer, the one walked out as the other walked in (a laugh). For this proceeding, however, Mr. Williams was not responsible, always supposing that when he employed the doctors he acted *bonâ fide*, believing that the plaintiff was a dangerous lunatic. So the plaintiff got into Northumberland House, and he made a statement to the Commissioners, which was perfectly true, complaining of the certificates under which he was detained. At first sight it appeared that the Commissioners also had disregarded the letter and spirit of the Act of Parliament. But they now knew from the evidence of two of their body that they had themselves carefully

examined the plaintiff, and they swore to their belief that he was a dangerous lunatic, and that it would have been extremely wrong to set him at liberty, or to do more than formally discharge him pending his re-examination. Mr. Nowell was brought to the Midland Hotel, and he saw no reason to suppose that if Dr. Bucknill or Dr. Kesteven had come to the conclusion that a mistake had been made in fact, they would not have so certified and the Commissioners would have ordered his release. It was a fair observation on the part of the Solicitor-General that although on this occasion also the letter of the law was not disregarded, the doctors approached the examination with an unfair predisposition towards the plaintiff. That, however, did not make their evidence good for nothing, while it no doubt called for a careful examination of their evidence, because they came to the examination of a man who they were told was mad, and as to whom there was a technical flaw in the certificates which they were to remedy. Back to the asylum he was sent. He made two attempts to escape, but on each occasion was recommitted to the asylum. Subsequently, after several requests, the Commissioners granted an inquiry and the jury found that he was not of unsound mind. They did not know what the evidence was which was adduced before the Commissioners, but it certainly was not the evidence which was before that Court; and without any disrespect to the jury who tried the question—for no doubt they found according to the evidence before them—he had to say that the period over which the inquiry extended was limited to two years before November, 1877. It left out all 1874 and the greater part of 1875, and they therefore did not hear a great deal of what those whom he now addressed had heard. The present was therefore a perfectly fresh inquiry. In the statement of his case which he sent to the Commissioners they would remember that Mr. Nowell stated that on accusing his wife of infidelity she owned it and said, "I suppose you did the same," and he then went on to say that a man was in his wife's room and escaped over the garden wall, and he further stated that the Crickets, of Ramsgate, were in the house, and got over his garden wall, and accused his wife of impropriety with them, to which accusation they and she gave a direct denial in their evidence, the value of which it was for the jury to weigh. The only thing which remained was the evidence of opinion. There were two classes of opinion—that of the attendants at Northumberland House—of the servants and others; and there was the opinion of scientific men. The former said they talked to the plaintiff on a variety of subjects and that he was quite rational, and there was no doubt that such was the case. On the other hand there was the evidence of scientific men on the subject of the supposed delusions. On the one side the plaintiff's medical men took for granted all he told them. On the other the medical men called by the defendant did not believe all he told them. His Lordship read the evidence of the medical men examined and continued to say that it had been observed that the medical witnesses of the defendant had shrunk from giving an opinion as to the present condition of the plaintiff. They had nothing to do with the plaintiff's present condition, and the doctors would have been themselves madmen if, without examination, they had given evidence on the subject. He had confined himself, as he said he would do, to matters which were proved or which were not contradicted, and to the documents in the case. The sole question was this—Was Mr. Williams, the brother of Mrs. Nowell, and her sole living protector, justified, or was he not, in the proceedings he had taken? If he was so justified, there was an end of the case. If they thought on the evidence that the plaintiff was at the times named a man of unsound mind and a dangerous lunatic, they were bound to find for the defendant. If, on the other hand, they thought that he was not a dangerous lunatic, and that Mr. Williams had wrongly interfered to protect his sister and her children, of course it became a question of damages. It was not, that he could see, a case in which the defendant had done anything or conducted himself in any way to enhance the damage done to Mr. Nowell. At the same time, they should remember that

he had been locked up and deprived of the opportunity of pursuing his profession; that his career in that respect had been cut short; that he was therefore damaged, and had a right to reasonable compensation. Was the plaintiff in 1875, 1876, and 1877 a person of unsound mind? If he was not, then by their verdict they should make Mr. Williams pay damages. If he was, then their verdict should be for the defendant. He should add that his object at an early stage of the case in suggesting that the proceedings should be laid before the Government had nothing to do with the action of Mr. Williams. He had said so because he knew that there were eminent persons in Parliament who had their minds much attracted to the working of the Lunacy Laws, and it seemed to him that the action of the certifying physicians was well worthy of being brought under the notice of the Government, in order that they might consider whether any change of the law was necessary in view of proceedings which he could not but think were wrong in themselves, and ought to be prevented for the future. That, however had nothing to do with the issue in the case—namely, whether the plaintiff was at the dates he had named or any of them a dangerous lunatic. If they thought he was not, then they should find for him. If, on the other hand, they should be of opinion that he was, then Mr. Williams, who in any case had had a most painful duty to perform, would be exonerated by their verdict from any further loss and unhappiness than that he had already been subjected to.

The jury, at 20 minutes past seven o'clock, retired. After an absence of an hour and 20 minutes, they returned, and said they found for the defendant.

The Foreman—The jury recommend with regard to lunacy certificates that each doctor be required to sign on separate papers, and not, as at present on the same paper. Also, we wish to record our opinion that the mode in which the certificates were given and the inquiries as to the certificates were carried on, on the part of the medical men, was very reprehensible and that the law requires alteration.

Lord COLERIDGE said that the recommendation of the jury would be forwarded to the proper quarter.—*The Times*, Nov. 14.

DARENTH ASYLUM, NEAR DARTFORD, KENT.

We can speak from personal knowledge of the excellent manner in which this institution is carried on. Dr. Fletcher Beach is indefatigable in the discharge of his duties as Superintendent. Miss Stephens pursues her arduous task of teaching with unabated zeal. May it continue. The carefully kept record of the capacities of the children, showing what, if any, has been the advance in the various divisions of knowledge, is very creditable to her.

In this Journal, vol. xxiv., p. 129, is a notice of the first two Reports of the Clapton Asylum now removed to Darenth. Those who, like ourselves, have visited both institutions, will have been gratified by the change in the accommodation and the facilities for carrying on the work of the asylum. The foundation stone of the Darenth Metropolitan Asylum was laid on the 19th October, 1876, by Dr. Brewer, the Chairman of the Board; and the school buildings were opened December 7, 1878. The contracts, exclusive of cost of land, amounted to £76,329; the accommodation being for 500 children. At the same date the foundation stone of the Adult Asylum was laid by Dr. Brewer—to be completed in twenty-one months from January, 1879. The cost is to be £60,000, for six blocks, for the accommodation of 744 patients, in addition to 54 single rooms.

When we visited the school we found 157 boys and 93 girls under teaching, there being in the asylum altogether, 412. Of the 250, 135 were on whole, and

69 on half time, and 46 were taught only in the afternoon. Hours:—Two in the morning, two in the afternoon, two spent in manual performance, as scrubbing, &c. In addition to Miss Stephens there were three assistants and four school attendants who helped in teaching—total, 8. There were seven mixed classes with an average of 29 children in each class, 203 were present on the day of our visit. There is a change of class every half-hour. It is striking to see the attention caused by the stroke of the bell. Then there was the playing of the piano, and “March!” Teaching music by the Tonic Sol Fa system had been lately begun, and was regarded as important, from using the intellect as well as the sense of hearing. In testing colours we found that blue and red were most frequently recognised.

The work done in the schools, up to the time of removing to Darenth, is thus described by Dr. Beach in a summary which he gave us on the occasion of our last visit:—

“During the 3½ years the Clapton Asylum was in operation, 625 patients were admitted, 130 discharged, and 106 died. Of those discharged, 5 boys and 3 girls were sent out ‘recovered,’ and are earning their livelihood; 8 boys and 3 girls were taken out by their friends, ‘much improved;’ while the remainder were either discharged at the request of the different Boards of Guardians, or were sent back to Leavesden and Caterham as unimprovable.

“The training of the children comprises a physical, moral, intellectual, and industrial education—physical, to improve the low organisation which they possess; intellectual and moral, to improve their minds, and instil proper feelings; industrial, in order that those who are capable of it may learn a means of livelihood, and may, together with those who are incapable of being trained to so high a standard, contribute towards their maintenance, and so lessen the expense as much as possible.

“The intellectual and industrial training go on side by side by means of the ‘half-time’ system. The more advanced boys work in the shops, &c., in the morning, and the schools in the afternoon, and *vice versa*. The girls in the dormitories, &c., in the morning, and the school in the afternoon.

“Of the 350 children in the Asylum at the time of this report, 295 attend school, where instruction is imparted by the teachers, according to the mental capacity of the patient. Those of low type are taught the form, colour, and size of objects, ideas of number being also imparted. Some are even incapable of learning such simple ideas, and have only to be amused. The higher classes are taught reading, writing, arithmetic, geography, drawing, sewing, &c., the ‘objective’ system of teaching being the key-stone of the instruction.

“32 of the boys are taught tailoring, 32 shoe-making, 3 carpentering, 2 gardening, 1 engineering, 6 assist in the dining hall, and 24 work in the dormitories.

“20 of the girls work in the dormitories, 8 assist in household work, 2 in the laundry, 2 in the sewing room, and 3 in the detached infirmary.

“There is, in fact, the greatest difference between an untrained imbecile child and one who has received instruction. The former sits listless in a corner, seeing but not perceiving, and generally leading an animal existence; the latter takes an interest in the little world around him, and, as far as in him lies, does his best to make himself useful.”

The *practical results* may be summed up as follows, leaving out of consideration for the present those patients who have been discharged “recovered” and “much improved:”—

“All the boots and shoes, and nearly all the clothing of the boys, are made by the imbecile children. In the tailor’s shop there are five boys who are able to make a suit of clothes almost without assistance; while, in the shoemaker’s shop, there are two boys who can make a pair of boots with a little occasional help. All the boys are assisting in the work, or undergoing training. Two

girls are able to work the sewing machine, and can make beds with a little assistance, and help generally in the work of the Asylum.

"Last year, in the tailor's shop, were made: 128 coats, 209 waistcoats, and 214 pairs of trousers; while 1,142 coats, 684 waistcoats, and 2,261 pairs of trousers were repaired. In the shoemaker's shop were made: 146 pairs of boy's, and 334 pairs of girl's boots, and a very large quantity were repaired. In the school-room, besides the instruction imparted, 236 different articles were turned out.

"The estimated value of the boys' labour in the workshops and dormitories was, during the year, £148. The girls' labour in the dormitories, household work, sewing-room, school-room, &c., during the same time, was valued at £100.

"It is thus seen that the temporary asylum at Clapton fairly performed the work for which it was originated, and it is confidently expected that in the new Asylum much greater results will be obtained."

From the 1879 Report, we find that the number resident in the Asylum, January 1, 1879, was: 196 males, 143 females, total 339. Of 56 discharged since December, 1877, 30 had gone to other District Asylums, being over 16 years of age, and incapable of learning anything; 6 had been discharged at request of Guardians, improved, and 6 not improved; 4 had been transferred to County Asylums; 4 had recovered; 84 went to the Homerton Fever Hospital; while 2 had escaped, and 20 had died. The number of children actually attending school, January 1, 1879, was 174. As will be seen the numbers at the time of our subsequent visit were higher.

The daily cost per head during the last half year was 1s. 11½d.

The Commissioners observe in their Report:—"Dr. Fletcher Beach continues to discharge with zeal and ability the office of Medical Superintendent."

D. H. T.

RETIREMENT OF DR. LAUDER LINDSAY FROM THE PHYSICIAN-SUPERINTENDENCY OF THE MURRAY ROYAL ASYLUM, PERTH.

After twenty-five years of active service, Dr. Lauder Lindsay has retired. We regret to learn that it was the state of his health which made this step necessary. He has been one of our hardest workers, not only in the department of psychological medicine, but also in the fields of botany, and comparative psychology. His work on Lichens and his recent most exhaustive book on "Mind in the Lower Animals," are monuments of industrious research. Our department of medicine can scarcely afford to lose the few men in it who have made names in general science. The younger generation of our *confrères* need to look to their laurels, if they are to achieve such well-merited fame as Dr. Lindsay has done. To us it seems that those habits of steady systematic and self-denying industry, are not so common as they might be. The routine of official work is apt to distract the mind from the claims of science and original research. Dr. Lindsay takes into his retirement the best wishes of many of our readers for his health and happiness.

FIRE IN THE LENZIE ASYLUM.

A fire which might have resulted in disastrous consequences, but which, owing to the successful measures adopted, was confined to the portion of the building in which it originated, occurred on the 16th October, at Woodville Asylum, about seven miles from Glasgow. The Asylum is one of the most recently erected in Scotland, having been opened about four years ago. The

building is in the Elizabethan style of architecture, and cost £167,000. It contains 500 beds, is 700 feet long, and 450 feet deep, covering six acres. Its most prominent feature is two handsome towers, which rise from the east and west sides of the central or administrative block, to a height of 150 feet, the upper 30 feet being of wood. On Thursday, 16th October, at four o'clock in the afternoon, the wood-work of the west tower was observed to be on fire, having been ignited by a spark from a neighbouring chimney. Every endeavour was made to quench the fire with buckets of water obtained from a large tank immediately below the burning woodwork. It was soon, however, evident that the woodwork of the tower was doomed, and that moreover the surrounding buildings were in great jeopardy. The Asylum Fire Brigade had been by this time called out, and directed their efforts to isolating the fire by guarding the roofs of the main buildings in the vicinity of the tower. In this they were successful, for although the roof several times caught fire, it was promptly extinguished. The roofs were kept safe by deluging with water the burning rafters and sparks which fell upon them. At half-past six the danger to the surrounding buildings was considered past, the wooden portion having subsided within the stonework of the tower, which now bore a striking resemblance to a huge smelting furnace. The doors leading from the bottom of the tower had been built up with turf. The Glasgow Fire Brigade arrived at about seven o'clock and speedily extinguished the fire within the tower.

The Asylum was fortunate in having a well trained fire brigade, which when fire did occur, proved of essential service. When the fire brigade was called out, all patients and attendants in the grounds, workshops, laundry, &c., were brought to their respective wards, those in the division next the burning tower being distributed amongst the others until the danger was past. There was really no excitement amongst the patients, and the order that prevailed was very striking. The ringing of the tea bell and the issuing of that meal at the usual hour, had a reassuring effect upon all. The patients were quietly put to bed at eight o'clock; those in the division next the tower, with a portion of their clothing on; and next day the routine of the asylum went on as usual.

AFTER CARE OF CONVALESCENTS.

Another meeting of the Association for assisting insane convalescents (See Journal for Oct., 1879), was held on the 27th November. Lord Shaftesbury has kindly consented to become the Patron. A Committee of ladies was appointed, who enter heartily into the work. The question of providing a Distinct Home was discussed. It was decided not to proceed with this at present, but to be content with endeavouring to provide temporary homes in cottages and other houses, and finding suitable places for servants willing to go out to service.

In connection with this movement, we extract from the last Report of the New York City Lunatic Asylum (Blackwell's Island) the following paragraphs (by Dr. Strew), headed "Situations Procured for Patients":—

"In an Asylum of this kind there are many patients who after recovery find it difficult, or almost impossible, to procure employment. Mrs. George Riley has deeply interested herself in behalf of these, and through her efforts has succeeded in procuring situations for at least one dozen of these recovered patients, who are all doing well, and by their good behaviour rewarding her for the interest manifested in their behalf, and although no longer amenable to the rules and regulations of the Asylum, she continues to keep a watchful and supervising eye over them.

"It is to be hoped that many other friends of these unfortunate patients will be induced to follow the laudable example of this lady, and enlist in this good cause.

"In connection with this subject, I would respectfully suggest that a small appropriation be made by your Honourable Board, to enable some of these recovered patients, who are friendless and without means, to once more pursue their usual avocations, and again face the world. For instance, a poor servant-girl is sent to the Asylum wearing on her person all her worldly effects; she is a case of acute mania, and has already torn or destroyed, or so damaged her clothing that it is no longer fit to be worn. After a lapse of time she recovers, is restored to reason, and is told that she can leave the Asylum. 'I have no clothes to wear, no means to procure a night's lodging or the necessary daily food, until I can obtain a situation,' is her reply. She has no friends. What is to be done in such a case? To send her to the Alms-house is repugnant to her feelings; to send her to the city penniless is to expose her to temptation. The matron does what she best can as far as supplying her with clothing and making her look as decent as possible under the circumstances, and she leaves the Asylum to again battle with the world. A dollar or two given at this period might be the means of saving her. It is for this class that I make the appeal, and candidly and honestly consider that, in most instances at least, if not in all, this fund would not be misapplied. Heretofore, whatever money has been furnished to these patients has been supplied by myself or the matron, who preferred providing the necessary temporary means of sustenance rather than see them exposed to want."

INDEX MEDICO-PSYCHOLOGICUS.*

JOURNALS AND TRANSACTIONS.

ENGLISH.

- The Journal of Mental Science. Quarterly.
 The Journal of Psychological Medicine and Mental Pathology. Semi-Annual.
 Brain. A Journal of Neurology. Quarterly.

AMERICAN.

- The American Journal of Insanity. Quarterly.
 The Journal of Nervous and Mental Diseases. Quarterly.
 Proceedings of the Association of Medical Officers of American Institutions for Idiotic and Feeble-Minded Persons. Annual.
 Neurological Contributions. New York. Quarterly.
 The Quarterly Journal of Inebriety. Hartford, Conn., U. S. A.

FRENCH.

- Annales Médico-Psychologiques. Bi-Monthly.

* We purpose to give some pages of this Bibliography, according as our space permits, in future numbers of the Journal. We had intended to make the Index commence with January, 1879, but have been induced to include a considerable number in the first list, which bear the date of 1878. We must express our acknowledgments to the "Index Medicus," compiled by Billings and Fletcher, New York, a work ranging over the whole area of Anatomy, Surgery, Medicine, Dentistry, Hygiene, and Veterinary Medicine. If it is even a task of some labour to extract such publications as bear on Psychological Medicine, and add others from other sources, it is not difficult to form some idea of the colossal labour which the above-mentioned medical men have undertaken. We have found it difficult to know where to draw the line, but have included some articles on Epilepsy, Hysteria, Catalepsy, Dipsomania, &c. We began by including works on the physiology and pathology of the nervous system, but were obliged to relinquish so extensive a range of medical literature, important as many of the works are which we have excluded from our catalogue. But, wherever we draw the line of demarcation, it must be arbitrary, because no such division exists in nature.—D. H. T.

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Appointments.

ADAM, J., M.D., appointed Medical Superintendent of the Crichton Royal Institution, Dumfries, vice Gilchrist, resigned.

BEATTIE, JOSEPH A., L.R.C.S.I., and L.K.Q.C.P., Ire., appointed Assistant Medical Officer, Hospital for the Insane, Parramatta, N.S.W., vice Scholes.

BLAXLAND, HERBERT, M.R.C.S., L.R.C.P., appointed Assistant Medical Officer Hospital for the Insane, Gladesville, N.S.W., vice Erith.

CAMPBELL, P. E., M.B., C.M., appointed Junior Assistant Medical Officer to the Warwick County Asylum, vice Urquhart, resigned.

GEOGHEGAN, E. G., M.D., L.R.C.S., Ed., appointed Assistant Medical Officer to the Gloucestershire Lunatic Asylum, vice Jones, resigned.

JOSEPH, THOS. MORGAN, M.R.C.S., L.S.A., appointed Medical Superintendent, Hospital for the Insane, Gladesville, N.S.W., vice Dr. Manning.

LEGGE, R. J., L.A.H.D., appointed Assistant Medical Officer to the Wye House Lunatic Asylum, Buxton, vice Daniel.

MACBRYAN, H. C., L.R.C.P., Edin., L.R.C.S., Edin., appointed a Clinical Assistant in the West Riding Asylum, vice Rutherford.

MACDONALD, P. W., M.B., C.M., appointed Second Assistant Medical Officer to the Parkside Asylum near Macclesfield, Cheshire.

MANSON, A. J., M.D., M.R.C.S., Edin., appointed Visiting Surgeon to the Banffshire Lunatic Asylum, Banff, vice Clayton, deceased.

MANNING, FREDC. NOETON, M.D., appointed Inspector General of the Insane, New South Wales.

RUTHERFORD, R. L., L.K.Q.C.P.I., appointed Assistant Medical Officer to the Durham County Lunatic Asylum.

SAVAGE, GEO. H., M.D., L.R.C.P., Lond., appointed a Member of the Court of Examiners of the Society of Apothecaries.

SCHOLES, RICHD. BATTERSBY, M.B., Edin., appointed Medical Superintendent, Hospital for the Insane, Callan Park, N.S.W., vice Dr. Manning.

URQUHART, A. R., M.D., appointed Physician-Superintendent to Murray's Royal Asylum, Perth, vice Lindsay, retired.

ERRATA.

Oct., 1878, p. 400, line 1, for "Muscular Atrophy," read "Insular Atrophy."
 P. 454, for G. E. Crallan, M.R.C.S., Edin., read G. E. Crallan, M.R.C.S., *Eng.*

DESCRIPTION OF THE ILLUSTRATIONS AND OTHER
MATTER NOT INCLUDED IN THE PAGINATION OF
VOL. XXV.

No. of Journal.	Page of Vol.
109. A 4to page <i>type printed</i> TABLE, folded, showing the mean numbers resident and annual percentage of deaths in the "Royal," the "District," the "Parochial," the "Private Asylums" and the "Lunatic Wards of Poorhouses," in Scotland, 1870-76. Description is in the article "On Death-rate of Persons in Asylums" [in Scotland] by ARTHUR MITCHELL, M.D.	8
109. An 8vo page LITHOGRAPH PLATE, subject lettered being "Lunatic Asylum, Cairo, Egypt"— <i>Sketch of Ground Plan.</i> " Description in the article on "Two visits to the Cairo Asylum, 1877 and 1878," by A. R. URQUART, M.D., and WILLIAM S. TUKE, M.R.C.S.	43
110. Two 8vo page LITHOGRAPH PLATES containing five figures, subjects unlettered. "PLATE I." containing "Fig. 1, 2," being microscopic representations of sections from the <i>Right (non-atrophied) hemisphere.</i> "PLATE II." containing "Fig. 3, 4, 5," being microscopic representations of sections from the <i>Left (atrophied) hemisphere.</i> Description is in the article on "Paralytic Idiocy," by HERBERT C. MAJOR, M.D.	165
111. An 8vo page LITHOGRAPH PLATE, containing three figures, subject unlettered. "Fig. 1" being a "reduced one half" <i>Section of the Cranium, with the Diameters lettered.</i> "Fig. 2, 3," being microscopic histological representations of <i>Sections of the Brain.</i> Description is in the article on "The Brain of a Hydrocephalic Idiot," by A. CAMPBELL CLARK, M.B.	340
111. An oblong folio page LITHOGRAPH "Heliotype" printed PLATE, tinted, folded, and containing many figures. Subject lettered being "Bird's eye View of Hospital Home for 200 Insane Patients." Size 8½ in. × 26 in. Description is in the article on "Asylum or Hospital Home," by T. S. CLOUSTON, M.D. (<i>See the following descriptions</i>).	368
111. Four oblong folio page LITHOGRAPH PLATES, containing many figures, all folded, and all being lettered, being "Asylum or Hospital Home for 200 Patients." "Sheet No. 1." "Block Plan," size 8½ in. × 15½ in. "Sheet No. 2." "Ground Plan," size 8½ in. × 12 in. "Sheet No. 3." "Wards," size 8½ in. × 10 in. "Sheet No. 4." "Plan of Blocks," size 8½ in. × 11 in. Description is in the article as before stated, by T. S. CLOUSTON, M.D.	388
112. An 8vo page LITHOGRAPH PLATE, tinted, subject unlettered, "Fig. 1, 2," being microscopic representations of sections showing <i>Spots of Miliary Sclerosis.</i> "Description of Plate," is in the article on "Diffused Cerebral Sclerosis," by T. W. MCDOWALL, M.D.	494
112. An 8vo page "autotype" PLATE from photographs, containing two portraits of females, subject lettered being "Cases of Myædema." Description is in the article on "Myædema," by GEO. H. SAVAGE, M.D.	518
112. A type-printed Editorial additional Note, containing 13 lines, unpagged. Subject lettered being "NOWELL v. WILLIAMS.	525
111. An 8vo type-printed "Rules of the Medico-Psychological Association. Adopted 30th July, 1879." Separately paged i to xiv. Issued in No. 111, October, 1879. May be bound at the end of the Volume.	

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