He goes on, after settling what matter is and what nonmatter is, to discuss the entire mechanism of man—tells us how we grow, how we live, how we sicken, and how we die; what mind is, what is its mechanism, and what are its functions; what the soul is, where is its dwelling-place, and what is its shape after death. Yes; the soul, he declares, must have some definite shape, and there is no reason why it should change its shape when it enters upon its new phase of existence after death. Has the hunchback a crooked soul? Has the amputated body an amputated soul? These are questions which he shirks not to consider and answer. soul must have power, he demonstrates in accordance with the strict methods and rules of science, to penetrate the most solid substances: "it is as certain as any fact in nature that, if permitted to revisit this world, it could come into a room with closed doors and stand in the midst with even more facility than the material body when living could have entered through the doorway." Alas, poor ghost! that has attained not rest and peace in the grave, but art doomed for a certain term to walk the earth and give attendance at spiritual séances. Serjeant Cox is the president of a society which calls itself the Psychological Society of Great Britain: it is a society which certainly cannot lack material for investigation; for it is evident that its members must themselves furnish instructive studies in psychology.

## PART III.—PSYCHOLOGICAL RETROSPECT.

## 1. English Retrospect.

We greatly regret that the following notice of Reports of Asylums for 1874 should have been postponed, through pressure on our space, till now:—

ABERDEEN.—Dr. Jamieson, like many superintendents, objects to the number of incurable cases placed under his care. He says:—Observation tends to the conclusion that the operations of this hospital, as of others of a like nature, are liable to be influenced by a growing inclination to remit to the charge of an asylum for the insane various cases of mental weakness sometimes accompanying the latter stages of several physical diseases, which properly should be cared for at home, or be put under treatment in infirmaries and incurable hospitals. In particular the associated debility of body and dulness of mind, which

in so many is connected with advanced years, is too frequently sent to find its termination amongst the insane."

Dr. Jamieson does not say where he would propose to place such persons. It may be that there is as much true humanity displayed in prolonging the life of the incurably insane as in the management of acute cases.

Avr.—There is nothing in this report calling for special notice, except the fact that three of the staff of servants entered the asylum as patients. One most striking omission in this report is the absence of the statistical tables of the Medico-Psychological Association. It is the only new asylum in Great Britain where they are not to be found. We would urge Dr. Skae to remedy this next year.

BERKSHIRE.—This asylum, though opened so lately as 1870, is now almost quite full, and it is necessary to consider the question of enlarging the accommodation. When we consider that out of 101 admissions no fewer than 43 had been detained in workhouses for various periods, we can sympathise with Dr. Gilland in his protest against this system. He says:—"Upon this subject it may be remarked that the natural inference to be deduced from the experience of the last twelve months in this asylum appears to be that the asylum is yearly becoming more of a lazaret for the incurable and worst cases of mental disease that have already been sifted, so to speak, by a probationary residence in the workhouse, and that while curable cases are detained in those institutions to their manifest detriment for indefinite periods, some, who have become obnoxious on account of filthy habits, and others who are apparently in a dying state, are removed to the asylum, the latter at considerable risk, and with no other effect than to hasten the impending fatal result. And whether this bad system has been fostered by the recent enactment whereby the Unions will be recouped by the State to the extent of four shillings per week for each patient placed under asylum treatment, is a question well worthy of consideration, and one to which no doubt some would be inclined to give an affirmative reply.'

The report of the Medical Superintendent extends to thirty-six pages. It is possible that greater brevity and less detail would secure more readers.

Bristol.—Typhoid fever having appeared in this asylum, it was found that the typhoid poison existed largely in the asylum water supply. During 1873 and 1874, 21 cases occurred, causing three deaths.

Plans for the enlargement of this asylum have received the necessary approval, and will shortly be carried into effect.

Cheshire, Macclesfield.—One or two subjects of considerable importance are noticed in Dr. Deas' report of twenty-eight pages. He

points out forcibly the evils of placing recent cases in workhouses. We have already given Mr. Ley's and Dr. Gilland's remarks on this subject, but from its importance produce further testimony in the same direction. He says:—"I have reason to believe that this objectionable practice still largely prevails in certain Unions—in spite of the capitation grant from the Consolidated Fund. A great deal is made of the undoubted fact that cases recover in the Workhouse wards; as well, it is said, as they would do in the asylum, and thus the workhouse and the asylum come to be regarded, as in some sense, rival institutions. The asylum may be better in some respects, but then it is undoubtedly more costly! As long as this feeling prevails, I doubt very much if even the Treasury bonus will have a very decided effect; and the asylum will still continue, to a large extent, to be reserved for the 'bad cases,' or those with whom the treatment in the workhouse has failed, whether viewed from a legal or a general point of view. The workhouse should either be an asylum de jure as it is de facto, or it should cease to be an asylum at all. I cannot help thinking that if attention were once fairly called to this matter, the public would be startled to find how systematically the provisions of the Lunacy Act are evaded; and that every day people are practically admitted into and detained in asylums without any legal formalities whatever. If it be granted that workhouses should not be used for the reception of recent cases of insanity, a legislative enactment would be necessary, forbidding in future any persons of unsound mind being admitted into a workhouse unless transferred from an asylum by a proper order. To meet cases where there was a deficiency of asylum accommodation, temporary licenses might be given to workhouses, to receive cases under a proper legal order and certificate."

Dr. Deas objects to special dormitories for epileptic and suicidal patients. He attempts to support his position by quoting Dr. Strange, and states further: "I laid certain considerations before the Committee, leading me to doubt the wisdom of such an arrangement; and my objection was two-fold—first, the plan was bad in itself as a principle of treatment, and secondly, that it would be extremely difficult, if not impossible, to carry it into practice, except to a very limited extent. In substance, I said that it was opposed to sound principles of treatment to congregate together, even at night, numbers of patients differing in every possible respect, except they could be all labelled as either epileptic or suicidal. I pointed out how great the differences were between the different classes of epileptics—some quiet and cleanly, some violent and degraded, &c.; and I specially dwelt on the impropriety of associating suicidal cases together, insisting that our aim should be to place them with lively, cheerful cases, or cases so sensible that their assistance might be useful, mentioning, also, the well-known fact that the suicidal impulse is undoubtedly in-

fectious, and also imitative.

With regard to the practical difficulties I pointed out—first, the difficulty of finding any part of the asylum where the plan could be carried out, except very partially; and, secondly, the amount of moving of patients backwards and forwards which it would involve, the risks that would thus be run, and the discomfort which would be caused. The Committee endorsed these views; but the opinions of the Commissioners were in no way altered; and after further correspondence, the matter dropped, the Committee finally expressing their willingness gradually to increase the number of night attendants, so as ultimately to have one in each block. In two Reports, however, which the Commissioners have made since, on their annual visits, they again refer to the matter, and strongly urge some steps being taken to carry out their views.

"Now something has been done; and I wish to indicate exactly what it is, and how far I feel disposed to go in the direction indicated by the Commissioners. As I have already said, in one of the wards I have collected together a certain number of the worst class of epileptics, and some go to sleep in that ward from the infirmary, which is close at hand. These patients are themselves classified into two

groups, and occupy two dormitories.

"One of the night nurses sits in the room between these; and her duties are limited to that ward, and to visiting No. 3 Ward, where the more violent patients are, in conjunction with the other night nurse. No suicidal patients sleep in that ward, as such. A similar arrangement is about to be made on the men's side. But although this is all the length I feel disposed to go, to meet the views of the Commissioners, I would go much further in another direction. There cannot be a question, I think, that the ordinary amount of night nursing thought necessary in an asylum is far too little, and had the Commissioners tried to institute a reform in this direction, I should willingly have backed up their suggestion. One great flaw in what I may call the 'epileptic and suicidal' plan, is that attention is solely paid to certain classes of cases to the exclusion of many others equally important and urgent. Moreover, to my mind, it is putting the cart before the horse, to bring the patient to the nurse, instead of sending a nurse to the patients. To do this, viz., to have a separate night nurse in each ward, while it would secure the main objects of the Commissioners, would at the same time accomplish many others equally important, and remove a blot from our asylum management.

"In very many cases of insanity, all the symptoms are much aggravated at night; and I have no doubt whatever that more systematic night nursing would not only promote treatment and recovery in recent cases, but would tend to tranquillity and contentment amongst the chronic ones, and thereby diminish difficulties, and save expense in the checking of destructive or uncleanly habits. To enumerate some of the duties which would devolve on such a night nurse: there

are the epileptic patients who must sleep in single rooms, even if you associate some together; suicidal patients; special cases of illness; restless and sleepless cases. In attending to such, in giving nourishment to one, a drink to another, medicine to a third, covering up a patient who is restless, making the bed of another more comfortable, attending to the personal wants of those who cannot or will not help themselves; and in many other ways ample work could be found, and I believe a great amount of good effected."

Such independence of opinion, expressed so argumentatively and temperately, "with reasons given," is a healthy symptom. Would

that it were more common.

Cheshire, Upton.—Means are being taken to provide an ample water supply in case of fire, and the insurance on the building has been increased to £70,000. Various additions and structural improvements have been made at a cost of £3,000.

The following paragraph is interesting as bearing upon the subject of night supervision of epileptics, &c.:—" Now that we have had experience of the system of special night supervision for a period of nearly three years, I take the present opportunity of stating that I have found it fraught with great benefit to the patients of the character above mentioned, and that I cannot too strongly recommend it. In fact, since the introduction of the system here, there has not been a single instance of a patient dying in an epileptic fit during the night."

DERBY.—We entirely agree with Dr. Lindsay when he says—"It is to be regretted that deception is still occasionally resorted to by those conveying patients to the asylum. The patient is told that he is being taken a trip to Scarborough, that he is going for a drive in the country, or that he is going to see a doctor and then return home. With the insane, as with the sane, honesty is the best policy. Candour and truthfulness should invariably be observed."

Concerning "Derbyshire neck," it is remarked that 11 females, being 12 per cent. on the total female admissions of the year, were affected with goître. It would appear, however, that the popular name really is a misnomer, and Derbyshire neck is more common in Yorkshire than in the county from which it takes its title. The disease appears to be most frequently associated with melancholia; more than half of those admitted at Mickleover during 1874, suffering from goître, laboured under this form of mental disease.

A system of continuous night supervision of epileptics has been established. Dr. Lindsay reports that his experience of this arrange-

ment is all in its favour, and that he has had no difficulty as regards the patients or attendants in bringing it into use.

DUNDER.—The following paragraphs in Dr. Rorie's report furnish most important evidence on the question of the transfer of lunatics to the workhouse:—

"Of the patients who have left the asylum not recovered, 28 were transferred to the lunatic wards of poorhouses. As ten years have nearly elapsed since this means of disposing of the insane came into operation in this neighbourhood, a suitable opportunity is afforded of examining how far the expectations formed of this system have been realised. These wards were opened in the belief that many patients were in this asylum, and in that of Montrose, of so harmless and incurable a character that they could be maintained at less expense than was incurred in keeping them in asylums; and so advantage was taken of the provision made by the Lnnacy Act of 1862 for the reception of pauper lunatics into lunatic wards of poorhouses who were not dangerous, and did not require curative treatment; and the mode of transfer selected was that of obtaining the sanction of the Board of Lunacy, granted on the strength of a medical certificate given by the Medical Officer of the parish. At first difficulties were experienced in deciding on the suitable patients, in consequence of the ambiguous nature of the statutory terms: for while, on the one hand, it was no easy matter to say when a lunatic sent to an asylum, and thus removed from the possibility of doing harm, ceases to be dangerous; on the other, it was scarcely to be expected that the parochial Medical Officer, at a single visit, could declare that the patients had or had not ceased to be capable of deriving benefit from asylum treat-These difficulties, however, were overcome, but in a manner, it is to be feared, scarcely in accordance with the spirit of the Lunacy Act; for when it was proposed to remove patients to these wards, the plan hitherto adopted has been for the Inspector of Poor, accompanied by the Governor of the Poorhouse, to visit and examine all the patients belonging to their parish, and to select those considered to be The Medical Officer of the parish was then sent to reexamine and certify those selected, and the necessary sanction of the Board of Lunacy was then obtained. It will thus be seen that the selection of the patients has virtually rested with the Inspector of Poor and the Governor of the Poorhouse; and the result, it need scarcely be said, has been that, instead of the harmless and those not requiring curative treatment, the class of patients secured for those wards has consisted of the useful, manageable, cleanly, and orderly, and, in many instances, of convalescent cases, the burden of whose treatment during the acute and dangerous phase of their illness had been borne by the asylum; while the fatuous and paralytic patients, for whom little can be done in the way of curative treatment, have been systematically rejected, in consequence of the expense and trouble that would have been incurred in attending to their necessary wants. The patients removed have, therefore, been in a preeminently favourable condition; and it now remains to be considered whether the economy so much expected has been realised, and whether the patients themselves are benefited by the change or the reverse.

For many years statements have been made by the parochial authorities, from time to time, which appeared to exhibit an important saving in the maintenance of pauper lunatics in poorhouses, as compared with asylums; such as, that while 9s. 6d. per week was charged by the Dundee Asylum, the cost of the patients in the poorhouse wards was 5s. 6d. But a very superficial examination only was required to discover the source of fallacy; for while the 9s. 6d. charged by the asylum covered all expenses, the parochial rates were arrived at by excluding salaries of officials, attendants, &c., and by deducting a certain sum as representing the value of work done by the patients. More correct information has been recently published as to the actual expense incurred in keeping pauper lunatics in poorhouses, and it will be seen that it must be regarded as extremely doubtful whether any material saving has been effected at all, especially when the different character of the patients in asylums and those in poorhouses is borne in mind. Thus, at a meeting of the Committee of Management of the Liff and Benvie Parochial Board, held on the 26th May of this year, the Chairman reports, inter alia, as follows:—" About a week or ten days ago there was a communication from the City Parish of Edinburgh, requesting them to go very carefully into the cost of lunatics kept in poorhouses, with a view of bringing the matter again before the Exchequer. The Inspectors, at the request of the sub-committees, did so, and it was found that the cost of food and clothing in Dundee was about 5s. 4d., and in Liff and Benvie, 5s. 5d.; while the whole cost, including management, &c., was 8s. 4d. in Dundee, and 8s. 6d. in Liff and Benvie," or 6d. per week more than was charged by the Asylum when the lunatic wards were first opened.

"Now, will the result to the patients be found more satisfactory? In estimating the effects of the treatment of the insane, the most reliable test which can be applied is a consideration of the rate of mortality and of the causes of death. Valuable information on this subject is supplied in the Annual Reports of Her Majesty's Commissioners in Lunacy, and these returns show that from the 30th December, 1864, to the 30th December, 1872, 68 patients were admitted into the lunatic wards of the Liff and Benvie Poorhouse, and 150 into those of Dundee; and that of the former 19, and of the latter 40 patients have died, or 27 per cent. of the whole number; while the corresponding calculation for the Asylum gives 15.5, or, if the patients admitted in a moribund or confirmed paralytic condition be excluded, only 11.88 per cent. It is difficult to understand why so great a difference in the rates of mortality should exist, but in many instances it would appear as if the mere transference of the patients from the one institution to the other was sufficient to cause death. This seems to have been particularly the case in the male patients first transferred to the Liff and Benvie Poorhouse: 6 were removed in 1864, 8 in 1865, 2 in 1866, and I in 1867; 16 of whom were patients who had, while in the Dundee Asylum, for many years enjoyed good, and in some instances,

robust health; yet of these, 1 died in 1865, 2 in 1866, and 7 in 1867; 10 out of the 17, or nearly 59 per cent. of the whole, within a period of three years. This mortality was made the subject of a special investigation by the Board of Lunacy, but no adequate causes were elicited. It is worthy of remark, however, that a large proportion of the deaths in poorhouses have arisen from phthisis, pneumonia, bronchitis, diarrhea, dysentery; diseases of comparatively rare occurrence in this Asylum, and generally considered to be the result of exhaustion, undue exposure to cold, and insufficient nourishment. 17 of the patients sent to the poorhouses were returned to this Asylum as unsuitable."

Dr. Rorie appends the following note to his report:—" In consequence of the discussion which has ensued since the above report was read, two tables have been prepared, and are appended; one showing the yearly mortality of the pauper patients in the Asylum and in the lunatic wards of the Dundee and Liff and Benvie Poorhouses, and the other the comparative mortality, corrected by Table XV.: both calculated on the average number resident. By this mode of calculation it is impossible to arrive at the same precision as when the mortality is estimated on the numbers under treatment: 1. In consequence of the patients in the lunatic wards of poorhouses being stationary, while those in the asylum are the reverse; 2. Because fully 50 per cent. of the asylum mortality occurs in the treatment of acute and recent cases, which are not received into the lunatic wards of poorhouses; and 3. In consequence of the patients removed to these wards being a select class. Whatever mode of calculation is adopted, the result would appear, however, to be the same, namely, that during the eight years ending 1872—that is, so far as statistics have been published—nearly double the actual mortality has taken place in the lunatic wards of these poorhouses than has occurred in the Asylum."

EDINBURGH: MORNINGSIDE.—Extensive structural alterations are here in progress or in contemplation, and a determination is expressed by the managers to place the establishment in harmony with the advanced views of the day.

Dr. Clouston reports concerning the cases admitted:—"The number whose malady was characterized by depression of mind was most unusually large. I find no fewer than 88 under the head of Melancholia, a number greater by 70 per cent. than the average number classified under that heading during the previous ten years, though, as we have seen, the excess of admissions this year was only 14 per cent. Many of the worst of these cases were more desperately intent on taking away their own lives than any patients I ever had. The ingenuity, determination, and persistence of this suicidal propensity in some of them would scarcely be believed by any one who had not experienced it. Some of them had, in addition, the impulse to destroy those near them; and the treatment and management of this combination of circumstances is, as you may imagine, attended with no small difficulty

and danger to all who have to do with them, and occasioned the greatest anxiety to myself. One patient tried to swallow everything he could lay his hands on, from the ink used by his fellow inmates of the ward to write their letters, to any small stone he could pick up. One day, before we knew his propensities, he swallowed 82 small stones, weighing 24 ounces, and was none the worse for it. He picked nails out of the wood-work, and tried to push them into his heart, and tried to starve himself so persistently for months, that he had to be fed with the stomach-pump. He required two attendants, one by day, and the other by night, to be with him all that time. Another man broke a piece of the tumbler out of which he was drinking, and inflicted a wound, fortunately slight, on his throat in a moment; and afterwards, when closely watched, would attack his attendant, to prowoke him, he said, to kill him, so that he had to have two attendants all the time near him. We have had a number of such cases during the year, any one of which I should formerly have thought bad enough to be the worst case in two or three years.

The statement of the number of melancholics admitted during the year led to a lively discussion in the Edinburgh newspapers, as to whether this had or had not resulted from the religious revival movement under Messrs. Moody and Sankey.

FIFE AND KINROSS.—So far as we know, no other asylum has adopted the "open-door" system, introduced here by Dr. Batty Tuke, three years ago, and continued by his successor, Dr. Fraser. In the report by the Medical Superintendent, it is stated that he has "no hesitation in saying that the introduction of this system will mark an era in the history of the treatment of the insane." Dr. Fraser desoribes the system as follows:—"As you are well aware, there are no high boundary walls surrounding the ground, and the entrancegates stand always open. To make this system as clear as possible, let me suppose that a visitor calls and wishes to see through the asylum. He is received at the front door, which will be found open; he is then conducted through the whole of the male galleries, containing over 90 patients, and thence via the dining hall, through five of the other galleries on the female side, also containing over 90 patients, without once coming upon a locked door. Not only is there this free communication inside the house, but the outer doors of the main ground corridors, which open out on the terraces, are also unlocked. The male convalescent building, which contains from 20 to 25 patients, has its doors open shortly after 6 a.m. till 8 p.m. The inmates are, of course, on parole. Two galleries in the female department still remain under the old system of locked doors. Though not necessary for the majority of their inmates, yet the erratic and mischievous tendencies, as well as the excitement of some three or more in each division, render locked doors necessary.

"Greater contentment is, I believe, the result of the innovation I have

just referred to—the sense of confinement, or, in other words, of imprisonment, of which even a lunatic is conscious, is absent. The asylum is converted into a home and a hospital.

"A greater number of escapes and accidents would à priori be expected from this state of freedom. The escapes have been nine in number, and there are only two which can be attributed to open doors. Four accidents, none of any import, except the suicide previously detailed, have occurred during the year, but none in any way attributable to this system."

INVERNESS.—Dr. Aitken says a careful analysis of the dismissals has shown that in 6 cases the recovery was due to residence, in 6 to hygiene, in 6 to hygiene and medicine, and in 19 to medicine alone. In all these cases, it has been observed as in former years, in which medicine can unhesitatingly be set down as the principal element in the restoration of the patient, the recovery has taken place within a more limited time than in those who are indebted for their mental health to other influences available in an hospital for the insane. Thus, after withdrawing the exceptional case, whose excitement may be said to have exhausted itself after a residence of 6 years and 9 months in the Asylum, and dividing the cases into the various categories under which the different influences affecting the recoveries have been classified above, it has been found that those who owe their recovery to medicine were only resident, on an average, a little more than 5 months in the asylum; whilst on an average the recoveries due to hygiene and medicine were resident for 11 months and 2 weeks; those to residence 28 months, and those to hygiene alone 29 months. Another proof of the further beneficial effects of the medical treatment of insanity was accidentally brought out in considering the subject of readmissions, in which it was found that of those who had recovered under medical treatment, only 1 in 13 had returned to the Asylum; in those whose recovery was due to mere residence, 1 in 4 had returned; whilst of those who had been restored to reason by removal from exciting causes, most of them had to be again placed under supervision. Such a result is certainly encouraging, and points more and more to the necessity of asylums becoming in reality hospitals for the insane, not mere places of retreat after the disease has become incurable, hospitals in which treatment is actually carried out, and not mere communities of perfect discipline, in which the so-called moral treatment is abused, not used, and their end supposed to be obtained, and success judged of, by the comparatively large number of their employées. However therapeutic means act, whether in some cases they exercise a direct curative influence, or whether, as in the case of some remedies, they subdue the more violent symptoms, and others give the system time to recover its lost equilibrium, is a matter of indifference, the result is the same, the benefit to be derived is undoubted. The permanency of recovery from the use of drugs, in comparison with the recovery from other influences, is an entirely new field of inquiry, and one deserving of thorough investigation in the present advancing state of experimental medicine as applied to the treatment of mental disease, and is a question which could not, perhaps, be settled by the statistics of any single institution, but only by observations extending over a long series of years. The evidence, however, obtained in this Asylum, and founded on nearly 200 recoveries, certainly gives the strongest support to the opinion above expressed of the happy influences of medical treatment. It is undoubted that the cases recovered by such means have had a duration of more than a month less, at least, than those calculated as attributable to mere residence, hygienic conditions, withdrawal from exciting causes, or the influence of mere moral discipline; and, such being the case, it can easily be understood how the curtailment of the destructive influences of mania, or the equally destructive loss of tone in melancholia, may be followed by the best results. and give an assurance of permanency in recovery which cannot be anticipated when the disease is more prolonged.

## 2. German Retrospect.

I. Recent Progress in the Histology, Physiology, and Pathology of the Central Nervous System. By WILLIAM STIRLING, D.Sc.C.M., M.D., Demonstrator of Practical Physiology in the University of Edinburgh.

On Thermal Influences proceeding from the Hemispheres of the Cerebrum (Vaso-motor apparatus of the Cerebrum).—Drs. Eulenburg and Landois ("Centralblatt," No. 15, 1876) operated on dogs, and they found that young animals were specially well suited for their purpose. The estimation of the temperature was taken thermoelectrically by means of a Meissner-Meyerstein's electro-galvanometer. As thermo-electrical elements, two varnished Dutrochet needles were employed. After opening the skull and exposing the surface of the brain, the grey matter was destroyed by means of red-hot copper wires to the depth of  $1 \cdot 1\frac{1}{2}$ m.m. The animals were kept deeply under chloroform. When a certain portion of the brain was to be stimulated, the animal was curarised, and the brain was stimulated by induction shocks, two fine platinum wires serving as electrodes. The chief results were the following:—

I.—Destruction of certain regions of the anterior lobes of the brain, corresponding to the temporal region, caused at once a considerable increase of the temperature in both contro-lateral extremities. The increase of temperature occurred immediately after the complete destruction of the corresponding parts of the surface of the brain, often before the animal awoke from the chloroform and before it made