

PART II.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

Sixth General Report on the District Criminal and Private Lunatic Asylums in Ireland, with Appendices. Presented to both Houses of Parliament by command of her Majesty. Dublin: Thom. 1853. Folio, pp. 32.

Seventh Annual Report of the Commissioners in Lunacy to the Lord Chancellor, 30th June, 1852. Pursuant to the Act 8 and 9 Vict. c. 100, s. 88. Ordered by the House of Commons to be printed, 5th April, 1853.

Return to an Address of the House of Commons, dated 9th December, 1852, for Copies of all Reports of the Commissioners in Lunacy as to the State and Management of Bethlehem Hospital. Ordered by the House of Commons to be printed, 14th December, 1852. 8vo. pp. 451.

Twenty-third Annual Report of the Belfast District Hospital for the Insane, to 31st March, 1853. By ROBERT STEWART, M. D., Resident Physician-Superintendent. Pamphlet, pp. 52.

The Journal of Psychological Medicine. Edited by FORBES WINSLOW, M. D. Nos. for October, 1852, and January, April, and July, 1853. London: John Churchill.

Popular Errors on the Subject of Insanity Examined and Exposed. By JAMES F. DUNCAN, A. M., M. D. Dublin: M'Glashan. 1853. Post 8vo, pp. 265.

The Nature and Proximate Cause of Insanity. By G. J. DAVEY, M. D. London: Churchill. 1853. 12mo, pp. 76.

The Present State and Prospects of Psychological Medicine, with Suggestions for improving the Laws relating to the Care and Treatment of Lunatics. By J. SEATON, M. D. London: Churchill. 1853. Pamphlet, pp. 23.

Cretins and Idiots: a short Account of the Progress of the Institutions for their Relief and Cure. London: Wighton. 1853. Pamphlet, pp. 32.

Elements of Psychological Medicine. By D. NOBLE, F.R.C.S., Medical Officer to the Clifton Hall Retreat, Manchester. London: Churchill. 1853. 12mo, pp. 340.

The American Journal of Insanity. Nos. for July, 1849; January and April, 1851; October, 1852; and January and July, 1853. Published by the New York State Lunatic Asylum, Utica.

Twentieth Annual Report of the Carlow District Hospital for the Insane Poor of the Counties of Carlow, Kildare, and Wexford, for the Year ended 31st March, 1853. By M. E. WHITE, A. M., M. D., Resident Physician. Pamphlet, pp. 21.

Twentieth Annual Report, to 31st March, 1853, of the Maryborough District Lunatic Asylum, for the King's, Queen's, Westmeath, and Longford Counties. By T. C. BURTON, M. D., Resident Physician. Folio, pp. 4.

First Annual Report of the Kilkenny District Lunatic Asylum for the County and City of Kilkenny, to 31st March, 1853. By J. LALOR, M. D., L.R.C.S.I., Resident Physician. Pamphlet, pp. 16.

Fifteenth Annual Report, to 31st December, 1852, of the Suffolk County Lunatic Asylum. By J. KIRKMAN, M. D., Superintendent Physician. Pamphlet, pp. 30.

Fifth Annual Report of the Somerset County Asylum for Insane Paupers, to 31st December, 1852. By R. BOYD, M. D., Medical Superintendent. Pamphlet, pp. 60.

Second Annual Report of the Wilts County Asylum, Devizes, for the Year 1852. By J. THURNAM, M. D., Medical Superintendent. Pamphlet, pp. 44.

Annual Report of the Royal Edinburgh Asylum for the Insane, for the Year 1852. By D. SKAE, M. D., Resident Physician. Pamphlet, pp. 50.

Thirteenth Annual Report of the Crichton Royal Institution for Lunatics, for the Year ended 11th November, 1852. By W. A. F. BROWNE, M. D., Resident Physician. Pamphlet, pp. 44.

Tenth Annual Report of the State Lunatic Asylum of the State of New York, for 1852. By N. D. BENEDICT, M. D., Superintendent and Physician. Pamphlet, pp. 39.

THE above long list of publications in connexion with psychological medicine has been accumulating upon our table since our last stated annual review on "Insanity and Hospitals for the Insane"^a. On the present occasion we purpose noticing them in the order in which we have given their titles, just premising that amidst such a mass of valuable matter the difficulty to be encountered will be, how to devote sufficient attention to each. We must only, therefore, endeavour to mete out something like justice to all; and among so many, should any not receive as much notice as it may merit, we beg our readers to ascribe such omission to our anxiety to give as perfect a review of the important subject as is possible in the limited space necessarily allotted to us for this purpose.

1. The Commissioners of Hospitals for the Insane in Ireland have here presented to the Lord Lieutenant their Sixth Annual Report, dated May, 1853, the subjects discussed in which are exceedingly interesting, and the statistics appended, as usual, very complete and instructive. It embraces a review of the condition of the district, criminal, and private hospitals and houses for the insane in this country for the last two years, from the 1st of April, 1851, to the 31st March, 1853.

We shall first notice some of the more salient points in connexion with the district establishments, sixteen of which are referred to in the Report; namely, Armagh, Ballinasloe, Belfast, Carlow, Clonmel, Cork, Kilkenny, Killarney, Lime-
rick, Londonderry, Maryborough, Richmond (metropolitan), Waterford; Omagh, Sligo, and Mullingar. All the above hospitals are in full operation, with the exception of the two last, which were not completely finished at the date of the Commissioners' report. During the two years stated, the total number of admissions, of both sexes, was 2103; the males predominating,—they being 1064, and the females 1039. Of this aggregate number 346 were idiots, and the larger proportion thereof females; the sexes being respectively 168 males and 178 females. The epileptics were 385, the great majority being, on the contrary, males, viz., 266, and only 119 females. The

^a Vol. xiv. No. 28, N. S.

total number of cures effected was 815,—409 males and 406 females, a very close approximation. The deaths were 530,—277 males, and 253 females. The number which remained under treatment on the 31st March, 1853, was 2870,—1417 males, 1423 females; 1661 of whom were chronic or incurable cases. The largest number of patients contained in any one hospital was at Cork, namely, 353, and the smallest in Clonmel and Waterford, being respectively 128. As to employment, we give the following interesting and satisfactory items. Of the total (2870) under treatment during the year 1853, 1440 of both sexes were engaged in varied avocations, so desirable in such institutions; for it may be stated as an established fact, that for the restoration or amelioration of the “mind diseased,”—and this as well for the rich as the poor,—there is nothing to be compared to regular systematic occupation, more especially out of doors, as far as possible; no establishment for the treatment of the insane can in consequence be considered complete unless a large tract of land is immediately attached to it,—the minimum proportion being ten acres to every hundred inmates^a. The employments of the male patients were, we find, gardening, husbandry, weaving, tailoring, shoemaking, carpentering, &c. &c.; and that of the females embraced spinning, needlework, knitting, quilting, fancy work, laundry work, &c. The total outlay for 1853, on works and land, was £987 5s. 5d.; the produce, £2800 13s. 11½d.; and the net profit, £1813 8s. 6½d.

The following description of the newly erected hospitals for the insane we quote in full, not, however, without observing, that we abide to the fullest extent by our opinions expressed in former reviews, that great room for improvement still exists in the entire system in operation regarding the construction of these important public establishments,—a system which we hesitate not to declare is behind the age, and will be so as long as a central body like the Board of Public Works is permitted to exercise the despotic power it does in all that relates to their erection and planning. Serious and unaccountable delay in their completion is not one of the least causes of complaint against the Board of Works, whose supineness in this important point, when the necessity of the case is so peculiarly urgent, is certainly not free from reprehension. This is but too manifest when, for instance, as regards the Omagh Institution, for the accommodation of 250 patients, no less a period of time, as we find from the Report before us, than six years has been already

^a A statute acre to every six males is the average proportion of land, one with another, in the district establishments.—*Report*, p. 10.

consumed in its erection, and how much more will be still expended it is difficult to say;—in strong contrast with which it may be stated that the gigantic establishment, the Colney Hatch Hospital, for between 1200 and 1500 inmates, was, from the time of the laying of its foundation stone until completed as contracted for, built in less than eighteen months^a. But how was this? The answer is easily supplied; there was no such body as our Board of Works over it, to act as a drag with its red-tapeism in every movement made. No! the local authorities were thus happily unfettered, and a city for the insane finished, whilst a corridor of the Omagh was scarcely more advanced than above the foundations! It has often been a puzzle to us to know how it comes to pass that the landed gentry and rate-payers of this country, who have to pay every farthing of expense in connexion with the erection and maintenance of hospitals for the insane, consent to be bound hand and foot in all that regards a voice in their erection, &c.—being quite satisfied to pay the money, and submit to the iron rule of the “Star-Chamber Court in the Custom House,” as the Board of Works has been appropriately styled by an eminent presiding judge of one of our highest courts of judicature.

“Although not immediately coming within our province—the architecture and outlay attendant on contracts for the establishment of hospitals for the insane resting solely with the Commissioners of Public Works—still as the designs are, in the first instance, referred to our office, we may here give a general outline of the asylums recently erected. The radiated plan, as being less airy and cheerful, though, perhaps, interiorly more commodious, has been superseded in them. They are constructed on the same principle, three stories in height, for the sake of economy, with an extended frontage. The centre, in which are placed the officers’ apartments, projects, as also both ends, for the most part occupied by day rooms: the kitchen, laundries, stores, &c. &c., are in the rere, and central. The style partakes of the mediæval, with a certain amount of decoration; oriel windows, buttresses, turrets, and ornamental cut stone being in some buildings more profuse than in others. The proportion of single rooms, averaging one with another 750 cubic feet, forms about a third to the accommodation in dormitories, which contain from four to twelve beds each. The corridors run in front, and along the wings: connected with them are lavatories, water-closets, baths, &c. In the infirmaries (generally detached) provision is made for invalids, at the rate of about 10 per cent. of the whole number of inmates. Everything characteristic of a prison appearance, whether within or without, is avoided as much as possible. Due attention has been paid to warmth and ventilation, and commodious places

^a See our fourteenth volume, page 405.

have been appropriated for religious worship, in some instances apart from the main structure, as at the Eglinton and Richmond."

The continued good working of our Institutions for the Insane Poor is thus endorsed by the high authority of the Commissioners:—

"To the successful results attendant upon the operation of the district hospitals for the insane in Ireland, during the last two years, we are happy to bear our official testimony. In a curative point of view they uphold a high character, as will be found by a reference to the recoveries on recent admissions in the early stage of the disease, as well as by an examination into the social condition of their inmates. Two great divisions practically exist in establishments of the kind, the one embracing chronic, the other acute cases; the former are principally influenced by a system of mental culture and corporeal employment, whilst the latter require a medical or more special treatment. The recoveries on the whole admissions, within this period, average 35 per cent."

This is a proportion which must be pronounced to be extremely satisfactory, bearing a most creditable comparison with similar establishments in the sister kingdom, in France, and in America.

We are obliged to pass over the sections in the Report having reference to various important matters of detail, such as,—“Infirmaries (which are so properly attached to all the new, and to several of the old institutions); Instruction (the Armagh and Richmond are very favourably mentioned under this head); Gas; Dietary (the remarks upon which, and the necessity of a generous one, are entirely to our mind, and deserving of the best attention); Sanitary Condition (reported as being generally good, except in Cork, where scurvy prevailed for a time, owing to excess of farinaceous and deficiency of animal and vegetable food); Incurables,” &c. &c.,—in order to give the annexed extracts:—

“With the exception of five, the asylums in Ireland are now under the immediate care of resident medical superintendents, who devote themselves to the success of their respective institutions. The non-professional gentlemen at the head of the five establishments in question, from their zeal and long practical experience in the management of the insane, deserve our warm commendation; at the same time, on principle, we are fully convinced that no new appointment of manager should be made except in the person of a duly qualified practitioner.

“Connected with every asylum is a consulting or visiting physician, whose services, in addition to those of a medical superintendent, may by many be deemed uncalled for; but affections of the

mind are so complicated, and the consequences arising from them often so dangerous and unforeseen, that though attended with expense, it is a judicious outlay; for if on any subject there obtains a greater variety of opinion it is on that of the existence of lunacy in certain parties,—conclusions the most adverse being frequently arrived at on the same case by educated and experienced practitioners, a circumstance almost unknown in regard to corporeal disease.

“ While on the subject of officers and attendants, we would take the opportunity of respectfully expressing our conviction, that it is necessary for the well-working of these great national establishments, that a retiring allowance should be secured to those who have long and efficiently discharged their duties to the public and to those intrusted to their care within the precincts of an asylum,—a place of all others which unfits a person advanced in years for after employment. At present there is no superannuation fund whatever, and thus, we are occasionally obliged to retain the ineffective services of individuals, who, having no means of support to fall back on, it would be an injustice to supersede. As provision on this head has been made for the staff belonging to other Government departments by the present Lord Chancellor, when Solicitor-General, we confidently trust that a clause for the same object will be introduced into the next Lunacy Act.”

In our former reviews we have fully expressed our opinion on the above subjects, and need only now in addition remark, regarding consulting physicians, that such officers are not being appointed to any of the new county hospitals for the insane in England; and even in some of the older, where they formed a prominent portion of the medical staff, they have been or are being dispensed with, as at Bethlehem and Hanwell. In the United States of America also, in which the institutions for the insane are second to those in no country for a system of internal government of a high order, it is, as far as we have the means of knowing, the exception to the established rule to have consultants.

The great injustice of withholding retiring allowances is anything but creditable to those upon whom the responsibility lies. The strong manner in which the Commissioners have now again, much to their credit, brought forward the question, can scarcely fail to obtain immediate and prompt attention in the proper quarter.

In the discharge of an imperative duty we are constrained to record our entire dissent from the views now and formerly put forth by the Commissioners on a most important point, affecting the best interests and continued good working of our district hospitals for the insane. We allude to the suggested

reception into them of "paying patients not in the category of paupers." We feel no hesitation in pronouncing this suggestion both unwise and impolitic; being calculated to engender the most serious difficulties in their management, and lead to results never calculated upon by its promoters, who, no doubt, are actuated by the best possible motives in proposing this organic change. We trust our worthy and excellent Inspectors will reconsider this point, and sure are we that they will not throw their official weight into the scale for its adoption. We are perfectly satisfied that it is both their desire and intention to increase the usefulness of the district hospitals for the insane; and this being admitted, we earnestly beg of them to give no sanction to "paying patients" of any denomination being admitted. Our district hospitals, as such, are noble and philanthropic establishments:—alter their constitution, and you will lay the foundation for abuses which no "central authority" could remedy or prevent. The plan has been tried in England, and has signally failed in one institution in particular—the Staffordshire, and has therefore been given up. The principle has also been mooted in others, but rejected as a most improper one. What is required to relieve "agriculturists and people in trade, who themselves are the principal parties assessed for the support of public asylums, and who are devoid of sufficient means to meet, when labouring under insanity, the terms of well-regulated licensed houses" (Report, page 11), is a special institution set apart for their own exclusive care and treatment, the want of which is a grievous social evil, and a blot upon the benevolent age in which our lot is cast not to have been long since established. In our last Review, when noticing Dr. Henry Monro's and Mr. Dickson's respective publications, we earnestly called attention to this subject, and now again refer to it in the hope that it may obtain that consideration which it so loudly demands.

An account of the "Central Asylum for Criminal Lunatics" occupies a large portion of the Report, and from it we would gladly quote some interesting extracts did our space permit. It must be sufficient now to state that its inmates are mentioned as conducting themselves in a very orderly and industrious manner, and the affairs generally of the institution to be most satisfactory and creditable under the judicious and excellent superintendence of Dr. Corbet, the Resident Physician and Governor. The Commissioners have some special remarks bearing upon the peculiar difficulties of such an institution in its management, particularly as regards those of its inmates who are

unimpaired in their mental and bodily faculties, and yet who must be detained indefinitely within its walls as "lunatics." They state, too, that at the present rate of admissions the establishment will, in the course of a few years, be too limited for the demand, unless "full discharges" are permitted. And as another source of relieving its anticipated redundant population, they make a suggestion the policy of which we most decidedly dissent from. Its adoption would be nothing short of an abnegation of the principle upon which the Central Asylum was founded. This is the proposal:—"To remove patients who may become fatuous and decrepit to their respective district hospitals, a discretionary power to do so resting with the Lord Lieutenant, and provision being made for their reception in the Order of Council submitted (by the Commissioners) for the management of the Asylum." Now, for what purpose was the Central Asylum specially established? Was it not to remove the stigma from the district hospitals of holding within their walls criminals of a particular class? Was not their presence therein found in practice to be a "plague-spot" upon these institutions, and a perversion from their legitimate purposes,—that of curative hospitals? And did not such a system tend to keep up the idea which is still so unhappily prevalent amongst the public, that insanity is a disease of degradation? The district hospitals long felt this sore *incubus*, but at length it has been removed in Ireland,—a result now earnestly wished for in England.

This asylum, we find, contained a total of 109 inmates on the 31st March last (69 males and 40 females), their mental condition being as follows:—

“Recovered,	. . .	13	.	8	males, 5 females.
Improved,	. . .	17	.	7	„ 10 „
Insane,	. . .	79	.	54	„ 25 „
		<hr/>			
Total,	. . .	109.”			

The average cost of each inmate during the last year was £24. Varied employment is provided, and carried on to a considerable extent. The general health was remarkably good, and no casualty has occurred since the opening of the institution, which speaks volumes for Dr. Corbet's efficient superintendence, though if such had, it could not possibly have detracted from the high character of the institution. An unsuccessful attempt at suicide (and but one) was made during the past year, that of a man who killed a soldier (*not on duty*, as the Report states, but a *prisoner*) in Belfast gaol.

The Report concludes with a statement of the condition of the private establishments, twelve of which (with 423 inmates,—245 males, 178 females) were in existence, all, with the exception of three, being under “the immediate management of respectable members of the medical profession, some of whom had attained a very high character from their successful treatment of the insane.”

Elaborate and very carefully drawn up statistics form the Appendix of the Report (the more important features of which we have embodied in the preceding analysis), to which is added a copy of a memorial to the Lord Lieutenant from the Board of Governors of the Belfast Institution against the appointment of chaplains, and the reply made by the Inspectors to his Excellency thereon. To the latter point we need not here further specially refer, as the whole of this remarkable and important question will be better discussed when we come to review the Report of the Belfast District Hospital for this year.

2. The Seventh Annual Report of the Commissioners in Lunacy (England) is up to the 30th of June, 1852; but it was only in April last it was ordered by Parliament to be printed. In our review of the one that immediately preceded it^a we ventured to refer to several points of interest in which we considered it was defective as an official Report of high authority, and suggested that such might not be overlooked in future. We are happy to find that in some respects the Report before us is fuller in details than hitherto, still there are palpable deficiencies, the existence of which we regret. We now especially allude to the entire silence of the Report upon the results of treatment in the several public and private hospitals for the insane in England and Wales, coming under the official notice of the Commissioners. We said before, and we now repeat it, that this is a most serious omission in an otherwise valuable “Blue Book.” It is all very well giving now, for the first time, the most voluminous details respecting the number of “male and female officers, male and female attendants, male and female servants, &c. &c;” “Salaries^b, wages, and allow-

^a Vol. xiv. No. 28, N. S. p. 386.

^b On reading this portion of the Commissioners' Report we were much struck at finding that the services of the resident medical officer of the Bristol Asylum (having the charge of 101 patients) were remunerated by the liberal annual salary of £50, and no “allowances” of any kind, exactly the same as given to a subordinate officer of the institution, the clerk (p. 109): and that the chaplain even received £60 as his annual stipend for the performance of a duty comparatively a sinecure; further, and still more scandalous and insulting to

ances" (even to the matters of "small beer" and "vegetables"), of the different public establishments for the insane, occupying thus sixty-nine pages out of a total of one hundred and twelve, a sacrifice of space to the exclusion of much more important statistical information. We nevertheless hope that this defect will yet be made good; and we appeal with confidence, on this subject, to the medical members of the Commission, who owe it to themselves and the profession to attend to it. But, to proceed with our analysis of the Report, we find that, during the period it embraces, four county asylums have been opened for patients, viz., for the county of Derby at Mickleover; Middlesex at Colney Hatch; Union of Monmouth (consisting of it and three other counties) at Abergavenny; and the county of Wilts at Devizes; that new asylums were nearly ready, being likely to be opened at the close of the year (1852) for the counties of Warwick, Worcester, Lincoln, Hants and Bucks:—so that in England, as with ourselves, rapid strides are being made to afford suitable receptacles for the indigent insane, who were too long unthought of and uncared for. The Commissioners, in the exercise of the power vested in their hands, very properly, we are glad to perceive, put a veto upon a site laid out for a Welsh asylum, owing to its insalubrity, by reason of close proximity to a neighbouring swamp and to copper smelting and patent fuel works.

The spirit of the following extract we highly commend. Its common sense and common justice are patent; and, coming from so high and independent a source, is deserving of being attended to by those in power, who too fondly grasp at every source of patronage, be it ever so humble:—

"We have invariably recommended that the resident medical officer, as the manager and presiding authority in a new asylum, should be elected to his office, and that his salary should begin to run some months at least before the building is opened for the reception of patients. The amount of additional salary thus incurred will be far more than saved, if, during the intermediate period, the committee have the benefit of his active services and advice in the laying out of the yards and grounds, in the fitting up and furnishing of the asylum, and in selecting the subordinate officers and attendants, and regulating their respective departments and duties."

The Commissioners complain in strong terms that the local

the medical profession, that a mere menial in the same asylum receives £31 4s. as his annual *wages*, with "board, lodging, and clothing" into the bargain. We strongly advise the house surgeon of the *liberal* paying Bristol Asylum to change places with the menial, and doff the doctor for the nonce.

authorities of boroughs (fifty and upwards in number) have not made legal or adequate accommodation for their pauper insane, and submit accordingly that the higher powers should enforce the performance of the obligations imposed on them, by compelling due provision to be made for their care and treatment in public asylums. The character of the country for common humanity is called in question by this shameful carelessness and neglect of a most solemn duty, which, by setting at defiance the spirit of an express enactment of the Legislature, will be seriously compromising to those whose duty it is to take immediate steps to provide against the continuance of an evil so great in magnitude. St. Luke's Hospital comes in for a large share of special observation, favourable and unfavourable, as to its condition and management. Its system of superintendence is thus reported upon, with suggestions for improvement, which, before this, we take for granted have been carried into full effect. The "*paramount*" authority in all establishments for the insane being vested "*in some resident medical officer, rather than in any non-resident physician or surgeon,*" is the principle which we years ago advocated, and its decided recognition now by the Commissioners, as the only sound one to be pursued in hospitals for the insane, is a happy confirmation of our views being just and reasonable:—

"The hospital of St. Luke's, like that of Bethlehem, is placed under the medical care of one resident surgeon or apothecary, together with two physicians and a surgeon (having considerable controlling power), who attend the institution, but do not reside there. In the course of our recent Report to the Home Office, on the condition and management of Bethlehem Hospital, we have taken occasion to suggest, that any new arrangement of the medical staff there should comprehend the services of (at least) two resident medical officers, one of whom should have paramount authority in the hospital, and should be responsible for the whole of the internal management thereof.

"Without reference to the regularity or duration of the visits made by the medical visitors of St. Luke's, or any other hospital, or the attention bestowed by them on their patients (which have not been the subject of any especial inquiry on our part), we think it right to state our opinion to be that, in all the various lunatic hospitals and public asylums of this country, the paramount medical authority should be invariably vested in some resident medical officer, rather than in any non-resident physician or surgeon, whose means of observing the wants and condition of the patients must necessarily be less perfect, and that the authority and responsibility of such resident officer, so far as respects the care, treatment, and

comforts of the patients, should not be shared or interfered with by any other person whomsoever."

Bethlehem Hospital comes next in the Commissioners' Report, but as we shall refer to the special Parliamentary Return respecting it further on, we will proceed to notice the Report on the "Licensed Houses," some of which would appear in great need of reform. For instance, the one called "Oulton Retreat," near Stone in Staffordshire, is strongly animadverted upon, for the excessive and improper restraint, imperfect ventilation, irregularity in keeping the case-book, and a general want of diligence and energy in the management. At "Bellevue House," Devizes, a female was secured by the leg to a seat in the yard; two males, both paralyzed, were fastened by straps to chairs to prevent them falling forward, one of them was suffering from sores on his back, and the other was in a wet and dirty state. The Infirmary Asylum at Norwich is largely and severely censured for its very defective system of management, and the borough justices plainly warned, that if they persist in neglecting to make a fit provision for their lunatic paupers, the Secretary of State will be applied to on the subject. The Norfolk County Asylum at Thorpe, Norwich, would also, we have reason to believe, require a reform in its management, the medical and moral treatment of its inmates being, strange to say in these days of progress, not under the *paramount* (we like much this expressive word of the Commissioners, the scope of which there is no mistaking) authority of a resident medical superintendent, but in a divided state, a state, however, which it is to be hoped will not be permitted longer to continue. But it would be a profitless task further to comment upon the condition of the "Licensed Houses," which, with some honourable exceptions, are held up in the Commissioners' Report in a most unfavourable aspect, so much so as to cause us to regard their state as a disgrace to the country; we are, therefore, truly gratified with the straightforward and uncompromising yet temperate manner in which the Commissioners have discharged their duty towards those of them deserving reprobation.

The subject of the best disposal of "criminal lunatics,"—a distinctive term which, though used in the Report, is, at the same time, objected to, would seem to be an inextricable juggle still to our Commissioners in England. For ourselves we can see no difficulty at all in the matter. It is manifest to all that they should not be associated with the ordinary inmates of hospitals for the insane. On this head there appears

to be no second opinion. We must say, however, that there has been no small amount of hair-splitting and wire-drawn distinctions on the subject in England. We would cut the Gordian knot at once by consigning them to a central establishment like that at Dundrum, which is affording such general satisfaction. Surely there should be no doubt as to the propriety and absolute necessity of this, seeing that it has been carried into effect in one portion of her Majesty's dominions, and this* so far back as 1845. That such has not been long since done in Great Britain is truly not a little anomalous, especially when we find, by the Report of the Commissioners, that no less a number than four hundred and thirty-nine criminals (360 males and 79 females) are *imprisoned in hospitals for the insane!*

Some very excellent and practical "suggestions" respecting the management of asylums are contained in the Appendix of this Report, all of which we would gladly reproduce, but that our analysis of the Report generally has far exceeded what we had anticipated. We must therefore content ourselves with the following extract:—

"Suggestions. Resident Medical Superintendent.

"This officer should be duly qualified both as a surgeon and apothecary (whether possessing a degree or not). He should have *paramount* authority in the asylum, and be precluded from private practice, and should devote his whole time and energies to the duties of his office. He should be a person of high character and experience, and be liberally remunerated. With regard to salary, the Commissioners find that in the various county asylums the salaries vary from one hundred and fifty to five hundred pounds per annum, to which is to be added, where (as is commonly the case, and is always most desirable) he resides on the premises, furnished apartments, with coals, candles, and generally also board, or an equivalent in money for the same. The Commissioners consider it the preferable arrangement that there should not be any visiting physician, or other medical visitor with a salary, but that in lieu thereof the resident medical superintendent should have the power to call in medical or surgical advice, on extraordinary occasions, at the expense of the asylum. If there are honorary physicians or surgeons attached to the institution, their services would be gratuitous, unless when they were so specially called in.

"In the event of the asylum becoming full, or nearly full, it may be advisable to appoint an assistant medical officer, with board and lodging, at a moderate salary, say, from fifty to eighty pounds per annum. Such an arrangement has been adopted in many of the large asylums, e. g. Lancaster, Kent, Stafford, &c."

3. With reference to the voluminous "Blue Book" containing "a Report of the Commissioners in Lunacy on the state and management of Bethlehem Hospital," we deem it quite unnecessary to occupy our limited space by doing more on the present occasion than recording it as our decided conviction, after a perusal of the evidence on both sides, that the medical officers of that institution, more especially Dr. Wood, the then Resident in charge, upon whom the brunt of the battle fell, were "more sinned against than sinning," in connexion with the charges of cruelty and neglect that were brought forward, and the public odium which was endeavoured to be so unsparingly heaped upon our profession in their persons. "A house divided against itself cannot stand;" and if ever there were divisions in a house or an institution, it was in Bethlehem Hospital, amongst the non-professional authorities, from the governors and treasurer to the matron and steward. Indeed, our only wonder is how matters got on as well as they did, and that still graver and more serious abuses had not occurred within its walls. It certainly was not from either the assistance or co-operation of these parties, who, instead of being ancillary to the medical men in carrying on the duties of the hospital, by receiving their suggestions and attending to their directions, enacted quite a contrary part.

The high-handed manner especially of the treasurer, a paid lay officer, towards Dr. Wood, the only resident medical man, upon whom the whole charge in reality of the hospital devolved, was truly most insulting and derogatory. Then again the matron, in her way, was despotism personified on the female side of the house. And here we think it worthy of special remark, that all the abuses stated to have been perpetrated and systematically carried on were chiefly on the female side in the notorious "basement" story. We are quite unable to pursue this painful and discreditable subject further, and though we had intended giving some quotations from the Report before us, we are compelled to satisfy ourselves with but one on the present occasion, which we take from Dr. Wood's "observations," and with the spirit and scope of which we fully concur:—

"The discipline of a regiment could not be maintained without the services of subordinate officers; neither could a large number of servants, whether in a private establishment or in a public institution, be properly controlled without the intervention of some authority between them and the master or superintendent; and yet such has been the position of affairs at Bethlehem. With very imperfect organization, divided authority, and little co-operation, but with the demon of discord constantly brooding over the place, it is

not surprising that Bethlehem Hospital has failed to realize the expectations of those who felt that, with the sanction of royalty, possessed of ample revenues, and commanding the services of the most eminent men of the day, it ought to have become a model institution."

4. Dr. Stewart's Twenty-third Annual Report of the Belfast District Hospital for the Insane brings the affairs of that institution up to the 31st March, 1853, the terminating period at which all the public hospitals for the insane in this country complete their yearly cycle, a general regulation, it may be observed, which has much to recommend it. The annual statement affords at a glance some of the more important "facts" of the years preceding.

	Males.	Females.	Total.	Males.	Females.	Total.
On the Books, 1st April, 1852, . . . . .	..	..	..	152	128	280
Admitted since, new Cases,	45	61	106			
Do. Relapsed,	5	4	9	50	65	115
Total under treatment during the year, .	..	..	..	202	193	395
Discharged recovered,	26	41	67			
Do. relieved,	9	12	21			
Died,	14	11	25	49	64	113
Leaving in the House, 31st March, 1853,	..	..	..	153	129	282

Daily Average Number of Patients during the year, 280.01

Average Expense of each Patient including every charge, £12 17s. 11d.

Of the fifty males admitted during the year, seventeen were married, and thirty-three single; and of the sixty-five females, thirty-one were married, five widows, and twenty-nine single. With reference to age, ten were under twenty years; thirty-nine from twenty to thirty; thirty-three from thirty to forty; eleven from forty to fifty; fifteen from fifty to sixty; and seven from sixty to seventy. Alleged causes of insanity were assigned in only fifty-eight of the 115 admissions; and of these twenty-five were physical (intemperance being the chief), and thirty-three moral. The subject of criminal lunatics being no longer received into the district asylums is specially referred to as a great relief to those establishments, a constant source of irritation to the patients in ordinary being thus removed, and the happy results, accordingly, amply compensating for the labour and time so largely expended in accomplishing an object so desirable. The dietary of the patients (at the instance of the physicians) was

improved during the year by an increase of twelve ounces weekly of animal food to each patient, the former allowance being but six ounces. The accommodation continued insufficient during the year, the house being crowded throughout, and great difficulty, as might be expected, was experienced, in its daily conduct, as well from this source as from the new buildings in course of erection for the last twelve months, which the Report states were progressing in an exceedingly tedious manner, and without any prospect of being completed at the specified time. These additions to existing asylums we, in a former review, considered exceedingly questionable, and we see no reason to change that opinion, but rather more strongly to reiterate it. Great expense and continuous excitement must be the unavoidable concomitants by this mode of procedure; the former never giving any satisfaction in proportion to the large sums expended in endeavouring to improve what cannot be improved from architectural difficulties, and the latter necessarily very injurious to so peculiarly circumstanced a class of patients. Entirely distinct buildings, when requisite, should be erected on another portion of the grounds, when such are extensive enough to admit of this being done, or, if not, a separate establishment entirely should be provided in a convenient part of the district. Every day's experience is making it more and more evident that large establishments for the insane are most undesirable. But so long as economy continues to be the *primum mobile*, the one thing needful in those matters, and not, on the contrary, what is best for the cure or amelioration of so dire an infliction as insanity, it will be with little avail, possibly, to denounce it. We but discharge our duty, however, in again and again protesting against the system under consideration.

Intemperance, as a fruitful exciting cause of insanity, is specially referred to by Dr. Stewart, and a suggestion made, deserving, we think, of the best consideration, which is, that reformatories for habitual drunkards should be established.

It appears by the Report that the question of erecting a chapel and appointing chaplains had been one of anxious deliberation to the governors at a number of meetings, the invariable result being that the proposal was negatived by a large majority. At these meetings we find men eminently qualified to give sound advice in consequence of their position in society, of their local knowledge, of their education, of their professional pursuits, of the absence of all interested motives, and, above all, of their experience of the institution. Their solemn decision was, "that after mature consideration of the

peculiar circumstances of the population of this district, the Board are of opinion that the system of religious instruction^a adopted on the 3rd of March, 1834 (the Bishop of Down and Connor presiding), and which has hitherto been found so successful, should be continued; and that consequently the erection of a chapel, which seems to involve a numerous staff of chaplains, and the probable introduction of religious controversy and excitement among the patients, is inexpedient."

It is well known that, of all the exciting causes of insanity, religious enthusiasm is one of the rifest; that its effects are the most lasting, and the prospects of the sufferer the most hopeless. Often in the course of a long professional life have we witnessed the miserable effects of mistaken duty in religious observances, the gradual encroachments of an excited imagination on a weakened intellect, and the final break down of an overpowered mind. What, in such cases, are the beneficial effects expected to be produced by imbuing the mind with that which originally caused its overthrow: will it restore the fabric?—are men to be cured of a disease by that which has been proved to be one of its most fertile causes? The decisions of three Lords Lieutenant on the chaplain question, as regards the Belfast Asylum, have affirmed the principle of religious homœopathy by prescribing a remedy capable of producing the same symptoms as those of the disease; if the principle is to be carried out at all, why should it not be done in harmony with itself,—by the administration of infinitesimal doses? The plan would answer a double purpose; the Lord Lieutenant must approve of it inasmuch as it is only the sequel of his own principle; the Board of Governors must be satisfied with it, because it is nothing more than that on which they have hitherto most prudently acted. All parties would be then agreed:—

"Concordiâ parvæ res crescunt, discordiâ
Maximæ dilabuntur."

Religion—the never-failing consolation and ultimate re-

^a This carefully guarded and efficient system is expressed in the following resolution of the Board:—

"That on a wish being expressed by a patient to be visited by a minister of religion, the manager of the asylum, if he is of opinion that such visits are not likely to produce an injurious excitement in the patient, but are likely to be beneficial to him, be authorized to request the attendance of a clergyman of the Established Church, whether the parochial clergyman, or, with his permission, the clergyman of the parish to which the patient belonged before his admittance; or of a minister of such other denomination as the patient may have belonged to before his admittance, if he should give a preference to such other minister; subject, however, to the same local limitation as in the case of the clergyman of the Established Church."

source of the Christian of sound mind—requires, like other remedial agents, the co-operation of skill in determining the condition of the person in whom it can produce its beneficial effects, and the extent to which it should be exhibited. The combination of medicine and religion professed by the monks of old was, after all, not without its advantages. The one taught the time, the other the manner, of calming the disordered mind by the exhilaration of hope and trust in divine mercy. We are of opinion that a clergyman, unaided by the physician, is not in a condition to be intrusted with the religious management of the insane. The physician, accustomed to the aspect and character of the sufferer, knows by a glance the moment when he is accessible to the consolations and exhortations which are calculated to calm his mind and reach his heart. Religion is not to be urged during the period of incapacity to appreciate its value, and when resistance, in proportion to importunity, is a characteristic of that miserable state. To allow the uncontrolled exercise of the clergyman under all conditions of the patient,—perhaps to subject a demented creature to suffer under the distracting influence of proselytizing arguments,—would in a great many cases defeat its end, and create a permanent antipathy to the well-intended but indiscreet ministry of the pastor. Besides all this, have we not some knowledge of the ill effects of the uncontrolled exercise of clerical duties by pastors of different creeds performing their office under the same roof? Have we not evidence of the collisions which have taken place; the animosities which have been engendered; the vindictive accusations which have provoked exasperated defences; and the acrimonious partizanship that distracted the investigations which followed? What security have we that all these evils might not result from the antagonism of zealous pastors frequently replaced, and therefore little accustomed to the studiously concealed peculiarities of madmen. Religious partizanship would disseminate a wild and dangerous fanaticism amongst lunatics; and he would be a sanguine man who should expect to maintain the “comfort and tranquillity” which are now admitted to be so conspicuous in the Belfast Institution.

By the Order in Council, 1843, the Board of Governors of the Belfast Asylum were enjoined to make regulations for the admission of clergymen, to visit in that character any patients of their own persuasion, and for the celebration of Divine Service before such of the inmates as their respective clergymen *and the physician shall deem fit to attend the same*. In this unrepealed Order of Council is embodied the very principle which

we here advocate, and which has hitherto been acted upon. The clergyman is not to act *ex officio* without the approval of the physician: he is not to enter the house as a matter of right, and exercise his functions as an independent chaplain; but the Board are to make regulations for his *occasional* admission when sent for. That Order in Council was never known to have worked badly or to have been inefficiently carried into effect. Quite the reverse; for the accredited reports of the Government Inspectors agree in representing the management as productive of happiness and tranquillity. Why, then, by new and unnecessary interferences and regulations, stigmatize and tacitly condemn what has not been arraigned?

There is, however, another aspect of this question, and one the most important to our profession, which has hitherto not been treated upon in the angry controversy that has been for so long a time carried on between the Government and the Governors of the Belfast Lunatic Asylum,—its purely medical bearing. What are the District Lunatic Asylums of Ireland? *Prisons for the safe detention of the insane, or hospitals for the treatment of insanity!* If the former, regard the inmates as mad prisoners, give them hard labour, punish them with low diet, chains, and close imprisonment, and compel them each Sabbath and holiday to attend the set services of the religion which they may select for themselves. If the latter, place the afflicted inmates under the care of a wise physician, let him minister through the body to the mind diseased, using all the measures, medical and moral, he may deem fit, aided too, when his judgment directs, by the ministrations of religion. In private practice a physician is called upon to treat an hysterical patient whose symptoms border on insanity,—demands he the assistance of a clergyman to supersede him in his duties? Or it may be a case of acute mania,—does he order the patient to attend the public service of his Church? In their own families, for their own friends and relations, the public implicitly intrust the management of those unhappily afflicted in their mind to the physician; why depart from this system with the pauper lunatic? We assert, in a word, that these asylums are not gaols or poor-houses, but *hospitals for the treatment of insanity*, a special disease, but to be treated, like other diseases, by the medical attendant under whose care those afflicted with it may be placed, and by him alone.

5. Dr. Forbes Winslow, the able and persevering editor of the *Journal of Psychological Medicine*, cannot be too highly commended or generally supported for his indefatigable zeal in

the branch of medicine to which his periodical is specially devoted. Each number is more and more interesting, being always replete with matter of the utmost value, and this not merely to the psychological physician, but also to the profession generally, and in part to the reading portion of the public at large. The contents for October of last year, January, April, and July of 1853, the numbers now before us, fully bear out the above statement. We only regret our inability even to particularize the several articles of the numbers enumerated, so pressed are we for space; but we confidently recommend the Journal itself to our readers as one which will amply repay an attentive perusal, and be a most important, indeed we might say an absolutely indispensable, addition and acquisition to the library of every professional man who wishes to keep pace with the daily advancing and increasingly important science of which it is the British exponent. To show that Dr. Winslow's literary powers and high personal worth are not unappreciated, we may, in conclusion, observe that the very high distinction—an honorary degree of Doctor in Civil Law, was conferred upon him in June last by the University of Oxford.

6. Dr. Duncan's volume is a work well worthy of being closely studied, containing matter very instructive and deserving of the best consideration, of both the professional and the general reader. The author writes like a man who knows his subject well, and accordingly the several important points discussed by him are treated in a thoroughly practical manner. The work is divided into fourteen chapters, which are entitled as follows:—

“Popular errors as to the nature of Insanity. Definitions of Insanity. Evidence in proof of Insanity. Suicidal Insanity. Homicidal Insanity. Moral Insanity, Cleptomania, Pyromania. Religious Insanity. The Management of the Insane. The Curability of Insanity. The Confinement of the Insane. Actions for false Imprisonment. Commissions of Inquiry. On the abolition of all Proprietary Lunatic Asylums, and the establishment of National ones in their place.”

The chapter on “Religious Insanity” is, we conceive, unexceptionable in matter and argument on that so-called species of mental disturbance. The following short extract in connexion with it is much to the purpose, and with the author's views we quite agree:—

“When we read in books, as we sometimes do, of cases of insa-

nity which are set down as the result of religion, it will be found, on a careful examination, that either the origin of the cases has been grossly misapprehended, so that religion had nothing whatever to say to the production of the malady, or that what has been called religion was only some of those perversions of the truth which did not properly deserve the name."

The annexed extract, taken from the chapter on "the Management of the Insane," is in the best spirit, and from many years' "actual observation" ourselves in the treatment of the insane we can bear the fullest testimony to its soundness:—

"It ought, I am persuaded, not only on the immutable principles of right and wrong, but from actual observation in a large number of instances, to be laid down as a fixed rule, never to mislead a lunatic by false representations, or by flattering promises, which the person making them has no intention of performing. A simple, straightforward course, uniformly followed, directed at the same time by sound judgment, will almost certainly secure the confidence of the patient, and get him to do with comparatively little trouble what, under a different system, no amount of persuasion would succeed in effecting."

We regret that we cannot afford space for more extracts from Dr. Duncan's admirable volume, which we earnestly commend to the notice of our readers.

7. Dr. Davey's contribution to the literature of psychology "On the Nature and Proximate Cause of Insanity" is stated by its author to have been read in substance by him at a meeting of the Medical Society of London, in January of the present year. He adds further that the principles of pathology and therapeutics set forth in it were first published in 1842, in an Essay entitled "On the Pathology of Insanity," and that since then he has unceasingly insisted on those principles both orally and in published writings; and, what is more, *practically* carried them out in his private and public capacities. The author specially directs the attention of Dr. Henry Monro to this statement, that gentleman having, he observes, published in 1850 a small book, in which not only are the same views advocated, but of which he states he has, "strange to say, claimed the parentage or first authorship."

The author appears to have an unfortunate facility of coming into collision with other parties. It is not so very long since, in one of our reviews on insanity^a, a work of his styled "Contributions to Mental Pathology," came under our notice,

^a Volume x., New Series.

which was surcharged with a supertartrate spirit from beginning to end; and here again, in our next meeting in cold type tartaric acid is still in excess, and a *rechauffé* even of that same curious "contribution" given in the form of a "Postscript," occupying eighteen pages, being nearly a fourth of the whole book now published. One would be almost tempted to think from this circumstance that the object of the present volume was chiefly to gratify an unsubdued hostile feeling and personal pique to certain parties with whom the author was so ill-associated a few years ago in Ceylon. This, however, is a matter we need not pursue farther than to call Dr. Davey's special attention to the following extract from his work now before us, which we think might be useful as well for himself as the public, on whose behalf he has given it, to meditate over; it is from Good's Study of Medicine:—

"The passion of *anger*, and all its compounds,—suspicion, revenge, and especially jealousy, must make a much wider inroad upon the domain of a well-ordered mind, and introduce confusion and derangement. Nor is the effect confined to the head, for a stimulus thus virulent affects the entire system, and, as we have already observed, has a peculiar sympathetic influence on the liver, producing in many instances a very diseased secretion of the bile, and altering it in a very short period, not only in its quality, but in its quantity. At the same time every vessel is exhausted of its irritability, and the whole strength is so prostrated as occasionally to lead on to obstinate faintings, convulsions, and death."

For ourselves we cannot see anything that is so very specially new or imposing in Dr. Davey's views as to the nature and proximate cause of insanity, defined by him to be a "*morbid sensibility of the gray matter of the brain*."

"I have come to the conclusion, that insanity is most decidedly a disease of debility, and this fact is made evident, not only by its occurring very much more commonly than otherwise to those who have either inherited a weakly and delicate constitution, or whose excesses or extravagancies of life, or misfortunes, have induced such a state of things,—but by its attacking persons who may happen to be exposed to any accidental or temporary cause of exhaustion, such as hemorrhage, night-watching, the puerperal state, &c. . . . The symptoms which characterize the mental disorder in each are not those belonging to an increased vascularity; the heart's action is rapid, but *feeble*; the temperature of the skin is not generally increased, nor is the countenance flushed. . . . The wildness of manner, and automaton-like movements which mark an attack of mania, are, then, the direct effects of a morbid sensibility of the cineritious neurine, or gray matter of the brain;—what was 'use,'

or power, has become 'abuse,' or *action without power*; and this the consequence of the application of a stimulus too intense, or long-continued, or disproportionate, in some way, to the healthy physical capacities of that portion of the cerebral structure named. *In the gray matter of the brain, then, is located the proximate cause of insanity."*

So much, then, for "the principles of pathology set forth." Dr. Davey's "therapeutics" have not much of novelty in them either. They are contained in the following paragraph, with which we must take leave of his book:—

"The *treatment* found most efficacious in lunacy is precisely that required in the management of the "*neuroses*;" whenever cerebral derangement, or neuralgia, or chorea, or tetanus, or asthma, or angina pectoris, is found complicated with local inflammatory disorder, increased vascularity of the structures involved, local bleeding is practised with good effects; counter-irritation, and mercurial alteratives (with the occasional employment of opiates), are then also prescribed. But apart from such a complication in those several maladies named, the indications of treatment required are equally applicable to any one or other of them. It will be, I apprehend, readily conceded, that in *all*, it is of the first importance to establish a normal action of the *prima via* (?), thereby insuring a healthy state of the secretions and excretions, both as regards quality and quantity; in *all* the necessity to counteract the debilitating influences of diseased action in the system by the use of tonic remedies, as quinine, steel, &c., and so to preserve the constitutional powers, as far as possible, unimpaired, is sufficiently apparent to every practical man."

8. The *brochure* of Dr. Seaton, entitled "the Present State and prospects of Psychological Medicine," has for its object the improvement of the laws relating to the cure and treatment of lunatics in licensed houses, and with much spirit and energy its author denounces the present order of things in connexion with private establishments for the insane. On this head Dr. Seaton observes:—

"The truth is, that in the majority of cases, the chief, in many the only, concern, seems to be how the patient may be *safely kept*; hence we see that proprietors of asylums are very frequently non-medical men,—indeed frequently women, persons merely trading for a living as private gaolers, whose only business is the *safe keeping* of the lunatic; but as no prison is complete without a doctor on the staff, there is of course a regular visiting medical attendant to the asylum, so that if the lunatic should be attacked with a fever, or an inflammation, he may die decently. With the psychological management of the patient the medical man has nothing to do, and psychological management has nothing to do with the patient.

Strange ! that in this country, and in this age, patients labouring under disease so fearful, and frequently so mysterious in its origin, and insidious in its progress, as to require for its elucidation medical attainments of the highest order, and even then often defying all human efforts for its alleviation,—strange, I say, that such patients should be left to the treatment of non-medical, and not unfrequently altogether non-educated persons.”

In common with our author, it has frequently struck us as being a most anomalous and pernicious state of the law, that any party (leaving ignorant men and women keepers of the insane altogether out of the question) but a thoroughly well-educated member of the profession should be permitted to enter upon so responsible a duty as the care and treatment of the insane. The large number of persons entirely deficient in either educational or professional status sanctioned by the law of the land to have and retain lunatics under their charge, looks, it must be admitted, very like, to quote again from our author, as if “the direct tendency of every step taken by the Legislature on the subject of lunacy was to degrade instead of to elevate the character of all who may be engaged in its investigation. Every Act of Parliament seems to be founded upon the assumption that none but knaves would have anything to do with lunatics.”

In remarking upon the English Commissioners’ “Seventh Report,” in our present review, we have referred to the very unfavourable state of the “licensed houses” in England; and it is certainly no great wonder that the official report should be so condemnatory, when those establishments are in so many instances presided over, as Dr. Seaton informs us, and no doubt truly, “by persons merely trading for a living as private gaolers.” The commission in lunacy in England, Dr. Seaton justly observes,—a remark we have incidentally made ourselves elsewhere,—should “as a rule, all other things being equal, be filled by medical men;” and also, that as the medical profession is directly concerned in all their regulations, “it should be duly represented at the Board, by the President of the College of Physicians and the President of the College of Surgeons being *ex officio* members thereof.”

With these few quotations and remarks respectively, we must leave Dr. Seaton’s pamphlet, which appears to us as being well deserving of the notice of all parties directly interested in the several matters discussed in its pages.

9. The pamphlet which has been forwarded to us relating to Cretins and Idiots, and giving an account of the progress of

the institution founded for their relief and cure, is of a very unpretending nature, but not the less interesting and suggestive. There are few persons, we presume, who have not heard of the name of Guggenbühl, a man worthy of imitation in all lands for genuine benevolence and philanthropy. We are proud to claim him as a member of the medical profession, and to hold him forth as one to whom society at large owes a deep debt of gratitude for the lasting benefits which he has been so privileged and successful an instrument in conferring upon the unfortunate cretin and idiot, a class of human beings so miserably low in intellect, and so debased in habits and propensities, as to be scarcely above the level of the brute.

Dr. Guggenbühl, a native of Zurich, happening in the year 1839 to observe a poor cretin muttering a prayer before a crucifix, the nature of which he did not comprehend, was so struck by this circumstance that he became immediately convinced there was a dormant mind in cretins, and determined to make them his peculiar study, he rightly conceiving that "a being in whom it was possible to awaken a thought of God was worthy of every sacrifice and labour; it being of more value to save one human soul than to gain all the treasures of the world." Actuated by so exalted a principle, he took up his abode in the valley of Cleinthal, in the Canton Glarus, where cretins abound, when, after some attempts to improve them, he became so satisfied of the possibility not only of their relief but of their cure, that he renounced all other medical practice to devote his whole energies to their behalf. For this purpose he fixed upon Abendberg, an elevated spot on the Alps, for erecting an hospital. This place was singularly adapted for the object in view, being sheltered by mountains from cold winds, and affording in front a splendid and varied prospect; and, being 3000 feet above the level of the sea, was beyond the elevation at which cretinism exists. In this place he commenced in 1841 with twelve children in a very degraded state, physically and intellectually; but after the lapse of a period less than two years, all were more or less benefited, and some of them nearly cured. The following description of one of the patients by Dr. Twining, who visited Abendberg in 1842, will give some idea of the apparently hopeless task Dr. Guggenbühl had undertaken—

"On a bed lay a female child of about three years of age, exhibiting cretinism in its highest degree. She was wrapped in a cloth, so that her face only was visible. The lids of the eyes were constantly quivering, and the eyes rolling; the tongue large, and so swollen that the saliva was running from the mouth; and all her

limbs were moving convulsively. So dreadful a sight could scarcely be imagined: a human being, denied not only of all which characterizes a rational creature, but even a healthy brute animal,—and yet even she is improving; so that the day will come—whether it be a year, or even two years distant—when she may know the blessings of health and knowledge.”

Numerous are the institutions now in full and successful operation on the Continent for the cure and treatment of cretins and idiots, all having for their model the original one at Abendberg, presided over so auspiciously by Dr. Guggenbühl, whose name has become of European renown for his noble and disinterested efforts for their amelioration and restoration to human society. In the United States of America also the same good work has been going on for some time past, headed by Dr. Howe, of “Laura Bridgman” celebrity. In England, likewise, much has been done and is doing for idiots. In our review last year “on Insanity and Hospitals for the Insane,” we gave a full account of the Parkhouse Idiot Asylum at Highgate, and the one at Essex Hall, Colchester, from the sixth Annual Report of the Commissioners in Lunacy, neither of which institutions has been noticed in their present Report, an omission which appears somewhat strange, but both of which, we are happy to find by the pamphlet before us, are continuing in a prosperous state. This pamphlet also informs us that in Scotland, where fatuous children are numerous, an idiot institution is about being put into operation through the individual benevolence of Lady Jane Ogilvie, who, highly to her praise is establishing an asylum for imbecile children at Baldovan, Forfarshire. When will our own country make a move in this “labour of love”? In the district hospitals for the insane alone, there are, according to this year’s Parliamentary Report of Drs. White and Nugent, 177 idiots, which, we presume, must be very far from representing the real number of that class in Ireland.

10. Mr. Noble’s volume, bearing the title “Elements of Psychological Medicine,” has just been published, with the modest announcement of its being “an introduction to the practical study of insanity, adapted for students and junior practitioners.” And from the cursory glance which the short time that has elapsed since its publication has enabled us to give it, we think it well calculated to fulfil this mission. The work does not profess to be a systematic treatise of its kind, but is composed of a series of lectures delivered by Mr. Noble at the Chatham-street School of Medicine, in Manchester, and published by request

at the close of the course. Coming thus before the profession, the author is deserving of every consideration, his chief design being to "*introduce* the topic of mental derangement in a scientific form to those who have previously given it no special consideration." Seven lectures are embraced in the volume, and no point of practical moment that we can perceive has been omitted to be brought forward in them, and the subjects generally are treated fully and clearly. We might, with advantage to our readers, give extracts from this published course of lectures, but we are obliged to content ourselves with a single one in reference to the treatment of insanity, comprised, as the author states, "in a brief formula of a few words." It is as follows:—

"Deal with the physical characteristics which may accompany insanity as you would deal with them under other circumstances, and act in correspondence with sound principles of medical practice; always remembering that, with high nervous susceptibility, depletion will be but indifferently tolerated [we would go farther than this and say not at all—REV.], more especially when the ailment refers itself to causes essentially physical. For the relief of insanity itself, properly considered, trust almost entirely to hygienic and moral treatment, withdrawing circumstances likely to aggravate the special features of individual cases, and supplying to the mind such objects of attention and excitants to activity as may be best calculated to arouse and sustain a new and more healthful mode of operation."

11. The papers generally, in the respective numbers of the American Journal of Insanity received by us since our last Review, are of a practical and useful character as usual, and must prove highly interesting to those especially who are engaged in psychological practice. But before we proceed further in particularizing their contents, we must strongly protest against a paragraph headed "The Insane Poor of Ireland," which, to our great surprise, we read in the number for July, 1849, the first of the series now before us. We have always hitherto admired the extreme fairness, and accuracy, and friendly spirit of the conductors of this Journal, in its contents and statements, editorial and otherwise. The brief article before us, however, is very contrary to this estimate of ours, and though it does not appear to be originally chargeable to our transatlantic contemporary, yet we cannot excuse it on this account for giving so evidently prejudiced and disparaging a view of the institutions for the insane in Ireland either countenance or currency. We say this in no unfriendly spirit, and

we hope it will be received accordingly. The first palpable misstatement is, "that there is no medical man at the head of any one of these asylums, nor any resident medical officer." Now in all earnestness we ask the editor how he could believe and circulate such a false statement. The Irish asylums had from the first the most eminent medical men in their respective localities officially attached to them; they did not certainly reside in the asylums, but it is sufficient for our purpose that they were not so altogether mismanaged as to have "no medical men" at all, as the paragraph in question would lead an ordinary reader to suppose. And again, so far back as in 1843, one at least had a "resident medical officer." Secondly, it is contemptuously stated, that if they had not a resident medical officer, they had "a superabundance of boards of governors, nobility and gentry." Thirdly, "that they are not curative institutions, but mere prisons for the insane." Our simple reply to this is to examine the Parliamentary Reports, when it will be seen that the cures in the Irish asylums are considerably greater than in other countries. Fourthly, it is also stated, "that the records and reports of these establishments are said to be valueless;" may we ask, by whom? Now we assert, that the Irish Asylum Reports are second to none for valuable information. One word more, and we shall dismiss this matter. The American Journal regularly receives our own periodical; in our number for November, 1850, was an extended review of the Irish in common with other insane hospitals, founded on the best and most authentic official Reports. We presume our contemporary did not pass by unread, or at least unlooked at, that review, and if so, ought it not, in common fairness between country and country, institution and institution, have given from it a *corrective* to the totally unfounded (we might say calumnious) statement we have now called attention to. It is not, however, yet too late to make the *amende honourable*.

We have perused with much pleasure Dr. Ray's valuable paper in the foregoing number, entitled "Statistics of Insane Hospitals." All Dr. Ray's writings that we have read are characterized by solid reasoning, and an evident practical acquaintance with whatever subject in his important sphere of the profession he may treat upon.

We most fully agree with him, that the methods in practice of reporting and recording the results of treatment in hospitals for the insane require that greater uniformity and precision should be observed; and we only regret that we cannot transcribe several portions of this essay of his into our own columns.

We can but recommend it to the best attention of all superintendents.

In this number also is contained a Report of the Fourth Annual Meeting of the Association of Medical Superintendents of American Hospitals for the Insane; a body we see plainly exercising a large and most salutary influence in all that relates to the insane in the United States, and whose example and steady and persevering line of conduct would not be amiss for similar associations to follow on this side of the Atlantic.

The number for January, 1851, has another paper from the pen of Dr. Ray, "On the Legal Relations of the Insane," which, coming from so highly qualified a source, should be received with every confidence. Next, we have an article of much interest "On the Cretins of Switzerland;" and a reprint of Dr. Churchill's paper "On the Mental Disorders of Females" as originally published in our own Journal, which tells unmistakably for the high value set upon it by our American brethren.

Passing on to the number for October, 1852, we have a long paper on a curious theme by Dr. Stribling; "The employment of male attendants in the female wards of Lunatic Hospitals." This is assuredly a novel and an original idea on the part of Dr. Stribling. To us the proposition appears very much of the "go-ahead" school, and very unlikely to receive any countenance from the *sane* portion of the community. An account of "Institutions for the Insane in Prussia, Austria, and Germany," by Dr. Pliny Earle, is a very readable and instructive paper. In some notices of reports of English asylums the following observations with reference to the use of tobacco in the Rutland Asylum occur:—"We were surprised to see one item for an article which we thought the progress of the times had entirely excluded from all British asylums, as it undoubtedly has from most American institutions; we allude to a charge of £12 4s. 2d. for *tobacco* and snuff." And again:—"Tobacco forms no inconsiderable item in the expenditure of the Littlemore Asylum, the charge for this article alone being no less than £44 2s. 6d"!

We have, lastly, to call attention to "Article III." in the number for July of the present year, entitled "A Report on the Organization of Hospitals for the Insane, made by the Standing Committee of the Association of Medical Superintendents of American Institutions for the Insane at its Meeting in Baltimore, May 10, 1853." We would gladly quote the whole paper, it being a very important and ably drawn-up official document, but we can only manage to make room for the

annexed extracts, with the scope of which we entirely concur:—

“The physician should be the superintendent and chief executive officer of the establishment. Besides being a well-educated physician, he should possess the mental, physical, and social qualities to fit him for the post. He should serve during good behaviour; reside on or very near the premises; and his compensation should be so liberal as to enable him to devote his whole time and energies to the welfare of the hospital. He should nominate to the Board suitable persons to act as assistant physician, steward, and matron; he should have the entire control of the medical, moral, and dietetic treatment of the patients; the unrestricted power of appointment and discharge of all persons engaged in their care; and should exercise a general supervision and direction of every department of the institution.

“The assistant physician—or assistant physicians, where more than one are required—should be graduates of medicine, of such character and qualifications as to be able to represent and to perform the ordinary duties of the physician during his absence.

“The steward, under the direction of the superintending physician, and by his order, should make all purchases for the institution; keep the accounts; make engagements with, pay, and discharge, those employed about the establishment; have a supervision of the farm, garden, and grounds; and perform such other duties as may be assigned him.

“In institutions containing more than two hundred patients, a second assistant physician, or an apothecary, should be employed; to the latter of whom other duties, in the male wards, may be conveniently assigned.

“If a chaplain be deemed desirable as a permanent officer, he should be selected by the superintendent, and, like all others engaged in the care of the patients, should be entirely under his direction.

“In every hospital for the insane, there should be one supervisor for each sex, exercising a general oversight of all the attendants and patients, and forming a medium of communication between them and the officers.

“In no institution should the number of attendants on the patients be in a lower ratio than one attendant for every ten patients; and a much larger proportion of attendants will commonly be desirable.

“The situation and circumstances of different institutions may require a considerable number of persons to be employed in various other positions; but in every hospital, at least all those that have been referred to, are deemed not only desirable, but absolutely necessary, to give all the advantages that may be hoped for from a liberal and enlightened treatment of the insane.

“ All persons employed in the care of the insane should be active, vigilant, cheerful, and in good health; they should be of a kind and benevolent disposition, be educated, and in all respects trustworthy; and their compensation should be sufficiently liberal to secure the services of individuals of this description.”

12. The Twentieth Annual Report, by Dr. White, of the Carlow District Hospital for the Insane Poor, for the year ending 31st March, 1853, gives the following Table, showing the number of admissions, discharges, and deaths:—

	Males.	Females.	Total.	Males.	Females.	Total.
Remaining in Hospital 1st April, 1852, . .	103	96	199			
Admitted to 31st March, 1853,	40	23	63			
Re-admitted,—having relapsed,	5	6	11			
Total under treatment during the year, . . .	.	.	.	148	125	273
Discharged to 31st March, 1853, “recovered,”	10	16	26			
Do. “relieved” or “removed by their friends,”	3	4	7			
Do. “Died,”	6	4	10			
Do. “Escaped from the Hospital,”	1	0	1			
Do. “Transferred to Kilkenny District Hospital,”	28	26	54			
Total of Discharges during the Year, . . .	.	.	.	48	50	98
Remaining in Hospital 31st March, 1853, .	.	.	.	100	75	175

Dr. White complains much of several cases having been removed by their relatives prematurely, three of whom had subsequently to be brought back to the hospital. The simple remedy for an evil of this kind would be to have it understood, on the admission of a patient, that he would not be discharged until the medical superintendent considered it safe to do so. Let this plan be properly followed up, and the grievance referred to will soon cease. Some additional land was obtained during the year, which Dr. White states was productive of the best results, by affording a great increase of useful occupation for the inmates. After some special and awkwardly introduced observations respecting “the system of appointing chaplains to the hospital,” Dr. White refers to the item of “tobacco and snuff” consumed during the year, at a charge of £15 1s. 8d., defending its use on professional grounds. The arguments, however, had recourse to are, in our view of the case, quite beside the question, and opposed to the rule of practice even in the American hospitals, as will be seen from the extracts we have just given.

13. The usual *balance-sheet* form of Annual Report of the Maryborough District Lunatic Asylum affords the following statistical and other information:—

“RETURN of Patients for one Year, to 31st March, 1853.

	King's County.		Queen's County.		Westmeath County.		Longford County.		Total.
Admitted from 1st April, 1852, to 31st Mar., 1853,	15		19		10		2		46
Re-admitted, having relapsed, same period, . .	3		4		1		1		9
Discharged, cured or relieved, same time, . . .	15		11		4		2		32
Do. unrelieved, taken out by their friends,	0		0		0		0		0
Died, in one year, to March 31st, 1853,	8		10		6		3		27
Patients of each sex remaining in Asylum on 31st March, 1853,	M.	F.	M.	F.	M.	F.	M.	F.	184
	27	24	30	22	25	33	12	11	
Of those remaining are criminal or dangerous lunatics,	7		2		12		5		46
Population of each county, by Census of 1851, . .	112,877		109,747		107,510		83,198		413,330

“DIETARY.

“*Breakfast for every Day.*—One quart of stirabout, made of 8 oz. of oatmeal; one-third quart of new milk.

“*Dinner for four Days.*—12 oz. of bread for males; 10. oz. for females; one pint of new milk.

“*Dinner for three Days.*—One quart of soup, made of half pound of beef and bone, or beef heads; 12 oz. of bread for males; 10 oz. for females.

“*Supper for every Day.*—6 oz. white bread; one-third quart of new milk.

“Buttermilk has been entirely superseded as an article of diet for patients, and new milk substituted in its place since October last, at the suggestion of Dr. White, one of the Inspectors-General.

“EMPLOYMENT.

“The male patients have ample and almost constant employment in the tillage of the land. Their labour last year caused a saving to the public of £138 10s. 10d.”

With reference to the health of the inmates during the year, Dr. Burton, the Resident Physician, reports as follows:—

“In conjunction with Dr. Jacob, I have to remark that a great degree of ill-health has marked the past year, especially the latter

portion of it, both amongst the patients as well as the servants: attacks marked by accessions of fever, derangement of the mucous membrane, catarrh, and finally dysentery, have made sharp inroads upon the former inmates, proving fatal in many instances where previous debility, advanced age, and a highly scrofulous tendency accompanied them: these cases have respectively been brought under your notice by Dr. Jacob at each monthly meeting."

14. The Kilkenny District Lunatic Asylum is one of the newly created institutions for the insane poor of this country, and was opened for the admission of patients from the county and city of Kilkenny on the 1st of September, 1852, under the superintendence of Dr. Joseph Lalor, a copy of whose first Report to the 31st March last is now before us. According to it, there had been admitted during the above-named period 136 patients, of whom 8 were discharged recovered, 4 died, and 124 remained in the institution. On looking over the Table of the "supposed causes of mental disease in the cases admitted" we find no fewer than five varieties of the "religious stamp"^a.

- | | |
|---|-----------|
| 1. Overwrought religious feeling, | 1 male. |
| 2. Religious zeal, | 1 female. |
| 3. Excessive piety(!) | 1 do. |
| 4. Religious despondency, | 1 do. |
| 5. Religious scruples, | 1 do. |

On this subject the following observations of Dr. Ray on the "assigned causes" of insanity, in his excellently drawn-up paper, entitled, "Statistics of Insanity," which we have referred to in our notice of the American Journal, we think sensible and much to the purpose:—

"There is much reason to believe that many of the emotions and incidents that are set down as causes of insanity, such as "fear of poverty," "religious doubts," "anxiety," &c., would often be more justly regarded as its effects. They are the first symptoms that arrest the attention, and by means of that common disposition to confound the *post hoc* with the *propter hoc*, they are placed in relation of cause to the subsequent of aberrations."

Dr. Lalor's own remarks on this point are pretty similar:—"In some instances, at least, the supposed causes of insanity are rather effects than causes."

The Table detailing "the previous occupation" of the inmates, gives the largest number as "agricultural labourers,"

^a "We demur to this peculiar species of insanity, preferring greatly the term *ir-religious insanity*."—*American Journal of Insanity*, vol. vii., No. 3.

who amount to 29,—27 males and 2 females. This would seem to be a corroboration of the opinion of Dr. Smith, of the Ohio Lunatic Asylum, who, being asked the question which class of society furnished the majority of lunatics—replied, “the farmers; they work too hard and have no holiday. Rest, here in the asylum, restores them almost always”^a.

We congratulate Dr. Lalor on the care and ability with which his Report is drawn up, and on the amount of useful information he has condensed into so small a space. It affords a proof that the zeal and talents which he displayed while a practising physician, as evidenced by the several valuable communications from his pen which have from time to time appeared in our pages, are as anxiously devoted to the advancement of the special branch of medicine to which he has now attached himself.

15. The Annual Report of the Suffolk Lunatic Asylum, for the year 1852, is compiled in Dr. Kirkman’s usual able and sensible manner. His remarks on various important subjects connected with the years preceding are just what we would expect from a superintendent of his great experience and observation. We have only room for the following short extract touching treatment generally:—

“Reports which relate simply to matters of fact exclude the writer from the more enchanting ground of psychological research, and tie him down to matters of detail; and the details of facts are sufficient to make all of us materialists enough to allow that the brain is the organ through which the mind acts; and that, in the treatment of insanity, whatever the cause may be, the most comprehensive pharmacopœia can produce no remedy equal to the single article ‘rest.’”

The year’s results are thus given:—

	Males.	Females.	Total.
Under treatment during the year, . .	101	143	244
Discharged cured,	22	28	50
Do. relieved,	2	8	10
Died,	17	10	27
Remaining 31st December, 1852, . .	111	144	255

16. From the Fifth Report of the Somerset County Asylum, for the year 1852, by Dr. Boyd, many useful hints may be

^a American Journal of Insanity, vol. x. No. 1, p. 91.

gathered,—Dr. Boyd being evidently a practical man, and well up to the important and absorbing functions he, as its chief, has to perform.

The following remarks respecting “flooring” we think deserving of much attention. We do not recollect to have read or seen before the plan of *oiling* floors here recommended:—

“In all the single sleeping rooms, dormitories, and throughout the upper story, the floors are of wood. When oiled, before the wood has become stained by use, it looks well, and is easily kept clean, and seldom requires washing; two coats of oil will last for two years. When accidental spots occur they can be oiled again; it only requires to be occasionally washed with cold water, and no soap or soda should be used. A medical friend of great experience has written to me that he considers the system of *dry rubbing* floors is a very good one, and much less liable to prove injurious to health than the too frequent washing formerly in use in public institutions, and for which he believes dry rubbing is now generally substituted in military and naval hospitals. Much labour is saved in washing by these oiled floors, and the patients are less subject to the inconvenience and injury sometimes caused by damp floors, especially in winter, when they are slow in drying, and the patients are kept mostly in the house.”

Respecting the number of attendants Dr. Boyd states, that the average is one for every fifteen males, and one for every eighteen females. As to restraint, he states:—

“In four instances patients were found loosening and removing their bandages, to prevent which one wrist was fastened by a handkerchief to the side for some hours; and in three of these cases no further attempts were made.”

The tincture of sumbul in epilepsy appeared to mitigate the severity of the fits. The heads of those patients who are subject to fits at night are raised. Eight epileptics died during the year. In the post-mortem examinations of fatal cases of general paralysis the spinal cord was found diseased, as the result of inflammation, in which the ventricles and membranes, at the base of the brain, were generally implicated. Mr. Gulliver, the eminent surgeon, had subjected some portions of the morbid parts to microscopic examination, and found that the “exudation corpuscles” were most frequently present in the spinal cord, and were similar to those described by Dr. Bennett, in his paper on inflammation of the nervous centres. *Liquor hydrargyri bichloridi* was given with the view of checking inflammation. The number under treatment during the year was 468; of which 128 were new cases. The recoveries

amounted to 47,—24 males, and 23 females. 17 were discharged relieved, and 4 not improved. The deaths were more numerous than usual being 58,—35 males and 23 females; and nearly one-half occurred from among the new admissions; the average mortality was $12\frac{1}{2}$ per cent. for the year. The statistical tables are very numerous, and the obituary very full and complete as usual. The total expenditure, during the year, amounted to £7084 12s. 4d. The expense incurred for *tobacco alone* was £57-0s. 11d.

17. Dr. Thurnam's Second Annual Report of the Wilts County Asylum, for the year 1852, shows, that the total number of patients under treatment was 282; the males being 128, and the females 154. Those discharged recovered were 35,—7 males and 28 females; 1, a male, was discharged relieved; and 2, a male and a female, unrelieved. The deaths were 25,—16 males and 9 females. The population during the year varied from 204 to 265, and the number left under treatment, at the close of the year, was 219,—103 males and 116 females. Some patients, above the class of paupers, had been admitted at a weekly charge of 14s.; but the practice had to be discontinued in consequence of the asylum being liable to the full amount of rates and taxes by receiving such. On the subject of diet, Dr. Thurnam, an excellent authority, makes the following pertinent observations:—

“There can be no doubt that much of the insanity which exists among the poor, particularly in agricultural districts, is to be traced principally to their scanty supply of the necessaries of life, and the low state of vitality thence resulting. In the case of many of the sick, it is found necessary to modify the ordinary diet, and allow such extras as a little wine, ale or porter, milk or eggs; which often prove the best restoratives.”

The standing dietary was increased during the year, meat dinners being given four days in the week, with an allowance of malt.

The total expenditure of this asylum during the year was £4449 18s. 2d.; and, as usual, tobacco and snuff make their appearance, to the amount of £26 18s. 3d., which we cannot but regret to see in so well and scientifically conducted an asylum as Dr. Thurnam's.

18. The Annual Report of the Royal Edinburgh Asylum, for the year 1852, drawn up by Dr. Skae, its able Physician-superintendent, contains a large amount of very interesting and

instructive matter, and a number of statistical tables, which display great care and much pains in their compilation. Indeed, the Tables given in the Reports of institutions generally for the treatment of the insane in these countries, are a strong and speaking evidence in themselves alone of the methodical and extremely accurate manner in which every point of detail is attended to and carried out in those admirably worked establishments, and redound highly to the credit and zeal of their respective resident physicians, whose duties are of so onerous and responsible a character. The patients treated during the year by Dr. Skae we find amounted to the large number of 763, of whom 247 were new admissions. They are thus accounted for, viz., discharged cured, 101; do. uncured, 55; and removed by death, 64; leaving in the asylum, at the close of the year, 543,—275 being males, and 268 females. Dr. Skae has some excellent and lengthened remarks respecting provision being made for incurables in workhouses, repudiating the idea of—

“Condemning a lunatic, capable of enjoyment, able and willing to work, but rendered incapable of taking care of himself by *disease*, to such a residence;” and very justly stating that thus acting “would be adding man’s punishment to God’s visitation, and would be repugnant to the common philanthropy of the age in which we live.”

Our own view on this important subject is the same now as we gave expression to on a former occasion, when something of a similar question was mooted by the authorities in Ireland, at least when it was proposed to erect establishments to draft all incurables to, in other words, condemning them to a wretched prison-house, supported at the lowest possible cost, so as to do little more than keep soul and body together. To act in such a manner as this towards such unfortunates would indeed be a daring and cruel act. We, however, quite agree with Dr. Skae in the propriety of harmless imbeciles, incapable of enjoyment, being placed apart from the merely chronic insane patients. We would like to see institutions set apart for the exclusive care of idiotic, epileptic, paralytic, and hopelessly demented and imbecile cases which are now retained in our ordinary hospitals for the insane, but from which they should be entirely removed to a distinct institution built and planned for themselves alone; and we hope that the day is not far distant when we shall see this desideratum fully accomplished.

19. The Crichton Royal Asylum, at Dumfries, continues to

uphold its deservedly eminent position among the British establishments for the insane under the energetic and painstaking superintendence of its highly informed chief physician, Dr. Browne, whose Report for 1852 is a *vade mecum* in itself in all that regards the care and management in theory and practice of the insane. To do anything like justice to the Report now before us, even in giving the most condensed analysis of its enlarged contents, would require several pages of our Journal; we must, therefore, be satisfied on the present occasion with a mere statement of the results of the year, and on this head we have to observe that 341 patients were in charge in 1852; that of this aggregate number 50 were discharged as recovered, 13 improved or during treatment, and that 25 died. Dysentery had the largest number of victims, 7 having sunk under it; apoplexy comes next, it being the cause of 5 deaths; 2 died of phthisis, 2 of general paralysis, 2 of bronchitis, 1 each of epilepsy, anthrax, erysipelas, hydrothorax, disease of liver, paralysis, and pleuropneumonia

The greatest variety is afforded to the inmates in the way of amusements. Social meetings, too, are regularly held, and a large and brilliantly lighted room is devoted to billiards, reading, conversation, or quiet recreation in the presence of an officer. There is also a theatre in which farces are acted by the inmates, who are liberally and admirably provided for in this institution.

20. The Tenth Annual Report of the State Lunatic Asylum of the State of New York, for the year ended 30th November, 1852, is from the pen of Dr. Benedict, whose valuable Reports we had under notice on a former occasion. The present one is a very satisfactory document, and arranged with much judgment and clearness. It states that, at the commencement of the year the number of—

	Males.	Females.	Total.
Patients in the house was	220	215	435
Received during the year,	200	190	390
Total under treatment,	420	405	825
Discharged recovered,	92	64	156
Do. much improved,	7	4	11
Do. improved,	21	21	42
Do. unimproved,	63	89	152
Died,	22	17	39

Dr. Benedict strongly counsels practitioners in ordinary

against the practice of taking blood from insane patients, some of the cases received having been greatly depleted before admission. Active insanity, he properly observes, is treated by psychological physicians on principles the very opposite of depletion; that not one ounce of blood had been drawn from the 825 patients under treatment during the year; and stimulation had been resorted to in many cases with great freedom and the best results. Amongst the probable causes of derangement in the 390 admissions of the year, the largest number, 46,—41 males, 5 females, is set down to "intemperance." The next is masturbation, 40,—36 males, 4 females. Then "spiritual rappings and popular errors, 29,—14 males, 15 females. Dr. Benedict urges upon the state the necessity of "Criminal Lunatics being placed in a secure establishment apart from ordinary patients, and also a similar provision to be made for drunkards." He is, moreover, of opinion that separate hospitals for the insane should be erected for male and female patients, which he states would be highly desirable.

Some Observations on Fish in Relation to Diet. By JOHN DAVY, M. D., F. R. SS. Lond. and Edin., Inspector-General of Army Hospitals, &c. Reprinted from the Transactions of the Royal Society of Edinburgh, Vol. XX., Part IV. Edinburgh: Printed for the Society, by Neill and Co. 1853. Pamphlet, 4to, pp. 9.

DR. DAVY'S paper embraces the consideration of three distinct questions, viz.:—"First, what are the nutritive qualities of fish, compared with other kinds of animal food? Second, do different species of fish differ materially in degree in nutritive power? Third, has a fish diet any peculiar or special properties?" The author professes to attempt at present little more than an opening of the inquiry; but as the subject is important, and deserving of close investigation, we trust he may be induced to persevere in his researches.

In entering on the consideration of the first question, viz., the nutritive power of fish, Dr. Davy observes, that "the proposition probably will be admitted, that the nutritive power of all the ordinary articles of animal food, at least of those composed principally of muscular fibre, or of muscle and fat to whatever class belonging, is approximately denoted by their several specific gravities, and by the amount of solid matter which each contains, as determined by thorough drying, or the expulsion of the aqueous part, at a temperature such as that of

boiling water, not sufficiently high to effect any well-marked chemical change."

Now, this proposition does not, we think, go far enough. There is too much difference *in composition* between the fleshy parts of fish and land animals to admit of their relative nutritive powers being determined merely by ascertaining the quantity of solid matter which each contains. That it must be as necessary to discover the quality of these solid matters as their amount will at once appear, by comparing the following analyses by Schlossberger of the flesh of various animals, which we copy from the Sydenham Society's edition of Simon's Chemistry^a.

	Ox.	Swine.	Carp.	Trout.
Water,	77.50	78.3	80.1	80.5
Muscular fibre and vessels,	17.50	16.8	12.0	11.1
Albumen and hemato-globulin,	2.20	2.4	5.2	4.4
Alcohol-extract with salts,	1.50	1.7	1.0	1.6
Water-extract with salts,	1.30	0.8	1.7	0.2
Phosphate of lime with albumen,	Traces.	Traces.	. .	2.2

In fact, to determine this question so far even as it can be done by chemical investigation, a series of accurate analyses, both proximate and ultimate, would be required. We are not aware that any complete ultimate analysis of the edible portions of fish is on record; if it be the case that none such exists, a field of interesting research lies open to the chemist. That the determination of the specific gravity and of the amount of solid residuum is not sufficient to decide the question is apparent from Dr. Davy's Tables, from which it will be seen that the oily fishes, the sea-trout, salmon, mackerel, and eel, all yield a larger amount of solid matter than beef and mutton; yet few, we think, will be found to dispute the superior nutrient powers of the latter articles of food; whether, as Dr. Cullen observes, they argue, *à priori*, "from the similarity of substance and economy in quadrupeds, to that of man;" or secondly and chiefly, from the results of personal experience. The mackerel, again, which affords a much larger residuum than the salmon, is specifically much lighter, in consequence, as Dr. Davy states, of the large amount of oil contained in it.

But it is to the author's remarks, in connexion with the third question proposed in the commencement of his paper,

^a Vol. ii. pp. 423, 424.

that we chiefly wish to direct the attention of our readers, containing, as they do, a suggestion well worthy of the consideration of the practical physician.

Fish, and especially shell-fish, as is well known, has often been recommended as an article of diet well suited to phthisical patients, chiefly on account of its mildly nutritious and unstimulating properties; and some have even attributed to it directly curative powers, "oysters, it has been said, have performed cures of consumption"^a, yet we are not aware that any one has anticipated Dr. Davy in a suggestion of its use based upon philosophical and scientific views. From the information he has been able to collect, he is disposed to think that fish, as a diet, is more conducive to health than the flesh either of birds or of such of the mammalia as are used for food, and that it especially tends to the prevention of scrofulous and tubercular diseases; to which diseases he believes fishermen and their families to be less subject than any other class without exception. In support of this opinion he quotes some very striking facts, but it must be borne in mind that other causes may combine to produce the exemption under consideration, such as the fact of the class alluded to living almost constantly in the open air, and perpetually inhaling a marine atmosphere.

Believing the exemption to be mainly owing to diet, the author was led to seek in "the composition of fish some element not common to other kinds of food, whether animal or vegetable." This element he believes to be iodine.

In every instance in which Dr. Davy sought for this substance in sea fish, he "found distinct traces of it; and also, though not so strongly marked, in the migratory fish; but not in fresh-water fish." His trials have hitherto been limited to the red gurnet, mackerel, haddock, common cod, whiting, sole, ling, herring, pilchard, salmon, sea-trout, smelt, and trout. In the instance of the fresh run salmon, sea-trout, and smelt, a slight trace of iodine was detected; in the spent salmon descending to the sea, only a just perceptible trace of it was observable; and not a trace of it either in the parr or the trout." In the common shrimp he detected it in an unmistakable manner; and also in the lobster, the crab, the common cockle, mussel, and oyster.

The author points out the analogy in this respect between sea-fish and cod-liver oil, which also contains iodine, and con-

^a Medical Inquiries and Observations, by Benjamin Rush, M.D., vol. ii. p. 129. Philadelphia: 1793.

siders that the former may be beneficial as a diet in the cases in which the latter has been found so useful as a medicine: he alludes to the facility with which fish may be preserved, even without salt, by thorough drying. "I lay stress," he says, "on thorough drying, as that seems essential: for preservation, I believe even hygroscopic water should be excluded."

"The inference regarding the salutary effects of fish depending on the presence of iodine, in the prevention of tubercular disease, might be extended to some other diseases, especially to that formidable malady—goitre, the mitigation or cure of which has, in so many instances, been effected by iodine; and which, so far as I am aware, is entirely unknown amongst the inhabitants of sea-ports and sea-coasts, who, from their situation, cannot fail to make more or less use of fish."

We have quoted sufficient to show the importance of Dr. Davy's paper. The decision of the questions discussed in it must, in their medical bearings, be left to the practical physician. Chemical science, which received so vast an impulse from the labours of his illustrious brother, is already indebted to Dr. Davy for many valuable contributions, and we trust that he is about to add to the number of her obligations to his family by fully investigating the chemical relations of the subject he has now taken in hand.

Lectures on Surgical Pathology, delivered at the Royal College of Surgeons of England. By JAMES PAGET, F. R. S., lately Professor of Anatomy and Surgery to the College; Assistant-Surgeon and Lecturer on Physiology at St. Bartholomew's Hospital. London: Longmans, 1853. 2 vols. 8vo, pp. 499 and 637.

THE Museum of John Hunter has certainly been one of the most fortunate, as it is one of the most splendid, monuments of human industry and love of science. Founded originally by the stupendous activity of one man, and brought to a surprising degree of completeness in some departments, it illustrated, in the most striking manner, at once the inexhaustible riches of nature, and the power of the human mind to develop analytically the laws presiding over a large portion of creation. It differed, when first placed by Government under the care of the College of Surgeons, from almost all other public collections at the time. It was no chance-medley heap of curiosities; its catalogue was not a list of rare and singular objects, huddled together with-

out plan, and arresting attention only by their individual interest. Rich and rare specimens were indeed there; but every visitor of intelligence felt that the *whole* had a kind of value that belonged not to any *part*. It was an illustration of the laws of organization more profound, and yet more practical, than had ever yet been presented to the world: it was, at the same time, the mirror of a life devoted to the investigation of these laws; the seal and the monument of a mission self-imposed and nobly fulfilled, amid no small amount of self-sacrifice and discouragement. To the highly educated man of science it was the summary of an age of progress; to the student (and who is not a student in these matters?) it was, and we trust will long remain, still more valuable as an example of practical industry and honest labour bestowed in a cause where these qualifications rarely fail of success. There are few who have not felt the want of such "a spur to prick the sides of their intent;" and all who *have* so felt will view with more than merely scientific interest the labours of Hunter.

It was of no small importance to the public that the custodiers of this Museum should be men who would appreciate it in this double relation, and who, in extending and adapting the collection to the wants of a more modern epoch, by the admission of new contributions, would not lightly allow its individual character to be lost. It is impossible to speak too highly of the manner in which this delicate task has been accomplished by the College. Not only has the utmost liberality been exercised in pecuniary matters, but the whole of the patronage, which, in connexion with the Museum, devolved upon the Council, seems, so far as we can judge by the results, to have been exercised with singular discretion, and with a due regard to the public advantage. The Curatorship of this great work seems to have been regarded as a most sacred trust, and the "natural piety" towards its founder, which once effervesced in the somewhat extravagant expression, "that great saint of surgery," takes a more solid and satisfactory form in the excellent catalogues (as well of the original collection as of the additions which have taken place by purchase and private donations); and in the lectures which, under the auspices of the College, have been for some time past annually delivered in their hall on the subjects of comparative anatomy, histology, and surgical pathology.

It is with the last of these subjects that we have now to do: "surgical pathology" being the general term chosen by Mr. Paget to denote the collected materials of several courses of lectures delivered before the College in the successive summers

of 1847 to 1852, printed originally in the "Medical Gazette," and now reproduced in the two volumes before us, with large additions, and numerous wood-cut illustrations. The subject is a vast one, demanding for its adequate treatment the highest powers of generalization, as well as the most intimate knowledge of detail. Hypercriticism might take exception to the title, inasmuch as "pathology," in the sense in which the word is employed by Mr. Paget, is a science having to do nothing with either surgery or medicine, save to draw its illustrations from them, just as chemistry may be taught from a consideration chiefly of the metals or the earths, the organic or the inorganic bodies. "Surgical pathology" is a term as ungrateful to our logical sense as "metallic" or "earthy chemistry" would be; although we admit that it finds, in the habitual use of the terms, "organic," and "inorganic," as applied to the latter science, some justification. But not to dwell on matters of small importance, we may explain in a few words the object of Mr. Paget in these lectures, as indicated in the Preface. They were intended to expound, to a body of surgical practitioners, the general principles of pathology as applicable to their art, and as illustrated by the Museum of the College. "The Museum limited," says the author, "while it indicated the subjects of the lectures;" and even with this understanding it will be found that a further selection and limitation of subjects has been found necessary, the lectures being, in fact, confined to the discussion of the most general laws of *organic* or *structural disease*, apart from the consideration of chemical, mechanical, or merely functional changes, many of which would be most properly included under the term "surgical pathology," if such a term is to be recognised in science.

The reader will, therefore, bear in mind, that Mr. Paget's work by no means professes to be a complete system of pathology, even in its surgical relations. It is not a text-book, or a cyclopædia, but something infinitely more important to the cause of science:—the contribution of an original mind to the progress of inquiry, representing the *net result* of many years of profound research, careful study, large practical experience, and widely extended reading, in a department of science which very few have been found capable of treating in such a way as materially to advance the knowledge of its philosophical principles. Mr. Paget would, we are certain, be the last to claim for his work so ambitious a position as is implied in comparing it with John Hunter's "Treatise on the Blood, Inflammation, and Gunshot Wounds:" yet the comparison is one which rises at once to our mind as we contemplate the scope of the two

works, and to our view it is fully justified by a consideration of them in detail. We shall the more readily be excused for a parallel which may seem invidious (but to which we think it of real importance to direct attention), if we observe that the first volume of Mr. Paget's "*Lectures*" is devoted to an examination of the very same subjects as engaged Hunter's attention in Parts I. and II. of his *Treatise*; that the same illustrations come under review in both; and that much attention is everywhere devoted by the modern writer to Hunter's opinions, in the spirit not of destroying, but of fulfilling, according to the best lights of modern science. These circumstances lead us to the appreciation of Mr. Paget's scientific *point of view* as compared with that of his great predecessor; and as we cannot, with justice either to the author or to ourselves, attempt a full, critical analysis of a work at once so broad and so deep in its survey as the one before us, we propose to make some observations, desultory enough it may be, on the progress which its pages indicate in pathological inquiries, and on the general direction of those inquiries in the present day. We must state, at the outset, that, in our opinion, no work has issued from the press for many years, so well entitled to consideration as an index to the highest philosophy of the subjects with which it is occupied, or so comprehensive and exact in its appreciation of the results of modern science. The clearness and beauty of expression which distinguish it make the work sure of many readers; and from its carefully considered argument and judicial tone we feel satisfied, for the most part, to leave it in their hands, as a guide even on doubtful points, without any comment of ours.

In assuming, as the starting-point of his prelections, the pathology of the great functions of nutrition and growth, Mr. Paget has struck the key-note of modern physiological science, as applied to the study of disease. The morphological changes in the minute elements of the tissues—the importance of which it has been mainly the province of modern inquiry to discover—have (as might be expected) guided him throughout, not only in his descriptions, but in his fundamental ideas and doctrines. We are thus made to feel at every page, almost in every sentence, the debt which we owe to the progress of histological inquiry, and this in a manner far more satisfactory and convincing than is the case in many works professedly and ostentatiously devoted to the modernizing of our ideas: for, be it observed, as a proof of the good sense and thoroughly *English* spirit (we on this side of the channel may use the word without invidiousness) which pervades the work,

that, though it deals throughout with ideas, and even phrases, derived essentially from the most modern investigations, there are very few books on such subjects, from the time of Hunter downwards, where a man of ordinary professional information will find himself more at home. So skilfully are the old and the new interwoven,—so completely are they assimilated in the author's mind,—that not once in the perusal of the work have we been made to experience that painful and too familiar confusion of ideas to which we feel ourselves often condemned in the course of our critical investigations into literature of this class. The author has the somewhat rare merit of writing, with a single view to the information of his readers, in pure and intelligible language, and has not thought it necessary to ransack the Greek lexicon, or any other source of new and complicated vocables, for the purpose of superseding old favourites, or otherwise adding meretricious lustre to his discourse. It is with no ordinary feeling of satisfaction that we find, after so many formidable conspiracies to remove them from the vocabulary, our old acquaintances—*inflammation*, *lymph*, *adhesion*, *granulation*, *malignant disease*—put forward as the loadstones of our path; while the whole of the author's doctrine as regards these subjects appears to have been simplified, rather than rendered complex, by the vast mass of modern materials which he has had to include in it. Nor do we less feel indebted to Mr. Paget for relieving us in his pages from the company of those extremely *heterologous* and *caco-plastic epigeneses*, which, under the influence of a wordy *dyscrasia*, have been eliminated from the *blastema* of modern science by the misapplied energy of some of our contemporary writers.

To return to the subject of the minute anatomy of the textures, as the foundation whereon the modern pathology of structure is reared, the reader of John Hunter's work will observe, in comparing it with the one before us, a great difference in the fundamental ideas throughout. To Hunter the blood and blood-vessels were the source of all vital power, and the tissues, natural and morbid, were to a great extent the result of "vascular action." Increased determination of blood produced disease, because the vessels, which by their "active dilatation" contributed to this result, demonstrated their activity in another form, by the "effusion of coagulable lymph." The coagulation of the lymph was the result of its own inherent life, derived from the blood, which coagulates when drawn from a vein, as muscles contract after death, both processes being a last effort of vitality. Lymph, as being a part of the blood, participated in its life. The muscles, glands, and all the solid vascular tex-

tures, drew their life and functional activity from the same fountain; for to Hunter, as to the ancient Orientals, *the blood was the life*; and it took in his physiology almost the place of the mythical *Archæus* of Paracelsus, or the somewhat more philosophical *anima* of Stahl, or the "vital principle" of Alison and other modern writers. This life or vital principle being bound up with the blood in the Hunterian pathology, the investigation of that fluid was of course the starting-point of all his inquiries. The proof that this substance, "unstable as water," carried hither and thither by external forces, changing in its composition from hour to hour, was as much alive as muscle or brain, was conclusively deduced from the circumstances attending coagulation, while the much stronger evidence derived from the examination of the red globules was by Hunter disregarded, inasmuch as he considered them a non-essential part of the blood, not to be found throughout the animal kingdom. In the same way he disregarded altogether the vital properties inherent in the minuter and extra-vascular elements of the solids; and for a long time after the Hunterian epoch it was considered impossible to ascribe any active vitality to a tissue not pervaded in every part by capillary blood-vessels, which were supposed in some mysterious way to carry about the seeds of life and organization, and deposit or withdraw them along with the nutritive fluid. Had it not been for the large powers ascribed to the vessels, John Hunter's would have been the most completely *humoral* system of pathology ever given to the world; as it was, its searching investigation into the functions of the blood and blood-vessels, even though one-sided, was necessary as a counterpoise to the prevailing philosophy, which, through the labours of Hoffmann, Whytt, and Cullen, had been too exclusively bent on showing the participation of the solids, through the nervous system, in all vital phenomena.

At the present day both fluids and solids have undergone a minuter investigation, and the result has been a conviction of the imperfection of all previous theories. We now see the necessity of not confining the sphere of vital activity within the narrow limits of fluid or solid, vascular or non-vascular tissue. With microscopic eyes we are enabled to trace the actual operations of nutrition and growth beyond the immediate range of either nervous or "vascular action." We are not under the necessity of denying to cartilage a participation in the morbid phenomena of other textures, because its elements are a little further removed from contact with the blood or with the absorbent vessels, than in the case of skin or mucous membrane. We do not now look for vessels as the proofs

of organization in the products of disease, nor are we surprised to find in the "red globules" of Hewson, so much despised by Hunter, a structure beautifully organized and wonderfully endowed, though in communication with the rest of the economy through the intervention of the fluids alone. These altered views, which are the result of the researches of many observers, are fully represented, so far as pathology is concerned, in Mr. Paget's work; and in the instructive chapters on nutrition and growth, as well as in all other parts of these volumes, the reader will find these modern researches represented, not indeed as opposing, but as flowing out of and completing the older hypotheses.

In the first two lectures which relate to nutrition in its pathological relations, Mr. Paget discusses very fully, and with great abundance of happy illustrations, the laws of healthy nutrition, and the mutual re-action of all the tissues of the economy upon one another, and especially on the blood; in which, however, in conformity with the principles of Hunter and the most accurate modern physiologists, Mr. Paget recognises, not merely a nutritive fluid, or a reservoir of the system, but a living mass, having the power, within certain limits, of preserving unchanged its own constitution by forces inherent in itself. This power of independent self-preservation Mr. Paget likewise claims for the tissues, considering them not as mere deposits from the blood, but as a series of living organisms, every portion of which is placed in accurate relation with some portion of the nutritive fluid, so that neither can the blood be maintained in health while the tissues are vitiated, nor can the tissues be properly nourished if the blood is not supplied to each separate point of the organism containing the material required for its support. The extremely striking results of this mutual adaptation of the blood and tissues is pointed out in some of the specific diseases, in which there is every reason to believe that some morbid material is superadded to the blood, and in which that material is sometimes found to give rise to disease of the tissues upon a precisely symmetrical plan, thereby showing that the exactly similarly affected, though distant, portions of skin or of bone must have resembled each other (not merely in position, but in some mysterious relation to the mass of the poisoned blood), more closely than the intervening unaffected parts. We have not space to do more than to refer to the beautiful laws shortly noticed by Treviranus, and developed at greater length in these Lectures, wherein it is shown that the glands and excretory organs are not the only parts of the system where the depuration of the blood is accomplished,

but that every organ and tissue must be considered, in virtue of the material which it withdraws from and returns to the general circulation, an agent in the general work of nutrition, inasmuch as it performs its part in the elaboration, depuration, and deterioration of the fluid by which all other parts are fed. The applications of this law are very strikingly illustrated by the dependence of the growth of the hair, or of other cuticular appendages in male animals, upon the development of the sexual organs and their functions; and a pathological illustration is found in those cases of hypertrophy which spring from atrophy of a symmetrical organ, and in which it is evident that the accumulation in the blood of the material destined for the atrophied organ becomes the source of increased vigour and size to the other.

We must pass over the observations on growth, together with most of those on hypertrophy and atrophy, merely remarking that under the latter term Mr. Paget includes all the fatty, calcareous, pigmentary, and other degenerations of tissue, —an extension of the signification of this term to which we should be disposed on technical grounds to object, as leading to confusion; although, in a strictly scientific point of view, there is something to be said for Mr. Paget's method.

The lectures on repair and reproduction of tissues are among the most original in the work, and are full of suggestive doctrines and novel statements of fact which demand to be carefully weighed, and are in general stated by the author in such a way as, where there is any doubt, to place both sides of the argument most impartially before the reader. The power of repair in the higher animals resembles that of reproduction in the lower, being most highly developed where the specific life and individual character of the part or individual is lowest. Thus fibrous tissue, epithelium, capillary vessels, have an almost endless power of reproduction, resembling in this respect the polyps and monads of the lowest tribes of animals; while skin, muscle, nerve, resemble the higher animals in being more complex, with more distinctive organization, and, therefore, less capable of reproductive repetition. An apparent exception to this law is the reproduction of bone; but Mr. Paget by no means admits this as a real exception, considering, as he does, bone as a tissue of low organization, although peculiar in being the seat of a process of calcification. We must say that the arguments on this point are scarcely satisfactory to us. We can scarcely conceive of bone as being of lower organization than the cartilage from which it is produced; yet how easy of reproduction the one, and how difficult the other!

The description of the reparative process, as it occurs in various tissues, is remarkably interesting. In regard to the mode of union of fractured bones it is to be observed, that Mr. Paget denies the occurrence in man (at least in ordinary circumstances), of what has been usually termed provisional callus. Even in animals (in which Dupuytren first described this mode of union), it is not constant, as favourable specimens are only to be obtained in young subjects, and not always even in them. In man Mr. Paget has never seen provisional callus formed, except in the ribs, and in one or two other bones where the process of union was violently disturbed. Usually the medium of union is thrown out only between the fractured surfaces, and it is occupied at once by a permanent ossification. Another very prevalent idea is disputed by Mr. Paget, viz., the generally cartilaginous nature of callus. He finds that the reparative material may in passing into bone assume various types of structure: the most usual in man being nucleated or fibrous tissue, and sometimes a kind of fibro-cartilage. A true cartilaginous callus is, however, met with in some animals, and may probably also be found in favourable specimens of fracture in young children.

The consideration of the healing process in injury leads by an easy transition to the Lectures on the simplest type of disease—inflammation, a word which Mr. Paget does not attempt rigidly to define, thinking that “the attempts at precise definitions that have been made hitherto seem to have led to confusion, or to false and narrow views of truth.” With this opinion, as also with the following sentences, we very fully concur:—

“But the very difficulty of exactly defining the process of inflammation may be our guide to the most hopeful method of investigating it. When we see such gradual transitions from the normal process of nutrition to the disease of inflammation that we cannot draw a definition between them, we may be sure that the main laws of physiology are the laws alike of disease and of the healthy process; that the same forces are engaged in both; and that, though interfered with by the conditions of the disease, they are not supplanted or annulled.”

In the observation of the phenomena of inflammation in the minute vessels Mr. Paget has employed the wing of the bat, which, as exemplifying the process as it occurs in a warm-blooded animal, has some advantages over the frog's web. The results are, however, very similar, except that the stagnation of the blood is neither so complete nor so lasting as in the rep-

tile. The *rationale* of the stagnation is considered by Mr. Paget to be still obscure, notwithstanding the multiplied investigations of recent observers. Nor does he pretend to determine the *proximate cause*, or essential pathology, of inflammation; contenting himself with a description of the mode in which the nutrition of the part and its physiological relations are observed to be altered after the process has begun. The description of the products of inflammation, though interesting and accurate, contains nothing to which we think particularly necessary to call the reader's attention, except the experiments upon the fibrinous and corpuscular elements found in the fluid from cantharides' blisters. In thirty cases in which the secretions of blisters were examined by Mr. Paget, he found that the differences in the products corresponded in some measure with the nature of the disease, so that he "could generally guess accurately, from an examination of the fluid in the blister, what was the general character of the disease with which the patient suffered." The distinctions observed are thus summed up:—

"The highest health is marked by an exudation containing the most perfect and unmixed fibrine; the lowest, by the formation of abundant corpuscles, and their nearest approach, even in their early state, to the characters of pus-cells."

In his description of the development and degenerations of inflammatory lymph, as in his appreciation of the phenomenon of ulceration, Mr. Paget places himself in harmony with the modern pathology, and thereby departs entirely from the point of view of John Hunter. The theory which ascribed ulceration to the absorbing action of the lymphatic vessels, and that which considered the products of inflammation, after coagulation, to be mere passive substances, moulded by the vascular tissues around them, find no favour in his eyes:—

"If it were required to point out what, since Hunter's time, has contributed most to the progress of general pathology, one could scarcely hesitate to name the full appreciation of the fact, that inflammatory lymph and other primary products of disease have an independent life, and are, of their own nature, capable of appropriate development, degeneration, and disease. We may regard this as one of the best achievements of the observations which Schleiden and Schwann began to generalize; for till it was clearly apprehended, the idea of a part being organizable meant scarcely more than that it admitted of being organized by the forces of the parts around it; that it could be built up by the arteries, and modelled by the absorbents as a material plastic, yet passive, in the hands of workmen. Hence was derived the erroneous direction of

inquiries, which sought from blood-vessels as the essential characters of organic life in a part; and for their varieties of size, and number, and arrangement, as the measures of the ability and method of development. Now, more truly, we may study the lymph as having a life only so dependent on the blood and vessels, as are all the tissues of the body dependent on them as conditions of life, but not as sole arbiters of the method or direction of vital transformation. And I venture to think, that the chief aim of our observations in this part of the pathology of inflammation should be to learn how the exact relation in which the several products of inflammation stand to certain primary forms, as developments or degenerations from them. The catalogue of the various corpuscles is already swollen to an extent that is confusing to those that are familiar with them, and repulsive to those who would begin to study them. It would be an easy task to increase it, and it might have a seeming of accuracy to do so; but what we want is such a history of the inflammatory lymph that we may arrange the components of this catalogue as indicating so many progressive stages of development, degeneration, or disease, in the primary products of inflammation. An attempt to construct such a history is the more advisable, for the sake of the illustration which it may afford to the history of normal structures. There are, as I have already said, no normal instances in which we can see the materials that are effused for the nutrition of parts; but we may assume something concerning them and their progressive changes from the analogy of the materials that are more abundantly produced in inflammation."

Almost every one, we think, who has engaged profoundly and intelligently in the investigations to which Mr. Paget here points will be disposed to concur with him as to the necessity of our applying ourselves to the discovery of laws rather than distinctions, and of cultivating real science rather than the pretentious technicalities to which truth and reality have too often been sacrificed in pathological histology. We have long been in the habit of anticipating a return to the simplicity of that nature which we have seen with our own eyes, but of which scarcely any of our modern books communicates the slightest idea; and we are happy to find in Mr. Paget one who is not to be distracted or dazzled by the false glare of microscopic refinements, and who is more anxious to be the teacher of a true system than the discoverer of a morphological novelty. We wish we could afford space for an analysis of the fifteenth, sixteenth, and seventeenth Lectures, which deal with the products of inflammation; but we could not possibly give more than a very inadequate idea of them, and must therefore commend them to the serious study of the reader who may be induced to turn to the original work.

The second and larger volume of Mr. Paget's treatise is devoted to the consideration of tumours, including cancerous and tubercular formations. In the classification and description of these we observe the same unaffected love for simplicity, and the same distrust of excessive refinement which we have noticed above. Nor is this the result of imperfect acquaintance with the objects he describes; for while arranging the Museums of the College of Surgeons and of St. Bartholomew's Hospital, as well as in his capacity of Assistant-Surgeon to the latter institution. Mr. Paget has had unequalled opportunities of studying almost every variety of morbid growth. The present volume is the result of these opportunities, and proves him to have brought to their improvement not only an amount of conscientious labour in observation which is truly surprising, but that sobriety and clearness of judgment which distinguish the able practitioner from the mere anatomist, and which have never yet, we believe, been brought to bear in so high a degree upon this difficult subject. It would be no compliment either to Mr. Paget or to ourselves were we to say that his conclusions harmonize in all points with our own; nor are we prepared even to assert that he has definitively adjusted any considerable number of the real difficulties connected with this subject; but we can most truly state, that we have never seen the evidence connected with these doubtful points stated in so clear, true, and exhaustive a manner; nor have we perused any work which may be so confidently and unreservedly recommended as being free at once from undue dogmatism and inconsiderate eclecticism. We feel ourselves throughout in the hands of a teacher who has left no stone unturned to discover truth; and with whom, at the same time, extensive reading and observation are less displayed than concealed in the large generalizations of which the author's doctrine consists. In suppressing the full details of his cases, while he gives us ample data as a foundation for his opinions, we cannot but think that the author has done well; although, in doing so, he has departed from the usual plan of such investigations, which, notwithstanding its unquestionable advantages in some instances, is apt, in many cases, to prove a most unnecessary incumbrance to the reader.

In the precise definition of a tumour, as in that of an inflammation, Mr. Paget is not, and does not profess to be, very successful or very novel. Neither does the distinction between malignant and innocent (as Mr. Paget somewhat curiously calls non-malignant) growths in general comprise any elements which would be new to our readers, although the whole

of this introduction to the subject is beautifully expressed, and replete with apt illustrations. In the classification of the simple tumours, the author adopts the plainest and most generally acknowledged principles; and here, too, he is content to resign novelty in favour of truth. Admitting the great difficulty of good classification, he yet maintains its importance to a successful study of tumours.

In dealing with the cysts, which he divides into barren and proliferous, Mr. Paget, following the observations of John, Simon, Rokitsansky, and Mettenheimer, traces them down to their minutest forms as arising in expansions of the natural elements of the parts in which they occur. He describes the cysts in the kidney, placenta, ovary, and thyroid gland, as being the overgrowth of natural cell-forms; while some others are found by the dilatation of follicles, or the expansion of areolar spaces; and with this explanation we might, perhaps, be inclined to rest satisfied were it not that it leaves unsolved the chief difficulty, whence the cystic structures of disease derive their enormous power of growth, and in some instances of multiplication.

The fatty, fibro-cellular, and fibrous tumours, together with their varieties and composite forms, are discussed in Lectures IV. and V.; we pass over this portion of the work, however, as involving few controverted questions, and take notice only of the very remarkable facts mentioned at p. 151, *et seq.*, with respect to what Mr. Paget calls provisionally, "till their characters are more perfectly known," *malignant fibrous tumours*. The abridged history of the cases alluded to may be given as follows:—A woman, forty-seven years of age, had a tumour removed from the breast, which, by its external characters and mode of growth, had been, previous to excision, pronounced cancerous. After removal it presented, to Mr. Paget's most careful examination, no other character than that of a fibrous tumour, such as is seen in the uterus. It yielded gelatine in boiling, and contained no cells. The subsequent history of this case was in all respects that of cancer; return of similar tumours, both in the neighbourhood of the original site and in the lungs; and death after a second operation from an obstinate and extended cancerous-looking ulcer which ultimately was nearly a foot in diameter, and had walls like the finest kinds of medullary matter. The internal tumours were in this case entirely fibrous; there was, therefore, no evidence of a change in the type of the disease. The case is certainly one of a very rare and peculiar kind. Two similar histories, though scarcely so complete, are narrated; the one relates to a recur-

rent fibrous tumour of the scapula, which caused death after a second operation, similar growths being found in the lungs; the other to a tumour of the back, of fibrous character, which was excised nine months after an operation for a similar tumour in the same region. The event of this case is not stated.

Lecture VI. is devoted to recurring fibroid and fibro-nucleated tumours: two very peculiar forms of growth consisting, not, like the last, of well-developed fibres, but of fibre-cells, or of nuclei imbedded in a filamentous tissue. From their hypothetical nature (being supposed to contain the elements of nascent fibrous tissue), these tumours have been called by Lebert, *fibro-plastic*; they form, however, as we shall presently mention, only a portion of the group so called; the fibro-nucleated variety was first described by Dr. Hughes Bennett; and both kinds have been placed by these authors among the "canceroid" growths, from the fact of their not containing those cell-forms supposed to be essential to a truly cancerous structure. A very complete and careful statement of the facts bearing on these growths is given in this chapter, and we think Mr. Paget does wisely in refraining, in the meantime, from technical controversy, and adjudging them a place among the suspicious but not certainly malignant tumours. They are distinguished by their structure, as above indicated; by an extreme proneness to return at the original site; sometimes by a tendency to ulcerate; but on the other hand by the absence of a cachexia and general infection of the system, or of the lymphatics; and occasionally by the cessation of the tendency to recurrence, and complete recovery.

More or less akin to these growths are the "myeloid tumours" of Mr. Paget, which include a large proportion of the fibro-plastic growths of Lebert, especially those arising from bones, and known to surgeons as forming many cases of *epulis*. These are distinguished microscopically, not only by the presence of fibre-cells, as above described, but by "large, round, oval or flask-shaped, or irregular cells and cell-like masses, or thin discs, measuring from $\frac{1}{300}$ th to $\frac{1}{1000}$ th of an inch in diameter and containing from two to ten or more oval, clear, and nucleolated nuclei;" and the affinity of these last constituents to certain cells found in the marrow and diploe of bones has suggested to Mr. Paget the distinctive term above mentioned. M. Lebert, trusting to the absence of the so-called specific cancer-element, places these tumours unhesitatingly among the "canceroids" or pseudo-cancers, notwithstanding their formidable character, their tendency in some cases to ulceration, their frequent local, and occasional general recurrence. Mr. Paget, on

the other hand, although inclining to believe the myeloid tumours in their most characteristic form non-malignant, hesitates to commit himself to an exclusive statement on this point. Indeed, it would be difficult, in the presence of some of the facts narrated by him, to exempt them from the strong suspicion of malignancy.

We cannot afford space to dwell on the remaining classes of the non-malignant, or not decidedly malignant growths. On each of these—the cartilaginous, the osseous, the glandular, and the vascular tumours—the reader will find many facts of interest in the work before us; and in all cases the summary of conclusions is, beyond all that we have seen before, comprehensive and exact. The difficulties in the way of dogmatic statement are often, indeed, too great to be satisfactorily overcome; and in these cases it is very creditable to the author that he is content to state calmly and correctly both sides of the case, and then to leave it, without any affectation of superior penetration, in the hands of the reader. We are very far from thinking that Mr. Paget's authority as a writer will be at all weakened by these candid confessions of his own difficulties; we are sure it will not be so with those who are in any degree practically acquainted with the subject.

The malignant tumours, or cancers, are divided by Mr. Paget into the following varieties:—the scirrhous, medullary, epithelial, colloid, osteoid, melanotic, villous, and hematoid. In making this classification the author has, for the most part, employed terms familiar to the best-informed modern pathological students, and he has evidently been solicitous to avoid any appearance of unnecessary innovation. Some of the terms may appear unfamiliar to the ears of practical surgeons, or to those who have not recently revised their pathological information; but they have arisen out of the necessity of considering these growths from a new point of view—that which arises from the combination of microscopic data with those furnished by the unaided senses. The scirrhous, medullary, colloid, and melanotic varieties must be sufficiently well known—at least in general terms—to all; the hematoid includes many of the cases formerly called fungus hematodes by Mr. Wardrop; the epithelial, osteoid, and villous cancers may, perhaps, to some of our readers, require explanation.

Epithelial cancer is a disease long known to the surgeon in the form of the so-called pseudo-cancer of the lower lip, of the chimney-sweep's cancer of the scrotum, and of various kinds of suspicious or decidedly malignant growths from the skin, prepuce, labia, neck of the uterus, tongue, or œsophagus. Its

spreading character and tendency to local recurrence had long, by common consent, placed it among the suspicious growths; while the comparative frequency with which the excision was followed by a perfect cure seemed to remove it from the category of the decidedly malignant tumours. The difficulty experienced of deciding, *à priori*, in individual cases, as to the chances of return, led to a very natural suspicion that several varieties of disease might have been confounded under a common name, owing to the imperfect appreciation of structure by the unaided eye, and sanguine hopes were entertained by many that the microscope would prove successful in resolving these superficial growths into a malignant and a non-malignant class. These hopes seemed to be fulfilled in the works of M. Lebert, who first clearly described the microscopic structure of the epithelial growths, and who, according to his theoretical ideas of the essential anatomy of cancer, affirmed the non-malignant nature of the greater part of them. Without entering into the details of these distinctions—which would be unintelligible without some kind of pictorial illustrations—we may state in general terms, that the usual epithelial growth of the lip and scrotum may be regarded as the type of the “cancroid” of Lebert, and that his system of classification had a tendency to detach it from the group of the cancers, and place it in near relationship to the condylomata and warts. Facts which have accumulated in considerable numbers, and in the experience of various observers, since the first publication of M. Lebert’s researches, have clearly shown, however, that, unfortunately for humanity, these inferences from the structure of epithelial growths cannot be sustained as a guide in practice; and it is now, we think, beyond all question, that the boundary wall placed by M. Lebert and his followers around the dark realm of malignant disease has been made, in this and other cases, to exclude structures whose affinity with the true cancers, both structural and physiological, can no longer be denied. The admirable statement of the facts bearing on this subject, in Lecture XII. of Mr. Paget’s second volume, substantially agrees with all that we have been able to observe, as well as with what has been long known to practical surgeons; and we have little hesitation in commending to the attention of our readers the careful and elaborate chapter to which we refer, as a complete view (according to the present state of science) of the pathological relations of these very interesting tumours.

The *osteoid* and the *villous cancers* (the first described by Johannes Müller, the second by Rokitansky) are among the

rarer types of malignant disease. The former is hard, partially bony in structure, and resembles the ordinary cancers only in its disregard of the individualities of tissue, in its multiple production, and occasional combination with hard or soft cancer of the usual types. The villous cancer is a fungous growth, most frequent in the urinary bladder, the general pathological relations of which appear to approach the epithelial cancers, but of which the number of examples completely described is as yet scarcely sufficient for the full understanding of its nature.

The descriptions given by Mr. Paget of all the different varieties of cancerous growth are followed by an account of its general history; its relations to sex, age, &c.; its frequency; and other circumstances of pathological and practical interest, founded on an analysis of the whole of the very numerous cases which he has himself recorded. The value of this part of the work can scarcely be overrated as a foundation for subsequent inquiries; but its necessarily complicated character precludes us from entering upon its consideration.

In discussing the general questions connected with the pathology of cancer, the same clearness and impartiality of judgment, to which we have already referred, is eminently displayed. We wish we could quote at length his conclusions in relation to the characteristics of the cancerous structure, but we can only find room for a few sentences in which he disposes of the so-called heteromorphism of cancers. So quietly are his views stated on this point, that the reader will scarcely suspect that they are directly opposed in their results to some of the most ambitious speculations of the present day. It should be remembered, that though the supposed specific distinctions of cancerous structures have never been admitted, as a general rule, to be of the absolute kind sometimes asserted, they have formed the object of much controversy, and have misled the unwary and the enthusiastic to such an extent as to have brought microscopic inquiries into discredit with many very able and well-informed practical men.

“Various as are these corpuscles of cancers, it is yet to be observed, that there is none so entirely different from those of normal structures that we cannot point out among them its type or parallel. No observation since Müller’s time has invalidated his demonstration of this principle. The experienced microscopist will, indeed, very rarely fail in the diagnosis of a cancer by its minute structures; but he only discriminates them as specific modifications of the nucleus, nucleated cell, endogenous cells, and other forms, *of which the types are in natural parts: he finds among them*

no new type-forms. In like manner, the elemental cancer-structures show *no method of growth or development which is without parallel in natural structures*; they are formed and increased according to the same general laws as are observed in the normal rudimental structures. Their peculiarities in this regard are chiefly in the seeming disorder that often prevails among them in the absence of an apparent singleness of design."

The question of homology and heterology in cancer is to a certain extent capable, like the shield in the story, of being differently viewed according to the position and antecedent prejudice of the disputants; but there can be little doubt that the tendency of microscopic investigation, on the whole, has been rather to break down than to raise up barriers between the malignant and non-malignant tumours. To see the truth of this position, it is only necessary to compare the doctrines of Paget, Virchow, and others, who represent the latest phase of the inquiry, with those of Lebert, who, a few years ago, promised a sure diagnostic aid to the surgeon in the "specific cancer-cell," and found not a few enthusiastic followers. Indeed, any one who consults the last work of Lebert will be satisfied that he is himself engaged in explaining away his own refinements, although, perhaps, still unconscious that in doing so he has, like Prospero, broken the magic staff, and drowned the book that appeared to herald a new era in practical surgery; and there is little doubt that the observations which he has given to science will continue to be valuable, and to bear testimony to the general excellence and accuracy of his labours, long after the theory which originally bound them together has been consigned to the limbo of scientific vanities. Again, who is there that does not remember the mysterious significance supposed to belong to "caudate corpuscles," on the suppositious authority of some passages in Müller's admirable essays on the characteristics of tumours? If these speculations have been disowned by modern inquirers, it is not the less true that science has reaped a large and legitimate harvest of important principles, and instructive observations, from the attempt to solve the difficulties of the surgeon; and now that a more reasonable view has been taken of her aims, and that there is less disposition to look upon every new discovery in morphology, singly, as the talismanic key to Nature's cypher-writing, the observations of Müller, Gluge, Lebert, Sedillot, Bruch, Henle, Virchow, Bennett, and a host of others, will be turned to their best account. In works like that before us, the flip-pant scepticism too common among surgeons, and the whimsical mixture of dogmatism and uncertainty which generally

distinguishes the Laputan philosophers that can only see correctly through 800 diameters linear microscopic power, stand alike reproved and corrected. Every one who has observed the mode in which practical surgeons have encountered the new circle of ideas opened by microscopic inquiry must have often seen the great interests of science and truth sacrificed to the desire of a petty personal triumph. No doubt both parties have been to blame for this; and the microscope, as an instrument of scientific inquiry, has suffered as much from the eager haste of some to be wise by it alone, as by the culpable indifference of others to the results attained by it. The day has happily gone past, however, when its usefulness can be brought into controversy; and we trust that we may now await the result of further discussions on disputed points of pathological science without feeling that the world is divided into two great parties, each of which, with very imperfect ideas of the questions at issue, is trying to force its own hasty intuitions upon the other, and thus to narrow, instead of widening, the basis of our knowledge. Mr. Paget's work proves that he has had the hearty co-operation and confidence of his colleagues at St. Bartholomew's Hospital, and of many other surgeons in and out of London, in his most successful enterprise; and we cannot but believe that men of like mind with him will everywhere have it in their power to overrule the small prejudices and petty polemical spirit to which we have alluded, and thus to advance that fusion of modern investigations with the results of past experience, which is essential to all sure progress.

It only remains for us to notice the concluding Lecture, which, though dealing more in medical than in surgical illustrations, is to our mind one of the best in the volume. In describing *tubercle*, and following out the general pathology of its changes, Mr. Paget gives a very condensed but extremely complete account of his own experience in regard to the structural peculiarities of pulmonary tubercle, and of its changes in the direction of *withering*, *calcification*, and *softening*. He adopts, to a considerable extent, the views of recent observers, which tend to show that the elements of tubercle are a degeneration of the normal tissue—elements, rather than a new formation. The “specific tubercle corpuscles” he regards as shrivelled nuclei and imperfect cells, the most abundant and distinct, but not the exclusive or essential elements of a tubercular formation. In the lungs he refers them, like Virchow and Schroeder van der Kolk, to changes in the epithelial cells of the air-vesicles; and though we do not entirely coincide in this

opinion, at least without stating it in a different and, as we think, more comprehensive manner, we are unwilling, in the limited space that remains for us, to do more than hold out this as a point deserving of reconsideration. The disputed question of the relation of tubercle to scrofula is discussed in an admirable spirit, the author admitting the vagueness of the term *scrofula* as at present used; but being content apparently to leave it in the hands of those who require it, instead of abolishing it at once, like Henle, or cooping it up within the limits of an arbitrary definition, as many of the French pathologists have done:—

“It has been proposed, but I doubt whether it be practicable, to make ‘scrofulous’ and ‘tuberculous’ commensurate terms. As at present generally employed, the former has a much larger import than the latter. The relation between the two is, that the ‘scrofulous’ constitution implies a peculiar liability to the tuberculous disease, and that they often co-exist. Their differences are evident, in that many instances of scrofula (in the ordinary meaning of the word) exist with intense and long-continued disease, but without tuberculous deposit; that as many instances of tuberculous disease may be found without any of the non-tuberculous affections of scrofula; that, as Mr. Simon has proved, while the diseases of ‘defective power’ may be experimentally produced in animals by insufficient nutriment and other debilitating influences, the tuberculous diseases are hardly artificially producible; that nearly all other diseases may co-exist with the scrofulous, but some are nearly incompatible with the tuberculous.

“Now whether we disuse, or still use in its vagueness, the term scrofula, we may make a group of the ‘tuberculous’ diseases, defined by the peculiar morbid product, of which I have described the chief characters. Only at present we must be content, I believe, to be sometimes in doubt whether the substance found in lymphatic glands, and commonly known as scrofulous matter, be truly tuberculous matter or degenerate lymph or pus.”

We conclude with the above extract our notice of a work which has afforded us a satisfaction much more complete than usually falls to the lot of the critic, and which will long be looked upon as a classic in English medical literature, whether we regard its matter or its style. If we have adverted to but few points where our own opinion differs from that of the author, it is because he has invariably left those points to a certain degree open to discussion, after laying an impartial statement of facts and arguments before the reader; and perhaps it forms the best concluding commentary we can make on the spirit that pervades these volumes, to say that although our own

studies in these matters have embraced nearly all the more important subjects referred to, and have been in no degree guided by those of Mr. Paget, we have not once thought ourselves obliged to remark on a statement as being undoubtedly incorrect, or on a theory as being much too dogmatically expressed. The book, therefore, is, in our opinion, eminently safe, as well as eminently instructive.

Introduction à l'Étude Médicale et Philosophique de la Surdité-Mutité. Par M.-E. HUBERT-VALLEROUX, D. M. Paris: Victor Masson. 1853. 8vo, pp. 126.

THE Academy of Medicine of Paris has been very lately engaged in considering a most important question to every lover of humanity,—the curability of the deaf-mute. Several sittings of that learned body have been devoted to an inquiry into the nature and causes of this singular infliction and its remediability; and numerous works have within the past half-year been published on the subject. Many possess both much interest and merit, but from among them we select that of M. Hubert-Valleroux, which, clear and concise, will enable us to lay before our readers a brief outline of the sum of our knowledge on deaf-muteism, viewed as a malady within reach of the medical art.

A follower of M. Itard, to whom so much is due for his investigations into the true nature, causes, and treatment of deafness, the author, adopting as his motto an extract from the writings of that eminent man, "Placé ou, pour mieux dire, ignoré entre les confins de la philosophie et de la médecine, le sourd-muet n'a jamais été bien étudié ni par l'une ni par l'autre," proposes to undertake a similar inquiry into deaf-muteism. He had at first intended to have delayed publishing until he had completed two large volumes on the subject, in preparing which he has been for a considerable time engaged; but, yielding to the advice of some medical friends, the present *résumé* of the results of his labours is now issued to the profession. This essay is divided into eight chapters, the first three of which may be considered as introductory, yet containing matter of much interest on the distribution of deaf-mutes as regards the population of the world, the importance of their treatment, the nature of diseases of the organ of hearing, and the causes of deaf-muteism.

The number of persons afflicted with this woful infirmity is much greater than is ordinarily supposed, amounting to not

less than 30,000 in France, and being calculated by the most recent statistical inquiries at 300,000 in Europe, "sufficient," as M. Hubert-Valleroux observes, "to people three first-class cities." They are, however, very unequally distributed over the face of the globe, and present a singular alternation with the blind. Where cases of blindness predominate among the people of different countries deaf-muteism is rare; and, on the other hand, where the latter is in excess, blindness is less frequent than usual. "As we approach the equator," says the author, "blindness predominates; for example, in India, in Egypt, and in Ethiopia; it is also in excess in the Arctic regions, amongst the Laplanders, the Tartars, and the Esquimaux. But deafness is of more frequent occurrence in temperate climates, and especially in mountainous regions, as in Switzerland; there we find a single canton, that of Berne, for example, in which one deaf-mute occurs amongst every 250 inhabitants; the district of Schwarzenburgh, 1 in every 103 individuals; and the Commune of Weyach, 1 in every 44! In this same Switzerland, within an area of a few hundred miles, we are presented with a remarkable example of the contrast just indicated. The northern part of the basin of the Aar, which is low and moist, and the western part, which is connected with the Alpine formation, both contain a vast number of deaf-mutes and but few blind; while the southern portion, opposite to Jura, which presents an exactly reverse climatic condition, abounds in persons afflicted with blindness, while the deaf-mute is of rare occurrence." This is a most singular dispensation of Providence, which, as far as we are aware, has been here for the first time fully noticed, and in proof of the truth of which the author gives several other examples. Its occurrence may, we think, be explained on true physiological principles: the great preponderance of light, whether directly from the rays of the sun in the torrid zone, or reflected from the snows of the northern climates, is a powerful cause of blindness; while the absence of light, together with dampness and moisture in excess, predisposing to insufficient development of the body generally, may be regarded indirectly amongst the causes of deaf-muteism. A certain geological formation of a district preventing a permeation of the surface water, and thereby keeping the soil in a continued state of dampness, as pointed out by Schneider, Amstein, Studer, and Schmalz, must for the same reason be taken into account in estimating the causes of the distribution of this infirmity amongst the peoples of the world. Moral influences, also, have a decided effect, as is well exemplified by the black population of the

United States of America, amongst whom deaf-muteism is excessive, amounting in some places to 2 per cent.

The more immediate causes of deaf-muteism, according to the author, are—hereditary tendency, which he places in the first rank; near relationship of the parents, which we regard with him as a well established fact; and passion, powerful excitement, or excessive fright of the mother while pregnant. Deafness resulting from disease in early infancy is manifestly the most direct cause, but in this case the affliction cannot of course be regarded as congenital.

In the fourth chapter the author describes the characters of deaf-muteism. Equally varied as the causes by which it is produced are the organic lesions on which it depends, and no matter how much education may improve and correct the manifest symptoms, it rarely and with great difficulty effaces them altogether. "The deaf-mute seldom holds himself erect; his attitude, naturally stooped and awkward, demands close attention and lengthened time to be brought even to the ordinary carriage of children of his age. Inquisitive, inclined to talk, with no other means of expression than gestures, he is continuously mimicking everything, and grimacing, his features, little intelligent though they are, being in a constant state of singular mobility. Impetuous, and of extraordinary vivacity, the movements of most deaf-mutes are nevertheless gentle and curiously graceful. Our celebrated tragic actress, Rachel, witnessed with admiration the depth of power and charm of gesticulation in many of the pupils of the school at Nancy, especially in Miss Ackerman, whose education does great honour to M. Piroux." The truthfulness of the foregoing description of M. Hubert-Valleroux will be recognised by all who have paid the least attention to persons thus afflicted, and in the same eloquent strain, from which we regret not being able to afford room for lengthened extracts he paints the features which characterize the deaf-mute.

The existence of deaf-muteism from birth, according to the author, is, contrary to the popular belief, the exception, and not the rule. Itard reports, that of 51 pupils in the institution at Leipsic but 22 were born so; at Prague there were only 19 congenital cases out of 54; and nearly similar results were obtained at Cologne and Hamburg, on the Continent, and in Hartford and Philadelphia in the United States. But here it must be remembered how very difficult it is to come to a correct conclusion as to whether an infant under a year old is deaf or hears, and also that parents are naturally very unwilling

to acknowledge that their children are born deaf-mutes; nevertheless, many cases can be distinctly traced to attacks of the eruptive fevers, head affections, &c.

In his fifth chapter the author commences to speak of the curability of deaf-muteism. He first glances at the fact of the affection being made the prey of quacks who confidently promise a cure in all cases, especially noticing the claims of mesmerism in the last century, and animal magnetism in the present day, as affording a certain means of restoring both hearing and the power of speech, yet always resulting in disappointment of the hopes of those submitting their friends and relations to the operations of either; and then refers to medical men who, adopting the opposite view, affirm the total incurability of deaf-muteism. Taking a mean between both, M. Valleroux affirms that sufficient unquestionable evidence exists to prove, that in some cases nature either alone, or aided by art, has effected a cure in the case of the deaf and dumb, and, therefore, that its curability is beyond doubt. In proof of this assertion he narrates some cases from the writings of others, in some of which perfect recovery took place spontaneously, and in some from medical treatment.

“The deaf-mute, who offers the most favourable hopes for treatment, is the one in whom *accidental* deafness has occurred at the age in which children begin to hear and to speak, and who still retains some power of hearing and of speaking. If the organic lesion, the primary cause of the infirmity, has its seat *without* the nervous centres; if the child endowed with intelligence has neither brothers nor sisters similarly affected; if his parents were healthy,—not blood relations; and if he has not been before submitted to treatment; the chances of cures are favourable, almost certain if all the above circumstances characterize the case; on the contrary, if one or more of them are absent, the chances become proportionately unfavourable; and when none of them exist, the prospects of cure are but trifling. We may, however, expect to ameliorate certain cases of deafness which are congenital, or which have resulted from the eruptive or catarrhal fevers during the earlier months of life: of this I have seen more than one example. But we cannot hope to cure or even improve the condition of those in whom the malady has followed upon fevers or cerebral lesions.”

We should not, however, concludes the author, be too positive in our prognosis as regards incurability in any case, for the *vix medicatrix naturæ* is in some instances wonderful. In illustration of this he narrates the case of a boy nine years old, who had never spoken, and who could scarcely hear the sound

of a cannon, and whose only sister was a demi-mute; moreover, both had been previously treated unsuccessfully by a celebrated practitioner. After thirty sittings—the boy was still under treatment when M. Valleroux wrote—he could not only hear the vowels, but, the voice being modulated, reply to a number of questions without seeing the speaker. The Eustachian tubes were in this case closed, and the sensorial apparatus in a state of complete torpor. The medical treatment consisted in catheterism of the Eustachian tubes, and the insufflation of stimulant vapours into the cavity of the tympanum.

M. Valleroux well remarks on the empiricism which exists generally among medical practitioners in the treatment of deafness and other diseases of the ears; they hesitate not to use the most severe and painful remedies in these affections, the true nature of which they are ignorant of, while in maladies of other organs with which they are well acquainted they would fear to have recourse to such heroic measures. Partial resection of hypertrophied tonsils is the most painful operation he has ever practised, and this even but very rarely; catheterism of the Eustachian tubes he uses freely, and he has also much faith in injections of medicated vapours into the cavity of the tympanum. The vapours he employs are those of the gum-resins and essential oils, very rarely either ether or ammonia. He also applies to the throat solutions of nitrate of silver and of tannin, —the latter in a saturated state he has found very beneficial when applied daily. As an external counter-irritant he uses a mixture of three parts of almond oil and one part of croton oil, rubbed over the skin, near the angle of the lower jaw, so as to produce a redness which would last for from two to five days. In all cases especial care must be taken to make a correct diagnosis as to the cause of the deafness before these remedies are used. According to the circumstances of individual cases, M. Valleroux administers emetics—which were highly thought of by Itard—purgatives, alteratives, tonics, &c.

“It should never be forgotten that in the treatment of deaf-muteism, more, perhaps, than in any other infirmity, the first condition of success consists in affording the patients such care and hygienic precautions as experience has proved the necessity of. If the deaf-mute is left in the unfavourable condition in which he has contracted his malady, or if the scrofulous, syphilitic, or other constitutional derangement, under the influence of which his infirmity has been developed and persists, be not attended to, all efforts of cure will prove miserable failures.”

The seventh chapter opens with the following theorem:—
“To restore hearing to a deaf-mute will not suffice to give him

the power of speech." It is, therefore, necessary to provide institutions presided over by persons who have made the teaching of language to such individuals a special object of study in order to complete the cure but partially effected by medical treatment in the restoration of hearing. M. Valleroux here notices shortly the errors of Itard and others who have written on this subject, but refrains from an exposition of the views which, in conjunction with M. Valade Gabel—who has specially devoted himself to the educational cure, if we may so term it, of deaf-muteism—he has arrived at and successfully put in practice, until the publication of the large work on which, as we have already stated, he is at present engaged, and to which the present essay is prefatory.

In the eighth and last chapter are contained some "philosophical considerations on language," chiefly with reference to the complete curability of the deaf and dumb.

The Pathology of the Bronchio-Pulmonary Mucous Membrane.

By C. BLACK, M. D., &c., Chesterfield. Edinburgh: Sutherland and Knox. 1853. 8vo, pp. 99.

To trace the advance of medical science, and detail those various steps by which it has attained to its present altitude, would involve an analysis of the various means employed for the guidance of the judgment, and the formation of just opinions. To those curious in such matters, no subject could be more interesting than the improvement which has of late years been perfected in the diagnosis of thoracic diseases. The history of their progress is a lesson in medical philosophy which establishes beyond doubt, that for the practical purpose of cure, or the scarce less important duty of opinion, the careful observation of manifest effects in a great measure supplies the deficiency which our imperfect acquaintance with less evident exciting causes, or coexisting conditions, of necessity entails.

The study of the vital pathology of thoracic diseases has since the days of Laennec been each day progressing. As Irishmen we feel no small pride that many of the most important additions to the medical literature of this class of affections have emanated from those either occupying prominent positions in the Dublin Medical School, or who, within the wards of our metropolitan hospitals, had laid the foundation of European reputation.

The appearance of Dr. Black's work on the Pathology of the

Bronchio-Pulmonary Mucous Membrane we greet with every feeling of satisfaction, since it promises to supply the only deficiency that at present we are conscious of in the diagnosis of the most important, because the most-widely-extended class of diseases, on the just estimation of which so much of the honour of medicine depends.

The affections of those more obscure organs, whose physical examinations are less within our reach, have already had much of their doubt and uncertainty dispelled by the practical application of those collateral sciences whose aid Dr. Black has the merit of having, in a less difficult class of affections, rendered subsidiary to the means we already exercise for the purposes of their recognition. That which histologists have accomplished for the diagnosis of renal and hepatic affections Dr. Black essays in his present publication. Investigations of such a character as those which he has instituted being, we conceive, all that is required to invest the diagnosis of diseases of the pulmonary structures with as much of certainty as the physician can hope to obtain.

Premising that a correct knowledge of diseased structure, and of diseased action, predicates a perfect acquaintance with healthy structure and with healthy action, Dr. Black enters fully into the description of the normal condition of the bronchio-pulmonary membrane, in which his opinions are somewhat different from those to which other authors have already given expression. Dr. Black writes:—

“In contradiction to the statement, that the epithelium is not continued into the ultimate cells of the lungs, it may be observed, that if a very thin slice of pulmonary tissue be taken from the surface of the lung, macerated for a short time in distilled water to decolorize it, and be afterwards subjected, between two slips of glass, to the microscope, each pulmonary cell is seen to have a perfect lining of epithelium.”

That this continuity of structure which Dr. Black demonstrates might, in the absence of such direct proofs, have been inferred from the due appreciation of disease as evidenced by auscultation, we believe experience establishes. Dr. Stokes, in his master work, speaking of pneumonia, observes (p. 309): “When we find that this parenchyma is made up almost altogether of air-cells and minute bronchial tubes, and when we examine a lung which has passed into the more advanced stages of pneumonia, and observe the filling up and distention of the cells, and the exudation into and obliteration of the minute

tubes, we must admit that he who would call pneumonia a bronchitis of the terminal tubes, would be hardly guilty of a misnomer."

The pulmonary epithelium has its double use for the purposes of the economy. The protection of the basement membrane by the formation of a continuous layer, and the secretion or elimination of a special fluid for its lubrication, while a further and most important office, Dr. Black believes, it is also adequate to fill, since, in certain morbid conditions of the system the epithelial cells act the part of true excretory organs when, through them, morbid elements are eliminated from the blood. An analogy is thus established between the secreting surfaces of the pulmonic and those other viscera, which, in specific diseases, are believed to be accessory to certain chemico-pathological changes,—the difference between the eliminative action of the two epithelia being, that in the class of diseases of which Dr. Black treats, the evidences are physical, tangible, and chemically determinable, while the morbid products in the other are assumed, and as yet elude our most delicate means of research.

The microscopical analysis of the primary or basement membrane, as also of the fibrous tissue of the bronchio-pulmonary membrane, is fully set forward, leading to the inference that the presence of epithelial scales in the secretion of the latter is partly owing to the abortion of the epithelial nuclei, partly to the detachment of the growing nuclei from their nutritive matrix,—since the process of cell-growth being capable of interruption by the operation of accidental causes, all the nuclei of the basement membrane do not attain perfect cell-development, and thus patches of its superficial layer appear in almost every specimen of the fluid examined.

Having entered into the minutiae of organic construction, as shown by microscopical investigation of the several tissues, the author observes:—

"Were life dependent on a strict maintenance of these exact conditions, disease would in every instance prove fatal. To obviate this, we find that life may be maintained, although perfect health may not be enjoyed, within a certain range of excess or deficiency of action of the different organs which contribute to the preservation of life, by virtue of the similarity of action of the different parts of the same organ, and of a kind of compensatory action of organs exercising a totally different function in the system."

Comparison is thus admitted as the only safe foundation for an opinion, whether it be based on the observation of physical

changes, or the estimation of their consequent vital manifestations.

Dr. Black, in his experiments respecting the coagulability of albumen, differs from the result arrived at by Dr. Carpenter, inasmuch as he observes, that acetic acid, contrary to the opinion expressed by physiologists, does not *dissolve* albumen, but, like other acids, *coagulates* it. The author, however, agrees with Kirkes and Paget respecting the solubility of "coagulated albumen" in acetic acid, if boiled with it, while denying that the process of simple digestion is adequate to such an end. The want of accordance between their results seems to consist in the details of the process employed not being sufficiently explicit, since it is admitted, that albumen is soluble by digestion in the solution of caustic alkali, and by boiling in acetic acid. The matter is too easy of demonstration to admit on other grounds of so material a difference. That acetic acid coagulates albumen in its natural state, but is also capable of perfectly dissolving the same coagulum when subjected to boiling heat, Dr. Black has in his experiments verified.

Proceeding to the investigation of the diseases and lesions of the bronchio-pulmonary mucous membrane, we find them ranged under the following heads:—

- 1st. Inflammatory diseases.
- 2nd. Diseases for the most part non-inflammatory.
- 3rd. Lesions of structure.

While inflammation of the bronchio-pulmonary membrane may be,—1. Simple, acute, or chronic; 2. Sthenic or asthenic; 3. Specific; acute inflammation is subdivided into:—1st. Simple acute epithelial bronchitis. 2nd. Bronchitis involving the sub-mucous tissue. 3rd. Cellulitis, or inflammation of the epithelium of the pulmonary cells.

The first pathological condition of epithelial bronchitis is described as being characterized by inordinate congestion of the blood-vessels, when narrowing of the caliber of the air-tubes is consequent on vascular pressure. Hence arises the sensation of a tightening of the breathing, and of oppression in the chest. This pressure, acting as an irritant on the accompanying pulmonic nerves, by reflex action induces cough, which is at first unattended with expectoration, owing to the temporary suspension of the supply of the nutritive blastema furnished by the blood. At length, in the surcharged vessels the continued pressure of the blood overcomes the vital tonicity of the capillary walls, and exudation is poured out more quickly than in the healthy nutrition of the part. A condition identi-

cal with this has been described by Dr. Stokes as denoting the first stage of pneumonia, in which "the lung is drier than natural, with intense arterial injection. No effusion of blood into the cells." So far ordinary and microscopical observation coincide.

This doctrine of reflex action through the pulmonary nerves may sufficiently account for the paroxysmal attacks witnessed in asthma and hooping-cough, as well as those sudden nervous complications which arise pending many chest affections; while the apparently normal character of the sound elicited by percussion is justly ascribed by the author to our incapability of appreciating those fine differences of necessity present. The ordinary laws of acoustics would negative the supposition that, consequent on such admitted differences of structure, the production and transmission of sound would be unaffected.

Many years have elapsed since it was written^a,—"It would be an interesting question, as connected with the want of dulness in bronchitis, to determine whether, pending the turgescence of the bronchial membrane, some degree of dilatation of the air-cells may not exist, so that the air thus accumulated might compensate for that which has been displaced by the state of the mucous tissue. Could we thus account for the clearness on percussion, notwithstanding an extensive congestion of the minuter tubes?" We shall find this inquiry is answered in a more advanced part of the present work.

This uncertainty of percussion is fully counteracted by the fact that, consequent on the diminution in the diameter of the affected bronchi, the inspiratory and expiratory air is thrown into sonorous vibrations, and hence the production of certain ronchi, the loudness and shrillness of which are proportionate to the size of the opening, the sharpness, tenseness, and rigidity of its edges, as well as the rapidity of the moving column of air. The negative and positive indications thus assist each other, since the chief guide to diagnosis rests "in the absence of dulness, and the existence of acute irritation of the lung".

Reasoning on this pathological condition, the treatment indicated is:—1. To unload the overburdened capillaries. 2. To prevent their subsequent distention. The means the author proposes are,—general depletion, purgation, and increasing the secretions generally, with the constant breathing of *cold* air, by which the tonicity of the capillary vessels may be both excited and maintained.

^a Stokes' *Disease of the Chest*, 1837, p. 68.

^b Stokes.

"The second pathological condition of epithelial bronchitis," or the stage of secretion, is characterized by the presence of mucous and submucous ronchi, when, consequent on the elimination of mucus, the surface of the membrane is covered with an excess of its natural secretion, coincident with which is the reduction in size of the distended capillary vessels, and relief of the pressure they exercised on the nervous filaments, leading to corresponding diminution of the cough.

This disease microscopical observation seems to point out as consisting in "an excessive nutrition, arising out of an overplus of nutritive blastema supplied to the basement membrane, and consequently exciting inordinate cell-growth in its epithelial covering." From the absence of all inflammatory exudation in the bronchial secretion it is concluded, that the submucous tissue is not affected. The author thus differs from Dr. Williams, who regards the degrees of intensity of acute bronchitis to be a question rather of extent than of pathological character, inasmuch as, in the milder kind (epithelial bronchitis), there is presumptive evidence that the submucous tissue is not the seat of exudation; whereas, in the severer kinds of bronchitis, inflammatory exudation invariably occupies that structure. The microscopical appearance of the secretion in this stage is as follows:—

"It consists of well-formed mucus-corpuscles, mingled with epithelial or basement patches, floating in a viscid fluid menstruum—the contents of cells which have already liquefied. The epithelial or basement patches are chiefly present in the first portions of the secretion, and are caused by a blighting of their cells by the suspension of the natural fluids, transudations from the blood through the basement membrane during the previous stage of the disease. Sometimes these patches are formed entirely of epithelial cells which have almost attained a perfect development, but which yet cohere by their edges."

The curative indications deducible from such appearances are:—1. To diminish the supply of nutritive blastema to the basement membrane, and thereby to limit the amount of cell-growth upon its free surface. 2. To restore the vital tonicity of the bronchial capillaries, and thus to enable them to reduce their quantity of blood to the healthy standard. For the means the author proposes to accomplish these indications we must refer to the work itself.

The difference between bronchitis involving the submucous tissue and the epithelial variety is thus specified:—

"Epithelial bronchitis is always acute, whereas the above variety

may be either acute or chronic. The former is always sthenic in type; the latter is either sthenic or asthenic. In epithelial bronchitis the epithelium and basement membrane only are affected; in the above variety the submucous tissue is likewise involved. In the former the discharges from the affected membrane consist of epithelial scales or patches, and an excess of the natural secretion; in the latter, certain organic and inorganic bodies are added to the above. The effects of epithelial bronchitis are, epithelial desquamation or ulceration, and epithelial and basement hypertrophy. Of bronchitis involving the submucous tissue, ulceration, hypertrophy, bronchial abscess, and bronchial obstruction, as primary; and emphysema, bronchial dilatation and collapse, and atrophy of the pulmonary tissue, as secondary."

The submucous tissue being involved, the bronchial congestion is more intense, and the phenomena arising out of it proportionately aggravated; while, in this stage, if the disease is at all extensive, and more particularly if it affects the capillary bronchi, a slight yet manifest deadening of the percussion sound is present.

The modification of dulness in this stage is regarded by the author as being dependent on the extent and type of the disease, and on the particular bronchi affected. The suggestion of Dr. Stokes respecting the rarefaction of the included air, owing to the impediment offered to expiration by the narrowing of the bronchial tubes, is negated on the ground, that the force of the expiratory act more than counterbalances the slight opposition afforded by the mere turgescence of the bronchial membrane.

The indications for treatment are:—1. To relieve the congested condition of the bronchial membrane, by derivation of blood to the skin, and occasionally to other organs, for the purpose of increasing their function. 2. To maintain the due aëration of the blood, and to give to the latter sufficient nutritive materials to support the general system, and to restore its deficient tonicities. 3. To gradually excite the vital tonicity of the capillary walls, by the constant inhalation of a cool air.

In the second stage of this form of bronchitis involving the submucous tissue, the presence of pus-cells in the exudation is regarded as being due to the action of oxygen on the structures of the plastic corpuscles, by which they undergo an *adipoceros* degeneration, similar to the well-known effect produced on dead muscular tissue when exposed to moisture, and to a very partial contact with air. This transformation from the exudation to the plastic corpuscle, and thence the formation of the pus-cell, indicates a lesion of vi-

tality, involving the fibrine out of which they spring, the deficiency of the constitutional powers being in proportion to the dimensional and figurative aberration of the cells from the standard of healthy pus.

From microscopical observation, Dr. Black is led to the conclusion that it is an error to suppose pus can be formed on the free surfaces of mucous membranes without there being any breach of structure, "since every case of pus from mucous surfaces is invariably preceded by epithelial desquamation, and not *unfrequently* by ulceration of the basement membrane itself." On this point we may observe, "the secretion from a diseased mucous membrane gradually changing from mucous to purulent, independently of ulceration, was pointed out by Professor Charles Badham in 1808, while the gradual transformation of mucous corpuscles, or rather the succeeding of purulent to mucous secretion from the same secreting surface, was first distinctly shown by Vogel, and figured by him in his 8th Plate"^a. Dr. Black regards one secretion as a modification of the other, consequent on the different degrees of vitality.

By the term "pulmonary cellulitis" the author proposes to designate inflammation confined to the epithelium of the pulmonary cells,—“a disease which is extremely prevalent amongst children, and often regarded as pneumonia, and which is not rare even in adults.” In the second stage of this affection the physical signs are identical with those of Laennec's first stage of pneumonia, while the pathological condition indicating its development is similar to that Dr. Stokes lays down as being the first step in pneumonic inflammation. In both affections we have cough, dyspnoea, sense of internal weight and burning, quickness of respiration, diminished volumes of air entering the affected lung, local dulness, and increased resonance, with compensating action of healthy organ; while in the more advanced period of the sinking stage the sputa are copious, of a thinly viscid character, and of a prune-juice colour. Fortunately for the patient, the diagnosis between this affection and the earlier stages of pneumonia does not materially affect the treatment, which is similar to that indicated in bronchitis involving the submucous tissue.

In corroboration of the fact that through the epithelial cells morbid elements are eliminated from the system, Dr. Black adduces three cases, which prove that “when a constitutional peculiarity, a particular diathesis, or another disease,

^a Hasse's Pathological Anatomy, p. 264.

is associated with cellulitis, the exudation from the pulmonary membrane contains frequent evidence of the presence of certain products, dependent on such peculiarity of constitution or other disease in the system." That the excretion from the lungs partakes of the characters of the circulating fluids, and is modified by special constitutional states, observation of disease has long established. The fact now brought prominently forward is important to be borne in mind, as explanatory of many of those cases of apparently sympathetic pulmonary irritation.

In his observations on chronic bronchitis, the various pathological conditions which arise pending its continuance are fully detailed, the different forms of sputa being classed under four varieties, which depend on the particular pathological condition of the affected membrane, on the age and on the constitutional powers. These varieties are as follows:—1. Sputum of plastic bronchitis; 2. Sputum of the early stage of simple chronic bronchitis; 3. Sputum of the latter stage of simple chronic bronchitis; 4. Sputum of simple bronchitis. We are unable to do more than particularize the forms described; every practical physician will read this portion of Dr. Black's volume with advantage, since truths are therein confirmed, as well as doubts removed. In his observations on the sputum of plastic bronchitis, which has already been so ably described in the writings of Raynaud, Baillie, Stokes, and others, the author states that the differential diagnosis between those casts the products of simple bronchitis, and those resulting from a tuberculous diathesis, depends on the shortness and absence of ramifications in the latter, with the presence of granular bodies, and epithelial scales studded with granules, cast off by the other parts of the generally affected bronchio-pulmonary membrane. In certain cases the application of electro-galvanism daily to the spine is advocated: the observation of other writers is confirmed by that of the author, who testifies to the frequent benefit which results from its use.

Dr. Black concludes his valuable essay by an inquiry into how far are the different forms of asthma dependent on inflammation of the bronchio-pulmonary membrane? He recognises two distinct forms of the disease.

"The one in which the paroxysm comes on suddenly, and is followed by an interval of perfect ease, during which there is neither the slightest difficulty of breathing, nor the least increase of the bronchio-pulmonary secretion; the other, in which the invasion of the paroxysm is more gradual, in which there is more or less straitened breathing during the interval, and in which the secretion

of the membrane is somewhat greater than that of health, and is also changed as to its physical appearance to the naked eye, as well as being microscopically and chemically different."

The first, nervous or dry asthma, to which the term "sympathetic" is considered as most applicable, is, from its uncertain pathology, involved in much obscurity; and, from the absence of definite pathological conditions, is but lightly entered on. The second is regarded as being consequent on chronic inflammation of the bronchio-pulmonary membrane, the microscopic examination of the sputa indicating such to exist. The general thickening of the membranous structures which ensues is, in some cases, accompanied by an evident degree of hypertrophy of the local sentient nerves.

The physical and vital phenomena allied to this disease are fully set forward. The fact, that inflammation may pass through its different stages, without the attendance of asthma, leaves the question still open, as to the cause which associates such an affection with a special condition.

In experiments instituted to determine the capability of the bronchial fibre to diminish the caliber of the tubes, Dr. Black differs from the conclusions arrived at by Volkmann, and negatives the opinion that contraction of the bronchial fibre may be produced by galvanism applied to the vagus nerve; but admits that it is readily produced by the direct application of the galvanic stimulus to the mucous lining of the tubes themselves.

The occurrence of bronchial dilatation is, according to our author, explicable on the unequal process of inflammation in the bronchi, and consequently unequal resistance to the column of air during inspiration, giving rise to the dilatation of those portions of the tube in which the action of the fibres is abolished. The views of Raynaud and Stokes are thereby confirmed, while the varied forms which the affection assumes are adequately explained.

The indications for the treatment of asthma are:—1. To relieve spasm of the bronchial fibres. 2. To withdraw the exciting cause, and to correct any condition of the system which may indirectly contribute to an attack.

The application of microscopical observation to the pathology of the bronchio-pulmonary mucous membrane, constituting a new feature in the diagnosis of chest affections, has induced us to enter thus fully into a review of Dr. Black's volume, which purports to be the first part of a work promising much valuable and important information. Original investigation is its leading characteristic. Our careful study of its

contents has more than ever filled us with admiration of the accuracy of observation and acuteness of reasoning of those writers, who, without the opportunity of such minute investigation, had, on some of the most important particulars, arrived at the same conclusions as the author, thus establishing fully (if there was any doubt on the subject) the truthfulness and value of the means we already possessed.

In those cases especially where there is an apparent identity in the physical and vital phenomena, microscopic investigation must prove invaluable; at the same time the close similarity between morbid products in different diseases, as well as in the various stages of the same disease, will ever render the stethoscope the grand instrument for the general recognition of those affections, to whose literature the present publication must be considered as one of the most important and valuable additions.

In conclusion we may observe, the work is fully illustrated by admirable wood engravings, which cannot fail to convey to the reader correct impressions of the particular conditions detailed.

A Treatise on Diseases of the Heart. By O'B. BELLINGHAM, M.D., F.R.C.S.I., one of the Medical Officers of St. Vincent's Hospital, &c. Dublin: Fannin and Co. 1853. 8vo, pp. 252.

THE physiology and pathology of the heart, from a state of neglect, and its consequence—a degree of ignorance which now seems almost marvellous,—have advanced with a rapid yet even pace during the last thirty or forty years. The works of Lancisi, Senac, and Meckel upon cardiac diseases, which appeared about the middle of the last century, afforded much information upon the morbid changes discoverable in the heart after death, but failed in practical utility from the admitted difficulty of detecting during life the signs of these lesions. In like manner, the researches of Corvisart, Burns, Testa, and Kreyzig, in the earlier part of the present century, are valuable as pathological records, but imperfect from the vague enumeration which they give of possible symptoms. It was not till the discovery of percussion and auscultation that a new era commenced from which cardiac disease became susceptible of interpretation; and from thence to the present day, facts and theories mutually illustrative upon this subject have multiplied so fast that a body of circumstantial evidence now exists which in practised hands renders the diagnosis of these affections a

matter comparatively easy, and the error liable to be committed a gradually vanishing quantity.

Next to the publication of Laennec's memorable work, we are probably most indebted for these results to the British Association for the Advancement of Science, as it was from this learned body the impulse was given which led so many eminent individuals in these countries to give their attention, both singly and collectively, to the subject. The reports published by the Dublin and London Committees have commanded attention for the skilfulness of the experiments instituted, and the cautious inductions from them; and very many of the members connected with these examinations have given us most valuable publications on cardiac pathology. Indeed there seems at present scarcely any disease of the heart which has escaped attention; and we feel disposed at times to pronounce its nosology complete until some novel view, the result of original genius and patient research, shows us that we have been too hasty in our conclusions. We need only refer to the recent contributions upon fatty degeneration of the heart, and the connexions lately traced, with such felicitous perspicacity, by Drs. Law, Burrowes, and Kirkes, between cerebral and cardiac diseases. While, therefore, the finger of discovery is still busy in exploring new affections of this organ, the task is not neglected of collecting the stores daily accumulating, and of thus advancing, though in a less ambitious way, our knowledge in this useful field.

We have now before us a work of this character, from the pen of Dr. O'Bryen Bellingham, in which the history and details of cardiac affections are brought down to the information of the present day. His Treatise upon the Diseases of the Heart does not, he tells us in his Preface, appear as an altogether new work, large portions of it having already been published in the form of clinical lectures in some of the weekly periodicals. The author, in compliance with an invitation to publish these lectures in a distinct shape, has carefully revised and expanded them, changing also their appearance from the colloquial to the dissertational form. Some remains of their original intention may be found probably still adhering to them: for instance, the author has inadvertently, we should think, given an introductory chapter on the anatomy of the heart. It is not our wish to criticise the information there afforded, which is an excellent digest of this subject in a small compass; but it presupposes an amount of ignorance in his readers which is not very flattering to their *amour propre*. In addressing a crowd of hospital pupils, it is no doubt prudent to familiarize

their minds with rudimental details; but in a work intended for practitioners we cannot but consider it out of place, and calculated to raise in the mind, when thus put so prominently in the foreground, an opinion of triteness against the work which it does not by any means deserve. If such a practice were to be general, both the writer and reader of works on practical medicine should begin by carrying themselves back to the time when they were *in statu pupillari*.

Having liberated our conscience by this protest, we now proceed, with much pleasure, to afford our readers a glance through Dr. Bellingham's present volume. His Treatise on the Diseases of the Heart consists of two parts: the first of which, now published, is occupied with a description of the healthy heart, its motions and sounds; together with the various symptoms and physical signs furnished by disease. The second part, which has not yet appeared, is appropriated to the organic diseases of the heart, and its functional or inorganic affections. The present volume is divided into nine chapters: the four first contain an examination of the heart in health; the fifth and sixth explain the results of auscultation and percussion of that organ; and the three last embrace the general signs, the secondary symptoms, and the etiology and prognosis of these affections. Upon each of these heads the author has sedulously gleaned, from the productions of numerous authors, a large amount of valuable matter, fairly assigning, as far as he could, *suum cuique*, and filling up the intervals from the store of his own experience, which is not small.

The author, in endeavouring, as a necessary *point de départ*, to establish a standard of comparison with which to compare the size and weight of the diseased heart, has availed himself of the researches of Bizot, adopting his theory that the size of the healthy heart is more proportional to the width of chest than to the stature of the individual. It seems to approach a paradox, that while, according to the same authority, the heart of the male gradually increases in dimensions till death, never undergoing in old age that atrophy which marks senile decline in other parts of the muscular system, the female heart should increase up to the age of fifty, and then gradually decline in size and weight. The reason of this singular difference is not explained, and hence the standard heart must, if these results be well founded, be variously estimated in both sexes. The weight of the average heart can scarcely be regarded as fixed when we find so large a difference as from six to ten ounces assigned by the best authors, scarcely any two being perfectly agreed, and the examples still too few to bring conviction. Still

more do we want fuller information upon the relative thickness of the walls, the capacity of the cavities, and the diameters of the valves in their normal condition; the amount of our present knowledge has, however, been given us by Dr. Bellingham in a very clear and succinct manner.

We pass from the second chapter to the fourth, as it affords us the opportunity of presenting our readers with Dr. Bellingham's views on some of the disputed points of cardiac pathology. We allude to his opinions upon the double impulse and the sounds of the heart. On the first of these points he speaks as follows:—

“If we carefully examine the heart when it is beating vigorously, we shall find that a second, but slighter, impulse is perceptible, which quickly succeeds the other, and on applying the stethoscope we shall find that this second impulse accompanies the second sound of the heart, it appears as if the agency which gives rise to the second sound was capable of communicating a distinct sensation to the hand or stethoscope.”

And again:—

“In the healthy heart the second impulse is scarcely felt, unless the organ beats vigorously; when the ventricles are somewhat hypertrophied, and their cavities somewhat dilated, the second impulse becomes better marked; when this has arrived at an extreme degree it becomes very evident, and constitutes then the ‘back stroke of the heart,’ or the diastolic impulse. This diastolic impulse, except in cases of disease, is never so strong as to be perceptible to the eye, but is readily distinguished when the ear is applied to the stethoscope laid upon the præcordial region. It is perceived at the same part of the chest as the systolic impulse, and is more marked the larger the surface of the heart uncovered by lung, and the stronger the action of the organ.”

That in certain cases of cardiac disease a second impulse is perceptible, will, we believe, be admitted by every person who has attended much to this class of affections. This second impulse the late Dr. Hope imagined he was the first to discover, and it received from him the name of the back stroke or diastolic impulse; but, though he has the merit of directing attention to it, and doubtless of finding it out by unaided observation, yet the idea of it, like some other supposed discoveries in auscultation, can be found in Laennec's work. Thus, he says:—“The impulse of the heart is only felt during the systole of the ventricles, or if in some rare cases an analogous phenomenon accompanies the contraction of the auricles, this is easily distinguished from the former. In fact, when the systole of the

auricles (Laennec's supposed cause of the second sound) is attended with any sensible action, this is perceived to have its seat much deeper, and the heart even seems to be receding from the ear. Most commonly the motion consists of a sort of trembling felt deep within the mediastinum. In any case it is very little marked, as compared with the sensation produced by the contraction of the ventricles when these are of a good degree of thickness"^a.

The principal diseased condition of the heart in which the second impulse has been noticed is hypertrophy with dilatation of both ventricles; aneurism of the descending aorta may also produce it: we recollect a striking example from the latter cause, in which the diastole was attended with a much more remarkable impulse both to the eye and ear than the systole, its force being similar to the recoil of a powerful elastic spring as the heart retreated towards the vertebræ; the direction of its action was obliquely from right to left. In this case a large aneurism was found behind the heart.

Cases of disease also occur in which a double or triple impulse is associated with a single beat of the pulse. Some writers, and especially Bouillaud, regard this as a diastolic movement, others consider it a systolic, and arising either from repeated efforts of the ventricles to send on the blood, or from a want of synchronism in the contractions of both. Gendrin has already noticed that, in cases where the descending aorta is abnormally lengthened and consequently the position of the heart more depressed in the thorax, it is indicated by a heaving impulse during the diastole, perceived below the third rib. As to a second impulse produced by the healthy heart, it is a matter of such difficulty to detect that the most accurate observers confess that they are at fault. Skoda absolutely ignores its existence; without, however, discrediting our author's statement that he has felt it, we may on a point of such doubtful evidence be content with the well-known axiom, "*de non apparentibus atque non existentibus eadem est ratio*."

The numerous theories proposed in explanation of the sounds of the heart have received full and impartial consideration at the hands of the author, and he has classified them according to their supposed causes, viz., impulse, muscular contraction, valvular tension and movements of the blood. The arguments for and against each of these he considers at length. The theory which he adopts himself is, that both sounds can be explained by friction between the blood and the parietes of the orifices of the heart:

^a Forbes' Laennec, p. 553.

"It seems not unreasonable to refer the first sound to the friction between the blood and the parietes of the arterial orifices during the ventricular systole; the second sound to the friction between the blood and the parietes of the auriculo-ventricular orifices during the ventricular diastole."

In explanation of the first sound, he observes that, "in the rapid passage of the blood from a wider to a narrower area there must be considerable friction between this fluid and the arterial orifices." Its prolonged nature can be explained "by the continued development of sound during the entire period that the blood is passing from the ventricles into the larger arteries," and which is in direct proportion to the slowness of the action of the heart; hence, according to him, the amount of resistance to be overcome, the longer time required, and the larger amount of space over which the blood passes, are elements sufficient to explain the first sound.

The second is determined, in his opinion, by the blood passing in a sudden influx from the auricles through the auriculo-ventricular valves. He adduces Cruveilhier's case of ectopia cordis to show that the blood enters the ventricles with such force that when the organ was grasped with the hand during the ventricular diastole, it was violently and forcibly opened. The mechanism of this full and rapid entrance of the blood he does not fully explain; he discards auricular contraction and active dilatation, so that we may conjecture it to arise from the *a tergo* pressure. He thinks the shortness and suddenness of the second sound can be explained by the rapid relaxation of the fibres of the ventricles, so that the blood comes at once into collision with them.

Several arguments are adduced from pathology by the author in support of his friction theory. One is, that in aneurism springing from the arch of the aorta, a double sound is audible which so closely resembles the double sound of the heart "that the second sound of aneurism in this situation is erroneously supposed by many to be the second sound of the heart transmitted to the aneurismal sac." As, he contends, the aneurismal sounds are indubitably caused by friction between the blood and the parietes of the orifice of the sac, it must follow that such an agency is at least *sufficient* to explain the heart-sounds, without regarding either valvular apparatus or muscular walls, which, on the principle that the more simple an explanation is the more it approaches probability, become unnecessary. He further argues that, as aneurism can generate sounds like the heart-sounds, so they can change them to murmurs identical with the heart-murmurs: thus, similar nor-

mal and abnormal sounds can be produced in both by a similar mechanism. In addition to these general reasons, he adduces particular arguments in favour of his theory of each sound. Thus, any impediment to the transit of the blood through the aortic orifice usually converts the first sound into a murmur; the same may happen when the left ventricle is hypertrophied, though there be no arterial obstruction, by reason of the increased force with which the current is sent onward. In like manner, the first sound becomes a murmur when the viscosity of the blood is diminished, this fluid being propelled with increased velocity; or the contrary, when, from fatty degeneration or softening of structure, the propulsive power is weakened, the first sound will become feeble or inaudible. Lastly, the duration of the sound will be lengthened or curtailed according as the parietes of the ventricles are thickened or attenuated.

That the second sound arises from friction of the blood entering the auriculo-ventricular orifices will appear, he contends, from this sound diminishing in intensity according to the degree of contraction in the mitral opening, and becoming almost inaudible, when this is extreme. This is explained by an insufficiency of blood entering the ventricle to produce sound. The same occurs in animals subjected to experiment; the ventricles becoming gorged with blood, and, the entrance of a current adequate to develop sound being prevented, the second sound ceases. The second sound is seldom converted into a murmur, because there is nothing to *increase* the force with which the blood enters the ventricles from the auricles, hypertrophy of the latter being very rare. When a murmur is heard at the period of the second sound, it arises from aortic regurgitation, the greater loudness of which masks the second sound, which, though feeble, will still be found to exist, for the backward current through the aortic valve will lessen the quantity of blood entering by the mitral, and thus diminish the sound.

We have thus given a *resumé* of the principal reasons put forward by Dr. Bellingham in defence of the friction theory. They are very plausible, and are supported with much ingenuity, but, like all the other modes of explanation, they are open to objection. First, as to the capability of aneurism springing from the arch of the aorta to develop sounds identical with or nearly allied to those of the heart, it is argued that the double sound heard over the aneurism is not connected with the heart-sounds, because it is not only constantly louder than the latter, but also varies, murmurs being heard over the

sac, while the sounds over the heart remain unchanged, or the reverse. It must be admitted that there are strong reasons in favour of the independent origin of the aneurismal sounds, but we do not think them so indisputable as to justify Dr. Bellingham in making them the basis of a theory. It may be naturally asked, why, if aneurisms be able to generate double sounds *per se* in the thorax, distinct from the heart, they should only be able to generate a single sound in the abdomen? No doubt various attempts have been made to solve this mystery, some, with Gendrin, contending that a second sound is always audible in sacculated abdominal aneurism, contrary to the evidence of most observers; others, with Dr. Lyons, offering the very ingenious but scarcely tenable explanation, that the arterial systole *follows* the ventricular in the thorax so as to cause a double sound, but in the abdomen acquires by some means an accelerated pace, which enables it to overtake the slower course of the ventricular, and thus by a simultaneous effort produce a single sound. The theory of regurgitation into the sac which Dr. Bellingham employs to explain the second sound of thoracic aneurism, and which he assumes will be absent in abdominal, is still less probable. The transmission of the second sound from the heart is not necessarily confuted by the exaggeration of sound heard over the sac; we know that in solidification of the lungs, the sounds of the heart are augmented and extended, so when the density of the aorta is increased by deposits of fibrin, it is placed in a favourable position for multiplying sound.

As to the friction of the blood affording a satisfactory exposition of the first sound, there are many arguments in its favour, and we are ready to grant that Dr. Bellingham has made out a strong case for his opinion, though, contrary to the usual doctrine, he recognises but one source of sound. Still it does not explain some phenomena. For example, when the mitral valve allows regurgitation, a distinct first sound is rarely heard over the left ventricle, but is replaced by a murmur, which seems to show that the auriculo-ventricular valves have some effect in contributing to the first sound. Again, if Dr. Williams' experiments be well founded (and they have lately been questioned in our pages by Dr. Leared in his excellent paper), the passage of the blood is not a necessary element of the sound, as it continued to be heard when no blood passed through the ventricle. It might also be anticipated that in a hypertrophied left ventricle, without arterial obstruction, in which the blood is sent on with increased impetus, the sound should always increase in loudness and clearness, whereas

the contrary is frequently the case. Further, it admits of doubt whether a diminution of the viscosity of the blood will impart such an augmented velocity as necessarily to produce a murmur during its exit through the aortic orifice. That murmurs do occur must be admitted, but cases apparently similar exist when they are absent. "It is not true," says Skoda, "that a watery state of the blood is a cause of murmurs in the heart. I have many times abstracted very watery blood from patients in whom no murmurs existed." It is, as he observes, but a hypothesis.

The author's explanation of the second sound has less foundation. Independent of the support from carefully instituted experiments which the closure of the semilunar valves and the recoil of the blood against them have received as the cause of the second sound, objections can be made to the hypothesis of Dr. Bellingham: for instance, there is reason to conclude that the blood does not enter the ventricles instantaneously after the systole, but gradually, and with a motion too gentle to cause sound; and it is admitted that the auricular contraction which completes the repletion of the ventricle is too feeble to produce sound, besides, the sound, if arising from this cause, should be continued and not abrupt. Arguments against this theory may also be adduced from the greater distinctness of the second sound perceived in the course of the aorta than at the apex of the heart, which can scarcely be explained on this hypothesis: but we must resist the temptation to prosecute this subject any further.

The author's remarks on the abnormal impulse are valuable, as it is a very important matter to draw a line of contradistinction between the impulse produced by hypertrophy and that fictitious condition which occurs in aggravated dyspepsia and some nervous habits, and which causes such alarm to the patient, and not unfrequently to the young practitioner. Skoda's division of the impulse into three degrees is important to bear in mind,—first, that which neither raises the parietes nor shakes the head of the auscultator; secondly, that which does not raise up the thoracic walls, but imparts a strong concussion to the head of the auscultator; and thirdly, that which raises both. We must regret, however, the imperfection of these rules in accurately marking disease. Thus, it is well known that a heart may be hypertrophied, yet produce little impulse, and that an impulse which will impart a smart shock to the head of the auscultator may be the result of merely increased action, as well as hypertrophy. Other data, however, such as

the extent of dulness on percussion, may serve to clear up the diagnosis.

We find some interesting observations upon *frémissement cataire*, where the morbid conditions in which this sign is perceptible are enumerated. The author arrives at the general conclusion, that in every case in which it is felt, whether in the heart or the arteries, the cavity in the vessel is in an *unfilled* state:—"I consider this unfilled state of the vessels, combined with a certain amount of force and velocity of the current of blood, to be the immediate cause of this phenomenon, the thrill or vibration communicated to the hand being more marked when the lining membrane of the part is rough or irregular from disease."

His chapter on abnormal murmurs will amply repay perusal, though of course they are explained according to his theory of the heart-sounds.

In his observations on venous murmurs he has proved that the continuous sounds heard in the neck are due to the motions of the blood chiefly in the internal jugular vein, a theory which, except by the French, is now almost universally allowed. The intermittent sounds heard in the same position are carefully to be distinguished from the above, and are due to the carotid arteries. Dr. Bellingham has shown, that while a certain degree of pressure by the stethoscope is necessary to produce the venous murmur in a tense state of the fascia, a greater degree will obliterate it, which would not be the case if it arose from the arteries.

Among the general signs of cardiac disease described by the author, we find the twofold appearance of the countenance defined, the bloated and purple aspect being as peculiar to one set of cases as the pallid is to another. Prominence of the eye-balls is also alluded to by him, though he lays less stress on it than other writers do, especially the late Dr. Graves. Angina pectoris is regarded by him, not as a distinct disease, but rather as a symptom, and he looks for its cause "in a sudden impediment to the coronary circulation, particularly to the return of the blood by the coronary veins." His remarks on the subject of polypoid concretions deserve consideration, though he differs from Rokitanski in disbelieving that these bodies can ever be supported by blood passing through the organ. In his last chapter, on the progress of cardiac disease and its duration, interesting remarks will be found on the mode of death in heart affections, a subject which has not yet been sufficiently studied, and which Dr. Corrigan, in his valuable

paper on patency of the aortic valves, has handled with his usual ability.

Before we close the pages of Dr. Bellingham's excellent work, we wish to notice one point which we hope to see corrected in his second part, as we think it takes from its value, especially as regards the junior members of the profession, and that is, the *incuria* with which the references are cited. Dr. Bellingham, in a spirit of most praiseworthy fairness, desires to give his authority, when he can, for each salient point; but it is done in so loose a manner as to be almost useless, or at least very troublesome to persons who may wish to refer to the author. He seldom or never gives the page, sometimes not even the volume. Perhaps if the names of his authorities were less frequently introduced into the text it might be better, as the frequent repetition of the phrase, "Dr. — observes," is almost a blemish. The recapitulations of the contents of each section at its close are important, still they may be carried too far. We feel sure that it is only necessary to draw attention to these minor details to have them corrected.

We desire, in conclusion, to record our fullest approbation of this first part of Dr. Bellingham's work, as a most valuable contribution to cardiac pathology. It contains an excellent synopsis of the signs and symptoms of heart disease: the causes of each carefully explained and detailed in a most intelligible manner. We hope to find him soon again in that field in which so many of the Dublin school have won their laurels; and we venture to augur that, if the succeeding portion be equal to the first, his *Treatise on the Diseases of the Heart* will not linger on the shelves of his publishers.

On the Decline of Life in Health and Disease, being an Attempt to investigate the Causes of Longevity, and the best Means of Attaining a Healthful Old Age. By BARNARD VAN OVEN, M.D., &c. London: Churchill. 1853. 8vo, pp. 300.

ALTHOUGH we nowhere find it expressly stated that this work is intended to be a merely popular one, yet, in justice to its author, we must suppose such to have been his design. For, after a careful perusal of its contents, we have failed to discover therein any new or original observations, either as to the prophylaxis, pathology, or treatment of disease at any stage of life. The physiological descriptions, moreover, are superficial and purely elementary; and the dietetic rules such as every tyro in medicine is supposed to be acquainted with. The book

is not without some redeeming features, however. It puts forward nothing palpably unsound in theory, or bad in practice; and in the form of an Appendix is subjoined a Table showing the name, social condition, country, year of death, and age, of about two thousand persons who lived for a hundred years or upwards. More than four thousand other examples of a similar longevity are also referred to, but not detailed. The sources from which these numerous instances have been derived are of course very various, but, generally speaking, deserving of credit. These Tables, which occupy about one-third of the volume, evince no small amount of research, and, as far as they go, are very interesting; but we much doubt whether the history to be found accompanying the individual cases is of such a nature, or sufficiently exact, as to supply safe data for any useful or trustworthy general conclusions.

Besides a Preface (from which we learn that Dr. Van Oven has been thirty-five years in practice), and an Introduction, the work consists of four parts. Part I. is "on the decline of life in health," and is divided into three chapters, which give a very cursory view of the leading phenomena and changes that take place in the human body, during the periods of growth, maturity, and decline.

Part II. is "on longevity." The second chapter of this section is devoted to an examination of "the causes of longevity," but the author's investigations upon this highly important subject do not seem to have elicited any new facts, nor to have suggested any new views. The general conclusions at which he has arrived are merely confirmatory of the universally received opinions of the profession on this point at the present day:—

"Rejecting, then, climate, social position, and place of residence, we must seek for the causes of longevity in what concerns the individual, in his original stamina, in the healthfulness of the parents from whom he sprung, in his habits, avocations, and mode of life; in his immunity from the attacks of disease, in equanimity of temper, and freedom from great and frequent excitement."

A perusal of these causes of long life cannot be very encouraging to any one desirous of earning a place in Dr. Van Oven's list of centenarians, seeing that some of the most influential (healthfulness of parents, original stamina, &c.) are quite beyond his own control. Celibacy does not seem conducive to longevity, as we are told by the author that few of those who have attained to a great age passed their lives in this unnatural state. This is certainly an interesting and important fact, view

it in what light we may, whether moral or physiological; and it is one that Miss Martineau and the Malthusians would do well to become acquainted with. It also plainly teaches us that in this, as in every other matter affecting man's happiness, God's arrangements cannot be improved upon by human device or wisdom. Hufeland, in his "*Die Kunst das menschliche Leben zu verlängern*," makes a similar statement to the above, relative to eunuchs, and says he knew of no instance of their having attained to a remarkably great age.

The subject of Chapter III. is "the mode of attaining old age," and conveys in a concise but agreeable manner, some of the general rules and precautions which a proper regard for health demands, in respect to sleep, diet, exercise, study, &c. &c., and which are laid down by all writers upon dietetics and regimen. It would be quite needless and unprofitable, therefore, to follow our author through these pages of his book. We are forced to acknowledge having felt a considerable degree of disappointment on reading this chapter. Its title would naturally lead one to regard it as *the* most important in the book, and accordingly we hoped to have found in it something more than a repetition of those long-established sanitary axioms which have become so familiar to us all by the writings of Paris, Abernethy, Hufeland, W. Philip, Parker, Smith, Pariset, Johnson, Day, &c., amongst medical writers; and Cornaro, Combe, Sir F. Head, &c., of popular authors.

Part III. treats of the decline of life in disease, and the author's object here is best conveyed in his own language:—

"It is not my intention to describe fully the diseases of age, or to point out their medical treatment. All this has been done by abler pens than mine; my object is neither to dispense with the physician nor with medicine. I wish to teach the aged invalid what he may well do for his own safety and comfort to avoid the attacks of disease, and when it does come to mitigate its evils and prevent its baneful consequence; and all this not to supersede, but aid, those really curative means which the skill and ability of his physician can alone suggest."

The twelve chapters following are appropriated to the fulfilment of this purpose; and most of the diseases incident to advanced life are passed in rapid review. His remarks chiefly, but not exclusively, refer to the preventive and palliative treatment of the various senile affections to which reference is made. Designed, as they are, more for patients than practitioners, they can hardly interest (not to say instruct) the latter; and we much fear whether they will attract the attention

they deserve even from the former. The subjoined piece of sound advice, particularly addressed to persons suffering under cardiac disease, would, if always acted on, render these twelve chapters quite superfluous:—

“ At the very commencement of any derangement of health apply at once to those on whose judgment you can rely, and implicitly follow the course recommended by them.”

The fourth and last part of the volume is the Appendix, of which we have already had occasion to speak. In concluding this short notice, we cannot forbear expressing our regret that Dr. Van Oven, who seems to have been actuated with the laudable desire of doing something in the cause of suffering humanity, did not give the result of his observations and lengthened experience in some really valuable form. Semi-popular books of this kind are almost wholly useless in the diffusion of knowledge, being seldom or ever read by the public for whose enlightenment they are chiefly intended; whilst they possess nothing that can give them a just claim on the attention of professional men. Many works of this class have issued from the press within the last few years, and to nearly all of them this remark applies with no less force than to the one now under review. Some of the publications here alluded to received a passing notice in our pages, and we did not scruple to pronounce on each the same condemnation we now do on the whole class.

On a New Method of Managing Fractures. From the Address in Surgery, delivered at the Twentieth Anniversary Meeting of the Provincial Medical and Surgical Association, held at Oxford. By J. T. HESTER, F.R.C.S., Surgeon to the Radcliffe Infirmary, Oxford. London: Churchill. 1853. Pamphlet, pp. 11.

THE treatment of fractures has ever been viewed by surgeons as particularly worthy of attention. In many instances of disease and injury the ignorance and carelessness of the practitioner are screened, and evil consequences averted by the kindly efforts of nature; but in the case of the simplest broken bone the proper application of art is essential, otherwise deformity, impairment of motion, and other unpleasant results are inevitable. Nature can only cement the broken fragments, art must do the rest that is required. Many mistakes and defects in treatment are frequently overlooked, and remain un-

known even to the individual himself; but an ill-set fracture is an enduring reproach recorded in the most palpable characters against the surgeon's skill. He who has witnessed the indignation of a young lady whose neck has been rendered unsightly by a badly set fracture of the clavicle; or the wounded vanity of the man of fashion, the symmetry of whose limbs has been spoiled by a fracture of the leg; or, again, the vexation of one whose livelihood depends upon bodily activity, at lameness resulting from the same cause,—can well appreciate the necessity of attending to the treatment of fractures, and the value of an efficient apparatus for their management.

Accordingly, many have been the plans proposed of doing up fractured limbs, and numerous the apparatuses invented for carrying out the purpose, but that the latter are for the most part inefficient is sufficiently proved by the number that are constantly being added. The great cause of the inefficiency of almost all the different forms of apparatus in use is obviously attributable to the not bearing in mind every particular in constructing them, so as to make them fulfil all the indications required. Some apparatuses are adapted merely for maintaining extension, which many of them accomplish perfectly; but how frequently does an extension-splint cause increase of displacement in other directions! Others are devised entirely for counteracting lateral displacement without effecting the least extension, thus one only of the indications required is fulfilled. It is evident that apparatus is the most perfect, and will prove the most efficient, which is able to fulfil the most indications: to carry out this, however, is the great difficulty.

The object of the little pamphlet before us is to explain some forms of apparatus which its author has invented for different fractures, particularly for those of the thigh. Now whatever may be the mechanical skill displayed in the construction of these, certain it is that their inventor has not shown clearly where their peculiar advantages lie, nor explained at all satisfactorily the manner in which they act, and how they can be rendered applicable to fractures differing in situation and other respects. It may be that our dulness is such as to prevent our understanding clearly, and appreciating fully, what is easily comprehensible to others, and obviously of value; nevertheless we cannot but think that if Mr. Hester wished to do ample justice to his inventions, and to let the profession benefit thereby, he ought to have described them more graphically and demonstrated more fully the advantages they possess. To invent is one thing, to render the thing invented applicable to

a given purpose is another,—the former is comparatively easy, the latter involves the difficulty.

Mr. Hester's different forms of apparatus may be good specimens of mechanical art, but their suitableness to the purpose for which they have been designed is by no means obvious, especially in the absence of satisfactory demonstration. The apparatus upon which he principally dwells is one for fracture of the thigh, the discovery of which, it seems, he came to while making observations upon Mr. Earle's bed. The great defect he saw in the latter was the impossibility of keeping the limb fixed, and preventing it from following the movements of the body according as the back was elevated or depressed. He says :—

“ Finding this to be the case, I considered that the best mode of treating fractures of the thigh would be to place the subjects of them on such a bed as would admit of the back being elevated or depressed, without at all interfering with the relative position of the trunk and thigh.”

The bed invented by himself Mr. Hester considers as chiefly applicable to fractures of the “ neck of the thigh.” He repudiates, with energy of language, the idea of considering any given case of this fracture as incurable, particularly “ as no one can say with absolute certainty whether the fracture is within or without the capsule;” neither does he think “ that the impossibility of union, when it is intra-capsular, is by any means established.”

Accordingly, he is of opinion that union may take place if absolute rest can be maintained for a great length of time, and therefore it is that he views his bed as peculiarly adapted to such fracture, since a patient can lie upon it for the requisite period with comfort, the tediousness of the long confinement being lightened by his being able to sit up and lie down without danger. We cannot, however, agree with Mr. Hester, in the first place, that there is so much uncertainty in ascertaining whether a fracture of the neck of the femur be intra- or extra-capsular. No doubt we cannot arrive at that knowledge in any case with the certainty of a mathematical demonstration, but in what instance almost in surgery can diagnosis admit of such accuracy as this? In a large number of cases of fracture of the neck of the thigh-bone, doubtless much difficulty must be experienced in detecting its exact nature, but many will be met with in which the surgeon will feel no hesitation in arriving at a diagnosis upon which he may rely with as much

certainly' as can be brought to bear in almost any instance. The age of the individual, the degree and direction of the force which has broken the bone, the amount of shortening of the limb, the presence or absence of contusion in the vicinity of the hip, &c. &c., are circumstances which, though far from proving to a demonstration the exact nature of the fracture, afford presumption sufficiently strong upon which to found a correct diagnosis.

As to the possibility of osseous union of the fragments when the fracture is intra-capsular no one can entertain a doubt; and it has now been pretty well established that if perfect coaptation could be maintained for a long period, union would in general occur in this fracture as it does in any other. To maintain this coaptation, however, is the great difficulty, and certainly we cannot see how this much to be desired object can be *insured* by the apparatus of Mr. Hester. The other inventions of this surgeon are for fractures of the leg, humerus, and fore-arm, and drawings of them are given in the pamphlet; but as his very primitively executed wood-cuts are not accompanied by any particular description, nor any cases in which they have been tried recorded, we consider criticism upon them uncalled for.

A Manual of Materia Medica and Therapeutics; including the Preparations of the Pharmacopœias of London, Edinburgh, and Dublin; with many New Medicines. By J. FORBES ROYLE, M. D., F. R. S., &c. Second Edition. London: Churchill, 1853. Fcap. 8vo, pp. 801.

AMONG the many valuable works on *Materia Medica* with which English medical literature abounds, the Manual of Dr. Royle deservedly holds a high position for several excellencies peculiarly its own, and we are therefore much gratified to find that these have been duly appreciated by the profession, as is now shown by the demand for a second edition. From the great opportunities which the learned author enjoyed, while resident in India, of becoming practically acquainted with the numerous valuable drugs derived from the British Possessions there, his work is the best authority on their origin, natural history, and physical properties; and, from the fame which he has so justly acquired as an eminent botanist, the department of the subject connected with or dependent on botanical research is treated in the volume before us with, we must say, more care and attention than by any other author. Indeed, the only

point in which Dr. Royle's *Materia Medica* is at all deficient, is in the account given of the action and uses of medicines; and this would seem to arise chiefly from an anxiety to keep his work within as narrow limits as possible, so as to make it correspond with the other students' manuals issued by the same publisher, and which have gained so extended a celebrity as text-books. In his Preface the author expresses his regret that his own avocations prevented him from assisting in the completion of the last part of the third edition of the late Dr. Pereira's *Materia Medica*; and in this expression of feeling we fully participate, for we do not know any other English writer on the subject more competent than Dr. Royle to conclude that *magnum opus* in a way worthy of the illustrious deceased. We regret also that, from the same cause, he was compelled to require the assistance of Mr. F. W. Headland in the bringing out of his own book, as, in a work on *Materia Medica* in especial, every statement, we might almost say every line, should receive the careful attention of the author himself.

On the whole, however, we must record our fullest approbation of Dr. Royle's second edition, as constituting not only a handbook for the student, but a work of reference for the practitioner; and we cordially concur in the author's "thanks to the publisher, as well as the printers, for the elegant and clear typography, and Mr. Bagg for the skill and taste he has displayed in the woodcuts."