Thirty-fourth annual report by the directors of James Murray's Royal Asylum for Lunatics, near Perth. June, 1861.

THIRTY-FOURTH

ANNUAL REPORT

BY

THE DIRECTORS

OF

JAMES MURRAY'S ROYAL ASYLUM

FOR LUNATICS,

NEAR PERTH.

JUNE, 1861.

PERTH:
PRINTED BY ORDER OF THE DIRECTORS, BY JAMES MORISON, JUN.

MDCCCLXI.

List of Office-Bearers.

1861-62.

WILLIAM PEDDIE, Esq, of Blackruthven, *Chairman.*

DIRECTORS.

I.—EX-OFFICIO.

The Right Hon. the Earl of Kinnoull, Lord-Lieutenant of the County of Perth.
Edward Strathearn Gordon, Esq , Sheriff of the County of Perth.
Hugh Barclay, Esq., LL.D., Sheriff-Substitute of the County of Perth.
William Imrie, Esq., Lord Provost of the City of Perth.
Thomas Richardson, Esq., Dean of Guild of said City.
James Dewar, Esq , First Bailie of said City.
Alexander Fleming, Esq., Convener of the Trades of Perth.
James Spottiswoode, Esq., President of the Society of Solicitors, Perth.
The Rev. Archibald Scott, Minister of the East Church, Perth.

II,—LIFE DIRECTORS.

William Peddie, Esq. of Blackruthven.
Major-General John Murray Belshes, Invermay House.
John Beatson Bell, Esq. of Glenfarg.
John Marshall, Esq. of Rosemount, Perth.

III.—ANNUAL DIRECTORS.

Sir Thomas Moncreiffe, of Moncreiffe, Baronet.
John Murray Drummond, Esq of Megginch.
Charles Graham Sidey, Esq., Perth.
William Ross, Esq., Solicitor, Perth.
Sir John Stewart Richardson, of Pitfour, Baronet.
James Maxtone Graham, Esq. of Redgorton.
David Craigie, Esq., Banker, Perth.
Dr Francis I. White, Perth.
The Right Hon. the Earl of Mansfield.
George Stoddart, Esq. of Ballendrick.
David Wedderspoon, Esq , Solicitor, Perth.
William Blair, Esq., Manufacturer, Perth.

COMMITTEES.

I.—WEEKLY COMMITTEE.

William Peddie, Esq.
Major-General Belshes.
John Marshall, Esq.
William Ross, Esq.

D. Craigie, Esq.
Dr White.
D. Weederspoon, Esq.
William Blair, Esq.

II.—HOUSE VISITING COMMITTEE.

William Peddie, Esq. | John Marshall, Esq. | David Craigie. Esq.

W. Lauder Lindsay, Esq., M.D., *Physician.*
W. C. M'Intosh, Esq., M.D., *Assistant Physician* and *Superintendent.*
Rev. John Moodie, Perth, *Chaplain.*
Messrs Mackenzie & Dickson, Solicitors, Perth, *Joint Secretaries* and *Treasurers.*
Messrs J. & R. Morison, Accountants, Perth, *Auditors.*
Miss Matilda Giddings, *Matron.*
Miss Ann Muirhead Shearer, *Housekeeper.*

ANNUAL REPORT

BY THE DIRECTORS OF

JAMES MURRAY'S ROYAL ASYLUM

FOR LUNATICS.

10TH JUNE, 1861.

IT is now the duty of the Directors to submit the Thirty-Fourth Annual Report of the Institution.

At the date of the last Annual Report there were in the House 205 patients (100 males and 105 females). Since then 62 patients have been admitted (27 males and 35 females). The total number of patients under treatment during the year was 267 (127 males and 140 females). Of this number 29 have recovered (13 males and 16 females); 13 were removed improved (7 males and 6 females); 13 were removed unimproved (4 males and 9 females); and 10 have died (6 males and 4 females). There now remain in the Asylum 202 patients (97 males and 105 females), being 3 less than at the same period last year. The difference is mainly due to the excess of discharges over last year, which excess arose from the necessity of relieving the overcrowded state of the House, and procuring accommodation for the reception of recent and urgent cases by causing the removal of some chronic and harmless cases as appeared disposable in private houses in the country.

For the ages of the patients admitted during the past year, the form of their insanity, its causes, duration, and other particulars, reference is made to the Report of Dr Lindsay, the Physician, and Appendix thereto subjoined to this Report.

As the Medical Report adverts to the various points of practical importance likely to be interesting to the public, and particularly to the medical profession, which last year's experience has suggested, the Directors deem it entirely superfluous in them to add any observations of their own.

The Directors are happy to think that the Institution is still conferring important benefits on the community, and that during the past year it has been conducted with its usual efficiency and success; and they earnestly trust that, through the Divine blessing, it may long continue to enjoy the same prosperity.

WM. PEDDIE, *Chairman.*

REPORT OF PHYSICIAN

FOR THE YEAR 1860–1.

Continuance of crowded condition of Institution.

THERE has been no material abatement or diminution in the plethora of residents, under which the Institution has suffered for some years—no considerable reduction in our present population as compared with that of last year. We must still regard the House as overcrowded—a state, which is only tolerable and tolerated on the ground that our refusal to admit patients to the fullest extent of our possible accommodation would be attended by greater evils to the patients refused than those of overcrowding in a large public institution. The mean daily number of patients, which has steadily been increasing annually since 1855, is this year 201·402, as contrasted with 196·007 last year; or, in other words, there is an excess in favour of this year of 5·395. This represents nearly the maximum number we have been able to accommodate. We had fixed this maximum at 200 patients in round numbers—100 of either sex; but so many urgent cases have presented themselves, and under circumstances so peculiar, that we have found ourselves compelled to make room for several more, and accordingly our population has sometimes been so high as 104 males and 106 females.* The latter sex has thus preponderated: it has done so throughout the year—it does so still.

* The maximum number of males—104—occurred on the 11th August, 1860; of females—106—on 2d January, 1861. The minimum number of males—92—on 11th May, 1861; of females—94—on 1st April, 1861.

General Statistics of last seven years.

As contrasted with the past six years, the following summary exhibits concisely the most important statistical results of the year 1860–1 :—

YEAR.	Mean daily number of Patients under Treatment.	Admissions.	Discharges.	Recoveries.	Percentage of Recoveries, calculated on Admissions.	Deaths.	Percentage of Deaths calculated on total number of Patients under Treatment.
1854-5,.....	135 378	36	74	17	47·20	15	7·24
1855-6,.....	140 549	39	26	16	41·02	7	4·07
1856-7,.....	150·063	47	38	22	46·80	7	3·62
1857-8,.....	164·358	69	49	22	31·88	14	6·42
1858-9,.....	190·310	79	53	34	43·03	11	4·33
1859-60,.....	196·007	57	53	22	38·59	10	3·87
1860-1,.....	201 402	62	65	29	46·77	10	3·74
Average of last 7 years,	168 295	55·57	51·14	23·14	42·18	10·57	4·75

General Statistics of last year as compared with former years.

Our census of June, 1860, showed a total of 205 patients then resident (100 males and 105 females). 62 admissions during the past year (27 males and 35 females) have placed in all 267 persons under our charge during 1860–1 (127 males and 140 females). This total number of patients under treatment is larger than at any former period in the history of the Institution. The discharge of 55 persons during the year that has expired (24 males and 31 females), and the deaths of 10 (6 males and 4 females), leave, as our present population, 202 persons (97 males and 105 females). This number falls very slightly short of the corresponding numbers last year. The discrepancy or difference is mainly due to the excess of discharges this year over last year; which excess has arisen from the necessity we have lately felt of relieving the overcrowded state of the House, and procuring accommodation for the reception of urgent, recent, acute cases, by causing the removal of such of our chronic, industrious, harmless, or other inmates as appeared most disposable in private houses in the country or otherwise.

Refusals of Admission from want of room.

The subjoined summary exhibits the relative number of applications for, and of refusals of, admission in 1860–1, as compared with the two previous years :—

YEAR.	Applications.									Refusals.								
	Private Patients.			Pauper Patients.			Total.			Private Patients.			Pauper Patients.			Total.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1858,.....	17	14	31	50	70	120	67	84	151	...	...	...	28	46	74	28	46	74
1859,.....	25	27	52	29	25	54	54	52	106	...	...	...	14	7	21	14	7	21
1860,.....	15	24	39	32	25	57	47	49	96	2	1	3	11	3	14	13	4	17

From this summary it appears that there has been a decrease during 1860, both in the number of applications for, and of refusals of, admission. This is very fortunate, for our ability to admit has, from our constantly more or less crowded condition, depended mainly on temporary decrements in our population caused by discharges or deaths. Nevertheless, it has been found necessary to refuse admission—on the plea of want of space—in 17 cases; and it is noteworthy that 3 of these were Private Patients—this being the first year during which such a procedure in the case of private patients has been found necessary. In ordinary circumstances, we are disposed to give a preference to this class of cases—the non-pauper class—inasmuch as the ultimate destination of the Institution is to accommodate solely this class, for whom we believe there is less adequate provision by society or by Government than for the strictly pauper class.

Chronicity of our crowded condition and its evils.

Our overcrowded condition is becoming chronic—that is to say, it has lasted now less or more for three years; but its evils or disadvantages are not the less acutely felt from its chronicity. On the contrary, we are inclined to ascribe to this cause partly, and partly to other influences, to which we will subsequently refer—a very marked deterioration in the general health of the community during the bygone year, as indicated by the unusual prevalence of minor ailments among our residents. Such overcrowding, moreover, renders impossible the isolation of the diseased in the event of epidemics; it interferes with the proper classification of patients; it prevents due ventilation and cleansing; and it delays painting and repairs, besides important alterations on the premises, which, under more favourable circumstances, might be carried on.

Prospects of Relief.

We have every reason to look for complete relief from the evils, to which we have above adverted, when the various District Asylums of Scotland are erected, especially that for our own

Erection of Perth District Asylum at Murthly.

county at Murthly. It is with great gratification we learn, in regard to the latter, that various plans for the building have recently been scrutinised by the District Board; that one has been selected and approved of by the Board of Lunacy; that estimates are being received and contracts entered into; that, at the last County meeting a sum of money was voted for the purpose of defraying the first expenses of building operations; and that the said operations are likely to be commenced forthwith. Our Table IX., contained in the Appendix to this Report, shows that the present Pauper Population of the Institution amounts

Exodus of our Pauper Population.

to no less than 122 persons (60 males and 62 females); 111 of these belonging to the county of Perth alone, 6 to that of Fife, 2 to that of Ross and Cromarty, and 1 to each of the counties of Kinross, Lanark, and Dumbarton. Supposing this population to remain very much as at present, when the District Asylums are ready for the reception of patients—and there is no reason to believe that there will be any material alteration in their number or proportion during the interval—our overcrowded state will be relieved to the extent of 122 persons; 111 being transferred to the Murthly Pauper District Asylum, and the remainder to the District Asylums for the other counties above mentioned. Such

Its effects on our future.

an amount of space placed at our disposal will enable us greatly to ameliorate the present sanitary condition of the remaining private or non-pauper patients. It will enable us, we trust, to secure a sleeping space of at least 800 to 1000 cubic feet for each patient, which at present it is unfortunately impossible to do; to provide more ample or appropriate means of bathing or ablution; better accommodation for the sick and infirm; to classify the patients, so far as is advisable, with a view to their recovery or comfort—segregating, to a more desirable extent than at present, the refractory, dangerous, or dirty; to add certain recreation rooms and workshops; and to carry into execution a variety of changes in the economy of the building, which, under existing circumstances, it is either impossible or inexpedient to enter upon.

Means of relief from overcrowding.

Under the most favourable circumstances, it is unlikely that the Murthly Asylum will be fitted for the reception of patients at an earlier period than about three years hence, until which time, unless special steps are taken to meet the difficulty, we must continue to suffer from overcrowding and all its concomitant and resultant evils. Three years constitute a long period in the history of an Hospital for the Insane, and still more so in that of its individual

residents or patients; and the experience of the past three years, and more especially of the past year, shows the imperative necessity of relieving in some way our plethora of patients, both with a view to the proper sanitary condition of those resident, and to the reception of new cases of an acute, urgent kind. The consideration of the best means of applying to ourselves this relief has been to us a subject of much anxiety. The question that most obviously offers itself for solution or reply at the outset is—Whether there are not many patients presently in the Institution who might, with advantage to themselves as well as to the public, be discharged or removed therefrom? The answer is prompt—There are; but the difficulty is, to manage their removal so as to secure this advantage to the patients themselves—so as to place them, in other words, in more, instead of less, favorable sanitary conditions. There are two classes of patients, at least, in this sense, legitimately removable. The first class embraces cases which are becoming chronic—which have been resident here for a considerable period without material benefit, where benefit may nevertheless be expected, or at least hoped for, from change of scene—and where, all the circumstances considered, we are of opinion that transference to another Asylum is an experiment worthy of a trial. The second class is a much larger one, and consists, for the most part, of chronic, confirmed cases, many of whom are imbeciles or idiots—many of them harmless, others more or less industrious and self-supporting, but all of whom might, in our opinion, be more appropriately treated or lodged in private houses in the country, under suitable provisions, to which we will subsequently recur. Both these classes, in regard to the difficulties which interfere with their discharge or removal, may be divided into their natural sections of private and pauper patients—the difficulties in the case of the former being much less than, if not somewhat of a different kind from, those in that of the latter. These difficulties we will immediately consider more at length. Meanwhile, we may state that we have endeavoured to overcome them by all the more gentle means at our command — by persuasion, advice, recommendation — by every means, indeed, short of compulsion. So far as we have heard, in all cases of removal of non-recovered patients at our suggestion, the result has been satisfactory, either in so far as the recovery or the greater happiness, usefulness, or comfort of the patient was concerned; or in so far as the patients' relatives or guardians,

Non-recovered removable Patients.

Transfers to other Asylums.

Transfers to Private Boarding Houses.

with ourselves, were convinced that further experiment was futile. On the whole, our experience of the experiment is so gratifying, that we would willingly extend it, with the conviction that it would greatly conduce to the recovery or comfort of many of our present inmates. But suggestions or recommendations we have found of very limited usefulness—acted on in a very few cases—in much too few cases to make any permanent impression on the number of our residents or on our overcrowded state. In only two cases during the year, were our recommendations in regard to transference to another Asylum acted upon. These were two unimproved cases (one of either sex) who were transferred to the new Asylum at Sunnyside, Montrose, under the conviction that the change from an inland to a maritime locality —from a comparatively old to quite a new building—as well as the minor changes involved therein, might be beneficial to the patients: in one case, perhaps, by tending to more speedy recovery. Again, only seven non-recovered paupers were removed by Inspectors of Poor at our instance to be boarded in private houses in the country, whereas a considerable proportion of our pauper population might be so removed. One of the male patients so removed we recently encountered on a country road in this neighbourhood. He had been for several years in the Institution —a case of simple Dementia; had been occupied chiefly as a shoemaker, and had uniformly been a quiet, harmless, industrious resident. He was looking better than we had ever seen him in the Asylum; was trudging alone, intelligently and cheerfully; informed us he was occupied in weaving; deplored the depression of trade during winter; expressed himself happy under his change of residence and occupation, and certainly seemed so. Other patients discharged or removed under similar circumstances have complained to us grievously of bad house-accommodation—of cold clay or earthen floors—of a want of heat, or light, or air—of deficiency of work, or diet, or society—of a sense of isolation and dullness in the country, and of various minor evils, which they doubtless felt more acutely at first from the necessary contrast between the accommodation and appliances of a large public institution and those of a simple cottage: and such patients, mostly or altogether females, have requested to be readmitted—to exchange their state of freedom for their old position of Asylum-residents—one said, were it for no other reason than the regularity of diet, exercise, recreation, and work. These complaints indicate

certain remediable evils, to the consideration of which we will return in another portion of this report, and which are undoubted obstacles in the way of boarding non-recovered insane paupers in private country houses. Our overcrowded state has further been relieved by the transference, not at our instance, of 3 non-recovered paupers to the lunatic wards of Poorhouses: of 1 to another public Asylum: of 1 to one of the private Asylums of Musselburgh: of 2 to the private homes of relatives. To this we have to add the relief obtained quarterly in the form of recovery-discharges and deaths. But the insufficiency or inadequacy of all these means of relief will probably become apparent when we state that, whereas at the termination of last quarter, on 1st April, 1861, the discharges, removals, and deaths, had reduced our population to 191 (97 males and 94 females); and whereas since that date the number of males has been further reduced, by 2 deaths and 3 removals or discharges, to 92, such has been the demand for accommodation by urgent cases on the female side, that within a few weeks—by 15th May—the number of females had again mounted up to 105, being an increase of 11 during a period of six weeks, or about 2 per week; and at the present date we are virtually as greatly overcrowded *quoad* females, and as much involved in difficulty as ever. There can be no doubt that we cannot trust for more than temporary and slight relief to the numbers of recovery-discharges—of deaths—of patients removed, whether improved or unimproved, by relatives at their own instance and on their own responsibility—of paupers transferred, from motives of economy, to other Asylums, public or private, or to the lunatic departments of Poorhouses—or of those which are transferred to other Asylums or to private homes at our instance or on our recommendation. One other means remains to be tried—and that is "a last resort"—*compulsory removal.* Every obligant for the board of a patient signs a formal bond, whereby he comes under promise, *inter alia*, to remove a given patient, whenever required simply to do so by the Directors, without any right of inquiry or complaint by such obligant as to the cause of such requirement or order on the part of such Directors. Practically, however, the Directors seldom or never avail themselves of this power or provision unless in special cases, and then they have generally no reason for objecting to assign the cause of their requisition. Fully aware of the equally crowded state of most other Asylums, convinced of the inadequate provision for the insane poor in poorhouses, and still

Transfers to Poorhouses and Private Asylums

Inadequacy of existing means of Relief.

Compulsory Transfers.

more so in country cottages, and sympathising with the difficulties experienced by relatives or guardians when non-recovered patients are summarily dismissed—the said Directors feel reluctant to cause a risk even of injury to the patient, and hence avoid resorting to extreme measures. But, inasmuch as longer refraining from such measures will not only continue for at least three years, but, in all probability, aggravate the evils of overcrowding in this Asylum —as we are convinced that many of our old residenters might be more appropriately located elsewhere—as we have no doubt of the possibility of providing suitable accommodation and suitable custodiers, as will hereafter be pointed out—and as the inaction of the guardians or relatives of removable non-recovered patients seems to us to arise from supineness mainly;—inasmuch as, moreover, all other means have been tried, we are aware of no reasons for further delaying the only remaining step, namely, that the Directors should act on the power they possess, and summarily require the removal, on a given date, of such patients as are considered more properly removable, and to such extent as may be necessary from time to time to relieve overcrowding, and to place at disposal the amount of space requisite for the reception of new, acute, urgent cases. In all probability, a large exodus at one time would never be necessary; but quarterly, it would likely be found advisable or necessary to discharge a varying number—varying, that is, with the demands for the admission of fresh cases —with the health of our community, the season of the year, the progress of structural alterations on the building, or otherwise.

Urgent necessity for additional means of Relief.

In regard to the removal, at our instance, of non-recovered private patients, several little difficulties are practically encountered. One might suppose that a recommendation by the physician of an hospital for the insane, as to the transference of a patient to another asylum or to a private house—to travel, or even to go out on parole—grounded on the expression of his opinion that it was for the probable advantage of the said patient, would meet with ready response from friends or relatives. But too frequently the reverse is the case. Feelings of the most unamiable kinds are not seldom exhibited. In one class of cases the friends object on the score that publicity would hereby be given to a family infirmity—that the patient would not be permitted to associate with their acquaintances, and consequently that they, the patient's friends, would have to choose between associating with ordinary acquaintances, and with the patient—of which they prefer the former

Difficulties anent Transfers and Probation Removals.

Obstacles on part of Relatives

evidently and infinitely to the latter. In another class the friends simply complain of the difficulty of procuring suitable lodging and custodiers, without evincing the slightest disposition to overcome either obstacle, and proceeding on the assumption that a *sine qua non* of such dwelling is isolation and inaccessibility. In a third, they assert they have seen other asylums, and are perfectly satisfied the patients cannot be better tended than where they are, that they have no wish to experiment, and are quite gratified by present results. In a fourth, they complain that such transference would remove the patient from their own supervision and visitation, this being, in fact, the "consummation devoutly to be wished:" for, although, in some cases, it is an undoubted advantage for patients to be visited regularly or frequently by friends, in others it is quite the reverse. In a fifth, they grudge the small additional outlay that would be entailed in travelling, in procuring fresh schedules, or in the higher rates of board elsewhere; in cases, we mean, where the friends could perfectly afford such outlay; for where they can not we sympathise with them most sincerely, and indeed, in such circumstances, would not recommend at all this form of procedure. And in a sixth, there is an indefinite fear of injury or accident from any interference with existing arrangements. Be it observed that these difficulties, of whatever nature, are all manufactured by the *friends* of the patient; there is no legal obstacle—none on our part.

Transfers of Paupers.

But, in the case of non-recovered paupers, it is somewhat otherwise; the difficulties are more numerous, more extrinsic, but nevertheless far from insuperable, in reality, whatever they may appear to the imagination of the guardians of insane paupers. The difficulties, real or apparent, are mainly the following:—1. There is a circular of the Board of Lunacy, dated 8th June, 1858, and in the following terms:—"In consequence of the attention of the Board having been directed to several cases in which *pauper* patients have been discharged from asylums *un-recovered*, I am directed by them to request that, in future, you will *not allow any pauper patient to be removed, unless recovered, until the sanction of this Board to his discharge is produced by the party, at whose instance the patient is to be removed.*" A letter from the same Board, referring to a particular patient, dated 28th December, 1858, instructs further:—"I am directed to acquaint you that the Board do not interfere with the transfer of patients from one Asylum to another. All that they require is, that *their sanction*

Difficulties.

Legal.

Board of Lunacy

should be obtained before an unrecovered pauper patient is discharged from an Asylum for the purpose of being placed in a private house." It is to be remarked here that the Board of Lunacy claims no control over non-recovered *private* patients: their discharge or removal is quite as easy, or quite as difficult, as it was prior to the act of 1857 and the existence of the said Board of Lunacy. We can readily recommend for discharge on probation a non-recovered private patient, promising to readmit at once in the case of the experiment proving unsatisfactory. If the friends do not place obstacles in the way, there are no others. Such, indeed, are the facilities in the one class, as contrasted with the other, that occasionally a pauper is converted into a private patient, simply by his friends coming forward as substitutes for the Inspector of Poor in the payment of his board, in which case they acquire a right of disposing of the patient as they see fit, untrammelled by redtapeism or legal technicalities. But, though it would seem, and undoubtedly is, *in proper cases*, an easy matter to procure the sanction of the Board of Lunacy for the transfer of a non-recovered pauper patient from an Asylum to a private house, the circular above quoted and the relative restrictions of the Board of Lunacy appear real barriers in the way of the discharge on probation of this class of the insane. This apparently arises from (2.) the evident aversion of many Inspectors of Poor to involve themselves in avoidable correspondence with the Lunacy Board or any other board—the alarm of others at any avoidable responsibility—the incapability of some to understand the multitudinous schedules of the said Board, or to understand or conduct the matter of transfer of a patient, simple in reality though such a process is—the dislike others have to any trouble they can shun in regard to paupers, sane or insane. Perhaps the said inspectors are not so blameable as, at first sight, might appear: at all events, we can readily understand how they feel and act so, and, to a certain extent, we cannot but sympathise with them. They are threatened with so many pains and penalties if they do not place insane paupers in asylums, and they experience such difficulties in procuring admission there, from their space being already overcrowded or otherwise, that it is scarcely to be wondered at they should be reluctant to remove them prior to recovery, unless compelled to do so. 3. The difficulty almost universally experienced by Inspectors of Poor of securing in country districts suitable house and family accom-

Inspectors of Poor.

Parochial Cottage Sanatoria

modation for the insane poor. This difficulty is one in which we fully sympathise, and which we fully understand: it is one of such importance, and is so fundamental and essential, that we propose reverting to the subject in discussing means of obviating the difficulty in another section of this Report, under the head of "Parochial Cottage Sanatoria" [pages 64 and seq.] 4. The knowledge on the part of the Asylum physician that, however well a patient may behave in an Asylum, and however suitable he may appear to be for residing, with advantage to himself and without danger to the public, in a private house, yet the change from asylum discipline and asylum life may be attended or followed by results that could not have been predicted, and that can only be regarded as unfortunate and non-preventible. An Asylum physician is by the law threatened with all manner of pains and penalties for errors of omission or commission in the discharge of his difficult and delicate professional duties; he is subject to public reprehension for results over which he too frequently has no control; he is generally ignorant of the circumstances in which a non-recovered patient may be placed on removal—of the character of his custodiers, for instance, or the suitability of his dwelling; and it is, therefore, but natural and proper that he should be chary in assuming the responsibility, entire or partial, of recommending non-recovered pauper patients to be removed from Asylums to be boarded in private houses. A certain amount of responsibility he must necessarily incur. A patient's guardians have a right to look to him for a report on his condition while under treatment in the Asylum; but, in our opinion, it should be for the parochial medical officers, or for physicians appointed for the purpose by the parochial authorities, after consultation with the Asylum physician and acquiring a knowledge of the patient's whole history as an Asylum inmate—after satisfying themselves as to his future custodiers and dwelling-place, occupation, diet, and so forth—to determine whether and how far a given case is a suitable one for removal to a given private house, and to certify accordingly. This responsibility, it appears to us, in the present state of the law, should be properly shared by the Inspector of Poor, the Parochial Board, and the Commissioners in Lunacy. 5. The indisposition or absolute refusal of certain patients to leave the Asylum to be boarded in private country homes. This may appear the strangest and least comprehensible difficulty of all; and, though it does not frequently arise, it is nevertheless real,

Contrast between Asylum discipline and residence "at large."

Relative responsibilities of Asylum Physicians and

Parochial Medical Officers.

Refusal of Patients to leave Asylum.

and has to be borne in mind. There is at present in the Institution a male patient—a chronic case—who has been resident for many years; he is quiet and harmless, docile, obliging, and most useful. He has acted at different times as nurse, attendant, groom, and gallery-assistant; has uniformly behaved with great intelligence and propriety; has had a great amount of liberty and licence at his disposal without on any occasion abusing them; and, altogether, there appeared no reason à priori why he should not be equally harmless and industrious out of doors, and no reason why he should not be boarded in a private house, and induced to do something towards his own support. Accordingly, he was recommended for removal on probation as a non-recovered pauper patient, and the Inspector made arrangements for his residence with a farmer, an old master, in whose establishment there was every probability of kindness and comfort. But the bare idea of leaving at once made him ill—caused the development of delusions that had long been apparently dormant, or generated new ones; and the result was, that all parties were glad to allow him to remain on his former footing in the Asylum. In this particular case, and in many cases, the position of the pauper patient in the Asylum is infinitely superior, as to his diet, sleeping and day accommodation, society, exercise, and general sanitary advantages, to what it is ever likely to be out of doors, under even the most favourable circumstances; and the knowledge of this, doubtless, weighs with many. It would probably, and does weigh, in many cases, equally with the sane as the insane, placed in parallel circumstances; but it should not weigh in a well constituted, healthy mind, inasmuch as freedom and independence should be preferred to confinement, servility, and dependence, whether or not the former be attended with poverty and the latter with comparative luxuriousnes. Another male patient (whose case is mentioned in our Report for 1859–60, page 9) was removed to a private house in the country as a non-recovered pauper, able, however, to minister, to a certain extent, to his own support. He, however, lost little time in effecting his escape from his custodiers, and in presenting himself voluntarily at the Asylum for re-admission. He is now our herd, taking charge of our cattle and byre—a quiet, harmless, docile creature. A third pauper patient, a female (whose case is also referred to in our Report for 1854–5, page 9), was discharged apparently quite well, and was boarded in a private house in the country, near her native place. Within a few days,

however, she threatened suicide (and she subsequently attempted it by drowning in a neighbouring river) if she was not at once sent back to the Asylum. She came back to us in a state of acute Mania, which was long in subsiding; but she is now, as she was prior to her last discharge, one of our best laundry or gallery-assistants—active, intelligent, industrious, most useful, and a great favourite. Well as she appears to be, and well as she behaves herself here, there is almost an absolute certainty, in our opinion, that her discharge would be attended with similar results—by an attack of Suicidal Melancholia, or of furious and dangerous Mania. Such cases teach us that great caution is necessary in placing the non-recovered, and even sometimes the apparently recovered, insane in private houses in country districts where, in general, there is an absence of proper control or discipline, with defective sanitary arrangements.

Dangers of compulsory Removal.

Nevertheless, there are many cases in this Asylum—and we believe in every asylum, the more in proportion usually to the age of the asylum, in which it is right to try the experiment of removal on probation by transferring them to a private country house, *each house and custodier being suitable to the particular Patient removed.* A non-recovered Pauper suitable for such a transfer can readily be removed under Schedule D[2] of the Board of Lunacy. This purports to be for the "Transfer of a Pauper Lunatic from an asylum to a Private House as a single Patient," founded on the fact that he or she "remains in a state of mental derangement, but is now a proper person for care and treatment as a single Patient in a Private House." Here we may be permitted to remark that the restriction of the benefit of transfer to a *single Patient* in a Private House seems to us to be a great error on the part either of our present law anent lunatics, or of its administrators. In certain cases such segregation might be necessary or advisable, in the majority it is probably most mischievious, besides most expensive. This will appear more fully from our remarks on "Parochial cottage Sanatoria," a main feature of which would be the *association of several Patients uuder the same roof,*—such association being commendable both on the ground of advantage to the Patient and of advantage or economy to the ratepayer. This is the main objection we have to Schedule D[2]: but it appears to us seriously to interfere with the proper treatment at home of the insane poor. This schedule is, however, a step in the right direction, and may be accepted meanwhile as an instalment of what

Patients suitable for Home treatment.

Transfers under Schedule D[2].

Restriction of Private Boarding Houses to "Single Patients."

Details of Schedule D[a].

may reasonably be expected from future legislation on lunacy and lunatics in Scotland. The schedule in question contains, or consists of, the following sections or documents:—I. Application by the Inspector of Poor of the parish to which a particular lunatic is chargeable, addressed to the Board of Lunacy, requesting authority for transfer. II. General statement of particulars of case, either by the said Inspector or by such friends as are most conversant therewith. III. Supplementary statement of such particulars as will satisfy the said Board as to the propriety of removal: containing, for instance, information (1) as to the patient's habits of personal cleanliness—whether he is dirty, degraded, or offensive to public decency; habits as to diet—whether he is abstinent, or inclined thereto; habits as to industry—whether he is able to minister to his own subsistence, and to what extent; habits as to violence or quietude: and (2) as to the character of his future custodiers, and the condition of the house in which it is proposed to place him—what number of rooms it contains —what number of persons it accommodates, and the amount of board to be paid or Parochial relief granted. IV. Two medical certificates, setting forth that the patient, though still insane, is a proper person to be transferred from an Asylum to a private house. As we have already stated, it appears to us—and this we always recommend or suggest where an opportunity is presented—that these certificates should proceed from medical men who are acquainted both with the patient and his full history, and with his future home and future guardians. V. The sanction of the Board of Lunacy. VI. Petition by the Inspector of Poor to the Sheriff to grant order for transfer. And VII. Said order by the Sheriff. This schedule remains in the keeping of the Inspector of Poor who makes the application, but must, of course, be presented to the Superintendent of an Asylum as a warrant for his permitting a given patient's transfer. Whatever may be the defects of this schedule, or of the principles on which it proceeds, they are not of a kind calculated to throw responsibility upon, or impediments in the way of, Inspectors of Poor, who nevertheless are properly charged with the due filling up of its sections, and with the conduct of the transfer. The real responsibility rests with the medical men who sign the two medical certificates; for it is upon these alone, or mainly, that the Board of Lunacy, the Sheriff, and the Inspector proceed. The latter need, therefore, be under no apprehension as to blame to himself, should accident

Responsibilities of Inspectors of Poor under said Schedule.

occur from a given transfer: he incurs greater responsibility by *not* making the experiment, than by making it, when the suggestion is made to him, or when he is aware of its feasibility in certain cases; and in the case of relapse of the patient—of danger being threatened, or of accident occurring—the Asylum from which the transfer took place would at once, under the circumstances, re-admit a given case. It was under the schedule in question that 9 patients were removed during the past year to be boarded in private houses—7 at our instance, and 2 at those of the Parochial authorities or of the patients' friends acting on the said authorities. We are not aware of any bad effects of such transfers, where they occurred in suitable cases: while we might point to many very good results. We are strongly of opinion that this Schedule D[2]. is not acted upon, or made serviceable, to the extent it should be, and that consequently many patients are left in Asylums who might be more economically, and, altogether, more appropriately treated out of them. We have endeavoured, in various ways, to indicate to Inspectors of Poor the advantages of such transfers and the freedom from risk to themselves. But it has only been in the case of a few of those of immediately neighbouring parishes, —whom we have seen personally and repeatedly—where we have given assurance of ready readmission in case of relapse, and where we have had an opportunity of supervising all the steps of procedure, that the experiment has been made at all. Inspectors at a distance, with whom we have had opportunity of communicating only by letter, have shown little, if any, disposition to bestir themselves in the matter: nor do we believe they will till compelled. We are, however, very desirous of bringing this subject under the consideration of the higher Parochial authorities, and with this view we would point out the following advantages as likely to arise, and as having already arisen, from such transfers *in proper cases*:—1. There is a great saving effected by the Parochial exchequer, it being much more economical to board patients in country cottages than in expensive asylums. Besides, in most, or at least many cases, the patient is able to contribute by his labour, to some extent, to his own subsistence: and this adds to the saving effected in board. 2. The chances of recovery are sometimes greater to the patient; or, in incurable cases, his comfort and usefulness are materially augmented. He is gratified by the idea, as well as by the reality, of freedom: proud that he is independent and able to support, or help to support himself: his life is altogether

Extension of operations under Schedule D[2].

Advantages of home treatment.

Economical.

Medical.

Moral

Increased usefulness of this Institution.

more homelike and natural. We have already shown how such transfers directly benefit this Institution, but we have further to remark, that whatever benefits the Institution, benefits the insane of the district which surrounds it; or, in other words, the greater the amount of our relief from chronic and hopeless cases—quiet, harmless, or industrious patients—the greater is the amount of space at our disposal, and the greater our ability, therefore, to admit fresh and urgent cases. This Institution thus becomes more extensively useful. At present, fresh, urgent cases must seek admission into other asylums, generally at greater cost; and the remoteness from this district of such asylums is in many other ways a source of evil or discomfort. The effecting of such transfers is thus alike the interest of the Parochial authorities, the authorities of this Institution, the Board of Lunacy, and the public; and we hope, from what we have said, that Inspectors will now have no difficulty in perceiving that, in carrying out transfers in suitable cases, they are consulting the best interests of the Parochial exchequer, to which they are ever, in the first instance, alive, as well as those of the patient; while they are acting in accordance with the views both of the Board of Lunacy [*Vide* its Third Annual Report, pp. 31–37] and those of the Board of Directors of this Institution. We trust, then, that the Parochial authorities will harmoniously co-operate with the Board of Lunacy and with ourselves in carrying out measures in all respects so salutary and desirable, whether regarded in an economical or medical point of view.

Admissions.

The Admissions during the past year amount to 62 (27 males and 35 females). This number is larger by 5 than last year; but it is smaller than during 1858-9 or 1857-8. In connection with this comparative smallness, however, must be borne in mind our less ability to admit from the increase in the mean daily number of patients under treatment and from our habitually crowded state.

Refusals.

The number of refusals of admission during the current year [1861] has been greater proportionally than that stated under the head of 1860 at page 9 hereof. 17 patients have been refused admission since January last,* being at the rate of about 40 per annum; in addition to which an application for the admission of

	Males.	Females.	Total.
* Private, ...	1	5	6
Pauper, ...	3	8	11
Total, ...	4	13	17

several private patients—neither the sex nor number of whom was specified—could not be entertained,—all from want of room. As in former years, the female admissions have considerably predominated over the male. This was well illustrated recently, as has been already shown on page 8 hereof. On 1st April our population was reduced to 191 (97 males and 94 females)—the latter being in a minority of 3. By 15th May, such had been the demand for the admission of females, that our female population had risen to 105—being an increase of 11 patients in six weeks; while the males, instead of increasing, had decreased by 5, or stood at 92. The result was, that at the date last mentioned, it was again necessary to refuse admission to *female* patients, while for males a considerable amount of space was vacant. Of the whole number of patients under treatment during the year—viz., 267—there has been an excess of females over males in the proportion of 140 to 127. The single patients admitted did not, as usual, predominate over the married and widowed—the latter numbering 32, the former 30. More patients were admitted of ages between 30 and 40 than between 50 and 60; but, while 32 were admitted of ages under, 30 were admitted of ages above, 40. In regard to the duration of insanity prior to admission, we have again to record, with gratification, that, while in 20 cases the insanity on admission had been of longer duration than six months, in 42, or more than twice as many, it had been under this period; in 24, indeed, under a month; and this circumstance throws light on the relative fact of the high proportion of recoveries during the past year. 34 out of a total of 62—that is, more than half the patients admitted—had exhibited, prior to admission, or have since exhibited, more or less strong suicidal or homicidal propensities, or both: some of them have made repeated attempts, especially at suicide, in a great variety of ways since admission. The statement that no accident has occurred during the year through the manifestation of these propensities speaks volumes in favour of the watchfulness and zeal of our attendants—a portion of our staff so subject to unmerited abuse and unfounded accusations on the part of patients, or others, that we gladly avail ourselves of this or any opportunity of publicly expressing our obligations to them, and our own high sense of the value of their difficult labours.

Admissions in relation to sex, age, &c.

Suicidal and Homicidal propensities.

Vigilance of Attendants and its results.

The Recoveries during the year amounted to 29 (13 males and 16 females)—the total being greater by 7 than that of last year. Calculated on the number of admissions, the recoveries constitute

Recoveries—

46 77 per cent., being the highest proportion during the last 4 years. With the exception of the year 1858-9, when they amounted to 34, the actual number of recoveries is the largest recorded since the opening of the Institution in 1827. There is a preponderance of female over male recoveries, just as there is in regard to admissions—16 single, while only 13 married and widowed patients recovered; and, while only 10 recovered of ages above 40 years, 19 recovered who were under this age. About an equal number of patients recovered from Mania and Melancholia. Only 5, however, recovered from Monomania, while there were 22 admissions in this form of Insanity. This is quite in accordance with all our experience, which goes to prove the comparative incurability of this form of Insanity, as contrasted, at least, with the two other forms just mentioned. In 19 cases, insanity had been of less duration than 3 months prior to the patient's admission; in only 9 was it of longer duration than 3 months, but under a year; and in only 1 had it lasted more than a year. These facts imply a great improvement in the interval that is now generally allowed by the friends or guardians of patients to elapse between the incursion of Insanity and taking the proper steps towards its remedy. The duration of treatment in the Asylum was under a year in 22 out of a total of 29 cases—of which 8 were less than 3 months, 6 more than three, but less than 6 months, and 7 upwards of 6 months, resident.

in relation to sex, age, &c.

Removals of Non-recovered Patients.

26 Patients were discharged or removed not recovered (11 males and 15 females). Of these 13 were recorded as improved at the date of their departure (7 males and 6 females), and 13 unimproved (4 males and 9 females). Particulars of these cases have already been given at page 12. The total discharges, including deaths and recoveries, were 65 (30 males and 35 females), being the largest number during the last 6 years, and, with the exception of the year 1854-5, the largest recorded since the opening of the Institution. The year in question was altogether exceptional, and may practically be left out of account in such comparisons: it was characterised by the sudden exodus of 34 of our pauper patients [belonging to Perth and the adjacent parishes] to the cheaper private establishments of Musselburgh, whose nature was subsequently referred to by the Royal Lunacy Commission of 1855, and by the present Commissioners in Lunacy for Scotland.

Mortality.

Bearing in mind the meteorology of 1860–1,—the increased general mortality throughout Scotland, apparently due to the se-

verity of the winter: the marked deterioration in the general health of our community, as indicated by the prevalence of various minor ailments, as well as in contrast with the number of deaths in former years, when our population was less than it has been throughout the past year, our mortality has been very small, amounting to 10 persons, 6 males and 4 females. It is slightly less proportionally than during last year, and less both absolutely and relatively than in 1857–8 and 1858–9. This would appear to indicate that the measures taken to obviate the effects of unfavourable meteorological conditions, especially as to temperature and moisture, on the general health of our community were *pro tanto* successful. The subject of meteorology, in connection with mortality and disease, we regard as of great importance; and so regarding it, we have this year introduced Table VI. into our Appendix, which is useful for reference in relation to our remarks both on the mortality and on the general sanitary condition of our community during the year. The Registrar General of Births, Deaths, and Marriages, in his Summary for 1860, remarks, page 5, "The year 1860 was one remarkable for its meteorological phenomena, and just as remarkable for the deadly influence which these exerted on the inhabitants of the 8 principal towns of Scotland. The general characteristics of the weather during the year were low mean temperature, excessive humidity of the atmosphere, a quite unusual prevalence of easterly winds, and a consequent scantiness of westerly breezes, and towards the close of the year an intensity of cold greater than has been experienced in this country during the present century. These adverse agencies reacted on the public health in a most prejudicial manner, and were the main agencies which caused the deaths during the year so far to exceed those of former years. In Scotland, the observations of a few years have shown that "*weather, as exhibited more especially in the mean monthly temperature, has much more to do with the number of deaths, than diseases of any class whatever.*" But, while, on the large scale, it is easy to trace a direct connection between meteorological conditions and mortality, on the small scale it is frequently the reverse. The mortality in our community during the year, for instance, did not apparently stand in any precise or traceable relation to the state of the weather; for, during the months of January, February, and November, there were no deaths; while there were 1 in December, 1 in March, 1 in October, 2 in August, 3 in April, and 2 in May. The effect of the

Meteorological conditions as influencing Mortality.

Mortality in relation to periods of year, age, &c.

weather is very apparent, however, when we come to consider the general health of our community during the bye-gone year. All our deaths were fortunately in incurable cases. No less than 6 Patients who died were upwards of 60 years of age at the time of decease, one was 81, and in all of these the decay of senility had much to do with the fatal result. In one case the cause of death was Rupture of the Ileum, with relative fœcal extravasation and Peritonitis; in two acute Tuberculosis; in a third acute typhoid Broncho-Pneumonia; in two cases General Paralysis—in one of them there being a complication of acute, typhoid Pneumonia, and in the other chrônic and intense spasmodic contraction of almost all the muscles of the body, most marked in those of the face and neck; and in 4 it was the exhaustion of Mania, acute or chronic, mostly the latter—in one case aggravated by abstinence prior to admission, and in another terminating in a series of severe convulsions. One patient had been 28, and another 26 years an inmate of the Institution; while one had been admitted only a fortnight, and another only two months, previously—the latter especially having been admitted almost in a dying state. Other patients have recently been admitted in a similar semi-moribund condition; and it is by no means unfrequent to find the admissions in the last stages of anæmia, and debility—their constitutions thoroughly undermined, partly emaciation, by the form and duration of their insanity, and partly by the mismanagement of the patient, by unnecessarily permitting abstinence, sleeplessness, exhaustive restlessness, or otherwise. This circumstance is noteworthy in all considerations affecting asylum-mortality or disease. There is again a preponderance of male over female deaths, though this year it is not so marked as usual. Our Table I. ["General Results of the year 1860–1"] shows that of 232 deaths from 1827 up to 1860, 143 were males and 89 females, or 61·63 per cent. of the former and only 38·37 of the latter: rather more than half. In regard to recoveries, on the other hand, the ratio is reversed, the females preponderating both this year and generally. The same table shows that, of 534 recoveries from 1827 to 1860, 222 were males and 312 females, or 41·57 per cent. of the former, and 58·43 of the latter. Of the whole 1266 patients admitted between 1827 and 1860, the males numbered 625 and the females 641—a difference of 16 in favour of the latter, and one which, from its smallness, is of little account. The preponderance of males in the one case, and of females in the other, is, therefore, absolute. Occasionally, though rarely, instead of bringing

Causes.

Admissions of Moribund Patients.

patients in to die, they are taken out to die, the relatives preferring that the last sad scenes should occur in the bosom of their own home, and that the last sad rites should be administered by their own dearest and nearest relatives. Such cases are generally those in which a fatal issue can be pretty safely predicted sometime beforehand, and where the patient can be removed, while yet in a condition of comparative physical strength—able to bear the fatigue of travelling. In only one case was such a removal effected during the year; in a second it was contemplated, but death occurred while there were some delays in the necessary preparations by the relatives. In the case first alluded to, the nature of the disease, its probable stage, and its probable issue, were predicted before the patient was seen, simply from the description of the relatives. It was a characteristic case of General Paralysis, which could scarcely have been mistaken by an Asylum Physician of any experience. The patient was placed here for some weeks; our opinion fully confirmed, and the issue more confidently foretold. He was removed while yet comparatively strong: at home became stronger, so much so as to be a source of great difficulty and uneasiness to his friends, who supposed he was rapidly recovering. His friends communicated with us regarding their difficulties, when we assured them that the excitement described by them would in all probability be followed by corresponding exhaustion, or collapse and that the fatal issue might be less distant than they then anticipated. And within a few weeks more we heard, with no surprise, of the fatal issue in question.

Removals of Moriband Patients.

Prognosis in General Paralysis.

Rapidity of fatal issue in ditto.

In 8 of the deaths post mortem examinations were sanctioned and made. Some of these are of great interest from the Pathological conditions exhibited. One was particularly so from the number of points or questions of importance to the medical jurist and the surgeon, to which it gives rise. It was a case of Rupture of the Ileum, with acute Peritonitis and fœcal extravasation; the peculiarity being that the peritonitic pus and the fluid fœces, which had escaped from the ruptured bowel, made their way into a very old-standing Inguinal Hernial sac, which, from its contents, and from the general symptoms, gave rise to all the outward appearances of acute strangulated Inguinal Hernia. The case is further interesting in respect of the absence of external marks of injury to the abdomen, and to the duration of life subsequent to the period when the fœcal extravasation must have occurred. This is obviously not the place for entering upon minute anatomical,

Pathology of Insanity.

Case of Rupture of Ileum, with peculiar complications.

surgical, or pathological details, or for pointing out their bearings on certain questions in medical jurisprudence. Still, we believe that a general outline of the case not only deserves, but demands record here. The patient was a muscular and athletic, though comparatively old, Highlander [age 61]: withal, one of the most troublesome inmates of the Institution. He had a habit of "bolting" at, or out of, every open door with a view to escape—of forcing himself into every room, closet, or chamber, to which access could be had; and this he did with a degree of dogged obstinacy and perseverance, and with a Highland cunning and speciousness that rendered him universally disliked by his fellows, and involved him in constant or frequent struggles with them or with the attendants. His powerful, athletic frame made these struggles all the more formidable and occasionally dangerous. On one occasion he battered down the door of a water closet with his hands and feet—possessed himself, apparently by wrenching, of some of the heavy plugging or piping thereof, and threatened to "brain" the first man who ventured to remove him. On this occasion it was necessary to have five or six attendants to disarm and dislodge him. Such struggles have over and over again occurred in our presence, and were certainly unavoidable, though many precautions were taken to prevent them. That he was subjected to violence that was avoidable there is no precise ground for believing: that he was occasionally the receiver of blows or kicks, the confessions of fellow-patients in some instances testify. That his illness was the result of some form of violence there is strong reason for supposing; but what was the precise nature or amount of this violence it has been found impossible, after the most minute inquiries, to discover. Under such circumstances of suspicion, attendants are freely accused; but the result of searching investigation into asylum accidents during a serious of years convinces us that attendants are more frequently blamed wrongly than rightly; and our surprise is not that so many instances occur of loss of control over the passions on the part of attendants, but so few. The first evidence of abdominal mischief in the patient above referred to occurred in the form of scrotal ecchymosis, followed by orchitis—the result of a kick inflicted, according to his own confession, by a fellow-patient. Three days subsequently, about two hours after a full dinner meal, he having been engaged in some of his usual struggles, wherein, however, he received apparently neither kicks nor blows, but was merely subjected to

History of Case.

Scrotal Ecchymosis.

Orchitis.

pushing in expulsion from a room where he had neither right nor occasion to be, he was suddenly seized with acute pain in the umbilical region, with sensations of griping and twisting of the bowels. His agony seemed extreme; his body was bent double and he was found grasping the scrotum with both hands, as if *it* had been the chief seat or source of pain. When questioned, however, the right groin was indicated as the seat of greatest pain. Here there was no mark of bruise—no tumour of any kind. He was placed in bed and all the symptoms of Peritonitis speedily exhibited themselves; he lay on his back, with his knees drawn up, his teeth chattered, he complained of shivering, his skin was covered with a cold perspiration, and vomiting set in; any palpation on the abdomen elicited expressions of great suffering; two days afterwards, for the first time, the peritonitic symptoms having continued, a small tumour about the size of a pigeon's egg and in the position of an oblique inguinal hernia was discovered in the right groin; distinct impetus was felt on deep coughing; and the patient confessed to having had a rupture there many years ago—two days later still, the vomiting, which had been persistent from the first, became stercoraceous. The inguinal tumour had every appearance of a small Hernia, and the general symptoms pointed to the strong probability of the existence of strangulation. A council of two surgeons and an equal number of physicians deliberated on the case; appearances were in favour of strangulated Hernia, but there were circumstances which prevented this opinion being unanimous—sources of fallacy and difficulty evidently existed. The severity and urgency of the symptoms, however, left no doubt as to the speedy fatal issue were no operative remedial measures resorted to, every thing else in the way of treatment having already been done. "The general rule is *when in doubt* operate," says one of our principal living surgical authorities:* this was unanimously adopted as the only safe rule of guidance; the ordinary operation for strangulated oblique inguinal Hernia was regarded as advisable, at all events as a tentative measure, and it was accordingly executed most cautiously by one of the surgeons in consultation. A hernial sac was found, but its coats were enormously thickened and adherent inextricably to all surrounding textures. But, instead of containing strangulated bowel or omentum, it was found filled with a mixture of fœces and pus—the result now evidently of ruptured intestine. The wound became

Peritonitis.

Tumour resembling oblique Inguinal Hernia

Symptoms resembling those of Strangulated Hernia.

Operative relief.

Old Hernial sac.

Contents.

* "Druitt's Surgeon's Vade Mecum." 5th ed. 1851, p. 473.

virtually, to a certain extent, an artificial anus, through which the mixed fœces and pus gradually exuded, in gushes, on every movement of the body. Whatever may have been its *modus operandi*, relief was immediate and marked, it was altogether as great, for the time being, as if the stricture in a strangulated Hernia had been divided and the uninjured gut easily returned. It was, moreover, considering the fatal nature of the injury, (for no hope could now be entertained of saving life) unexpected both in degree and duration. Life was undoubtedly prolonged for several days, (he sank on the fourth following the operation) and during the first two days, especially, there was so great an amelioration in the symptoms, that persons unaware of the exact nature of his injury might have been excused for entertaining hopes of recovery. Hiccup, however, gradually set in and increased in severity, a symptom which experience has taught us to regard, in such circumstances, as one of the gravest import; delirium was superadded, and death occurred in four days from asthenia. At the *post mortem* examination attention was naturally first directed to the state of the intestine in proximity to the hernial sac above referred to. In the right iliac region there was hyperæmia, more or less intense, of the peritoneum, visceral and parietal; the intestines were adherent firmly by numerous recent bands of lymph, both coil to coil, and to the abdominal wall; they were covered with shreds of lymph; here and there were small accumulations of recent, thick, laudable pus. There was also hyperæmia of the small intestines, especially intense in the lower portion of the ileum. The portion of gut nearest the hernial sac, already mentioned, was the lower few inches of the ileum. The interior of this gut, for at least ten inches, was of a deep purple from hyperæmia, here and there coated with lymph, and somewhat soft or friable. About five inches above the ileo-cœcal valve—that is, in the centre of the injected portion of gut above mentioned—was found a round aperture about a fourth of an inch in diameter; its edges were thickened, and of a much darker purple, more intensely hyperæmic, than the adjacent gut—the injected circle which formed its walls being somewhat larger internally than externally; there was no erosion of the mucus coat, nor laceration of the peritoneal coat, so far as these could well be examined amid the inflamed textures of the part; and though the edges were somewhat irregular, when the gut was washed and stretched flat, still the general contour of the aperture was round. The ileum above—its coils firmly glued

Pathological appearances.

ntestines.

Aperture in Ileum.

together, the abdominal wall in front and the pelvic wall behind—the old hernial sac before mentioned, formed of a pouch or diverticulum of peritoneum occupying the ordinary position of oblique inguinal hernia, below, formed a cavity in which was contained the fœcal matter that had escaped from the ruptured ileum, intermingled with part of the peritonitic pus. This cavity seemed quite circumscribed by the lymphy adhesions of peritonitis, where it otherwise should have communicated with the general cavity of the abdomen. The walls of the peritoneal diverticulum constituting the hernial sac were half an inch thick, so matted in their several layers, and so united to surrounding textures, that it was found impossible to define the usual coverings or constituents. There was neither bowel nor omentum in this pouch or sac: the nearest gut was the lower end of the ileum, as has been already mentioned, occupying its normal or usual site. A large quantity of pus and lymph was also found enveloping the bladder. The coverings of the spermatic cord were also matted together and adherent to the porterior walls of the hernial sac. The right testicle was enlarged and congested, and the cavity of the tunica vaginalis was occupied with a considerable amount of serum. There was a considerable extent of bloody extravasation in the subcutaneous cellular tissue of the base of the scrotum, though there was no external ecchymosis or other indication of bruise or injury. Both liver and kidneys showed epithelium more or less containing fatty matter; the peritoneum of the porterior surface of the former was discoloured here and there by patches of hyperæmia. The right lung was tied down by old pleuritic adhesions to the diaphragm inferiorly and at the apex superiorly. The only peculiarities in the cranium or brain were two fibro-cellular tumours or polypi, each about the size of a split pea, uniform as to form and consistence—that is, symmetrical on the two sides of the brain,—one being attached to each choroid plexus in each lateral ventricle. Among the questions of great interest which at once present themselves in commenting on the foregoing case, are the following:—1. To what extent can we be sure that the aperture in the ileum was the result of sudden *rupture from violence* and not of gradual *ulcerative perforation*. It is obvious that, in such a case as the present, where is wanting all evidence of any value as to the receipt of violence or injury, or of the precise nature, amount and date thereof, and in similar cases, it is of the utmost importance to ascertain how far the *post mortem* appearances may be trusted

Relations to old Hernial sac.

Condition of Spermatic Cord, Scrotum, and Testicle.

Condition of Brain.

Polypoid tumours of Choroid plexuses.

Medico-legal inquiries.

Differential diagnosis between Rupture from violence and ulcerative perforation.

to speak for themselves. Hence the medico-legal aspect of this question is of great interest. It appears, then, that both in rupture from violence and in perforating ulcer the opening is circular.

Form of aperture.

This may appear especially perplexing in regard to rupture, in which the opening has sometimes been described as if a round piece of the gut had been cleanly "punched out." But, in such a case, a wound, originally linear or irregular, becomes round from the contractions of the differently arranged fibres of the muscular coat of the gut. And we will the more readily comprehend how this should be, if we bear in mind what Sir Charles Bell long ago told us, and all obstetricians still tell us, that a simple linear incision in the wall of the uterus, for instance, made in the performance of Cæsarean section, gives rise to an opening of precisely similar form—that is, round or circular. The differential diagnosis is founded generally on the circumstance, some years ago pointed out by Dr Gairdner, at that time Pathologist to the Royal Infirmary of Edinburgh, that in rupture from violence there is eversion through the wound of the mucous coat of the gut, while in perforating ulcer this coat or membrane has been more or less eroded from around the margins of the opening; or, to give Dr Gairdner's own words, which, from the interest of the subject, we need not apologize for here introducing:—"In ulceration of the intestine, leading to perforation, the mucous membrane is commonly destroyed over a much larger space than the peritoneal coat. The opening in the latter is small, rounded, or oval, and with thin, almost transparent edges, owing to the great thinning of the tissues, which takes place previous to perforation. In rupture of the intestines from external injury, the opposite of all these conditions exists. The opening of the peritoneal is larger, or at least appears larger, than that of the mucous coat; and the exuberant edges of the latter, especially when the rupture is in the duodenum or jejunum, are found protruded and everted through the peritoneal opening. The form of the rupture is not constant: more or less of a lacerated appearance may or may not be present: the peritoneal rent is such as frequently to leave a portion of the fibrous or muscular coat visible below; and this latter is of its natural thickness and consistence. One morbid condition simulates rather closely rupture by violence—viz., perforation by disease beginning in the peritoneal coat. But this is very rare, and the traces of chronic disease are evident in the examination of the body."*

Condition of Mucous and Peritoneal coats

* "Association Medical Journal," July 28, 1854, p. 680; and April 21, 1854, p. 359.

There seems no ground for doubt, therefore, that the opening in the ileum in our case was the result of rupture from some kind of violence externally applied, and not from perforating ulcer. 2. But if so, when did the said rupture occur, and could such violence have been used *ab extra* as to rupture the ileum without producing any external marks of bruise or injury; and further, are the symptoms, and especially their alleviation on the fourth day and for two days subsequently, with death on the eighth day, compatible with such a supposition? If not, what is likely to have been the origin and progress of the disease? The discussion of such questions would inevitably lead to lengthy disquisitions of a strictly professional kind, and which we feel called upon, however interesting they may be elsewhere, here to avoid. We cannot, however, leave the subject without adverting to the fact that not a few cases of rupture of intestine, unaccompanied by external marks of violence, or having such marks at a distance from the seat of the fatal injury, or where no severe or urgent symptoms have for a time been present, are already upon record, and may be referred to by those interested in the questions just mooted.*

Absence of external marks of violence.

Reference to parallel cases.

A second autopsy is of interest in reference to the state of the brain, lungs, and kidneys. The case was that of a man of eighty-one. He had been at one time a soldier, and at another a weaver; was admitted labouring under suicidal Melancholia, which subsequently passed into chronic Mania. He had been five and a half years resident in the Institution. He was far from being what is generally designated an intellectual or strong-minded man, even for his position in life: he had been distinguished, on the contrary, for his simplicity of character—a simplicity akin to stupidity. In the church to which he adhered he was an elder, and was noted for his simple earnestness—his "Nathanael-like" guilelessness. In his suicidal Melancholia he seemed to lack the courage to carry out his purpose. He frequently stood on the Bridge of Perth, deliberating whether or not he should cast himself into the river below; but his deliberations never culminated in any suicidal attempt. In the senile Dementia into which he gradually lapsed, he was quite childish, whining and helpless as an infant; while in the Mania by which the latter condition was

History of Case II.

* "Medical Times" for 1858, part i., January to July, p. 489; and "Association Medical Journal" for 1854 [already quoted, p. 37], pp. 359 and 679.

interrupted, or to which it succeeded, he became irascible and suspicious, making use of the foullest language to friends and foes alike. Some years ago he suffered from various attacks of sudden Paralysis, attended by Coma, the result apparently of congestive Apoplexy. Some of these latter attacks were very formidable—one especially, such as to threaten life. His subsequent recovery, however, was complete. His death was gradual, and the result of exhaustion, in great measure attributable, if not entirely so, to the natural decay of age. There were no special symptoms of any kind—none calculated to lead us to look for special pathological conditions in any part of the body. During his euthanasia—for it could scarcely be called illness—no opportunity occurred of examining the condition of the urine, which was wholly passed in driblets in bed. But sometime previously, in the course of the examination of the urine in 200 patients for special ends, his was examined and found perfectly healthy in all respects. The feature that first arrested attention at the *post mortem* examination was the unusual number of the cerebral convolutions—their somewhat less breadth—the greater depth of the sulci—the cerebral substance, gray and white, being at the same time apparently quite normal. We do not remember, indeed, to have seen a brain marked by the same development of its convolutions, and consequently of its gray matter. Were the doctrines of Phrenologists to be depended upon (which we assert they are not), this patient should have been distinguished for his intellectuality, which we have already seen he was not. The researches of modern Physiologists are, we believe, infinitely more to be relied on; certainly they coincide more with the views which our own experience has forced us to entertain. Rudolph Wagner shows that neither as to weight, nor richness of convolutions, does the brain of a person intellectually favoured differ necessarily or essentially from that of a person the reverse. He admits, as we did in our last Report in relation to cranioscopy, that there are frequently or occasionally coincidences—of which coincidences it appears to us the Phrenologists make the most, and perhaps rightly do so, seeing that they have little other ground they can with any effect cultivate. But coincidences in this case, as in every other, do not prove the rules: great development of convolutions and great weight of brain *sometimes coincide* with great intellectuality, but certainly *not always*. Whereas, on the other hand, the brains of very intellec-

Condition of Brain.

Richness in convolutions.

Phrenological *versus* Physiological significance.

tual men are occasionally found poor both as to convolutions and weight.* In the patient whose autopsy we have been describing, the Dura matter was adherent superiorly to the calvarium. There had been a rupture of the anterior branch of the middle meningeal artery, which had given rise to considerable hæmorrhagic extravasation between the calvarium and Dura matter. This evtravasation was flatly spread out—was altogether different in character from a circumscribed clot, and apparently could have exercised but little, if any, pressure on the brain. The sac of the arachnoid contained serum to the extent apparently of about 4 to 5 ounces. Attached to each choroid plexus was a tumour, about the size of a field bean. As in the autopsy last recorded, these tumours were symmetrical on the two sides—of equal size, form, and consistence. Each felt hard and gritty; and, on section, the structure was found essentially calcareo-osseous—that is, partly simply composed of calcareous, amorphous, unorganised matter, but partly also of the same matter, which was further developed, and had undergone conversion into apparently genuine osseous tissue. Under the microscope, the latter was found to exhibit nucleated cells, varying in shape, and generally of considerable size. The addition of hydrochloric acid caused immediate effervescence from decomposition and solution of the calcareous matter and escape of the carbonic acid — the tissue on the field of the microscope being bleached, and in great measure disappearing, only a thin film of animal tissue remaining. The surface of each tumour was rugose, and it was covered by a glistening, white, fibrous capsule. The latter sent prolongations or septa into the midst of the tumour, whose substance it divided into a series of roundish or oblong masses or lobules. The cerebral arteries were atheromatous more or less throughout—a circumstance of interest in connection with the before mentioned rupture of the middle meningeal artery, as well as with the patient's *age:* for it very seldom happens, in patients above sixty years of age, that we do not find atheroma in some of the larger, if not also of the smaller, arterial trunks of the body. In this case, as was to be expected, and was confidently predicted, the aorta was the seat of atheromatous degeneration. The diseased patches, which were most abundant at the arch and bifurcation, were sometimes of osseous hardness, in the form of scales or plates; at other times, especially in the abdominal por-

Rupture of middle Meningeal Artery.

Polypoid growths on choroid Plexuses

Arterial Atheroma.

* "Critical and Experimental Researches on the Functions of the Brain:" quoted in "British and Foreign Medico-Chirurgical Review," January 1861, p. 234.

tion of the vessel, of a porridgy appearance and consistence, presenting, under the microscope, chiefly amorphous granular matter and cholestrine crystals. The lungs were infiltrated throughout with a black tarry matter, similar precisely, in appearance, to what we have seen in Miner's Phthisis, and in various forms of Melanosis. This tarry matter was sometimes contained in cavities forming little reservoirs or collections. These apparently were old vomicæ; they were chiefly found at both apices, and were marked externally by the presence of old cicatrices. Unfortunately the microscope was not called in aid to determine whether, and to what extent, this black, apparently pigmentary matter was extra or intra-epithelial; nor re-agents to decide whether it was carbonaceous, or of what precise chemical nature. So far as we are aware, there was nothing in the patient's previous history, as to his occupation or otherwise, to account for such a condition of the lungs. The surface of the lungs was covered with emphysematous bullæ; but there had been no dyspnœa or other symptom of respiratory suffering or affection during life—at least, in his latter years. The anterior wall of the stomach was soft and lacerable, and in one place it was almost eroded by a small ulcer. There had been no gastric symptoms whatever during life. The left kidney was much enlarged, and, while attempting to remove it from the abdomen, a large quantity of purulent matter escaped. Its texture was found infiltrated with purulent deposits of various size: those towards the periphery were so small that they had the appearance of little scattered pellets: the pelvis and infundibulum of the kidney contained a reservoir of pus, in which the apices of the cones were bathed. The ureter of that side was occluded. The right kidney, on the other hand, was only about three-fourths of its normal size: it was congested, and its surface very granular: the cortical substance was deficient in quantity, forming a mere thin margin. This was evidently an example of advanced *Bright's disease;* but, unfortunately, from the impossibility of collecting his urine prior to death, and from none being found in the bladder after death, we had no opportunity of ascertaining whether or not it was here associated with *albuminuria.* In this case, then, we have hæmorrhagic extravasation within the cranium—rupture of a cerebral artery—extensive atheroma of the arteries of the brain, as well as throughout the body—tumours of the choroid plexuses—infiltration of the lungs with black, tarry-looking matter—emphysematous bullæ—gastric

Tarry infiltration of Lungs.

Emphysema.

Gastric ulcer.

Abscesses of Kidney.

Bright's disease.

Implication of cal diseases thout relative mptoms ring life.

ulcer—purulent infiltration of one kidney, and advanced Bright's disease of the other—occlusion of one of the ureters,—all without the existence, or at least the manifestation to the extent of calling attention thereto, of relative symptoms during life. This is merely an illustration of what we have repeatedly brought under notice in former reports,—the frequency of serious and even fatal diseases in the insane, accompanied by very marked pathological conditions, without the manifestation of adequate symptoms, or of any noticeable symptoms whatever during life.

A third autopsy exhibited atheroma, to a considerable extent, in the aorta from its origin to its bifurcation. The carotids were also slightly atheromatous, but none of the other arteries of the body were so to any appreciable extent. The main peculiarity in this case was the presence, on the upper surface of the orbital plates of the frontal bones, of numerous rounded, osseous nodules, resembling "tears of bone," or the pearly concretions of various molluscs. The calvarium was thickened; the diploe and sinuses gorged with blood; ventricular serum was in increased amount. The Patient was a woman of sixty-one, long subject to chronic Mania. She came to us a feeble, thin, anœmic, broken-down creature: rallied for a time under generous diet, but finally succumbed, after a fifteen months' residence, to a series of violent convulsions—the individual fits following each other rapidly, extremely exhaustive, and marked by intense spasmodic contractions of all the muscles in the body.

Arterial Atheroma.

Osseous growth from Skull.

In a fourth case, disorganization of the posterior cerebellar lobes was the most noteworthy feature. These were pulpy and yellowish; and on being manipulated, exuded a thickish, yellow serosity. Disorganization was more advanced on the right side than the left. Under the microscope the disorganized tissue was found to exhibit compound granular masses, disintegrated or degenerate nerve cells and nerve tubes, fatty globules, cholestrine crystals, and yellow pigment gramules. All the cerebral arteries were more or less atheromatous, as were also most of the larger arteries throughout the trunk. In the aorta were many osseous plates, and near its bifurcation was a polypoid vegetation. The Dura mater was more or less adherent to the calvarium: attached to its surface, opposite the interior of the left perietal bone, was a fibrous tumour, about the size of a pistol bullet. The cerebral ventricles were distended by superabundant serum, which was of darker colour than usual. The visceral pericardium was coated with old

Disorganization of Posterior Cerebellar Lobes.

Arterial Atheroma.

Fibrous tumour of Dura mater.

Pericarditic lymph.

and recent lymph. The lungs were bound to the costal pleura by old pleuritic adhesions, and the right apex exhibited an old tubercular deposition of limited extent. The Patient was a female, sixty-five years of age; she had been for a long period blind and deaf, both affections the result of disease—the former depending on Amaurosis; she had long been in a state of chronic Mania; and she sank gradually from exhaustion, no special symptoms manifesting themselves—no indication of special disease, or of particular pathological conditions, being present. The only circumstance which seems in any way related to the condition of the cerebrum was a habit she had for some time prior to death of suddenly, and without apparent cause, uttering piercing cries or wailings, closely resembling those uttered by the lower animals when under the knife of the experimental Physiologist in his sections of, or injuries to, different portions of the great nervous centres.

Scrofulous ulcers of Intestines.

A fifth case was interesting chiefly on account of tubercular deposit in the coats, and scrofulous ulcers, of the intestines; but it was also a well marked instance of tubercular infiltration and softening of the lungs. The portion of intestine most involved was the cæcum, whose coats were greatly thickened by tubercular deposition, and whose interior was studded over with a number of sharply defined ulcers of irregular form. The same thickening and ulcers characterised the ascending and transverse colon—the thickening being greatest in the former portion of the gut, and gradually disappearing in the descending portion. The lungs felt very hard and firm; they filled the whole space of the cavity of the chest usually occupied by the lung in a condition of full distension; in all directions they were adherent to the walls of the chest. The left lung felt more solidified externally than the right; it was found riddled from base to apex with vomicæ, full of tubercular pus, or with small collections of gritty calcareous particles; very little healthy texture remained. The right lung was similarly involved, especially superiorly, but to a much less extent than the left. The Hepatic epithelium contained decided excess of fatty matter. The brain was healthy, with the exception of a small polypoid growth attached to either choroid plexus. The consistence of this tumour was firm, and its structure fibro-cellular. The Patient was a man of sixty; he had been confined to bed for only a few weeks in consequence of gradually increasing emaciation and general debility. There were no symptoms to the last specially referible to the lungs—no dyspnœa—no cough—no expecto-

Tubercular infiltration of Lungs.

Polypoid growths on choroid Plexuses.

ration; nor were all the physical signs described in text books as existing in such diseases at any period to be met with. From the general condition of the Patient, however, there was no doubt as to the nature of his disease from the period when he was observed to be languishing, and when attention was thus directed specially towards him.

Mollities Ossium.

The most recent post mortem was one of the most interesting during the year, insofar as the case was a well marked one of *mollities ossium*—affecting less or more, all the bony parts of the system :—insofar, further, as regards the discovery of needles in different abdominal viscera, and the presence of numerous so-called Cardiac Polypi. The patient was an unmarried female, aged forty-nine, labouring under chronic mania : her temperament was highly nervous,—her constitution delicate. Many years ago she had swallowed with suicidal intent, hundreds of pins and needles, whereof some were voided, per anum, but the majority were not traced. For some time after swallowing them, she suffered from intestinal pains, but never to an alarming extent : never does there appear to have existed any symptoms of perforating peritonitis. During our whole acquaintance with her, extending over a period of nearly seven years, we have not heard a single complaint referible to the abdomen. Nor, indeed, has she complained or suffered in health markedly at all, until this spring, when she suffered from general pains in the bones, apparently of a rheumatic character, but which we have now no difficulty in assigning to the diseased condition of the osseous system, throughout the body. She gradually became much enfeebled, and was laterly confined entirely to bed; her lowered and depraved vitality was further evidenced by the occurrence here and there of unhealthy boils. She rallied, however, considerably,—so as to afford faint hopes of her ultimate restoration to health,—when she was suddenly attacked with acute Tuberculosis, which proved fatal in the course of about a fortnight. At the autopsy, the forceps, or any similar instrument, could be made easily to perforate the outer table of any of the bones of the body; sinking into their still softer spongy interior, and giving exit to the thick grumous fluid, partly bloody, partly oily, with which the said interior was in great measure filled. This was first noticed in regard to the bones of the base of the cranium, which were abnormally deeply coloured on their surfaces, the colour being a deep reddish brown. Their contents were almost lardaceous in consistence. The sternum could be

Presence of needles in the abdomen.

Acute Tuberculosis.

Diseased condition of Bones.

doubled up without much effort in several places, and from the ruptures in the continuity of the outer table so produced, spirted an oily-bloody fluid, the vertebrae, both bodies and arches, the ribs, clavicle and femur, and generally all the bones examined, were found less or more in a similar condition, from which there is every reason to suppose that no bone in the system was exempt. For sometime prior to death, the urine was highly phosphatic; a circumstance of special interest in connexion with the diseased state of the osseous system. It was, however, non-albuminous; a circumstance also of interest in connection with a minor degree of fatty degeneration,—Bright's disease of the Kidneys. Three needles, or portions thereof, were found in the abdomen, one being embedded in the head of the pancreas, and the remaining two in the omentum, about an inch and a half from its connexion with the transverse colon. The substance of the needle in all three cases was more or less eroded or absorbed; and each was surrounded, and at once marked by a dark, greenish discoloration. The intestines were sacculated by abrupt dilatations; apparently the result of deficiencies or weakness of the muscular parietes. The ovaries consisted mainly of a series of corrugated convolutions of cartilaginous hardness; the uterus exhibited a small sub-peritoneal, fibrous tumour. The right ventricle of the heart contained a number of so-called Cardiac Polypi, entangled among the columnæ carneæ. None of them had any distinct or firm attachment to the cardiac walls; some were so loosely entangled that they dropped out in washing. They were all more or less globular; from the size of a pea to that of a field bean; consisted apparently of lymph of comparative age; were cystic, containing in their interior, or their interior consisting of, a yellowish fluid resembling pus. This fluid appeared to be simply disintegrated or softened lymph; it contained no Pus cells proper,—the microscope revealing as, its constituents, only minute granular matter, oil globules and yellowish or brownish colouring matter. There was slight atheroma of the aortic valves. No abnormal cardiac signs or symptoms occurred during life. The liver was waxy in appearance and consistence. Both lungs were infiltrated throughout with miliary tubercle of very recent date. The left was adherent at its apex; exhibited an old cicatrix; and contained an old cavity, full of a dark, bloody, grumous fluid. The right was everywhere adherent to the thoracic walls. The choroid plexuses of the cerebral ventricles had attached to them small polypoid

Condition of Urine.

Bright's Disease of Kidneys.

Needles in Pancreas and Omentum.

Cardiac Polypi.

Miliary tubercle in Lungs.

granulations. The posterior cerebral lobes appeared of large size, as contrasted with the others. There were slight sub-arachnoid effusion and local adhesions of the Dura to the Pia-mater. The calvarium was of irregular thickness, being very thin in some places.

Mortality as the key to the sanitary condition of a community.

Regarded in the light of the remarks of the Registrar General of Births, Deaths, and Marriages, on the mortality of the population of Scotland in connection with the meteorology of 1860 [and already quoted, page 25 hereof], we cannot but consider our our mortality during the past year as very small. A small mortality is generally regarded as necessarily indicative of a most favourable sanitary condition—a most satisfactory state of the general health of a community. But that this is not always or sequentially the case, we think is *pro tanto* proved by the general health of our population during the past year. Never during our official connection with the Institution—a period now of nearly 7 years, and, so far as we can gather, never since the Institution was opened, some 35 years ago,—has there been so marked a deterioration in the general health of our inmates—never so low or weak a vitality—so many cases in our Infirmaries—so many patients confined to bed—so many minor operations in surgery—so great a demand for purely medicinal or surgical aid. Considering the very large number of feeble or broken down constitutions we have to deal with—of the aged and infirm—such a state of things is not to us a matter of surprise, but rather that it is not of more frequent occurrence—of occurrence, indeed, every winter. In the general population, under circumstances in many respects parallel, we find a similar deterioration in health every winter less or more, while with us such deterioration, to a marked extent at least, has been quite exceptional. On ccmparing "Notes of the influence of the recent cold on Hospital practice in London," * we find precisely the same classes of ailments affecting our community as affect the London poor—precisely the same experience recorded. But, in circumstances which may be held more nearly to resemble our own, in large public institutions of various kinds, we have reason to believe experience has been similar in reference to last winter, though there are many obvious reasons why the details should not be made public or dwelt upon, and why, therefore, we have not the same means of comparison. The precise forms in which the deterioration in the general health of our community

General sanitary condition during 1860-1.

Prevalence of Minor Ailments

Parallelism of London Hospital Practice, &c.

* "Medical Times," Feb. 16, 1861, p. 174.

showed itself during the past year, we have tabulated in Table VIII., which embraces all the diseases or ailments not terminating fatally—minor or major—under which our inmates suffered during that period. It is only necessary, in explanation of the said Table, here to state that though, in the majority of cases, the affections tabulated occurred in different individuals, occasionally, but rarely, they happened in the same person. The Table in question brings out the following interesting results. By far the most prevalent form of ailment was the simple boil, including a very few cases of carbuncle and gum boil. Next in order followed simple Diarrhœa: then abscesses in different parts of the body, mostly simple, but sometimes, in unhealthy constitutions, diffuse, burrowing, or sinuous: affections of the respiratory system, the most common being simple Catarrh or Coryza, but including a few cases of Bronchitis, and Cynanche tonsillaris or C. parotidea: Ulcers, many of them indolent or callous, in connection with venous or passive congestion of the hands or feet: whitlows: cutaneous eruptions, some of them very inveterate, especially Eczema and Psoriasis.

Forms of prevalent Ailments.

Boils and Carbuncles. Boils and Carbuncles, which are common among the poorer classes of every community, and among the inmates of every General Hospital in this country every winter more or less, are by no means prevalent with us; but it is fair to state that, our attention not having hitherto been so strongly attracted to the subject as it was last year, we had not taken the same means of tabulating the number of cases, and of thus ascertaining their comparative frequency. In connection with the extreme cold of the past winter,

Frost-bite. it is of importance to note that there was no case of frost-bite or of ordinary chilblain, though in several aged and infirm patients, habitually incapable of much bodily exercise, and whose hands or feet were subject to passive congestion, low inflammatory action, resulting in unhealthy boils or ulcers, was set up. Minor surgery, or surgical operations, in a general hospital are accounted of no moment and properly so; but in this Institution, from their comparative rarity, they are of sufficient interest at least to merit allusion. Never within our experience here has there been, dur-

Minor Surgery. ing the same space of time, an equal number of instances of incision of Whitlows, opening of abscesses and boils, dressing ulcers, pulling teeth, or healing incised or lacerated wounds from blows or falls. None of these operations, however, merit further remark, except that in some of the latter cases the silver wire suture was tried with the best results. All the affections mentioned in Table

IX. are not, however, of the same class as regards causation—not equally referible, directly or indirectly, to the state of the weather, or to other circumstances hereafter to be considered. Some of them were altogether rare and exceptional, and are included in the Table in question merely with a view to render it a complete record of the non-fatal ailments of our community during 1860–1. There was, for instance, a case of Hœmatocele in a male aged 52, which possesses sufficient interest to justify a few remarks. Originally the case was one of Hydrocele, complicated with a reducible inguinal Hernia, both of many years' standing. The presence of the latter rendered the operation of tapping the former, one sometimes of considerable danger and doubt, and forbid the injection of tincture of Iodine or other irritants or stimulants into the sac. Tapping had, however, been resorted to on at least two previous occasions—viz., 24th February, and 9th April, 1857—with good results for the time being, but with no permanent good effects—that is to say, the fluid reaccumulated, and the tumour was, at no long interval, again in the same position. The operation was, therefore, never had recourse to unless under circumstances of unusual suffering or danger to the patient. At all times the scrotal tumour was troublesome from its size and weight, but it gave rise to no pain or complaint. The Hydrocele acted as a natural truss or support to the Hernia, this being an additional inducement for abstaining from operative interference. But occasionally, from unusual or sudden exercise or abdominal straining and pressure by the patient, the symptoms rapidly became urgent, and necessitated immediate relief by operation. Thus it was on 7th February last, when the Hydrocele was converted into a Hœmatocele by hæmorrhagic extravasation. The patient had got up during the night to micturate: while doing so, he suddenly, he says, "felt something give way" in the scrotum. The tumour suddenly increased in size from the protruded intestines coming down in greater bulk; there was intense pain in the scrotal tumour on the least motion or on coughing; and some of the symptoms of strangulated Hernia set in. He was adjusted in bed, where the pain compelled him to lie supine and motionless. The scrotum was found ecchymosed as if from a bruise; but there was not a particle of evidence in favour of supposing that the patient had received any injury, though he slept in a dormitory with five quiet, well-behaved companions, save from himself. Tapping was considered the best means of relieving these urgent symptoms. It was accordingly

Hœmatocele complicated with Inguinal Hernia.

Operative relief its results.

Tapping.

performed on 8th February, and four and a half pints of bloody fluid evacuated. Under the microscope the blood corpuscles, which abounded, were mostly altered in appearance, corrugated, and in various stages of disintegration. The Hernia was replaced, so far as it was replaceable, or, at least, so far as it could be kept within the abdomen: the absorption of the extravasated blood was promoted by appropriate measures. The relief was speedy and complete; but the fluid is again re-collecting, and a similar operation sooner or later will become necessary, as a palliative measure, for the case does not seem one admitting of a radical cure of either the Hernia or Hydrocele. On the occasion of the first tapping on 24th February, 1857, the quantity of fluid evacuated amounted to six imperial pints. This fluid was of a dark brownish-yellow colour, resembling urine, tinged with bile: it was full of scales of cholestrine, which, floating and forming a scum on its surface, gave to the latter a glistening character: it was neutral, and of sp. gr. 1025. The field of the microscope showed its solid contents to be chiefly very large, delicate plates or scales of cholestrine, compound granular bodies or cells, free nuclei, and blood discs. The latter were generally very distinct and plump, apparently from endosmotic expansion; some of them, perhaps the white corpuscles, appeared as colourless hyaline vesicles, while others appeared to be ordinary blood discs with a ruptured wall and a hyaline vesicle—their contents adherent externally and extruded. The application of heat caused the fluid to become semi-solid, retaining, however, its dirty, brownish-yellow colour. Nitric acid alone caused a similar precipitate of albumen of a milky-white colour in this instance. Solution of sulphate of copper produced a precipitate of a leek-green colour; the addition of solution of caustic potash dissolved this precipitate, converting it into a beautiful purple solution; on the application of heat the colour became at first a deeper purple, gradually changing into indigo blue, and lastly into a dirty blackish-green—no precipitate or coagulation now appearing. The alkalis, caustic potash, or liquor ammoniæ alone, prevented coagulation or precipitation of the albumen on the subsequent application of heat. Chloride of barium produced slowly a white opacity. These reactions occurred in the fluid examined within an hour and a half after its evacuation. On the occasion of the second tapping on 9th April, 1857, six and a half pints fluid were drawn off: it was at first of a dark brown colour, but gradually this changed into almost straw yellow,

Examination of evacuated fluid.

probably from gradual subsidence of the red blood-discs therein contained. The sac of the Hydrocele was completely emptied—its walls rendered quite flaccid. A double inguinal Hernia of old standing, in an attendant aged seventy-three, showed some serious symptoms after a severe fall on the ice. Rest in the recumbent posture, the use of gentle purgatives, and the application of a well-fitting truss enabled him, however, speedily to resume his usual occupations. This case does not appear in Table IX., which includes only the ailments of *Patients;* but it is of great interest here to refer to the fact that *attendants* were equally subject with the patients to the boils and other affections therein enumerated —in other words, the causes of deterioration of health operated alike on the sane and insane members of our community. Another minor surgical case of an unusual kind in our community was the amputation of the distal phalanx of a thumb in consequence of a small machinery accident. Table IX. further shows that the sexes were affected in exactly equal numbers. But whereas the number of females resident during the year exceeded that of the males, the latter must be held as having been affected during the past winter to a greater extent relatively than the former. The health of our community, as indicated by the number of minor ailments, was worst during the winter months, and especially during December and February. Nearly three times as many cases of illness occurred among patients occupying the ground storey of the building—who are mostly paupers—as among those residing in the higher or second and third storeys, who are mostly private patients. The latter two circumstances are calculated, as we shall see, to throw some light on the causes of the unfavourable sanitary condition of our community during the past year.

Double Inguinal Hernia.

Patients and attendants equally subject to minor ailments.

Digital amputation.

In seeking for the causes in question, the most prominent is evidently the Meteorology of 1860–1. The state of the weather operated unfavourably both directly and indirectly. Directly, chiefly through the media of temperature and moisture. We have already remarked that the winter of 1860–1 was, in the history of this Institution, unparalleled in its severity. According to the markings of our Register Thermometer, made by Adie of Edinburgh, and which are carefully recorded by the Gardener to the Institution, the lowest nocturnal temperatures were 3°, 4°, 5°, 7°, and 8°, on the 25th, 26th, 24th, and 27th December, 1860, and 13th February, 1861, respectively, though none were so low as on 14th February, 1860, when the temperature reached 0°. Con-

Causes of unfavourable sanitary condition.

Thermometrical observations.

Minimum temperatures.

trasting these markings with those of other recent years, the temperature was 7° on 27th February, 1855, and 9° on 19th December, 1859—there having been recently no nearer approach to the cold of 1860–1. It is occasionally, if not always, of interest or importance to institute such contrasts; and hence it is desirable to keep a register of meteorological conditions in every public hospital for the sane or insane. We are ourselves deeply impressed with the intimate connection between atmospheric conditions and mortality or disease in man and animals; and we are of opinion that in all institutions of such a kind as our own, considerable labour, and, if necessary, expense, should be bestowed on the proper observation and registry of meteorological phenomena. Observations have been made and records kept here for many years, but they are not of a kind strictly to be relied upon. We have tabulated the results for 1860 as a specimen. The Table, however, makes no pretensions to scientific accuracy: there are various sources of fallacy in regard to the kind of instrument used—its position—the period of observation—the instrument getting out of repair, &c. The observations were made every morning at 9 A.M., and consisted of two series—the one relating to the maximum, and the other to the minimum, temperature during the preceding 24 hours. With these drawbacks, we are nevertheless satisfied that the table in question gives approximative results of sufficient value to render it a useful appendix alike to our sections on mortality, on disease, and on the yield of our gardens and grounds. For the future, the thermometrical observations promise to be more accurate and serviceable. We have now two instruments, the one to check the other, and to act when it gets out of repair: a site has been selected in accordance with the suggestions of the "Scottish Meteorological Society," and the chief instrument has been recently compared by the officers of the said society with standard instruments. But we have as yet no means of recording or of making proper barometrical, hygrometrical, anemometrical, or other observations of equal value with thermometrical ones; without which, indeed, the latter are of comparatively little value. We would, therefore, strongly commend this subject to the favourable consideration of the Directors of the Institution. The fact that the greatest number of minor ailments occurred in our community during the coldest months of the year may lead to the inference that such ailments stood in a necessary relation to the degree of cold. We demur, however, to the correctness of such

Importance of complete Meteorological Records.

Cold as a factor of disease.

an inference. We grant that lowness of temperature has a great effect on health, but not so great effect *per se* as is generally supposed. The only ailments we can trace directly to the cold, and to it alone, are such accidents as happened from falls on ice, which were fortunately few and immaterial. It is now very generally acknowledged by those who have studied meteorology in its bearings on medicine, that *dry cold*, very intense, has much less effect in the production of disease and mortality than *moist cold* greatly less intense—in other words, that the great factor of disease in our climate is a *combination of cold and damp*. Now, not only has the year 1860–1 been a very damp one from the prevalence of rain and the amount of moisture in the atmosphere, but the severity of the frost was the cause both of additional sources of damp and of other springs of discomfort and disease. The severity of the frost led, for instance, to the freezing of the contents of our cisterns and water pipes, and to the subsequent bursting of the latter; many parts of the house were consequently frequently deluged with water. The lower or ground storey of the building is naturally damp, and this dampness was aggravated by the floodings in question, and by the prevalence of snow and subsequently of sleet and rain. Unfortunately, the same portions of the Institution which are dampest are those most subject to overcrowding. We have already, in the outset of this Report, stated that the Institution is in a habitually overcrowded state, especially in the pauper department; and the evils of this overcrowding were never more apparent or more severely felt than during the winter, when, with comparatively few exceptions—viz., the strong, active, industrious patients—our population was confined for long periods less or more in-doors. Further, the effects of the frost on our water apparatus were such as to cause great limitation to our supply of water: we were reduced for many weeks to a minimum, the deficiency occurring chiefly in the matters of bathing and ablution. Deficiency of water for such purposes, and for the cleansing of water-closets, bed-rooms, and galleries, is of itself a serious obstacle to the carrying out of proper sanitary measures in any community. Add to all this the cutting off, also by the frost, of our ordinary supply of potatoes and other fresh vegetables; and we think we have shown abundant reasons why our sanitary condition in 1860–1 should not have contrasted favourably with that of preceding years. Bad as it was, it might have been greatly worse, and undoubtedly would have been, but for an immense additional

Comparative influence of *dry* and *moist cold*.

Sources of Damp.

Ochlesis.

Limitation of Water supply.

Limitation of supply of fresh Vegetables.

expenditure in the form of coals, bedding and clothing, extra diet, and medical comforts. Under all the circumstances, we do not hesitate to regard the general health of our community during the past year as comparatively satisfactory. The mere number or character of the affections enumerated in Table IX. must not be regarded alone and without reference to our mortality in contrast to the general mortality of Scotland—to the prevalence of disease throughout Britain—to general meteorological conditions, or to the special circumstances affecting the internal economy of this Institution during the year. Our object in thus prominently bringing under notice the sanitary condition of our community during the past year is that, from a knowledge of the causes which unfavourably affected it, we may the better prepare ourselves against a repetition of the same evils. Of the causes referred to, perhaps none were preventible in the sense that they, or their resultant evils, could have been altogether foreseen or avoided. But that some of them are *now* preventible, there can be no doubt; and, without any desire to exaggerate the importance of one source of danger at the expense of another, we would simply point, as an example, to the fact of our overcrowded population as of itself inimical to the best sanitary condition of a community. It is impossible, under all the combinations of circumstances already detailed, to fix the exact share this cause had in the production of our unfavourable sanitary condition during last winter; but that it had a share we do not for a moment doubt. It may be a mere coincidence that three times as many cases of illness happened among the classes of patients most subject to overcrowding as among those least subject; but we cannot help regarding it in a more intimate relation. We have made *ochlesis, or overcrowding* within a limited space, a subject of special experiment, and we know its effects to be most powerful.*

Sanitary Precautions.

Ochlesis, or overcrowding.

Necessity for selection of subjects in an Annual Report.

In an annual Report, necessarily a document of limited extent, issuing from a Public Institution, it is impossible, with full justice to the subjects of remark, for a Physician or Superintendent every year to overtake all that he may have to say, or may desire to make public, as to the results of his experience during a given year. Hence he finds it necessary to make a selection of subjects for remark, taking up different subjects in different years, so as in

* "Experiments on the Communicability of Cholera to the Lower Animals."—*Edinburgh Medical and Surgical Journal*, April and October, 1854.

"Clinical Notes on Cholera."—*Association Medical Journal*, December 15, and September 15, 1854.

the course of a cycle of years to embrace reference to all matters properly falling within his professional experience and within the scope of such a Report during these said years. There are certain subjects, usually considered at great length in Asylum Reports, that we have hitherto in great measure omitted, as being, in our opinion, of too commonplace a character to be permitted to occupy space which may be better disposed of, and therefore not requiring annual or even frequent notice. One of these is the subject of *Work*. It is abundantly understood that, in all well-regulated Institutions for the Insane, systematised occupation—industrial employment—forms a main feature of their management. The nature of this occupation differs, however, in kind or degree in different Institutions and in different localities. Little that is new or of interest can be added to what is already known on this subject. But experience teaches us that by omitting all reference to industrial occupations and more especially by unwittingly giving, in consequence of such omission, a certain prominence to features of treatment, which are by many well-meaning, but ill-informed, persons, supposed to hold a place in some measure antagonistic to occupation, viz. : systematised recreation, false inferences may be drawn—erroneous impressions acquired—against which it is perhaps our duty to guard. Finding, therefore, that we have not hitherto in our annual Reports touched at any length on the subject of our industrial employments, and that our last cursory remarks occur so far back as 1855, we have deemed it advisable in the present Report to omit certain "weightier matters of the law," matters more peculiarly professional, the results of special research on abstruse points in the natural history of insanity, in order that we may leave ourselves a little room for remarking at sufficient length on the occupations of our community ; especially those which are "remunerative" or "productive." We here make use of the latter terms in the sense in which they are generally employed by writers on "labour," in the sense, viz. : of their referring to work that directly either *produces* or *saves money*. But we do not at all admit the appropriateness of such terms—especially in the circumstances in which we use them, and in which they are currently used by Commissioners in Lunacy and Asylum authorities. Occupation in an Asylum may be very "remunerative," or "productive" indirectly, or in the course of years, *to a Patient*, which is neither the one nor the other directly *to the Institution*. The acquisition of the knowledge of a trade in an Asylum by a

Systematised occupation.

"Remunerative" or "productive" labou

Advantages of labour.

Pecuniary *versus* Medical.

patient previously ignorant thereof may be absolutely expensive to the Institution; nevertheless, it is not only a great immediate boon to the patient, who feels that his "knowlodge is power," but it may become the ultimate source of income and prosperity to him and his. The ordinary education of a patient ignorant of the first rudiments of knowledge is also expensive to an Asylum, insofar as it is altogether outlay; but it may prove of incalculable benefit to the said patient. And this brings us to a point on which we would offer a few remarks before proceeding to the analyses of the Tables referring to the industrial department of our community. This is that, in an Hospital for the Insane, the *advantage of the Patient*—what will best promote his recovery, or, if that is out of the question, his comfort, ought to be the leading principle of all treatment and management — and not the "productiveness" of labour and "economy," or similar subjects, which are all very well in their own proper place, but which are calculated sadly to interfere with his best interests in a medical sense. We willingly grant, and are strongly of opinion, that regular occupation is not only advisable, but necessary as part of the system of treatment in an hospital for the insane; and "productiveness" is an element in the principle of occupation-treatment which certainly should not be lost sight of. But we know that there are great dangers, both in regard to the general principles on which occupations are recognised and introduced as features of "treatment" [or, rather, we should use the word "management," for, in many cases that have come under our notice, "treatment," in its medical sense, seems never to have been thought of], and in regard to the kind and degree of the work itself. The managers of Asylums appear to us to have a tendency to run into opposite extremes, whereas the fact is, a middle course is advisable. In public pauper institutions, the tendency is to render work general and compulsory—to render it as "remunerative" or "productive" as possible, with a view to diminishing expenditure, keeping down the expense of maintenance, and thus effecting a saving to the County or Parochial Exchequer: here fiscal management is in the ascendant, medical treatment at a discount. In private asylums, on the other hand, for patients belonging to the higher walks of life, the tendency is to give the patient too little to do in the way of manual or mechanical employment. Wherever it is manifestly the interest of the authorities of an asylum to keep down the rates of board or the expenditure beyond legitimate limits, there is a

Principles of industrial occupations in Asylums.

Right principles

Wrong principles and practice

Contrast between Pauper and Private Asylums as to occupations of Patients.

strong inducement and tendency *inter alia* to overwork and underfeed the patients, simply as a question of pounds, shillings, and pence: and this danger is encountered chiefly in pauper asylums and in private asylums of an inferior character. In private asylums of a superior class the patients' board is generally ample—leaving a larger margin of profit to the proprietor—there is no inducement to save or make money by a patient's work, to which moreover, relatives or guardians would at once object as derogatory to the former or future position in society of their charge: the buildings themselves are not fitted up with workshops, or the necessary appliances for handicrafts, the patients are mostly incapable of agricultural or industrial employments, of mechanical or manual occupations, and the tendency hence is here to occupy the hands and the general physique too little. We have heard of pauper asylums as being, or capable of being nearly self-supporting, and we have been told of enthusiasts, or men who had particular ends to serve in the announcement, describe *self-supporting* communities of the insane not only as possibilities, but as corporations that ought to have a real existence in our own country, in our own times. That there may be such colonies or establishments in Utopia we do not venture to dispute; nor do we deny that in the light of certain interpretations of the term "*self-supporting*," it is possible to conceive of the actuality of such a phenomenon. But if "self-supporting" signifies that rates of board may be dispensed with, and that the "products of labour" will cover all expenses of maintenance even, to say nothing of treatment towards recovery, we do assuredly deny that a self-supporting asylum, containing patients labouring under all the forms and phases of mental alienation—an asylum such as is at present to be found in any civilized country on the face of the globe, is a possibilty. And if the welfare of the patients alone, in so far, we mean, as it regards their recovery or comfort is, as it undoubtedly ought to be, the ruling or guiding principle of every hospital for the insane from its foundation onwards, and in all departments of its management and managers, still less do we regard a self-supporting asylum as a possibility. Such a statement may be far from gratifying to rate-payers, to whose ardent imaginations such a possibility has been presented, arrayed in all the glowing colours painted by enthusiasm; but we fear it is an opinion in which "practical men," who have had a similar experience with ourselves, will concur. We concede that, in an asylum community, there may be a few patients so quiet

"Self-supporting" Principle: its fallacies—

its impossibility in practice.

Working Patients,

and industrious, and who are such skilled artizans moreover, that the value of their labour may be equal at least to the sum of their board. If such there be, however, we have never encountered them. Perhaps we have been singularly unfortunate; but our experience is that our best artizans—the patients whose work is of the highest value—are the most capricious, inclined to work only by fits and starts, an inclination which would be ruinous in ordinary business, patients who require the most frequent and prolonged periods of rest, the most varied sources of recreation. Moreover, even when employed, they require a skilled and constant supervision, such supervision being of an expensive character; for our artizan attendants are engaged not so much to do actual work themselves as to supervise and direct the patients: and this is found to occupy so much of their time that even *their* labour—that of hired sane skilled artizans—is not always "remunerative;" that is, does not "pay" us directly in the form of work done and money saved—does not yield us an equivalent for the outlay on his wages and keep. A considerable section of patients of both sexes is more or less constantly engaged at work during proper working hours; but the number of these is as constantly being changed from the addition of new suitable cases, and the subtraction of those who are discharged recovered or non-recovered. Their labour undoubtedly conduces not only to the improvement of their own health, mental and bodily, but to the amenities and comforts—to the efficiency of the Institution. In the aggregate, it is of considerable money value, but the individual labour is of small money value; and this value appears very small indeed if we place over against it the expense of skilled supervision as in the former case. Lastly, there is a large proportion of patients quite incapable of work, the expense of whose keep greatly exceeds, from a variety of causes, the sums that are paid for them by way of board; and these losses form a serious deduction from any surplus or sum that might otherwise arise from the excess of board over expenditure in the other patients, or from the produce of the work of the latter. There is, indeed, now no difference of opinion among proper authorities as to the appliances and staff of a well-organised hospital for the insane being necessarily comparatively very expensive; and this expensiveness is over and above the produce of patient's labour, which to a greater or less extent is calculated on in all asylums at least for the lower classes of society.

and the nature, amount, and value of their work.

Expensiveness of supervision.

Indolent Patients.

Necessary expensiveness of an Hospital for the Insane.

We have only further to premise that the principle on which occupation forms a prominent feature in the treatment of the patients in this Institution is simply and solely that of their own welfare in a medical sense. There is no inducement on the part of any of its authorities or officers to proceed on any other principle. The Institution is amply endowed by funds provided by the gentleman whose name it bears—James Murray—the rates of board not only cover the necessarily large expenditure of a very full staff, but leaves a considerable surplus. The latter goes into nobody's pocket; it is simply expended in further extending the usefulness of the institution. In some cases the patients are directly benefitted, when, for instance, it enables the Directors to receive patients gratis, or for merely nominal rates of Board.—There is neither a necessity nor a desire to swell this surplus revenue by the produce of the labour of patients. The greater part of this labour is absorbed in the ordinary working of the Institution, in the cultivation of the garden, the management of the laundry and kitchen, in the cleansing of the building, and in the regulation of galleries, dormitories, &c. It can not, and does not appear in the form of a money equivalent, unless to a very limited extent, in connection with the milliners', shoemakers', and carpenters' departments. And, in this case, the proceeds go towards a *Work Fund,* which is appropriated to the reward of all working patients for their labour, by placing at their command indulgences suitable to each particular case—by presenting, for instance, gifts of dress, jewellery, books, extra food, tobacco and snuff—by defraying the expenses of amusements in town, of pic-nic and railway excursions, of professional entertainments in the institution, of providing the means of education, of reading, and by other measures which we need not here enumerate, but which may be found specified more fully in the columns of our "Excelsior."—Our population is a mixed one—partly pauper, partly non-pauper. Both classes we engage in suitable occupations, their nature, however, varying with the different classes of patients and in different individuals. In selecting suitable occupations for individual patients, the first and most important question is, What kind of work, if any is judged advisable, is best for the patient, considering him the subject of mental and physical infirmity? This consideration does not lead us always, or perhaps even frequently, to select the occupation to which a patient was trained or accustomed when sane and vigorous. It does not lead us to put the weaver

Sanitary advantages of Labour.

Principles of systematized occupation in this Institution.

Patients' Work Fund,

and its appropriation.

Kinds of labour most suitable for the Insane.

to his web or the shoemaker to his last: we rather turn both into the garden, where their labour, from being unskilled in this department, is generally of little or no money value to us, but where the manual exercise in the open air, with all the concomitants of such exercise [sounder sleep, more healthy appetite, greater buoyancy of spirits], soon become beneficial to the patient's mental and bodily health. The same principle of procedure leads to our avoiding altogether certain occupations, such as weaving, which we believe to be unhealthy and inadmissible in such an Institution: our shoemaking, carpentry, or tailoring, is at once intermitted for a game at football or cricket, or for a pic-nic or fishing or walking excursion. Our half-holidays are frequent: we work mainly during winter and in bad weather, and during summer and in fine weather we chiefly play. Hence the statistical tables relating to our industrial department cannot be expected, and do not, show high figures or very favourable results, perhaps, as contrasted with Pauper Asylums, where *the greatest amount of work is got out of the greatest number of Patients.* The tables, however, indicate what may be done on the principles above adverted to; and their results, in any estimate of the value of such labour, must be taken in connection with our Tables of Recoveries and Deaths.

Advantages of Garden or Field Labour.

Recreation as the complement of Labour.

These tables, however, do no not represent the full development of our industrial resources, because the latter are only in gradual process of development. It is but recently that we have been provided with suitable workshops, and all that we yet possess are two —one for males and another for females. The adding of artizan-attendants to our staff is also of comparatively recent date. Only within the last few months has a wright or carpenter attendant been added. His office is, for the most part, to superintend the carpentry department of our workshop for males—supervising the patients who work as wrights or joiners—simply directing those who have been previously trained in their handicrafts, but instructing the uninitiated. The latter is a most important feature of the artizan-attendant system. The workshop thus becomes a school, and patients are taught handicrafts more suitable to their state of mental or bodily health than those in which they formerly engaged — handicrafts which may subsequently become to them sources of wealth, as well as of health. Among recent workers in the carpenters' shop was a young blacksmith, for whom we had no work of the kind to which he had been accustomed, and for whom

Imperfect development of our Industrial Resources.

Carpenter Attendant.

Industrial education of the Insane.

such work, moreover, would have been most inadvisable, who voluntarily learned carpentry here, and who acquired considerable proficiency prior to his recovery and discharge. The success resulting from the previous appointment of other artizan-attendants—of a tailor, shoemaker, and painter—led to the addition of a carpenter to our industrial staff. But this success does not reside altogether or mainly in the saving such appointments effect in the expenditure of the Institution. That they do effect a saving in a certain sense, there can be no doubt; but, if regarded simply in this light, the amount of actual saving, or the amount of "remunerativeness" or "productiveness" of their labour, will probably appear unsatisfactory. They must not be expected to "pay their own expenses" at all times and under all circumstances. But, as directors of industry—as schoolmasters in their respective trades—they possess a value that cannot be easily or directly estimated—they teach habits of regularity and application that are of unquestionable benefit to the taught. They are on the spot to execute, without delay, any works or repairs that are constantly necessary in a large public Institution; and this is of importance in the case of destruction to property caused by refractory patients, or by accidents such as those resulting from frost. They see, further, that all work is properly done by patients, that they use properly the proper tools, and that there is no waste of material. As a supplementary staff, too, their usefulness is great. They are trained to take the place of the ordinary gallery-attendants when the latter are absent from illness, on holiday leave, on urgent private business, or occupied in the transfer of patients: they can assist them in all emergencies: they can relieve them in night watching and under similar circumstances. Such a completeness of staff—in the ratio of one attendant to every eight to ten patients—greatly adds to the comfort and safety of the latter: there is less risk of accident by suicide or escape, while a greater degree of open-air exercise and relaxation are secured for every attendant—a circumstance of no little moment, when we reflect that, unless our subordinates are themselves healthy and happy, they cannot possibly discharge, or be expected to discharge, properly their very onerous and difficult duties. Hence it is our interest and aim sedulously to direct attention to means for preserving in the best condition the health of our whole subordinate staff. The organization of our industrial staff, and the number of patients working under it—important as it avowedly is, and as it must con-

Artizan Attendants:

their usefulness

as Supplementary staff.

Proportion of Attendants to Patients.

Sanitary condition of staff.

tinue to remain in our present transition state—now renders us altogether independent of the Painter, Glazier, Shoemaker, Tailor, Cutler, Hairdresser, Dressmaker, and Carpenter, and partly also of the mason, plumber, and smith, and of other tradesmen, who were formerly regularly employed from town at considerable outlay to the Institution. We are still far short of the new English County Asylums in respect of the completeness of our industrial staff. We have no Mason, no Engineer and Smith, no Plumber and Gas-fitter, no Baker, no Brewer, as they have: nor do we require so full a staff. It may be supposed, however, that in so comparatively small a community as ours there cannot be constant work for a staff of tradesmen, whose regular services would, therefore, be superfluous and an extravagance. We can only vouch that such has not been the case with the staff we have hitherto had or now possess: their hands have been, and are fully, occupied with the jobbing constantly being required in the Institution. The prospect, however, of changes in our population a few years hence, consequent on the opening of the County Asylums of Scotland, and perhaps in the whole destiny of our Institution, prevents our at present advocating any additions to, or other modifications of, the staff in question. An illustration of the advantages of special supervision by an attendant of a limited number of patients engaged in a particular kind of work may be drawn from an experiment instituted some years ago with the pump-workers. Pump-working is a monotononous, mechanical, simple form of labour, requiring no skill, but demanding the expenditure of considerable muscular force. The pump-workers are about ten in number, having a special attendant, who merely directs and supervises. This class of workers embraces, in general terms, the most violent, mischievous, destructive, refractory males—men mostly of athletic build, and formidable from their strength during periods of excitement. Most of these are cases of chronic Mania, subject to paroxysms of acute Mania,—marked by intense nervous energy—an uncontrollable propensity to mischief—a proneness to incessant muscular exercise. Formerly the pent-up nervous force expended itself in the smashing of windows by dozens of panes at a time—in wholesale "assault and battery"—in the denuding and destruction of clothes—in self-mutilation—in the breaking up of doors or of furniture—in the tearing up of bedding—or simply in energetic gesticulation or noisy vociferation. Snch proceedings were not only hurtful, in the sense of being expensive, to the Institution,

Systematized Hard Labour as a sedative in Mania.

Expenditure of Muscular force a safety valve

super-accumulation of Nervous Force.

but exhaustive and damaging to the patient. The cerebro-nervous energy was, however, intense and uncontrollable—there was no other safety valve—no other outlet—no other means of allaying the excitement. But it was thought that by directing these same supervitalised energies—by controlling this intense excitement by systematised exercise or occupation—a beneficial result would accrue both to the patient and the Institution. The experiment was tried, and at once succeeded. It has since been merged as an integral part of our system of occupational treatment. The nature of the work and the presence of companions similarly and quietly occupied was found to divert their attention. The expenditure of mere muscular force necessary relieved the intense nervous excitement, acting as a marvellous safety valve; and the fatigue of labour, the regularity of the hours of exercise and rest, induced a healthy sleep without narcotics, and gave an appetite for food previously unknown. Pump-working was found thus conducive to the best interests of the patient: but it also benefitted the Institution in two ways—indirectly, by saving expenditure in broken windows or furniture or torn clothes; and directly, by providing a due supply of water, which would, in the absence of patient's labour, have cost the presence of a donkey-mill or steam-engine. Pump-working is, however, only an illustration of the form of exercise and work resorted to in the medical treatment of such patients. Hard garden labour is another form—trenching by spade, for instance. The desideratum is hard, but simple labour —that is, calling for much muscular force and little or no skill. This cannot at all times be had; and in its absence hard walking or games, such as football, are excellent substitutes. Give scope to the necessity for physical action—give vent to the accumulated and accumulating nervous force, which is pent up, and ready for discharge like electricity in a charged Leyden jar—direct the patient's exalted energies into legitimate, and, if possible, useful channels, and all will go well: do the reverse, and the furious Maniacs of the Bedlams of thirty years ago will multiply and abonnd. There is nothing, however, novel or surprising in all this. The same facts are abundantly recognised—the same principles of treatment acted upon in every well regulated school. Every schoolmaster knows full well how the mischievous propensities of his boys may be diverted by sufficient muscular exercise. Unfortunately, we have not the same means of suitably occupying refractory females; hence among them exhibitions of the violent

Forms of Muscular labour for refractory males.

Inadequate means of similar treatment for refractory females.

or destructive propensities are prevalent to an undesirable extent. We hope, when there is less pressure on our accommodation, to set apart special rooms or departments, under special attendants, for the proper occupation of such women; and this would undoubtedly prove, as it has done on the male side, a beneficial arrangement in many ways. At present, however, this is impossible from our overcrowded state; and it is one of the crying evils to which such a state necessarily leads. A remedy is even more urgently wanted for the females than the males, inasmuch as, in our experience, we find the former to be more, quarrelsome, malicious, resentful, and altogether troublesome, than the latter. The value of the labour of the class of male patients above referred to is not, however, great, absolutely or in itself. During the year, the mean daily number of pump-workers was 10·59; the value of their aggregate labour £84, 13s. 6d., or £1, 12s. 6¾d. per day—that is, rather more than 3d. per day for each man. This is exclusive of the supervision of an attendant, whose wages and keep are a direct charge against the Institution. Viewed in this light, then, the experiment would be regarded as a failure; but, viewed as it ought to be, and as we have already explained, it is undoubtedly a success, and a success that encourages to further efforts in a similar direction.

Value of labour of refractory Patients.

Our Tables are further inadequate representatives of either the nature or value of the occupations of our community, insofar as they mainly refer to the lower classes of patients—to the occupations in which the lower classes of society usually engage, the money value of which is well known. But our community does not consist entirely of paupers, or of patients of the lower classes of society. Patients of the upper classes are equally busy—equally engaged in occupations of benefit to their own health and to the comfort of the community generally. But, for the most part, these occupations are such that a money value cannot be affixed to them. Our Museum and Library, for instance, have afforded scope for an immense amount of useful service from gentlemen-patients in arranging, cataloguing, labelling, and so forth; while our balls, fêtes, tea-parties, and reunions of all kinds have afforded an opportunity for the display of the zealous industry of the ladies. Part of the work of the latter is directly remunerative—that, namely, which they contribute to our Bazaar. A value or price is affixed, for which price the articles are sold when purchasers offer, the proceeds being added to the Work Fund before alluded

Industrial occupations of the Pauper and Private Insane contrasted.

Bazaar Labour.

to, which is essentially a Patients' Private Fund, accumulated by their industry and expended on its contributors. Still less do these tables take cognizance of reading, writing, or music, which may by some be regarded purely as amusements, but which are, nevertheless, quite as "productive" of advantage to the patients, by promoting their recovery or their happiness, as gardening, or carpentry, or dressmaking. It will be observed, on reference to the Tables, that there is frequently a great difference between the amount and value of work executed In 1859 and 1860. This arises from causes or circumstances to which we have already referred. To take the carpenter's department as an example: it so happened that during the greater part of 1859 we had no patient working regularly as a carpenter. Only two patients were in the house, who had been carpenters, and of these the one was incapable of work from an accession of chronic Mania: the other was very frequently also maniacal—at all times fitful—working only now and then, and chiefly to amuse himself or to gratify some particular officer or fellow-patient: there was no skilled supervision, nor was there a proper workshop. In 1860, on the other hand, sometimes as many as five or six patients were working in a commodious carpenters' shop, appropriately fitted.

Differences in value of labour.

Causes.

Of all the sections of the Tables relating to our occupations, that concerning our gardens and grounds is undoubtedly the most important. The grounds under cultivation by our patients belong to two separate, but adjoining estates—viz., that of the Asylum proper, and that of Pitcullen. The former are 12·61183 acres in extent, including those portions occupied as site of the Asylum and airing courts, walks, parks, and bowling green. The latter includes $7\frac{3}{4}$ acres, and also consist in great measure of parks and walks, the kitchen and flower gardens being of limited extent. The latter are only in progress of being brought into a state of good cultivation, and their yield of produce is not so great as, in all likelihood, it will, in the gardener's hands, become. As it is, an immense improvement has been made upon the whole Pitcullen estate by the labour of patients. Three years ago, its grounds were very much in the condition of a wilderness; they had been kept in such a state by tenants, that they had become almost unproductive of anything save weeds. Fruit trees and fruit-bearing bushes, for instance, were dead or decaying in great numbers—their removal and the substitution of healthy, fruitful young plants being found requisite. Whole beds of strawberries and

Gardener's Department.

Extent of grounds under cultivation.

Pitcullen Grounds—

their improvement by Patients' Labour.

other plants it was found equally advisable to root out, and to re-trench the ground. It must be several years before an adequate return is made for the labour that has been, during the last three years, expended on these grounds; and much yet remains to be done. In particular, we would refer to trenching the parks and laying them out in crop before again allowing the growth of grass.

Their estimated annual yield.

The present estimated annual value of the produce of the Pitcullen grounds to the Institution is £50; but this figure is uncertain, and perhaps does not represent a yield proportioned to the extent and quality of these grounds. If we look at the value of the garden produce consumed in the Institution during the last six years, we will find that there has been a progressive increase from £212, 7s. 6d. in 1855, to £338, 18s. 5d. in 1860—a difference in favour of the latter of £126, 10s. 11d. This is doubtless due in great measure to the gradual increase in our population, and especially of our working population, and to the increased labour we have consequently been enabled to expend on the cultivation of the land. But it is also due greatly to the occupation by the Directors of the Pitcullen grounds; for we find a sudden rise from £253, 6s. 8d. in 1857, to £306, 12s. 10d. in 1858, when these grounds came under our charge and cultivation—being a difference of value of £53, 6s. 2d., apparently assignable entirely or mainly to Pitcullen. There has been a corresponding gradual diminution of the quantity and value of the spare produce sold, being the excess of the garden produce over what was required for the wants of the Institution. This arises evidently from the increase of our population, which now requires a larger supply of garden produce than it did six years ago. The annual garden produce consumed in the Institution may be roundly stated as follows:—

Value of Garden Produce.

Progressive Increase.

Sale of spare or surplus Produce

Kitchen Vegetables and Fruit, ...	average of last 6 years,	£143 11 3
Milk, ...	do. 6 „	75 12 10
Pork, ...	do. 6 „	51 4 1
Veal, ...	do. 3 „	1 14 2
Firewood, ...	do. 4 „	8 15 7
		£280 17 11
Or, in round numbers, £281.		
If to this we add the average surplus produce sold during each of the last 6 years, ...		25 12 8
We have a total of		£306 10 7

Revenue from Garden.

In other words, our garden yields a revenue of over £300 a year, it being entirely cultivated by patients. In the garden depart-

ment proper—that is, in trenching and laying out grounds, planting vegetables, wheeling and applying manure, weeding, watering, and so forth—there is a mean number of 14·94 men employed daily. But the aggregate value of their labour per day is only £1, 19s. 11d., or rather less than 3d. per day per individual. In the Farm department proper — that is, in tending and feeding pigs and cattle—there is a mean number of 2·08 men employed daily, the aggregate value of whose labour is estimated at 6¾d. per day, or rather more than 3d. each. If to these we add the Pump-working department, which, though it does not greatly contribute to the cultivation of the ground, still, from being out-of-doors, falls within the Gardener's jurisdiction, we find that the total mean number of men daily employed is 27·61, the aggregate value of whose labour daily is £3, 19s. 3d., or about 3d. a day per person.

Value of Patients' Labour.

Let us take a second illustration of our industrial department from that of the Milliners' or Dressmakers' section, which, in respect both of the numbers employed and of the usefulness, if not absolute value, of the work done, is second in importance to the Garden and Farm department. It appears that in 1860 the total value of the labour of some 30 to 40 patients daily employed was £75, 6s., while the average value for the last three years has been still less—viz., £67, 1s. 11d. These sums look very insignificant in contrast with the total value of the work produced, which was, for instance, in 1860, £436, 11s. 9d. It is obvious that by exhibiting only the value at current prices of the articles made, without deducting the cost of materials, a very flourishing state of the industry of a community may be represented. But we aim at accuracy, not at effect, though the accuracy can be at best only approximative, inasmuch as the fixation of the value of an article, or of the value of a piece of labour, must always be more or less arbitrary and uncertain. Aiming, however, at such accuracy as is attainable, we give both the total value of the goods made and the cost of material at current market prices, and, deducting the latter from the former, the resultant nett sum represents the value of the labour expended on the goods in question by patients. The disproportion of the latter value to the number of patients constantly occupied is very striking; but, after all we have said already on the subject, there will be no difficulty in finding an explanation. Given an average number of 30 patients daily employed in the Female Workroom. Some of these do little or nothing: they

Milliners' Department.

Value of labour as contrasted with value of goods made.

Working Patients.

Nature, amount and value of their Work.

have been sent there partly to be amused—partly that imitation may induce them to engage in the surrounding industry. The best workwomen are, like the Carpenters and other artizans among the males, the least to be relied on for steady work: they are eminently capricious, and are generally subject to propensities which render their removal, or prohibition, from the general workroom from time to time necessary. The majority of patients engage in work of a very simple kind, upon which a high value is not generally placed, inasmuch as it is what every housewife is expected to be able to do, whatever her capacities otherwise: such work is the darning of stockings or the repair of clothes. Moreover, though in the workroom several hours per day, many of the workwomen get through wonderfully little work: there is so much to distract attention, which is ever wavering, in the traits of character exhibited by their companions—so great a disinclination to steady application—so many interruptions by the variability of their own sensations, depending on their changing states of health, that a small amount of work in a large space of time is not surprising. Justice, however, to the Milliners' department, as well as to other of our industrial departments, compels us to record our suspicion that the value, both of the articles manufactured and of the labour expended, are *underestimated*. We have not unfrequently been informed, for example, that our Bazaar goods were both cheaper and better than those procurable in town at a similar price; and the consequence has been occasionally a demand, beyond what we could supply, for certain classes of such goods. We have occasionally remarked the same depreciation of value in regard to work produced by the shoemakers and carpenters. Knowing, however, the tendency of tradesmen to exaggerate the value of their own labour, and our records being kept hitherto without any view to publication, instruction was given to the heads of our various industrial departments in their work-registers to aim at exactitude, but, where this was unattainable, rather to *under* than *over*estimate.

Underestimation of value of labour.

Laundry and Kitchen Departments.

Gallery Assistants.

The miscellaneous department includes the female patients, who assist in the laundry and kitchen, and who act as housemaids; as well the patients, both male and female, who act as gallery assistants. Their total number is from 30 to 40 more or less constantly employed—say 35 on an average. The value of their aggregate labour varies from £30 to £90. The average of the last two years gives £59, 2s. 1d.—that is, not more than 15s. to £1, 10s.

per person per annum. This represents a very small value indeed; but the work is of a simple, mechanical kind, requiring no skill, and but a moderate amount of physical strength. Regarding other departments in this same general way: in the artizan section there are 10 to 20 men more or less constantly employed—say 12 on an average daily; the value of their labour varies from £80 to £100 per annum, the average of the last two years being £126, 1s. 10d.—that is, about £7 to £11 per person per annum. This result is in marked contrast to that of the miscellaneous section; but the work here demands considerable skill, and is consequently greatly more valuable. In the Milliner's department we may reckon 30 to 50 females—say a daily average of 35—more or less constantly employed; the value of their aggregate labour is £60 to £80 per annum, the average of the last two years being £73, 4s. 3d., or from £2 to £2, 19s. per person per annum. In the Gardener's department about 30 men are daily occupied; the annual value of their labour is £150 to £200, the average of the last two years being £183, 2s. 9d.—that is, about £5 to £6 per person per annum. A better understanding of these figures may perhaps be given, and a more comprehensive view of the subject afforded, by tabulating them as under:—

Comparative value of Patients labour in different industrial departments.

Department.	Number of Persons employed.*						Aggregate Value of Labour per annum.*	Average aggregate value of last two years.	Value of Labour of each working Patient per annum.*
	Males.			Females.					
	Max.	Min.	Avg.	Max.	Min.	Avg.			
I. Artizan Department,...	20	10	12	...	...	...	Max. £130 Min. 80	£126 1 10	Mx. £11 0 0 Min. 7 0 0
II. Gardener's Department,...	36	17	30	...	...	...	Max. 200 Min. 150	183 2 9	Max. 6 10 0 Min. 6 0 0
III. Milliner's Department,...	...	...	...	50	30	35	Max. 80 Min. 60	73 4 3	Max. 2 10 0 Min. 2 0 0
IV. Miscellaneous Department,...	40	20	36	40	20	32	Max. 90 Min. 30	59 2 1	Max. 1 10 0 Min. 0 15 0
Totals,.....	96	47	78	90	50	67	Max. £500 Min. 320	£441 10 11	Mx. £21 10 0 Min. 15 15 0
Mean of the 4 Departments,	24	12	19	22	12	17	Max £125 Min. 80	£110 7 9	Max. £5 7 6 Min. 3 18 9

* In round or general numbers only.

It would thus appear that the value of each individual patient's labour is proportionally highest in the Artizan department and lowest in the Miscellaneous; the Gardeners' and Milliners' holding an intermediate place. The total value of the labour of all the patients employed in the four departments above mentioned—126 in num-

Revenue from Patients' labou

ber in 1860, 134 on 10th June, 1861—[Note Summary, page Appendix]—on an average, amounted in 1860 to £507, 1s. 6d., in 1859 to £376, 0s. 5d.—the mean of these two years being £441, 10s. 10d., or from £3 to £4 per person per annum. This does not say much for the "remunerativeness" of patients' labour, or for the "self-supporting" character of an Hospital for the Insane. Doubtless, in Institutions where industry is more fully developed than it is here, where the advantages and opportunities are altogether superior to our own, results greatly more favourable may be exhibited. Still we must consider our figures as of significance in showing within what limits "productiveness" or "remunerativeness" may reasonably be anticipated as pertaining to the systematised labour of all classes and of both sexes of patients in an institution containing a mixed population of about 200 persons —*due regard always being had, in the first instance, to the welfare of the inmates in a purely medical point of view.* Our experience of the ability of patients by their labour to support themselves, or to contribute to their own support, may be summed up as follows, excluding recovered cases :—

Degree of "Productiveness" of Patients' labour

How far can the Insane contribute by their labour towards theirown support?

1. In every Institution for the Insane of ordinary character, or similar to our own, there are a few persons who, if they remained in as good a state of health, mental and bodily, without, as within, the said Institution—under discipline as while at large—might support themselves by their industry or contribute largely towards their support.
2. A large number of persons, who, while under the discipline of the Asylum, are more or less industrious, could not possibly support themselves outside its walls, and would in all probability break down, and have their mental alienation increased and confirmed by attempting to do so.
3. A large number can do nothing towards their support—are altogether incapable of useful occupation, either in or out of of an Asylum: on the contrary, they are wholly burdens on their friends or the public.

Parochial Cottage Sanatoria.

Classes of Patients suitable therefor.

We have already indicated [pages 11 and 19] a large and important class of cases, which, in our opinion, may more properly be treated in private country houses than in public asylums as at present constituted. There is another and equally large class, to which we have not yet referred—viz., consisting of such cases as

exhibit no suicidal or homicidal tendency—no propensity hurtful to private or public property, or offensive to public decency—no habits inimical essentially to their own health, or that of their custodiers or neighbours;—cases in which the insanity is transient or mild, or of such a character, in general terms, as not to demand the restraint of a duly constituted hospital. To such cases at present the Board of Lunacy has the power of granting a "Dispensation from removal to an Asylum"—that is, it grants authority to board the patient in a private house, and exempts from the necessity, that would otherwise exist, for peremptory removal to an Asylum. We have already shown that, of the class first mentioned, comparatively a small proportion of patients is treated as it might be, and as we think it ought to be, in private houses. And we may remark, in regard to the second class, that it appears to us too many cases are sent to Asylums, and too few properly treated in private houses. Whatever may be the views or wishes of the Board of Lunacy collectively, or of the Commissioners in Lunacy individually, the tendency, as well as the practical result, of the Lunacy Act of 1857 has been, in our opinion, *to force too many of the Insane into Asylums.* This is an evil second only in magnitude to that of sending too few! We can see no reason why a large proportion of the insane—a proportion obviously impossible precisely to indicate, but a proportion certainly much greater than is at present the case—should not be treated for their insanity in private houses, more appropriately as regards their own advantage, that of the rate-payers, and of the public, than in our public hospitals or asylums: *provided always a proper class of such private houses, or, as we will designate them, "Sanatoria," as well as custodiers, could be secured.* We have already shown that such Sanatoria are desiderata—urgently and extensively felt; and that, so long as these public wants are not supplied, no material or satisfactory change in the home-treatment, at least of the pauper section of the classes of patients above referred to, can be looked for. With a view to suggesting a remedy—a means of supplying the desideratum in question—we venture a few remarks on what we will call, for want, meanwhile, of a more suitable designation, "*Parochial Cottage Sanatoria.*" They refer to the treatment strictly of the *Pauper* insane; but the principles of their construction and management apply equally to the non-pauper class.

Proportion of the Insane not requiring treatment in Asylums proper.

Necessity for establishment of Parochial Sanatoria.

Nearly seven years ago, when we were first charged with the responsibilities of the management of this Institution, our attention

Home treatment of Insanity.

was attracted to the home-treatment of insanity. It was still more closely directed to the same subject by the investigations of the Royal Lunacy Commission for Scotland in 1855, and by particulars which we learned about the same time as to the chief features of the Gheel settlement in Belgium. Our deliberations led us to adopt and publish views in which, so far as we are aware, we were at the time comparatively unsupported; but which, we are glad to find, are now being generally advocated by most of the competent authorities on such a subject throughout Scotland and England. We recommended essentially the restriction of hospitals or asylums proper to a limited class of cases, and advocated home-treatment in cottage-like buildings for another class of cases. The latter class of cases consisted of such patients as, though transiently or temporarily quiet, harmless or industrious, from the dangers of sudden relapse and the return of unsafe or vicious habits, it was advisable, should reside at no great distance from the central hospital, and be under the same medical and other superintendence therewith. But these central and adjunct establishments were not intended to apply to the classes of patients referred to on pp. 11, 19, 64, and 65 of this Report, for whom we believe our so-called "Parochial Cottage Sanatoria" are the appropriate establishments for habitation and treatment. The general scheme, however, of both asylum-cottage, and parish sanatoria—the principles of their constitution and management—are alike; so that our present suggestions are simply an extension, for behoof of a different class of the insane, and to meet a different class of circumstances, of views formerly promulgated. Our suggestions are intended more immediately for the Parochial authorities of our own county, to which our own experience is necessarily chiefly restricted; but we believe they are equally applicable to, as they are assuredly equally at the service of, every parish in Scotland which has any of its population insane.

Model Asylums should consist of Central Hospitals and adjunct Cottages.

Extension and modifications of Cottage system of treatment.

Suggestions to Parishes anent accommodation of Insane.

In every parish in Scotland, which has insane residents of a class suitable for treatment in private houses—and there are few, we fear, that are not in this position—we would have the Parochial authorities to fit up one or more cottages or houses, according to the number of such patients, in such a way as to constitute comfortable and healthy boarding-houses or sanatoria. In the fitting up, the authorities in question should be guided by the advice of the Board of Lunacy, in conjunction with the Parochial Medical Officers and the District Inspector of Lunacy, if one

exists. The same parties—the Commissioners in Lunacy, the District Inspector of Lunacy, the Parochial Medical Officers, the Inspector of Poor, and the Parochial Board—generally are also the proper persons to inspect such sanatoria from time to time, with a view to the supervision of their efficient management. In carrying out our views, it would by no means be necessary, in the majority of cases, to erect *new* cottages or houses. It would only be necessary to render existing buildings salubrious and commodious as sanatoria, and to place them under proper supervision. This could readily be effected by the purchase, perhaps, of cottages, farm houses, or old mansion houses frequently in the market in every parish, which might be had at a very low figure, and which, with the necessary alterations, might be admirably fitted up as Parochial Sanatoria. These alterations would necessarily vary in kind and amount in different circumstances. In some cases, they might consist simply in the substitution of comfortable boarded floors for the miserable, uneven, cold, damp, clay floors presently existing. In other cases, efficient drainage or ventilation of the foundation—the knocking down of partitions—the doing away with the old-fashioned and noxious box beds—the construction of windows or ventilating apertures—the addition of water closets or other conveniences—or the building of an additional room or wing, might be requisite. In certain cases, the expenditure of £50 or £100 would probably suffice, where little structural alteration is requisite, and where the cottage is rented. But, even in richer and more populous parishes, where the number of the insane poor is greater, and the provisions for their home treatment must be made on a larger scale, where the purchase of a house is deemed advisable, and the necessary alterations imply an outlay of several hundred pounds: such outlay, we feel assured, would soon be repaid in the saving effected by the rate-payers on the difference of maintenance in such Parochial Sanatoria as contrasted with the rates of board in large and expensive public Asylums. So satisfied are we of the economical or pecuniary advantages of treatment in Parochial Sanatoria, that we would hold it a false and foolish parsimony which would grudge or withhold an ample outlay *ab initio*. The more efficient such Sanatoria are made, the greater are the chances of recovery to their inmates—the greater the likelihood of the enjoyment of good physical health, the greater the capacity for labour, and hence of contributing towards their own support and diminishing the

Local and general Inspectors of Lunacy.

Appropriation of existing Accommodation.

Nature of structural alterations

Pecuniary outlay.

Economy of sufficient original outlay.

burden on the Parochial Exchequer. We say nothing here of the moral effect of such a system of home treatment: on this subject we have already elsewhere partly touched. Moral or physical results, moreover, are obviously of such a character that we cannot affix to them any money value, and therefore cannot admit them into calculations at present more strictly of a pecuniary kind.

Erection of special buildings.

In exceptional cases, it might be necessary to erect *new* buildings as Sanatoria. For these it would be easy for us to furnish plans and estimates; and we doubt not we could readily show at how low a figure they might be properly established. But we have reason to believe that such a procedure would be unsatisfactory: our experience of architects' estimates and of building leads us to regard plans and estimates in the abstract as very apt to mislead. No plan or estimate can, we feel assured, be properly drawn up, or at all events relied on, without special reference to the circumstances of a particular building. Especially is it necessary that the destination of Parochial Sanatoria should be borne in mind by their constructors and managers. All would not alike be intended or adapted for the same classes or numbers of patients. Differences in structure would be requisite according as one or several—male or female—industrious or indolent—harmless or troublesome—cleanly or dirty patients, are to be accommodated. Patients likely to be employed in the various handicrafts—weaving, carpentry, shoemaking, basketmaking, tailoring, or otherwise—would also require, and should certainly possess, the appropriate conveniences for their respective trades. Again, the very materials of construction might vary with the locality: wood being cheapest or most suitable in one locality, stone in a second, brick in a third. And lastly, the expense of providing precisely the same amount and kind of accommodation must vary greatly with locality and other differences in circumstance. In one parish, for instance, from the proximity to stone quarries, the abundant supply and low price of building materials, the cheapness of labour, or the small outlay on a site or on the purchase of old buildings, requiring few additions or insignificant repairs, the whole expenditure on a Sanatorium might be comparatively small. While, in another parish, under an opposite combination of circumstances, the same size and kind of Sanatorium might cost twice as much, or perhaps even more. Estimates, moreover, vary greatly as to *what they include:* a very low estimate may be submitted by confining it to essentials—to the merest skeleton of a

Estimates and their fallacies.

Structural differences according to character of Residents.

Cost of building Material.

house. But in such a case the extras never fail to be heavy and disappointing; and the experience of the party accepting such an estimate is generally that the highest, and not the lowest, estimate offered him would have proved ultimately, in all respects, the most satisfactory. It is a matter of every day occurrence, in the construction of asylums, prisons, poorhouses, and similar public buildings, where the lowest estimates for their construction have been accepted, for the managers to find the outlay of several thousand pounds necessary in addition to that originally calculated upon. Such additional outlay generally arises from the omission, in the original estimate, of many structural essentials—in other words, the said estimate was imperfect; and further, it has probably made no reference to the varying cost of labour or of building materials, or to the nature of the materials best suited for special ends in the economy of the Institution. We have, therefore, to caution the parochial authorities against a blind economy in the matter of builders' estimates. Architectural display we would neither aim at nor recommend: we would not seek, in any respect, to alter the character of Parochial Sanatoria from that of ordinary cottages or houses, *save in so far as they must possess certain advantages, without which they would not be suited for the purposes for which they are designed.* We are perfectly aware that unless such Sanatoria can be erected and conducted with a rigid economy—an economy which will place the home or parochial treatment of the insane in favourable contrast, *quoad* pecuniary outlay, with asylum or hospital treatment—there is no hope of having such establishments, simple though they be, set agoing. However disagreeable it may be to be obliged to make such a statement, all our experience goes to prove that the guiding principle of action in too many of our Parochial Boards, in the maintenance of their insane poor, is economy—whether it is compatible with the comfort or recovery of the poor unfortunates or not,—*immediate* economy. We say immediate economy—a saving perceptible at the moment; but such economy, the parochial authorities are generally not forseeing enough to know, is generally ultimately extravagance, while it is still less unmistakeably an inhumanity that disgraces their humanity. Such, however, being the facts of the case—sad as these facts may be—our object in the foregoing and following suggestions is not to ridicule a *wise* or legitimate economy; but to combine economy with the means calculated to promote the best interests of the pauper insane.

Architectural style.

"Economy" as a guiding principle.

And, to the best of our judgment, this can be done, *quoad* the classes of the pauper insane before referred to, by the institution of some such Sanatoria as we have sketched, or by some such general scheme—a scheme, we admit, which is capable of as many modifications as there must be variations of circumstances in the condition and requirements of the parochial insane.

Whether the Parochial Sanatorium is an entirely new structure, or is simply an old house refitted or altered, it ought, if possible, to be characterised by the following advantages :—The site should be somewhat elevated : the subsoil dry : the drainage good : the exposure to light and air satisfactory : the water supply pure and ample. It is of importance, not perhaps altogether secondary, that the position should be picturesque—should command a full and varied view. The building materials should be of such a nature as not to retain damp : clay or earthen floors are quite inadmissible. The apartments should be commodious, well lighted, and ventilated : the fire places and windows should be of modern construction. Water closets and baths, with every convenience for ablution, should be provided *in*-doors : they may be very appropriately placed in an abutment or wing built as an addition to a cottage. The absence of such conveniences is one of the chief drawbacks to the proper sanitary condition of existing parochial buildings, especially of the cottage class. The dormitories or sleeping apartments should be on a second floor. The kitchen may be used as a dining room or parlour, though it is desirable to provide a separate room for this purpose : it should, however, never be a dormitory or sleeping room. The old-fashioned box beds, which are fixtures sunk in recesses in the walls, are altogether inadmissible, as most unhealthy and objectionable. In certain cases, it might be an advantage to have the Sanatorium isolated : in the majority of cases this is perhaps unnecessary : in many it is a decided advantage to have it either in a village or in proximity thereto. The latter would be the case where the patients are engaged in trades such as carpentry, smithwork, shoemaking, or dressmaking, and where it would be necessary to secure a demand and market for their industry and its produce. Proximity to a village, or a position equally accessible, has other advantages. It places more readily at command the necessaries of life, as well as medical appliances and advice : it facilitates the visits of all the supervising and inspecting authorities. In certain cases, it is not essential that the building be surrounded by, or be connected with,

Essentials of Parochial, County, or District Sanatoria.

Internal arrangements.

Site and locality

grounds—for instance, in the case of cottages containing a single insane female, who is occupied chiefly in-doors. But even in such a case as this, it is an undoubted advantage to possess a "plot," at least, of garden ground, in which the patient's attention may be occupied occasionally, if not regularly, by floriculture. There is no occupation so generally applicable to males and females alike—to patients of every class—as open-air labour: none so beneficial to their physical or mental health. Hence, in the majority of cases, the Sanatorium should have attached to it field or garden grounds more or less extensive, according to the sex and number of its patients. There are cases in which such a possession would be worthless and expensive—for example, where the inmates of a sanatorium are all indolent or incapable of contributing towards the tillage of the ground, or towards their own support. But in the case of industrious, robust, willing workers, the arrangement would be absolutely economical, as well as medically most effective. Many patients there are who may, with perfect safety, and with greater advantage to themselves and to all concerned, go to work at a distance from their residence, whether their work be in a farm or garden, or in a carpenter's, tailor's, or shoemaker's shop. In these cases it is unnecessary and undesirable to provide the same adjuncts to sanatoria, in the form of grounds or workshops, as in other cases. Bearing in mind what we have said on the subject of the industrial occupations of the insane, we need scarcely remark that the occupations of the inmates of Parochial Sanatoria would require to be jealously regulated by the supervising authorities, inasmuch as the tendency is here to err as to both the kind and amount of work imposed by the patient's custodiers. For a large proportion of cases, one of the best forms of Sanatorium would be a farm-house placed in the midst of its own lands; and ordinary farm life, with certain limitations or modifications, may be regarded as a typical principle of treatment. For a small proportion of cases, farm labour and farm life would be either impossible or inexpedient. No less than to occupations, should the attention of the supervising authorities be directed to the serving of ample and appropriate diet, muscular exercise and relaxation. They must also see that cleanliness of person and all the ordinary "laws of health" are sedulously regarded. Indeed, in its great features, the Parochial Sanatorium is but an hospital in miniature: the principles of its constitution and management are the same. It differs only in the greater simplicity of its arrangements,

Adjunct gardens or grounds.

Occupations of the Inmates of Parochial Sanatoria.

Supervision of diet, exercise, relaxation.

and in the absence of the objectionable designation, "Lunatic Asylum." The inmates must be equally under systematic medical inspection, and be treated in all respects as invalids or patients: hence food, occupation, exercise, relaxation, and special therapeutic or moral treatment *must be adapted to each individual case or person*, otherwise we cannot be answerable for the results. In some cases it might be advisable to confine the attention of the custodier to a single patient—for instance, where the latter is a near relative. But, in the majority of cases, it is undoubtedly more economical and equally salutary to accommodate several Patients—sometimes perhaps as many as half a dozen or a dozen —in a single Sanatorium. We have not the slightest doubt that, in certain cases, compulsory congregation, while, in certain others, compulsory segregation, are most hurtful: an opposite procedure being the proper one. This is one of the difficult and delicate points, which must be regulated by the inspecting medical officials. In most cases, these officials will probably be the parochial medical officers; but we doubt much whether the medical supervision of Parochial Sanatoria and of the Parochial insane can safely be entrusted to them *alone*. In many cases they are most estimable men—of great intelligence and zeal—public spirited and independent in thought and action. Unfortunately, however, they are not all of this class: we have met with too many of a very different calibre. From the nature of their education, many of them are utterly incompetent to treat the insane in accordance with modern Psychological medicine—a subject, indeed, of which they have probably never heard: they are, moreover, too generally completely "under the thumb" of the Parochial Boards to take up a manly or independent position in reference thereto—to say or to do, or to recommend, when they are aware that such sayings or doings or suggestions, if honestly and honorably represented, will be unpalatable or obnoxious to the said Parochial Boards, and hence inimical to their own pecuniary interests. In such circumstances as the latter, the position of a Parochial medical officer in regard to his Board is very difficult; and we cannot but sympathise with the position and its dangers. Too frequently the Board rewards a manly, fearless, honest officer, who says what he thinks—who acts according to his conscience, and not according to the promptings of self-interest or fear, with dismissal! Relief might be granted—his responsibility might be shared, if not removed—his difficulties and dangers lessened, by the appointment

Isolation and association of inmates.

Advantages of appointment of "District Inspectors of Lunacy"

Parochial Medical Officers.

of District Inspectors of Lunacy, who would, in virtue of their mode of appointment and remuneration, be independent of, and not accountable at least directly or solely to, Parochial Boards. The appointment and remuneration of such officers might appropriately lie with the District Board of Lunacy, from which greater liberality, both of opinion and purse, might be expected than from mere local and smaller Boards. The District Inspector of Lunacy, might, if desired, be the Physician or Medical Superintendent of the nearest public asylum. But this is not essential: nor might it be held in all cases to be advisable. The presumption is that, from his experience, he is the person best qualified in the district to give supervision or advice, in cases requiring either. In all the larger towns, however, there are medical men sufficiently familiar with insanity and proper treatment,—sufficiently qualified otherwise to form most efficient Inspectors of Lunacy. We feel we can safely say so at least in regard to Perth and Perthshire. Moreover the Physician or Medical Superintendent of a public asylum, is generally extensively known in the district in which the said asylum is situated. Were he in addition, Inspector of Lunacy, wherever he went, his visits might be regarded by onlookers as professional, and suspicion might attach to the persons so visited by him, though we ourselves attach little weight to such an objection, it may appear more formidable in the estimation of others, especially if regarded from some other point of view, than a strictly medical or professional one. The act of 1857 evidently contemplated the appointment of District Inspectors of Lunacy; but so far as we are aware, no such appointment under the said act, has yet taken place. But even supposing no such appointment to be made, there is still room for appeal, for assistance, or advice, by the Parochial Medical Officer to the Commissioners in Lunacy, who we doubt not, would be prompt and happy to render all necessary aid or influence under the circumstances.

Asylum Physicians as Inspectors of Lunacy.

The character of the head of a Parochial Sanatorium,—of the custodier of its inmates is, at least, of equal importance to that of the building itself. "Incompatibilities of temper and disposition" we find are common; the requisite qualifications, the considerate forbearance, the winning kindness, the tact, the firmness, the power of control, and of administration, are in combination rare. Trained attendants from asylums are to be preferred, especially married couples,—where, if possible, the wife, as well as the husband, has

Character of Custodiers.

Trained attendants.

been in the service of a regularly constituted hospital for the insane, and whose experience affords a guarantee of their thorough knowledge of the modern treatment of insanity. Generally speaking a married couple will be the most suitable custodiers; and, in the absence of special reasons to the contrary, we look upon the presence of healthy merry children as a decided advantage *quoad* the patients, though we have doubts as to the benefit in all cases *quoad* the children. Failing trained asylum-attendants, nurses trained in infirmaries, or officers of a similar kind, there are often persons to be met with, who have had insane friends, and whose afflictions render them both disposed, and admirably suited, to undertake, in great measure, as a "labour of love," the charge of insane patients. A widow for example, who has had an insane husband or child, may make an excellent custodier for a single female, or for a few female patients. But, from whatever station in life the custodier be selected, in all cases the remuneration should be liberal,—so liberal as to deserve to secure,—however it may secure,—properly qualified officers. Here, as in the fitting up of the sanatorium,—as well as in the dieting of the inmates, and the general regulation of the establishment, economy may be very blind, both to the interests of the rate-payers, and to those of the unfortunate patients; and hence we have once more to counsel liberality of opinion, and liberality of purse.

Domesticity.

Remuneration of Custodiers.

There may be definitions or ambiguities,—errors of omission or commission in the Lunacy Act of 1857, which may for a time render nugatory our suggestions,—prevent their being carried out, interfere with the establishment of such sanatoria as we have sketched. That such legal obstacles may exist, our present and past experience of the wording and working of the said act, lead us to regard as most likely. The obstacles are of a nature to be considered and removed, however, by the jurist and not the physician; and there is every prospect that an amended bill may in the first session of Parliament disperse the difficulties, which have clogged the operation of the act of 1857. In a medical point of view, in the interest of the patients to be accommodated, and, we sincerely believe, also in an economical or simply pecuniary aspect,—in the interest of the rate-payer, the establishment of Parochial, County, or District Sanatoria, (for they may vary greatly in size and usefulness, the grand principles of construction and management being the same,) appears to us not only most desirable, but most urgently required by Scotland. The desideratum

Necessity for local Sanatoria, not affected by present or future Asylum accommodation.

is of such a kind that it will not in any degree be met by the erection of the New District Pauper Asylums,—nor, indeed, by any amount of hospital accommodation, present or prospective. Such sanatoria are quite, in a certain sense, *sui generis*,—in the sense, namely, in which they are adapted for the treatment and custody of classes of the insane poor, who are not proper subjects, for asylum restraint and discipline. These Sanatoria are undoubtedly, in one sense, adjuncts to asylums, inasmuch as their inmates will, to a certain extent, be drafted to and from the large central hospitals proper. But they should be kept essentially distinct, especially as to locality.

The extent to which the treatment of the insane out of asylums has already led us to encroach on the space usually devoted to our annual reports, forbids our further enlarging on the subject at present. We take leave of it with the expression of our conviction that the establishment of some such local Sanatoria for the treatment of the insane, as have been described in the foregoing pages will alone enable asylums proper to be reserved for the purposes for which they are more peculiarly adapted ; will alone prevent their being, or continuing, receptacles for the incurable,—places of custody, instead of places of cure ; will alone obviate the necessity of every few years building expensive additions to all our existing, as well as to our forthcoming, new district asylums ; will alone aid materially in the mitigation of the evils for which asylums proper are set up as the remedy.

Reservation of asylums proper for special purposes.

W. LAUDER LINDSAY, M.D.

APPENDIX

TO

REPORT OF PHYSICIAN,

CONSISTING OF

STATISTICAL TABLES.

I.—GENERAL RESULTS OF THE YEAR 1860-61.

	Males.	Females	Total.
Patients admitted from 1827 to 1860, ...	625	641	1266
Of these Recovered, ... (Males. 222, Females. 312, Total. 534)			
„ Removed improved, (77, 66, 143)			
„ „ unimproved, (83, 69, 152)			
„ Died, ... (143, 89, 232)			
	525	536	1061
Patients remaining, June 1860, ...	100	105	205
„ admitted during the year from June 1860, to June 1861, ...	27	35	62
Total number of Patients under treatment during 1860-61, ...	127	140	267
Of these Recovered, ... (Males. 13, Females. 16, Total. 29)			
„ Removed improved, (7, 6, 13)			
„ „ unimproved, (4, 9, 13)			
„ Died, ... (6, 4, 10)			
	30	35	65
Patients remaining, June 1861, ...	97	105	202

Mean daily number of Patients under treatment during 1860-61, 201·402.

II.—ADMISSIONS DURING 1860-61.

	Males. 27	Females 35	Total. 62
1.—Age of Patients admitted.			
Between 15 and 20 years, ...	1	3	4
„ 20 „ 30 „	6	6	12
„ 30 „ 40 „	6	10	16
„ 40 „ 50 „	5	6	11
„ 50 „ 60 „	7	8	15
„ 60 „ 70 „	2	2	4
2.—Condition as to Marriage.			
Married, ...	12	15	27
Single, ...	12	18	30
Widowed, ...	3	2	5
3.—Occupation or position in life.			
Blacksmith, ...	1	0	1
Clerk, railway, ...	1	0	1
Country gentleman, ...	1	0	1
Dressmaker, ...	0	1	1
Factory women, ...	0	2	2
Farmer, daughter of a, ...	0	1	1
Farmers, wives of, ...	0	2	2
Farm servants, ...	4	0	4
„ , wives of, ...	0	2	2
Forester, ...	1	0	1
Gardener, wife of a country, ...	0	1	1
Gatekeeper, ...	0	1	1
Grocer, wife of a country, ...	0	1	1
Grocer, ...	0	1	1
Hawker, ...	0	1	1
Housekeepers, ...	0	2	2
Joiners, ...	2	0	2
Labourers, ...	1	0	1
Labourer, wife of a, ...	0	1	1
Laundress, ...	0	1	1
Mason, ...	1	0	1
No occupation, ...	0	3	3
Paper maker, ...	0	1	1
Porter, ...	1	0	1
Park keeper, ...	1	0	1
Ploughman, ...	1	0	1
Sailors, ...	3	0	3
Seamstress, ...	0	1	1
Servants, domestic, ...	0	6	6

II.—ADMISSIONS—[Continued].

	Males.	Females	Total.
Shoemakers, ...	2	0	2
Slaters, ...	2	0	2
Stone carver, wife of a, ...	0	1	1
Surgeon, country, ...	1	0	1
Teacher, wife of a, ...	0	1	1
Teachers, ...	2	2	4
Weavers, ...	2	2	4
Worker at a Bleachfield, ...	0	1	1
4.—Form of Insanity.			
Dementia, ...	2	3	5
General Paralysis,...	2	0	2
Mania, acute, ...	6	10	16
,, , chronic, ...	0	1	1
Melancholia, ...	7	8	15
Monomania, ...	10	12	22
Moral Insanity, ...	0	1	1
5.—Causes assigned.			
Anxiety about business matters, ...	1	0	1
,, school matters, ...	1	0	1
Ambition and religion, ...	1	0	1
Congenital, ...	1	0	1
Desertion by husbands, ...	0	2	2
Disappointment in love, ...	0	1	1
,, , and intemperance,	0	1	1
Excitement of return home, ...	1	0	1
Family bereavements or afflictions, ...	0	5	5
Hereditary, ...	1	0	1
Injury to head in infancy, ...	0	1	1
Intemperance, ...	2	1	3
Love matters and religious excitement, ...	1	0	1
Maltreatment at sea, ...	1	0	1
None assigned or known, ...	12	14	26
Pecuniary matters, ...	0	2	2
Religious excitement; revivalism, ...	5	7	12
Sequelæ of Fever, ...	0	1	1
6.—Co-existent Physical Diseases, or Deformities, &c.			
Abscess of Axilla, ...	1	0	1
Amenorrhœa, ...	0	3	3
Bronchitis, chronic, ...	0	1	1
Bronchocele, ...	0	1	1

II.—ADMISSIONS—[Continued].

	Males.	Females	Total.
Debility from abstinence, ...	1	1	2
„ other causes, ...	0	2	2
Eczema, chronic, ...	0	1	1
Heart, disease of, ...	0	1	1
None, ...	21	23	44
Paralysis, simple, ...	0	1	1
„ , general, ...	1	0	1
Paraplegia, partial, ...	1	0	1
Rheumatism, chronic, ...	1	0	1
Rheumatic gout, ...	0	1	1
Suicidal wound of arm, ...	1	0	1
7.—*Duration of Insanity prior to admission.*			
Under one week, ...	5	3	8
Between 1 week and 1 month, ...	4	12	16
„ 1 and 6 months, ...	9	9	18
„ 6 „ 12 „	4	5	9
„ 1 „ 2 years, ...	1	0	1
„ 2 „ 5 „	2	3	5
„ 5 „ 10 „	0	2	2
„ 10 „ 20 „	0	1	1
Congenital, ...	2	0	2
8.—*Re-admissions: a. Frequency.*	3	8	11
For Second time, ...	2	7	9
„ Third „	1	0	1
„ Fifth, „	0	1	1
b. Intervals between Discharge and Re-admission.			
Under 1 week, ...	1	0	1
Between 1 week and 2 months, ...	1	0	1
„ 2 months and 1 year, ,... ...	0	1	1
„ 1 and 2 years, ...	0	2	2
„ 2 „ 5 „	1	3	4
„ 5 „ 10 „	0	1	1
„ 20 „ 30 „	0	1	1
9.—*Suicidal and Homicidal Propensities.*	17	17	34
Homicidal, ...	8	7	15
Suicidal, ...	9	8	17
Homicidal and Suicidal, ...	0	2	2

III.—RECOVERIES DURING 1860-61.

	Males. 13	Females 16	Total. 29
1.—*Age.*			
20 years or under, ...	1	1	2
Between 20 and 30 years, ...	5	4	9
„ 30 „ 40 „	4	4	8
„ 40 „ 50 „	1	0	1
„ 50 „ 60 „	2	4	6
„ 60 „ 70 „	0	3	3
2.—*Condition as to Marriage.*			
Married, ...	2	8	10
Single, ...	10	6	16
Widowed, ...	1	2	3
3.—*Form of Insanity.*			
Dipsomania, ...	0	1	1
Kleptomania, ...	0	1	1
Mania: Acute, ...	3	5	8
„ Puerperal, ...	0	1	1
„ Recurrent, ...	0	1	1
Melancholia, ...	7	4	11
Monomania, ...	3	2	5
Moral Insanity, ...	0	1	1
4.—*Duration of Insanity prior to admission.*			
One week or under, ...	3	1	4
Between 1 week and 1 month, ...	4	8	12
„ 1 and 3 months, ...	3	0	3
„ 3 „ 12 „	3	6	9
„ 1 „ 2 years, ...	0	1	1
5.—*Duration of treatment in Asylum.*			
3 months or under, ...	5	3	8
Between 3 and 6 months, ...	1	7	8
„ 6 „ 12 „	3	3	6
„ 1 „ 2 years, ...	4	3	7

The Recoveries constitute—

44·61 per cent. of the Discharges [*in*cluding deaths.]
52·72 „ „ [*ex*cluding deaths.]
46·77 per cent. of the Admissions.
14·39 per cent. of the mean daily number of patients under treatment.
10·86 per cent. of the total number under treatment during [the year.

IV.—DEATHS DURING 1860-61.

	Males. 6	Females 4	Total. 10
1.—*Age at death.*			
Between 30 and 40 years, ...	1	0	1
„ 40 „ 50 „	1	1	2
„ 50 „ 60 „	0	1	1
„ 60 „ 70 „	3	2	5
„ 80 „ 90 „	1	0	1
2.—*Cause of Death.*			
Broncho-Pneumonia, acute typhoid, ...	0	1	1
Convulsions in course of chronic Mania, ...	0	1	1
Exhaustion in course of General Paralysis,	2	0	2
„ Mania: senile, ...	0	1	1
Exhaustion senile: associated with apoplectic clot and diseased kidneys, ...	1	0	1
Exhaustion senile: aggravated by abstinence,	1	0	1
Rupture of Ileum: fœcal extravasation: Peritonitis: enteritis,	1	0	1
Tuberculosis, acute, ...	1	1	2
3.—*Duration of Residence in Asylum.*			
Between 1 and 2 weeks, ...	1	0	1
„ 1 and 6 months, ...	1	1	2
„ 1 „ 2 years, ...	2	1	3
„ 5 „ 10 „	1	0	1
„ 10 „ 12 „	0	1	1
„ 20 „ 30 „	1	1	2
4.—*Form of Insanity.*			
Dementia, ...	1	2	3
General Paralysis, ...	2	0	2
Mania, chronic, ...	0	1	1
Melancholia, ...	2	1	3
Monomania, ...	1	0	1

The Deaths constitute 15·38 per cent. of the discharges, [including deaths.]

16·12 „ of the admissions,

4·97 „ of the mean daily number of Patients under treatment.

3·74 „ of the total number under treatment during the year.

V.—TABLES RELATING TO INDUSTRIAL DEPARTMENT.

SERIES I.—ILLUSTRATIVE OF VALUE OF PRODUCE OR LABOUR.

I.—GARDENER'S DEPARTMENT.

a.—Produce consumed by the Patients and Staff.

					1855.	1856.	1857.	1858.	1859.	1860.
I. Milk,	3778	Pints,	at 3½d.	£55 1 11						
"	308	"	at 4d.	5 2 8						
					£60 4 7	£70 3 8				
"	4211	"	at 4d.	... ...	.....	.....	£61 12 8	£75 13 8	£92 18 8	£93 3 9
"	3698	"	at 4d.	... ...	.....	.....	.....	.....	.....	
"	4541	"	at 4d.	... ...	.....	.....	.....	.....	.....	
"	5576	"	at 4d.	... ...	.....	.....	.....	.....	.....	
"	5022	"	at 4d.	£83 14 0	.....	.....	.....	.....	.....	
"	506	"	at 4½d	9 9 9						
II. Pork,	280	Lbs.,	at 5d.	£5 16 8						
"	2673	"	at 5¼d.	58 9 5¼						
"	441	"	at 6d.	11 0 6						
					£75 6 7¾	£41 2 0	£39 6 0	£41 12 11½	£62 19 6½	
"	1644	"	at 6d.	... ...	.....					
"	1572	"	at 6d.	... ...	.....	.....	.....	.....	.....	
"	949	"	at 5½d.	£21 14 11½						
"	796	"	at 6d.	19 18 0						
"	2231	"	at 5½d.	£51 2 6½						
"	474	"	at 6d.	11 17 0						
"	900	"	at 6d.	£22 10 0						
"	900	"	at 6½d.	24 7 6						
III. Veal,	53	"	at 5½d.	... ...	.....	.....	.....	£1 4 3½		46 17 6
"	53	"	at 5½d.	... ...	.....	.....	.....	.....	£1 4 3½	
"	108	"	at 6d.	... ...	.....	.....	.....	.....	.....	
IV. Firewood,	Bags,		at 1s.	... ...	.....	.....	£3 15 0	7 12 0	10 16 6	2 14 0
V. Kitchen Vegetables, Fruit, &c.,*				... ...	.....	£112 7 2	148 13 0	180 9 11	159 17 2	12 19 0
					£76 16 3¾					183 4 2
			Total,	...	£212 7 6	£223 12 10	£253 6 8	£306 12 10	£327 16 2	£338 18 5

* *Vide d.*

V.—INDUSTRIAL DEPARTMENT—[Continued].

b.—Surplus Produce Sold.

During year 1855, ...	£34 14 0
„ 1856, ...	25 3 6
„ 1857, ...	28 7 10
„ 1858, ...	28 14 11
„ 1859, ...	20 18 8
„ 1860, ...	16 17 0
Total, ...	£154 15 11

c.—Abstract of a. and b.

	Produce Consumed.	Produce Sold.	Total Garden Produce.
During year 1855, ...	£212 7 6	£34 14 0	£247 1 6
„ 1856,	223 12 10	25 3 6	248 16 4
„ 1857, ..	253 6 8	28 7 10	281 14 6
„ 1858,	306 12 10	28 14 11	235 7 9
„ 1859, ...	327 16 2	20 18 8	348 14 10
„ 1860,	338 18 5	16 17 0	355 15 5
Totals, ...	£1662 14 5	£154 15 11	£1727 10 4

d.—Items of Kitchen Vegetables, Fruit, &c., consumed by Patients or Staff during 1860.†

I.—Kitchen Vegetables.		II.—Fruit.	
Greens, Kale, ...	£7 18 0	Apples, ...	£18 11 9
Cabbage, ...	18 3 0	Pears, ...	1 18 0
Carrots, ...	7 19 6	Plums,...	2 0 6
Onions, ...	10 8 0	Strawberries, ...	6 19 3
Leeks, ...	13 8 0	Raspberries, ...	1 6 0
Turnips, ...	8 6 0	Gooseberries, ...	13 17 0
Cauliflower,... ...	11 16 0	Currants, black, ...	1 3 6
Brocoli, ...	0 3 0	„ red & white,	1 13 0
Brussels Sprouts,...	0 2 6	III.—Sundries.	
Potatoes, ...	34 9 0	Asparagus, ...	0 16 6
Beans, common, ...	1 13 0	Lettuce, ...	0 18 2
„ French, ...	0 6 0	Beetroot, ...	0 19 6
Pease, ...	12 5 6		
Rhubarb, ...	6 3 6	Total, ...	£183 4 2

† *Vide a**.

V.—INDUSTRIAL DEPARTMENT—[Continued.]

e.—Estimated aggregate value of Patients' labour in Garden.

	1857.			1858.			1859.			1860.		
	£	s.	d	£	s.	d.	£	s.	d.	£	s.	d.
Pump labour,	36	16	6	76	8	6	75	17	6	84	13	6
Garden do.,	69	18	6	62	11	0	71	11	0	103	16	6
Farm do.,	10	5	6	12	7	0	12	15	0	17	12	0
Total,	117	10	6	151	6	0	160	3	6	206	2	0

II.—ARTIZAN DEPARTMENT.

a.—Carpenter and Upholsterer: 1859.

Articles Made	
Joiner Work at Pigsties and Poultry House, ...	£5 0 0
Stuffing three Couches, ...	0 18 0
Writing Desk, ...	0 7 0
Mahogany Box for Photographic glasses, ...	0 7 0
Box for Bowls, [Bowling Green,]	0 6 0
Picture Frame, ...	0 4 6
12 Broom Handles, ...	0 4 0
Bed-foot Box, ...	0 2 0
Total value of articles made, ...	£7 8 6
Probable value of material used, ...	3 0 0
Value of labour, ...	£4 8 6
Articles Repaired.	
Re-covering 37 Hair-seated Chairs, ...	£4 3 0
Re-stuffing Arm Chair, ...	0 4 6
Repairing Doors, ...	0 3 0
„ Water Closets, ...	0 3 6
Total value of Repairs, ...	£4 14 0
Probable Value of material used, ...	1 16 0
Value of labour, ...	£2 18 0
During 1860: Made.	
21 Picture Frames for Galleries, ...	£2 12 0
13 Do. Do., ...	2 0 6
15 Coal Boxes, ...	1 17 6

II.—ARTIZAN DEPARTMENT—[CONTINUED.]

a.—Carpenter and Upholsterer: 1860.			
40 Flower Stands, ...	£1	14	6
Stuffing 5 Couches and Footsteps for Surgery,	1	12	0
New Surgery Table, ...	1	7	6
Picture Frames, ...	0	13	0
3 Gallery Benches, ...	0	13	0
Picture Frames, (sold,)	0	12	6
3 Clothes Screens for Laundry, ...	0	10	6
12 Spittoons for Galleries, ...	0	8	7
2 Insect cases for Museum, ...	0	7	6
Picture Frames, ...	0	5	9
Rollers, and Fitting up Maps in Galleries, ...	0	5	0
8 Broom Handles, ...	0	4	0
2 Trays for Surgery, ...	0	3	0
Stand for Museum Aquarium, ...	0	3	0
Bread Tray, ...	0	3	0
Flower Stand for Housekeeper's Room, ...	0	4	0
6 Broom Handles, ...	0	3	0
Tray Stand in Surgery, ...	0	5	0
Drawing Easel, ...	0	6	6
Tailor's Workboard, ...	0	2	0
12 Wooden Panes for Windows of refractory rooms,	0	2	0
6 Arrows for Archery Practice, ...	0	2	0
Hammer Handle and Camp Stool, ...	0	2	6
Coal Bunker, ...	0	1	6
Total value of articles made, ...	£17	1	4
Probable value of material used, ...	7	8	0
Value of labour, ...	£9	13	4
REPAIRS.			
Fences at Pitcullen Park, &c., ...	£5	11	0
Re-covering 17 Chairs, ...	1	17	0
,, 13 Chairs and repairing 2 Mirrors,	1	1	6
Chairs, ...	1	6	9
Press for Housekeeper, ...	0	10	6
Coal Boxes, Stools, &c., ...	0	7	9
4 Benches, ...	0	7	0
Chairs, ...	0	5	6
Bed-steads, Footsteps, and Bunker, ...	0	6	0
Benches, ...	0	4	4
,, ...	0	4	0
Stuffing Arm Chair, ...	0	5	0
Forms, Chairs, Bedsteads, &c., ...	0	5	3
Presses, Wardrobes, &c., ...	0	5	6

II.—ARTIZAN DEPARTMENT—[CONTINUED.]

a.—Carpenter and Upholsterer: 1860.			
Repairing Mirrors, ...	£0	2	6
Coal Boxes and Boiler Cover, ...	0	2	9
Airing Court Doors, ...	0	2	6
Presses and Side Table, ...	0	2	9
Water Closet, ...	0	3	6
Piano and Shutters, ...	0	3	0
Presses, ...	0	3	6
Sofa, ...	0	2	6
Laundry Screens, ...	0	3	0
Kitchen Tables, ...	0	2	6
Mirror and Tables in Matron's Storeroom, ...	0	2	0
Picture Frames and Mirrors, ...	0	3	0
Total value of repairs, ...	£14	10	7
Probable value of material used, ...	5	5	1
Value of labour, ...	£9	5	6

b.—Painter, 1859.

Whitewashing Female Galleries, ...	£5	5	0
,, Laundry, ...	3	10	0
,, Gallery Bedrooms, ...	1	15	0
,, Kitchen and Beer Pantry, ...	1	0	0
Painting 20 Bedsteads, ...	2	0	0
,, 14 Bedroom Floors, ...	1	15	0
,, Water Closets, ...	1	0	6
,, Wood-work in Airing Courts and Galleries,	1	12	6
,, Frames for Window Curtains, ...	1	10	0
,, Attic Door, and Whitewashing Walls,	0	10	0
,, at top of House, ...	0	15	0
,, 2 Lavatories, ...	0	10	0
,, 6 Airing Court Doors, ...	0	9	0
,, 3 Laundry Presses, ...	0	7	6
,, 6 Airing Court Seats, ...	0	7	6
,, Garden Door :—west entrance, ...	0	8	0
,, Photographic Workroom in North Airing	0	5	6
,, Varnishing Mahogany Box, Court,]	0	0	6
Total value of work executed, ...	£23	1	0
Probable value of material, ...	10	1	0
Value of labour, ...	£13	0	0

II.—ARTIZAN DEPARTMENT—[Continued].

b.—Painter: 1860.			
Whitewashing	Conolly and Malcom Galleries, ...	£1	0 0
,,	Bedrooms in Beatson Gallery,	1	0 0
,,	Belshes Gallery, ...	0	10 6
,,	Cellars and Bedroom, ...	0	11 6
,,	Tower, Stable, &c., ...	0	5 0
,,	Kitchen, &c., ...	0	15 0
Painting	Wire Fences, Pitcullen Park, ...	3	5 0
,,	Work Shops, ...	3	0 0
,,	Broken Woodwork throughout House,	2	10 0
,,	and Whitewashing in Galleries, ...	2	0 0
,,	4 Bedsteads, ...	2	0 0
,,	Broken Wood-work in Galleries, ...	1	19 6
,,	Bedroom Floors, ...	1	15 3
,,	Surgery, ...	1	5 0
,,	Laundry and Byre Doors, ...	0	12 0
,,	Bedsteads, ...	1	2 0
,,	Attendants' Room, ...	0	15 6
,,	Presses and Windows in Museum, ...	0	14 6
,,	Water Closet and Bedstead, ...	0	13 0
,,	Wood-work in Laundry, ...	0	12 0
,,	Airing Court Seats, ...	0	15 0
,,	Bedroom, ...	0	10 0
,,	,, and Bedstead, ...	0	11 6
,,	2 Bedroom Floors, Winslow Gallery, ...	0	8 0
,,	Kitchen, ...	0	8 0
,,	Bedroom Floor, Picture Frame, &c,, ...	0	8 6
,,	Statuary in Museum, ...	0	7 0
,,	Flower Boxes in Verandahs, ...	0	6 0
,,	Water Closet, Conolly Gallery, ...	0	7 6
,,	,, Pitcullen Bank, ...	0	6 0
,,	Gallery Benches, ...	0	5 0
,,	,, Flower Stands, ...	0	5 0
,,	and Repairing Statuette, ...	0	1 6
,,	Cricket Poles, ...	0	1 0
,,	Flower Vase, ...	0	2 0
,,	Bedroom in Winslow Gallery, ...	0	3 0
,,	Library Presses, ...	0	5 6
,,	Side table in Conolly Gallery, ...	0	2 6
,,	Pickling Tubs, ...	0	3 0
,,	Wood-work in Kitchen,	0	2 6
,,	Side table, Malcom Gallery and Window,		
,,	,, Conolly do., ...	0	3 6
,,	Water Closet and Window Sill, ...	0	4 6
,,	,, Beatson Gallery, ...	0	4 0
,,	Airing Court Doors, ...	0	5 6

II.—ARTIZAN DEPARTMENT—[Continued.]

b.—Painter : 1860.			
Painting 2 Washing Tubs, Scuttle, Bath Covers, &c.	£0	5	0
„ Curtain-Cornice, Beatson Gallery,	0	2	6
„ Seclusion Room, Winslow Gallery,	0	4	0
Total value of work, ...	£33	13	3
Probable value of material, ...	13	16	3
Value of labour, ...	£19	17	0

c.—Glazier : 1859.

Glazing 45 doz. Panes of Glass, ...	£13	10	0
Value of material, ...	4	10	0
Value of labour, ...	£9	0	0
1860.			
Glazing 793 Panes of Glass, ...	£19	6	1
Value of material, ...	6	12	2
Value of labour, ...	£12	13	11

d.—Mason : 1859.

Building Piggeries and Poultry House, ...	£10	0	0
Pointing Boundary Walls of Asylum and Pitcullen Grounds, ...	7	12	0
Making New Chimney Head, at Pitcullen Lodge,	1	10	0
Total value of work, ...	£19	2	0
Probable value of material, ...	6	0	0
Value of labour, ...	£13	2	0
1860.			
Pointing Boundary Walls of Asylum and Pitcullen Grounds : 103 roods at 5s., ...	£25	15	0
Probable value of material, ...	3	5	0
Value of labour, ...	£22	10	0

II.—ARTIZAN DEPARTMENT—[CONTINUED.]

e.—Miscellaneous: 1859.

8-10 Female Patients assisting in Laundry, ...	£24	0	0
2 „ Housemaids and Cooks,	4	16	0
Hair-Cutting and Dressing, ...	6	0	0
Basket Making: 3 dozen Garden Baskets, (from Willows grown in the Asylum Grounds,)	1	16	0
Cleaning Pipes, ...	0	5	0
Total value of labour, ...	£36	17	0
1860.			
8-10 Female Patients assisting in Laundry, ...	£34	0	0
2 „ Housemaids and Cooks,	6	0	0
Hair Cutting and Dressing, ...	14	5	8
Cleaning Windows and Miscellaneous Jobbing, ...	14	11	0
„ Baths, Water-closets, Sinks, Lavatories,	0	15	9
„ Board Room and Stair Case, ...	0	12	0
Repairing Cutlery, &c., ...	8	10	0
Sundries, ...	0	12	9
Basket Making, ...	2	0	0
Total value of labour, ...	£81	7	2

f.—Smith and Plumber: 1860.

Repairing Bed Frames with Iron Plates, ...	£0	17	6
„ and Picking Locks, throughout House,	0	16	9
„ Bath and Hot Water Cistern, ...	0	3	6
Fitting up Iron Rods in Surgery, ...	0	2	6
Repairing Fire Guards, ...	0	1	3
Total value of work, ...	£2	1	6
Probable value of material, ..	0	10	0
Value of labour, ...	£1	11	6

II.—ARTIZAN DEPARTMENT—[CONTINUED.]

g.—Shoemaker.

	Made.	Repaired.	
1858—Pairs Boots, Shoes, or Slippers,	116	436	
Total value of work,	...	...	£89 10 3
Probable value of material,	...	...	66 6 0½
Value of labour, ...	...	...	£23 4 2½
1859—Pairs Boots, Shoes, or Slippers,	123	592	
Total value of work,	...	...	£96 5 0
Probable value of material,	...	...	62 0 2
Value of labour, ...	...	...	£34 4 10
1860—Pairs Boots, Shoes, or Slippers,	128	423	
Total value of work,	...	...	£85 17 10
Probable value of material,	...	...	60 7 5
Value of labour, ...	...	...	£25 10 5

h.—Tailor.

1859: 1.—ARTICLES MADE.	
10 Suits of Clothes, ...	£10 4 1
20 Pairs Trousers, ...	6 9 6
20 Vests, ...	4 11 6
8 Jackets, ...	3 12 3
3 Stocks, ...	0 2 3
Total value of articles made, ...	£24 19 7
Probable value of material used, ..	13 13 9
Value of labour, ...	£11 5 10
2.—ARTICLES REPAIRED, ...	£22 18 3
Probable value of material used, ...	3 0 0
Value of labour, ...	£19 18 3
1860: 1.—ARTICLES MADE.	
12 Suits of Clothes, ...	£12 11 6
45 Pairs Trousers, ...	18 18 10
28 Jackets, ...	11 17 0
16 Vests, ...	4 7 0

II.—ARTIZAN DEPARTMENT—[CONTINUED.]

h.—Tailor: 1860.			
12 Caps, ...	£1	2	3
11 Stocks, ...	0	10	0
9 Pairs Braces, ...	0	7	9
6 Suits for destructive Patients, ...	2	2	6
3 Neckties, ...	0	4	0
Cricket Gaiters, ...	0	6	0
2 Geological Bags, ...	0	5	0
Total value of articles made, ...	£52	11	10
Probable value of material used, ...	35	18	7
Value of labour, ...	£16	13	3
2.—ARTICLES REPAIRED, ...	£22	4	11
Probable value of material used, ...	3	0	0
Value of labour, ...	£19	4	11

III.—MILLINER'S DEPARTMENT.

a.—Amount of Work.

	1858.		1859.		1860.	
	Made.	Reprd.	Made.	Reprd.	Made.	Reprd.
Towels, ...	379	137	224	257	294	227
Caps, ...	183	277	221	685	272	644
Sheets, ...	175	125	156	288	153	261
Pillow-slips, ...	158	192	287	245	191	315
Handkerchiefs, ...	122	11	190	0	202	0
Blankets, ..	110	148	66	286	157	319
Aprons, ...	109	228	147	226	218	394
Shirts, mens', ...	125	782	116	746	131	614
Dresses, womens', ...	116	466	143	637	153	651
Chemises, ...	95	263	156	584	160	541
Petticoats, ...	96	281	122	542	130	476
Bedcases, ...	92	170	155	292	42	0
Counterpanes, ...	89	66	28	0	72	108
Flannels, ...	92	301	130	520	158	516
Drawers, ...	87	309	65	319	86	392
Hose, ...	81	3826	87	3867	48	4092
Nightgowns, ...	29	149	95	191	111	259
Tablecloths, ...	39	55	17	81	21	71
Mattresses, ...	74	0	80	88	20	144
Seclusion Rugs, ...	14	56	28	176	60	152
Stays, ...	21	6	7	0	81	0
Collars, ...	5	0	0	0	0	0
Sundries, ...	0	56	0	189	0	113

V.—INDUSTRIAL DEPARTMENT—[CONTINUED.]

b.—Value of work and labour.

	Total value of work at ordinary prices.	Probable value of material.	Value of labour.
1858,	£384 10 10	£297 9 6	£51 1 4
1859,	355 5 3	288 5 6	66 19 6
1860,	432 12 6	360 11 5	72 1 1
Total of 3 years,	£1172 8 7	£946 6 5	£190 1 11
Average of do.,	390 16 2¼	315 8 9½	63 7 3½

BAZAAR SECTION.

Proceeds of Sale of Articles Exhibited in Bazaar.

1857, ...	£9 11 4	£3 3 9	£6 7 7
1858, ...	5 15 0	1 19 1	3 15 11
1859, ...	5 9 6	1 6 6	4 3 0
1860, ...	3 19 3	0 14 4	3 4 11
Mean of 4 years,	£6 3 9¼	1 15 11	£4 7 10¼

V.—INDUSTRIAL DEPARTMENT—[CONTINUED.]

ABSTRACT.

	Total value of work or produce.	Probable value of material used.	Value of Patients' labour.
1.—GARDENER'S DEPARTMENT.			
a.—Produce consumed, 1855,	£212 7 6		
1856,	223 12 10		
1857,	253 6 8		
1858,	306 12 10		
1859,	327 16 2		
1860,	338 18 5		
Total,	£1662 14 5		
b.—Produce sold, 1855,	£34 14 0		
1856,	25 3 6		
1857,	28 7 10		
1858,	28 14 11		
1859,	20 18 8		
1860,	16 17 0		
Total,	£154 15 11		
Add produce consumed, ...	1662 14 5		
Total Garden produce, ...	£1727 10 4		
Patients' labour at Pumps, 1857,	.....	.....	£36 16 6
1858,	.....	.....	76 8 6
1859,	.....	.....	75 17 6
1860,	.....	.....	84 13 6
Total,	.....	.....	£273 16 6
Do. in Garden, 1857,	.....	.....	69 18 6
1858,	.....	.....	62 11 0
1859,	.....	.....	71 11 0
1860,	.....	.....	103 16 6
Total,	.....	.....	£307 17 0
Do. at Farm, 1857,	.....	.....	10 5 6
1858,	.....	.....	12 7 0
1859,	.....	.....	12 15 0
1860,	.....	.....	17 12 0
Total,	.....	.....	£52 19 6
Add pump labour, ...	.....	.....	273 16 6
Garden do., ...	.....	.....	307 17 0
Total,	.....	.....	£634 13 0
II.—ARTIZAN DEPARTMENT.			
a.—Carpenters and Upholsterers.			
1859, Made, ...	£7 8 6	£3 0 0	£4 8 6
„ Repaired, ...	4 14 0	1 16 0	2 18 0
Total,	£12 2 6	£4 16 0	£7 6 6

V.—INDUSTRIAL DEPARTMENT—[CONTINUED.]

ABSTRACT—[CONTINUED.]

	Total value of work or produce.	Probable value of material used.	Value of Patients' labour.
a.—Carpenters and Upholsterers.			
1860, Made, ...	£17 1 4	£7 8 0	£9 13 4
„ Repaired, ...	14 10 7	5 5 1	9 5 6
Total,	£31 11 11	£12 13 1	£26 5 4
b.—Painter, ... 1859,	£23 1 0	£10 1 0	£13 0 0
„ 1860,	33 13 3	13 16 3	19 17 0
c.—Glazier, ... 1859,	13 10 0	4 10 0	9 0 0
„ 1860,	19 6 1	6 12 2	12 13 11
d.—Mason, ... 1859,	19 2 0	6 0 0	13 2 0
e.—Smith and Plumber, 1860,	25 15 0	3 5 0	22 10 0
„ ... 1860,	2 1 6	0 10 0	1 11 6
f.—Miscellaneous, ... 1859,	36 17 0	.....	36 17 0
„ ... 1860,	81 7 2	.....	81 7 2
g.—Shoemaker, ... 1858,	89 10 3	66 6 0½	23 4 2½
„ ... 1859,	96 5 0	62 0 2	34 4 10
„ 1860,	85 17 10	60 7 5	25 10 5
h.—Tailor: 1859, Made, ...	£24 19 7	£13 13 9	£11 5 10
„ Repaired, ...	22 18 3	3 0 0	19 18 3
Total,	£47 17 10	16 13 9	£31 4 1
„ 1860, Made, ...	52 11 10	35 18 7	16 13 3
Repaired, ...	22 4 11	3 0 0	19 4 11
Total,	£74 16 9	38 18 7	£35 18 2
III.—MILLINERS' DEPARTMENT.			
1858, Workshop, ...	£384 10 10	£297 9 6	£51 1 4
„ Bazaar, ...	5 15 0	1 19 1	3 15 11
1859, Workshop, ...	355 5 3	288 5 6	66 19 6
„ Bazaar, ...	5 9 6	1 6 6	4 3 0
1860, Workshop, ...	432 12 6	360 11 5	72 1 1
„ Bazaar, ...	3 19 3	0 14 4	3 4 11
Totals, 1858,	£390 5 10	£299 8 7	£54 17 3
1859,	360 14 9	289 12 0	71 2 6
1860,	436 11 9	361 5 9	75 6 0
Total of 3 years, ...	£1187 12 4	£950 6 4	£201 5 9
Average of ditto, ...	395 17 5¼	316 15 5¼	67 1 11

SUMMARY OF VALUE OF PATIENTS' LABOUR, for 1859 and 1860.

	1859.	1860.
1. Gardener's Department, ...	£160 3 6	£206 2 0
2. Artizan's Do.	144 14 5	225 13 6
3. Milliner's Do.	71 2 6	75 6 0
Total,	£376 0 5	£507 1 6

V.--INDUSTRIAL DEPARTMENT—[CONTINUED.]

SERIES II.—ILLUSTRATIVE OF NUMBER OF PATIENTS EMPLOYED.

I.—GARDENER'S DEPARTMENT.

Present Official Staff—1 Head Gardener.
2 Garden Attendants.
1 Pump Attendant.

Average daily number of males employed during months of—	1859.			1860.		
	Pumps.	Garden.	Pigs and Cattle.	Pumps.	Garden.	Pigs and Cattle.
January, ...	11·75	12·75	2·0	10·75	10·0	2·0
February, ...	13·0	11·0	2·0	10·0	8·75	2·0
March, ...	12·75	14·0	2·0	10·6	9·8	2·0
April, ...	12·8	14·0	2·0	10·15	14 5	2·0
May, ...	13·0	14·5	2·0	11·25	19·25	2·25
June, ...	13·25	17·5	2·0	11·2	17·5	2·8
July, ...	13·0	17·4	2·0	11·25	17·5	2·0
August, ...	11·75	16·0	1·75	11·5	17·75	2·0
September, ...	11·25	15·25	1·75	10 4	18·6	2·9
October, ...	11·2	12·2	2·0	10·5	18·25	2·0
November, ...	10·25	11·0	2·0	10·0	15 25	2·0
December, ...	10·8	10·2	2·0	9·4	12·2	2·0
Total, ...	144·80	165·80	23·50	127·10	179·35	25·05
Mean daily average throughout year,	12·06	13·81	1·95	10·59	14·94	2·08
		27·82			27·61	
Maximum number employed on any day or during any week in	1859,	36		in 1860,	36	
Minimum do.	,,	18		,,	17	

II.—ARTIZAN DEPARTMENT.

Present Official Staff.

1 Head Attendant.
1 Carpenter Attendant.
1 Tailor Attendant.
1 Shoemaker Attendant.
1 Painter and Glazier do., who also acts as Fireman, &c.

Number of male Patients employed in 1860 *as*—

Shoemakers, 4 to 6.
Carpenters, 2 to 4.
Tailors, 1 to 2.
Painters & whitewashers, 3 to 6.

V.—INDUSTRIAL DEPARTMENT—[CONTINUED.]

III.—MILLINERS' DEPARTMENT.

Present Official Staff—1 Matron.
2 Workroom Attendants [females].
4 Gallery do. do.

Number of females employed—chiefly in Workroom, partly also in Galleries.	Daily Average.	Maximum daily number.	Minimum daily number.
During year 1857, ...	28·86	35	8
Do. 1858, ...	34·51	40	10
Do. 1859, ...	34·76	63	9
Do. 1860, ...	40·0	70	12
Mean of 4 years, ...	34·53	52	13
In 1857 there was the following subdivision of Labourers :—			
a. Plain Work, ...	4·67	6	1
b. Stocking-knitting, ...	0·90	2	0
c. Cap-making, ...	1·55	4	0
d. Dress-making, ...	1·22	2	0
e. Shirt-making, ...	1·92	2	0
f. Fancy Work, ...	2·60	3	1
g. Mending, ...	16·00	16	6
Total, ...	28·86	35	8

IV.—LAUNDRY DEPARTMENT.

Present Official Staff—1 Housekeeper.
2 Laundresses.

Number of Patients employed during 1859,	9	17	3
Do. do. 1860,	10	19	4

V.—MISCELLANEOUS.

a. Kitchen department: under Housekeeper and 2 female Cooks, 1859,	1	5	0
Do. do. 1860,	1	5	0
b. Housemaids' department: under Housekeeper and 2 Housemaids, 1859,	1	5	0
Do. do. 1860,	1	5	0
c. Male Galleries: 4 male attendants. Number of Patients acting as gallery-assistants in 1860, ...	20	27	14
d. Female Galleries: 4 female attendants. Number of Patients acting as gallery-assistants in 1860, ...	12	14	10

V.—INDUSTRIAL DEPARTMENT—[CONTINUED.]

Summary of Patients Employed.

	Average during 1860.	Number on June 10, 1861.
1. In Grounds as Garden Labourers, ...	15	12
„ in Pumping water ...	11	9
„ in tending pigs, cows, &c., ...	2	2
2. In Workshops as Shoemakers, ...	4	3
„ Masons, ...	4	5
„ Carpenters, ...	2	0
„ Tailors, ...	1	1
3. In Female Workroom and throughout female galleries as Milliners, &c., ...	40	40
4. In Laundry as Laundry assistants, ...	10	11
5. In Kitchen as Cooks, ...	1	3
6. In Institution generally as Domestic servants,	1	2
Painters and whitewashers, ...	3	3
7. In Male Galleries as Assistants, ...	20	27
„ Female do. do. ..	12	16
	126	134

Of 134 Patients employed as above on 10th June, 1861, the following are the numbers or proportions belonging to the Pauper and non-Pauper classes:—	M.	F.	Total
1. Pauper, ...	47	52	99
2. Non-Pauper, ...	15	20	35
Total, ...	62	72	134

Of 202 Patients resident on 10th June 1861, the following do absolutely no work, being unfitted therefor by the form or phase of their insanity, the condition of their physical health, old age, or other causes:—			
1. Pauper, ...	22	13	35
2. Non-Pauper, ...	17	9	26
Total, ...	39	22	61

VI.—REGISTER OF THERMOMETRICAL OBSERVATIONS,

FOR 1860.

	Mean Temperature for the Month.	Maximum for Month.		Minimum for Month.	
		Day.	Temp.	Day.	Temp.
January, ...	34°	14th	40°	29th	21°
February, ...	35°	24th	47°	14th	0°
March, ...	39°	17th	55°	14th	26°
April, ...	44°	30th	65°	11th	28°
May, ...	54°	21st	72°	3d	36°
June, ...	55°	21st	70°	2d	40°
July, ...	58°	7th	77°	27th	45°
August, ...	56°	7th	71°	31st	40°
September, ...	50°	6th	76°	24th	32°
October, ...	46°	4th	61°	10th	30°
November, ...	39°	1st	55°	28th	23°
December, ...	31°	12th	50°	25th	3°
Mean for the year, ...	45·18°		61·58°		27·0°

VII.—TABULAR ANALYSIS OF "VISITORS' BOOK,"

From 4th April, to 31st December, 1860.

	Private	Pauper	Total	Private	Pauper	Total
I. Number of Patients resident,	...	...	...	95	144	239
a. Of these were visited, ...	56	100	156			
b. ,, not visited,	39	44	83			
				95	144	239

II. Number of Visits made to the above 156 Patients.

a. By Relatives, ...	456	
b. ,, Acquaintances, ...	155	
c. ,, Inspectors of Poor, ...	35	
d. ,, Medical Men, ...	6	
e. ,, Law Agents or Legal Guardians, ...	4	656

VII.—ANALYSIS OF "VISITORS' BOOK"—[CONTINUED.]

III.—Average number of Visits to each person visited, ... 3·85

IV.—Number of Refusals of access to Patients, ... 1

V.—Number of Visits when Patient not seen as recommended, 54

VI.—Actual number of Visits to individual Patients—viz.:

Number of Visits.	Number of Patients Visited.	Total number of Visits.
1 [once] to	42	42
2 [twice]	29	58
3 times, ...	19	57
4 ,, ...	18	72
5 ,, ...	2	10
6 ,, ...	11	66
7 ,, ...	9	63
8 ,, ...	8	64
9 ,, ...	5	45
10 ,, ...	2	20
11 ,, ...	3	33
13 ,, ...	1	13
14 ,, ...	1	14
15 ,, ...	2	30
16 ,, ...	2	32
18 ,, ...	1	18
19 ,, ...	1	19
	156	656

VII.—Effects of Visits on Patients seen—

Good in	124 instances.
Bad in	103 ,,
None perceptible, ...	374 ,,
	601 ,,

VIII.—Showing the Minor or Non-Fatal Diseases or Affections of the Inmates of the Institution during 1860-61.

Date.	Disease, &c.	Males.	Females.	Total.
1860. June 11th to 30th.	Abscesses, ...	2	1	3
	Amputation: distal Phalanx of thumb, ...	1	0	1
	Diarrhœa, ...	1	2	3
	Total, ...	4	3	7
July.	Abscess, ...	1	0	1
	Rupia on knee, ...	1	0	1
	Diarrhœa, ...	0	1	1
	Sanguineous tumour of ear, ...	1	0	1
	Corneitis, ...	1	0	1
	Total, ...	4	1	5
August.	Abscess, ...	1	0	1
	Carbuncle, ...	1	0	1
	Diarrhœa, ...	1	1	2
	Boils [Furunculi], ...	1	1	2
	Ulcer, ...	0	1	1
	Total, ...	4	3	7
September.	Abscess, ...	1	0	1
	Catarrh [severe], ...	0	1	1
	Diarrhœa, ...	1	4	5
	Boils, ...	1	3	4
	Purpura, hæmorrhagica, ...	1	0	1
	Ulcer [callous], ...	0	1	1
	Total, ...	4	9	13
October.	Abscess, ...	1	0	1
	Apoplexy [congestive], ...	1	0	1
	Catarrhs and Coryza, ...	3	1	4
	Diarrhœa, ...	0	3	3
	Boil, ...	1	0	1
	Cynanche parotidea, ...	0	1	1
	Psoriasis, ...	0	1	1
	Ulcer [callous], ...	1	0	1
	Total, ...	7	6	13

VIII.—MINOR OR NON-FATAL DISEASES—[CONTINUED.]

Date.	Disease, &c.	Males.	Females.	Total.
1860. November.	Bronchitis, ...	0	1	1
	Catarrh, ...	0	1	1
	Diarrhœa, ...	0	3	3
	Boils, ...	4	1	5
	Abscess, [sinus], ...	1	0	1
	Ulcer on toe, ...	1	0	1
	,, simple, ...	1	0	1
	Whitlow [Paronychia], ..	0	1	1
	Total, ...	7	7	14
December.	Abscesses, ...	2	2	4
	Catarrh, ...	0	1	1
	Diarrhœa, ...	1	1	2
	Erythema, ...	1	1	2
	Boils, ...	8	0	8
	Impetigo, ...	1	0	1
	Onychia, ...	0	1	1
	Psoriasis, ...	1	1	2
	Tonsillitis, ...	1	0	1
	Total, ..	15	7	22
1861. January.	Abscesses, ...	1	1	2
	Apoplexy [congestive], ...	1	0	1
	Catarrh, ...	2	5	7
	Diarrhœa, ...	1	2	3
	Boils, ...	2	0	2
	Otitis [external], ...	0	1	1
	Purpura, hæmorrhagica, ...	1	0	1
	Ulcer [callous], ...	0	1	1
	Total, ...	8	10	18
February.	Abscesses, ...	1	3	4
	Apoplexy [congestive], ...	1	0	1
	Bronchitis, ...	0	1	1
	Conjunctivitis, ...	1	0	1
	Cynanche tonsillaris, ...	1	0	1

VIII.—MINOR OR NON-FATAL DISEASES—[Continued.]

Date.	Disease, &c.	Males.	Females.	Total.
1861. February (*Continued*).	Diarrhœa, ...	1	1	2
	Erysipelas, ...	0	1	1
	Boils, ...	1	2	3
	Hæmatocele, complicated with Hernia, ...	1	0	1
	Otitis, external, ...	0	1	1
	Psoriasis, ...	0	2	2
	Rheumatism, ...	1	0	1
	Rheumatic Gout, ...	0.	1	1
	Whitlow, ...	0	1	1
	Total, ...	8	13	21
March.	Abscesses, ...	2	0	2
	Catarrh, ...	0	2	2
	Conjunctivitis, ...	0	1	1
	Diarrhœa, ...	1	0	1
	Boils, ...	2	3	5
	Parulis [Gumboil], ...	1	0	1
	Ulcer [callous], ...	0	1	1
	Total, ...	6	7	13
April.	Abscesses, ...	2	2	4
	Cynanche tonsillaris [Quinsey],	0	1	1
	Diarrhœa, ...	1	0	1
	Boils, ...	3	3	6
	Parulis, ...	0	1	1
	Ulcers, ...	2	0	2
	Whitlow, ...	1	3	4
	Total, ...	9	10	19
May.	Abscess, ...	1	0	1
	Apoplexy [congestive], ...	1	0	1
	Boils, ...	1	1	2
	Bronchocele, ...	0	1	1
	Diarrhœa [simple], ...	0	2	2
	Erysipelas, ...	1	0	1
	Ulcer [simple], ...	1	0	1
	Total, ...	5	4	9

VIII.—MINOR OR NON-FATAL DISEASES—[CONTINUED.]

Date. 1861.	Disease, &c.	Males.	Females.	Total.
June, 1st to 10th.	Abscess, ...	1	0	1
	Boils, ...	0	2	2
	Total, ...	1	2	3

SUMMARY,

Showing the Affections which were most prevalent.

	Total number of cases.
1. Boils and allied affections, including Carbuncles and Parulis, ...	43
2. Diarrhœa, ...	28
3. Abscesses, ...	26
4. Catarrhs and allied affections, including Bronchitis,	21
5. Ulcers, ...	11
6. Whitlows, ...	6
7. Cutaneous eruptions, ...	6

ABSTRACTS.

1.—*Showing the number of non-fatal or minor diseases in relation to the periods of the year.*

	Total number of cases.		Total number of cases.
1860.		1861.	
June, ...	7	January, ...	18
July, ...	5	February, ...	21
August, ...	7	March, ...	13
September, ...	13	April, ...	19
October, ...	13	May, ...	9
November, ...	14	June, ...	3
December,... ...	22		
		Total, ...	164

ABSTRACTS—[Continued.]

2.—*Showing the number of minor-affections in relation to the sexes.*

	Females.	Males.
1860,		
June, ...	3	4
July, ...	1	4
August, ...	3	4
September, ...	9	4
October, ...	6	7
November, ...	7	7
December, ...	7	15
1861,		
January, ...	10	8
February, ...	13	8
March, ...	7	6
April, ...	10	9
May, ...	4	5
June, ...	2	1
Total, ...	82	82

3.—*Showing the number of minor-affections in relation to the departments of the Institution occupied by the affected Patients.*

	Lower Galleries on ground floors—Patients mostly Paupers,	Higher galleries, on second and third stories—Patients private.
1860.		
June, ...	6	1
July, ...	4	1
August, ...	7	0
September, ...	11	2
October, ...	7	6
November, ...	14	0
December, ...	17	5
1861.		
January, ...	6	12
February, ...	15	6
March, ...	9	4
April, ...	15	4
May, ...	6	3
June, ...	3	0
Total, ...	120	44

IX.—Showing the Number of Pauper Patients on 10th June, 1861: with the Parishes and Counties to which they are Chargeable.

	M.	F.	T.
I.—PERTHSHIRE.			
Abernethy,	1		1
Auchterarder,		1	1
Auchtergaven,	3	2	5
Blair Atholl,	2	1	3
Blairgowrie,		1	1
Callander,	1		1
Caputh,	1		1
Clunie,		1	1
Comrie,	2		2
Crieff,	1		1
Culross,	1	1	2
Dull,	2	3	5
Dumbarney,	2	1	3
Dunblane,	2	3	5
Dunkeld,	1	1	2
Dunning,	1	1	2
Erroll,	6	1	7
Fortingall,		1	1
Fossaway,	1		1
Fowlis Wester,	2		2
Inchture,	1	2	3
Kenmore,	1	2	3
Kinnaird,		1	1
Kinnoull,	2	2	4
Killin,	1	1	2
Little Dunkeld,	1	2	3
Logierait,	2	2	4
Longforgan,		1	1
Madderty,		2	2
Meigle,	1	1	2
Methven,	2	2	4
Monzie,	1		1
Monzievaird,	1	1	2
Moulin,	1		1
Muthill,		3	3
Perth,	4	5	9
Rattray,	1	1	2
Redgorton,	1	2	3
Scone,	3	5	8
St. Martins,		1	1
Tibbermore,	2		2
Tulliallan,	1	2	3

IX.—PAUPER PATIENTS AND PARISHES—[CONTINUED.]

	M.	F.	T.
II.—FIFESHIRE.			
Carnock, ...	1	0	1
Cameron, ...	1	0	1
Cupar, ...	0	1	1
Falkland, ...	0	1	1
Newburgh, ...	0	1	1
Torryburn, ...	1	0	1
III.—KINROSS-SHIRE.			
Orwell, ...	0	1	1
IV.—LANARK-SHIRE.			
Calder, ...	1	0	1
V.—DUMBARTON-SHIRE.			
Cumbernauld, ...	0	1	1
VI.—ROSS-SHIRE.			
Logie Easter, ...	1	1	2

SUMMARY,

Showing the total number of Paupers belonging to—

	M.	F.	T.
Perthshire, ...	55	56	111
Fifeshire, ...	3	3	6
Ross-shire, ...	1	1	2
Kinross-shire, ...	0	1	1
Lanarkshire, ...	1	0	1
Dumbartonshire, ...	0	1	1
Total, ...	60	62	122