

# **Annual report of the Royal Edinburgh Asylum for the insane : For the year 1854.**

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ANNUAL REPORT  
OF THE  
ROYAL EDINBURGH ASYLUM  
FOR  
THE INSANE.

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FOR THE YEAR 1854.

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EDINBURGH:  
PRINTED AT THE ROYAL ASYLUM PRESS.

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# ROYAL EDINBURGH ASYLUM

FOR

## THE INSANE.

*Patroness—The Queen.*

OFFICE-BEARERS FOR 1855.

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THE DUKE OF BUCCLEUCH AND QUEENSBERRY.

DEPUTY-GOVERNORS.

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Sir JOHN S. FORBES, Bart.  
LORD MURRAY.

GEORGE FORBES, Esq.  
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Lord Advocate of Scotland.  
Solicitor-General of Scotland.  
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President of the Royal College of Surgeons.

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James Syme, Esq.  
Dr David MacLagan.

Dr GILLESPIE, *Consulting Physician.* Dr SKAE, *Resident Physician.*


Dr HOWDEN, and Dr M'CULLOUGH, *Medical Assistants.*

Miss Macdougall, *Matron.* Mr J. Smith, *House Superintendent.*

Rev. R. Lorimer, *Chaplain.*

John Scott, W.S., *Secretary and Treasurer.*





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# REPORT

OF

## THE ORDINARY MANAGERS

OF THE

### ROYAL EDINBURGH ASYLUM FOR THE INSANE.

*Presented to the Annual General Meeting of the Corporation, held  
on Monday, the 26th day of February, 1855.*

As directed in the Act of Incorporation, the Managers now present their Annual Report.

The average number of Patients in all departments of the Institution during the year 1854 was 551, being 2 less than during the year preceding.

The amount of ordinary receipts by the Treasurer during the year was .....	£16,053    4    6½
And of ordinary Expenditure .....	15,532    9    0

Thus leaving a surplus of .....	£520    15    6½
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Referring to what is stated in the Report of last year, on the subject of the rate of Board of the Pauper Patients, which was then fixed at the following rates, viz., for privileged Patients £22, and for non-privileged £25, for the two quarters from and after 1st April, 1854, it is proper to mention, that, as then arranged, the subject was again taken into consideration, after the Contracts for provisions and other supplies for the second half of the year had been settled; and that the managers considered it proper to continue the same rates for the remaining two quarters, viz., from 1st October, 1854, to 1st April next. This subject has again occupied the serious attention of the managers; and considering that the circumstances which compelled them to raise the Board to its present amount are in no respect changed from what they were this time



twelvemonth, and looking also to the moderate amount of surplus income, and the high rate of interest which must hereafter be paid upon an increased amount of debt, the Managers have no hesitation in proposing the continuance of the present rates of board for the two quarters from 1st April next, subject to any alteration for the two subsequent quarters which may be considered necessary, after the Contracts for the second half of the year are taken.

At the period of last Report, the Managers had it in contemplation to proceed as soon as possible with the execution of extensive additions to both Departments of the Institution, of the nature therein particularised. But shortly after that date, it was found advisable to postpone for a time the execution of these works. Besides the consideration of the unprecedented rise in wages and building materials, which had recently taken place, and which made it extremely desirable to postpone any building works for a time if possible, the Managers were further influenced in coming to this resolution, by a proposal brought forward by Lord Murray, which, if carried out, must have materially modified any future building arrangements, viz., that the managers should offer to dispose of the Eastern Department of the Asylum to Government, for the purposes of a general receptacle for the criminal lunatics of Scotland. By such a transaction, which, in other respects appeared to offer great public advantages, the Managers would obtain the means of erecting an entirely new building for the accommodation of the higher classes of Patients at the western extremity of their grounds. Lord Murray's proposal was embodied by him in a memorial, which may yet lead to very important results, and was to the following effect :—

*“ Memorial of the Governors and Managers of the Royal Edinburgh Asylum for the Insane, to the Prison Board of Scotland.*

“ The Memorialists understand that it has been found necessary to make extensive additions to the General Prison at Perth, in order to provide accommodation for a prospective increase in the number of prisoners ; and the memorialists understand further, that there are a considerable number of criminal lunatics in one department of this General Prison, and it has occurred to them that these



removal of these lunatics would not only at once provide some additional accommodation for the ordinary class of prisoners, but that their removal to a suitable Asylum, with all the best appliances for the treatment of their malady, and under the superintendence of those who have directed their special attention to the cure of mental diseases, would be a great boon to this unfortunate class, and in accordance with the spirit of the times, which has provided a separate Criminal Lunatic Asylum for Ireland, and special provision of the best kind in Bethlem Hospital, and elsewhere, for the criminal lunatics of England.

“The Memorialists believe that the building at present occupied by the higher class of Patients at the Edinburgh Asylum, is in every respect suited for such a purpose as that referred to. It is detached from the large Pauper Asylum,—constructed in such a manner as to afford the necessary security for such patients,—surrounded by several acres of ground, and enclosed by a high wall. Were the criminal lunatics placed in this building, they could be kept quite distinct from the other patients; or they could be permitted, were it thought advisable, to enjoy, when it could be done with propriety, some of the advantages which the farm and garden, and amusements of the department for the other Patients afford, or generally could be managed under such arrangements as the Board of Supervision might desire. Were this building disposed of to Government for criminal lunatics, another building would be erected at the most remote part of the Asylum grounds, and having a separate entrance, and otherwise secluded for the higher class of Patients at present residing in the building, which it is wished to dispose of.

“It is thought desirable to bring this matter under the consideration of the Prison Board at the present time, as offering important advantages to the public in many points of view; and it is hoped that such steps may be taken as to give the subject due consideration, and if approved of, brought under the notice of the Government through the proper channel.”

The above Memorial, having been unanimously approved of by the Managers, was afterwards forwarded to the Prison Board of Scotland for their consideration; but it was not till the 5th of October



that a communication was received from their Secretary to the effect, that the Memorial having been fully considered by the Board, they recommended that the matter should be brought under the notice of the Secretary of State for the Home Department. This suggestion was accordingly adopted; and early in November, the Memorial was sent by His Grace the Duke of Buccleuch, Governor of the Asylum, to the Lord Advocate, for the purpose of being transmitted by His Lordship to Lord Palmertson. Subsequently, the Treasurer had a long interview with the Lord Advocate, who seemed to appreciate the importance of the subject, and promised to bring it under the notice of the Home Secretary. It is perhaps unnecessary to add, that in the very critical state of public affairs, arising from the all engrossing subject of the war, the Memorial has hitherto remained unnoticed, and that the Managers have felt it impossible to press it upon the attention of the Government.

In these circumstances, the Managers have recently resumed consideration of the extension of the buildings of the Western Department, which have become if possible still more indispensable than ever, owing to the extremely crowded state of the House. The prospect of some reduction in wages, and in the cost of building materials, was also in favour of the prosecution of these works during the coming season; and Mr Bryce, the architect, is now engaged in taking separate estimates for the different portions of these buildings, which the Managers hope may be commenced early in March.

The only new building work actually executed last year has been an addition to the House of the Resident Physician, which had become absolutely essential for the accommodation of his family, and which would not have been so long postponed, had not the Managers always entertained the hope of being able to obtain more suitable accommodation for the Physician, in combination with some part of the new buildings of the Asylum. The addition to the House, which has been made with every regard to economy, will no doubt enhance its value to some extent, in the event of the Eastern Department being ever disposed of for the purposes above contemplated.

As it has now become necessary to raise the whole of the sum authorised to be borrowed under the Act of Parliament, arrange-



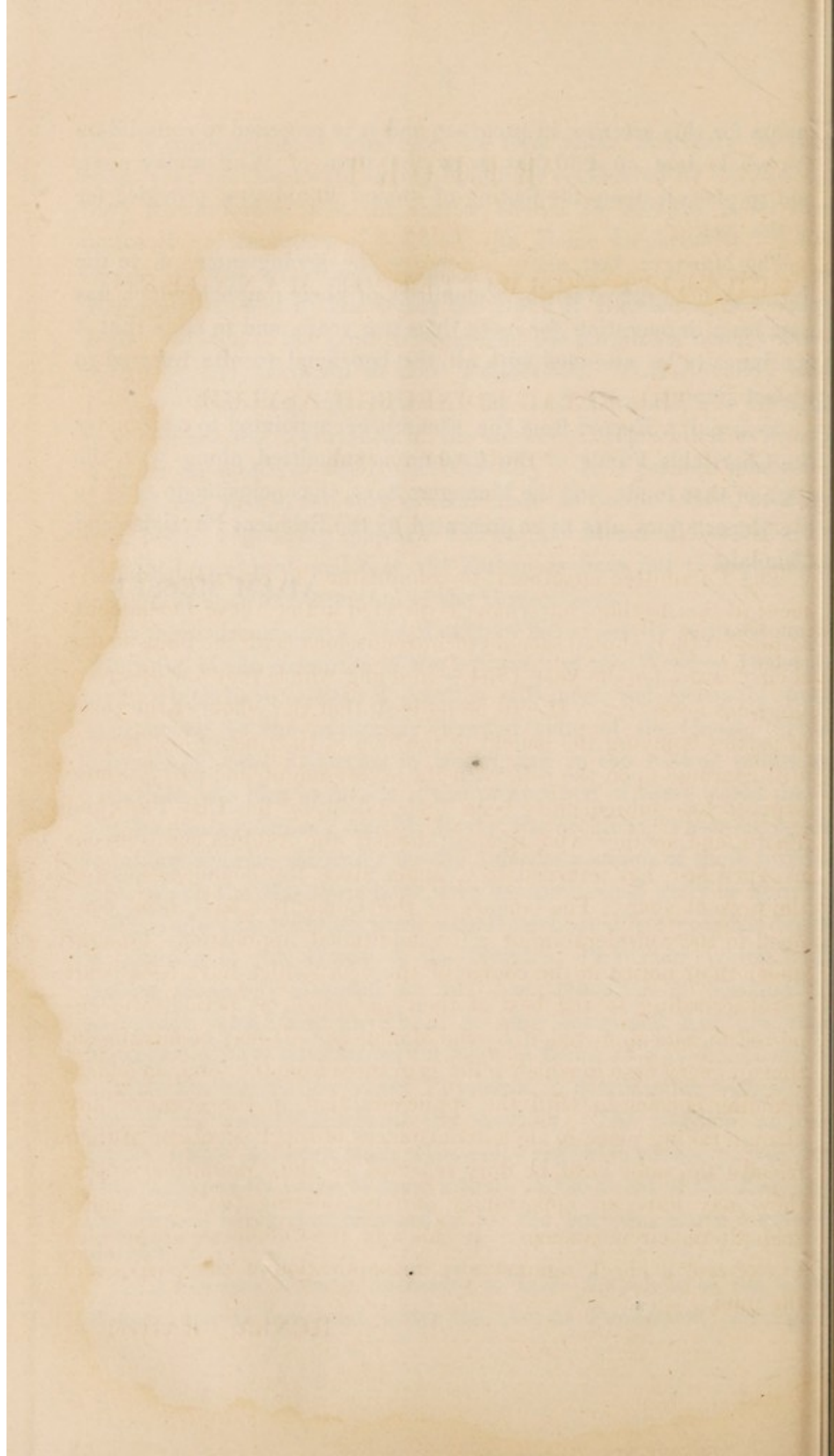
ments for this are now in progress, and it is proposed to consolidate the whole debt of £30,000, as at the term of Whitsunday next, and to place it upon the footing of annual liquidation provided for in the Act.

The Managers beg again to refer to the arrangement as to the duties of a weekly Visiting Committee of their number, which has now been in operation for more than two years, and to state that it continues to be attended with all the beneficial results referred to in last Report.

As usual, a Report from the Committee appointed to administer the Charitable Funds of the Asylum is submitted, along with the state of that fund ; and the Managers have, in conclusion, to refer to the Reports now also to be presented by the Resident Physician and Chaplain.

ADAM MESSER.





REPORT  
OF THE  
CHARITY COMMITTEE OF MANAGERS  
OF  
THE ROYAL EDINBURGH ASYLUM,

FEBRUARY 20, 1855.

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The Committee appointed to administer the charitable department of the Asylum, have now, as directed in the Act of Parliament, to present their annual account of intromissions, with the funds under their charge, for the year 1854,—in doing which very few observations are necessary. It will be noticed, that the whole of the cases of parties enjoying the benefit of the fund at the time of last Report still continue upon the roll, with the exception of one party, whose support has subsequently been undertaken by the City Parochial Board, and another who, though she left the Asylum convalescent in April last, has returned to it again since the commencement of the present year. The labours of the Committee have been confined to the consideration of a few additional applications brought under their notice in the course of the year, which have been dealt with according to the best of their judgment, as periodically reported to, and approved of, by the Managers. It may be mentioned, that in every case in which relief is granted from the fund, an understanding is come to with the applicants, that, in the event of any change taking place in the circumstances of the Patients or of their friends, the same is to be duly reported to the Committee, so that they may have an opportunity of reconsidering the cases under such altered circumstances. In this way, the Committee are enabled to exercise a check against any misapplication of the purposes of the fund.

HENRY CRAIGIE.





# ABSTRACT

OF THE

## TREASURER'S ACCOUNT FOR THE YEAR 1854.

### I. CHARGE.

1. Balance in favour of Institution at 31st December, 1853,	£657	9	11
2. Arrears at same date,	141	0	0
3. Patients' Boards,	15,270	17	0
4. Furnishings made to Patients, &c.,	304	3	11½
5. Rents of Land and Houses,	177	0	7
6. Produce sold,	301	3	0
7. Loans received,	400	0	0
Amount of Charge,	£17,251	14	5½

### II. DISCHARGE.

#### 1. Annual Disbursements for the Institution—

1. Provisions,	£7,554	0	11
2. Repairs and Furnishings,	3,631	4	9½
3. Public and Parochial Burdens,	117	12	1
4. Interests,	553	8	11
5. Feu-duty,	382	8	9
6. Water-duty,	50	0	0
7. Insurance against Fire,	23	8	0
8. Miscellaneous Payments,	194	5	10

£12,506 9 3½

Carry forward, £12,506 9 3½ £17,251 14 5½

Amount of Charge brought forward, £17,251 14 5½

## II. DISCHARGE—Continued.

Brought forward, £12,506 9 3½

### 2. Salaries, &c.:—

1. Resident Physician, £460 0 0

2. Assistant ditto, 80 0 0

Do., proportion

to 1st Dec., 4 11 10

84 11 10

3. Second Assistant ditto, 40 0 0

4. Consulting ditto, . 25 4 0

5. Matron, . 105 0 0

6. Chaplain, . 80 0 0

7. House Superintendent, 120 0 0

8. Gardeners, . 88 18 0

9. Gatekeeper, . 31 10 0

10. Honorarium to Visiting

Committee, . 110 0 0

11. Treasurer and Secretary, 380 0 0

12. Attendants, &c., . 1,500 15 10½

3,025 19 8½

3. Compensation to A. L. Mathison for ced-  
ing Possession of Land, and for value of

Manure and Labour expended thereon, 300 0 0

4. Price of Murray's Subjects at Tipperlin, 700 0 0

5. Loans paid up, . 1,000 0 0

6. Arrears of Boards outstanding, . 101 12 5

Amount of Discharge, . 17,634 1 5

Balance due to Treasurer at 31st Dec., 1854, . £382 6 11½

## A B S T R A C T

OF THE

## ORDINARY INCOME AND EXPENDITURE.

### I. INCOME.

1. Boards, . . . . . £15,270 17 0

2. Furnishings to Patients, &c., . . . . . 304 3 11½

3. Rents, . . . . . 177 0 7

4. Produce, . . . . . 301 3 0

Amount of Income, . . . . . £16,053 4 6½

Carry forward, £16,053 4 6½



Amount of Income brought forward, L16,053 4 6½

## II. EXPENDITURE.

### 1. Ordinary—

#### 1. Disbursements and Annual Payments,

as before, . . . . .	L.12,506 9 3½	
2. Salaries, . . . . .	3,025 19 8½	
	<u>                    </u>	15,532 9 0

Surplus of Ordinary Income over Ordinary Expenditure, L.520 15 6½

But from which falls to be deducted :—

### 2. Extraordinary Expenditure, being—

1. Compensation to A. L. Mathison, . . . . .	L.300 0 0	
2. Price of Tipperlin Subjects, . . . . .	700 0 0	
	<u>                    </u>	1,000 0 0

Excess of Expenditure over Income, . . . . . L.479 4 5½

## STATE OF FUNDS AT 31ST DECEMBER, 1854.

### I. DEBTS.

1. Amount of Debts on Promissory Notes, &c., . . . . .	L.12,400 0 0
2. Accounts for the Quarter ended, . . . . .	2,712 14 0
3. Outstanding Accounts, and proportion of current Feu- Duty, Interest, Taxes, &c., . . . . .	350 0 0
4. Balance due to Treasurer as before, . . . . .	382 6 11½
	<u>L.15,845 0 11½</u>

### II. ASSETS.

1. Arrears of Boards as before, . . . . .	L.101 12 5
2. Provisions and Stock on hand, . . . . .	1,292 10 11
	<u>                    </u>
	1,394 3 4
Deficiency, . . . . .	<u>L.14,450 17 7½</u>



# ABSTRACT

OF THE

## TREASURER'S INTROMISSIONS

WITH THE

## FUNDS OF THE CHARITY COMMITTEE,

FOR THE YEAR 1854.

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### I. CHARGE.

1. Balance in Treasurer's hands at 31st December, 1853,	L.435 9 4
2. Donations received during the year, . . . . .	. 4 0 0
3. Interests, . . . . .	110 18 10
4. Sum received from Asylum, in terms of the Act of Parliament,	392 7 7

Amount of Charge, . . . . .	L.942 15 9
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### II. DISCHARGE.

1. Sum paid to account of Patients' Boards, . . . . .	73 14 0
2. Sums invested, . . . . .	400 0 0
Amount of Discharge, . . . . .	473 14 0

Balance in Treasurer's hands at 31st Dec., 1854,	L.469 1 9
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### STATE OF FUNDS AT 31st DECEMBER, 1854.

1. Amount held in Loan by the Managers of the Asylum, . . . . .	L.2,800 0 0
2. Balance in Treasurer's hands, per preceding account, . . . . .	469 1 9
	<u>L.3,269 1 9</u>

# PHYSICIAN'S ANNUAL REPORT

OF THE

ROYAL EDINBURGH ASYLUM FOR THE INSANE,

FOR THE YEAR 1854.

*Read at the Annual Meeting of the Contributors, held on the 26th day of February, 1855.*

The number of patients in the Asylum at the close of the year 1853, was 545; since that period there have been admitted 212, making in all 757, who have been under treatment during the past year. Of these 167 were removed, of whom 73 were more or less improved, and 94 recovered; 51 were removed by death; in all, 218,—leaving in the Institution, at the close of last year, 539 Patients. The mean number resident during the year was 551.

Many applications for admission, both into the higher class department and into that for the paupers, were refused for want of sufficient accommodation.

The general results of the year are here represented in a tabular form :—

TABLE I.—*General Results of the Year.*

	Males.	Females.	TOTAL.
Number of inmates at the close of 1853,	263	282	545
Admitted during the year 1854, . . .	98	114	212
Total number under treatment, . .	361	396	757
Discharged, $\begin{smallmatrix} M. & F. & T. \\ 75 & 92 & = 167. \end{smallmatrix}$			
Of whom were Cured, . $\begin{smallmatrix} M. & F. & T. \\ 28 & 66 & = 94 \end{smallmatrix}$			
... .. Uncured, 47 26 = 73			
Deaths, . 24 27 = 51			
	99	119	218
Total number at the close of 1854, .	262	277	539
Average number daily resident during the year 1854.			
	Males.	Females.	Total.
	$262 \frac{277}{365}$	$288 \frac{316}{365}$	$551 \frac{228}{365}$



**Recoveries.** From this table it appears that the recoveries were in the ratio of 44·3 per cent. to the number admitted, or 17 per cent. to the mean number resident. The number of Patients admitted into the Asylum since it was opened is 3,365, and the number of recoveries, in all 1,403, being 41 per cent. of the whole number, and about 50 per cent., deducting those still under treatment.

**Mortality.** Fifty-one Patients died during the year, being in the ratio of 9·2 per cent. to our average population, or 6·7 per cent. to the entire number treated. The mortality during the past year has been less than in any previous year since the opening of the pauper department of the Asylum. This result ought to be a source of grateful reflection, when it is remembered that epidemic cholera prevailed in the neighbourhood during a great part of the year, without a single case occurring within the walls; and that two epidemics actually invaded the establishment, one of diarrhœa, and another of influenza.

The following table shows the period of residence in the Asylum of those removed uncured:—

TABLE II.—*Period of Residence of those Uncured at their Removal.*

	Males.	Females.	TOTAL.
Under 2 months, . . . .	1	1	2
" 3 " . . . .	2	1	3
" 4 " . . . .	2	0	2
" 5 " . . . .	2	2	4
" 6 " . . . .	3	1	4
" 1 year, . . . .	7	2	9
" 2 " . . . .	12	7	19
" 3 " . . . .	3	1	4
" 4 " . . . .	2	2	4
" 5 " . . . .	2	6	8
" 6 " . . . .	2	0	2
" 7 " . . . .	2	1	3
" 9 " . . . .	3	0	3
" 10 " . . . .	2	0	2
" 12 " . . . .	2	2	4
Total, .	47	26	73

**Removals.** From this table it appears that 73 Patients were removed uncured, being the largest number of uncured Patients removed in any one year from the Asylum. Of these a small number were convalescent; a larger number improved; but by far the largest number, indeed two-thirds of the whole, had been upwards of one year in



the Asylum, and were therefore nearly all in a hopeless condition as respects their prospects of recovery. The greater number of those removals were the result of parochial interference, the Patients being either transferred to the Workhouse, or to some private Asylums where they could be maintained at less cost to the parish than in this Institution. It is deeply to be regretted, on the one hand, that the size of this Asylum is not yet sufficient to enable us to receive all the pauper lunatics for whom admission is solicited; and on the other, that the rates of board although by no means high, are yet sufficiently so to permit of a successful competition on the part of licensed houses for pauper lunatics, at rates of board which are manifestly inadequate to supply the ordinary comforts of life, to say nothing of the attendance, means of recreation and employment, and other appliances so essential to the comfort of the insane. That they can be kept at all, so as to be a source of gain to the proprietors of those houses, where there are but a small number of inmates in each, is a matter of surprise, when it is found impossible in a large Asylum such as this, with nearly 500 of them, and a number of high class Patients paying highly remunerative boards, to keep and clothe them at less than from £20 to £25 per annum. The condition of those ten, twenty, or thirty poor imbeciles, who are kept for £15 or £18 per head, so as to yield attendants' wages, house rent, wear and tear of furniture, and a profit to the person who "farms them out," must be a matter of painful surmise.

The following table exhibits the ages of those admitted, and of those discharged cured :—

TABLE III.—*Ages of those Admitted, and those Discharged Recovered.*

AGE.	ADMITTED.			DISCHARGED RECOVERED.			PER CENTAGE OF RECOVERIES.
	Males.	Females.	TOTAL.	Males.	Females.	TOTAL.	
From 10 to 20,	9	10	19	0	0	0	
" 20 „ 30,	31	27	58	9	23	23	56.9
" 30 „ 40,	26	28	54	7	16	23	42.6
" 40 „ 50,	19	29	48	5	16	21	43.8
" 50 „ 60,	9	14	23	4	9	13	56.5
" 60 „ 70,	1	5	6	0	1	1	16.6
" 70 „ 80,	3	1	4	3	1	4	100.0
Total,	98	114	212	28	66	94	44.3



The small number cured, of those admitted under 20 years of age, arises from the fact, that the majority of them were epileptics, some of them congenitally weak-minded. That all the Patients admitted above 70 years of age should have recovered, can only be regarded as one of those fortuitous circumstances which render all statistics on a small scale uncertain and unsatisfactory.

In the next table, the admissions of the year are arranged according to the form of insanity with which the Patients were affected:—

TABLE IV.—*Form of Disease in those Admitted.*

FORM OF DISEASE.	Males.	Females.	TOTAL.
General Paralysis, . . . . .	14	0	14
Moral Insanity, . . . . .	12	4	16
Mania, Acute, . . . . .	18	32	50
" with Epilepsy, . . . . .	4	4	8
" Hysterical, . . . . .	0	2	2
" Puerperal, . . . . .	0	6	6
Delirium, . . . . .	1	0	1
" Tremens, . . . . .	1	0	1
Dementia, . . . . .	17	13	30
" Senile, . . . . .	2	1	3
" with Epilepsy, . . . . .	4	1	5
Melancholia, . . . . .	6	23	29
Monomania of Fear, . . . . .	3	3	6
" Suspicion, . . . . .	7	12	19
" Superstition, . . . . .	4	2	6
" Pride, . . . . .	5	6	11
" Unseen Agency, . . . . .	0	5	5
Total, . . . . .	98	114	212

General Paraly-  
sis.

The relative number of each class in the table is nearly the same as in former years. The number of cases of that most hopeless and deplorable malady, General Paralysis, is nearly double that of the previous year. Of the 14 sufferers from this fatal disease, two only laboured under melancholy; to all the others, although sinking slowly but perceptibly under a gradually progressive paralysis of mind and body,—to most of them even when the speech was inarticulate, and the power of locomotion nearly gone, the external world continued bright with visions of wealth, and power, and beauty, which were all their own. Even in the midst of the most extravagant delusions of all kinds, the passing events of public interest helped to dress up



the pageant. One was busy fighting the Russians—another was aide-de-camp to Sir Colin Campbell, and about to walk to the Crimea—another had already taken St Petersburg, and captured the Emperor; a fourth offered cheques upon Lord Palmerston for sums of money, of fabulous amount, and was in daily expectation of his lordship's carriage to take him up to London; another spoke garrulously what he imagined to be a variety of foreign languages, whilst another was now Lieut-General of Scotland, and anon General of India,—now the greatest statesman, and the most renowned warrior alive, and again the universal king of the earth, and the Almighty himself. Two of the cases were ascribed to falls from a height, several of them to intemperate habits, and the others to over-worked minds, anxiety, and excitement.

Of the cases of Moral Insanity, 5 were young persons, with minds which appear to have been congenitally ill-balanced, who had displayed from their infancy peculiarities of temper, eccentricities of conduct, and want of self-control. Under the blighting influence of parental indulgence, these peculiarities had ripened into the development of a moral perversion, leading to violence and self-indulgence to such a degree as to render life insecure to the parties themselves, and all around them.

Of the cases of Moral Insanity, by far the greater number were Moral Insanity. characterised chiefly by an insatiable and incontrollable craving for stimulants, the loss of self-control, and a shameless and complete disregard for truth. Such Patients are the most troublesome inmates of an Asylum, and the results in regard to them are almost uniformly unsatisfactory. Some legislative enactment for the control of such persons, and their treatment in houses specially set apart for that purpose, would save many lives, and many families from shame, grief, and loss of property, or total ruin.

Two of the cases admitted during the year, were characterised in Kleptomania. a remarkable degree by that constant propensity to steal, which has been denominated Kleptomania; they were both females, and stole everything and anything they could lay their hands upon, useful and useless, stockings, handkerchiefs, aprons, petticoats, sheets, blankets, pieces of soap, spoons, forks, knives, &c., and concealed them about their persons. The one first admitted had been cured



of her thievish propensities ; but when the second was admitted into the same ward, and displayed this propensity, she relapsed into her former condition, and resumed her pilfering habits.

Two cases were remarkable for the suddenness of their recovery. The one appeared to have been a transient paroxysm of violent delirium occurring during the night, to a man labouring under asthma, but who never displayed any subsequent aberration of intellect after being brought to the Asylum. In the other, the cure appeared to have been produced by the sudden revulsion of feelings produced by his admission into the Asylum. This man had been very violent and dangerous, and very insane in his conduct for some time before admission ; but from the moment of his entry into the house, his conduct and conversation continued to be perfectly rational and correct, until his dismissal some months afterwards ; very soon after his removal, however, his morbid impulses resumed their place in his mind, and under their influence he committed self-destruction.

**Criminal Lunatics.**

One of the Patients admitted had been for many years the inmate of a licensed house, where, being placed in a room with a helpless imbecile, while labouring under a paroxysm of excitement, he had killed his defenceless bed-fellow, in his blind fury. It is a matter of deep regret, that there is as yet no proper provision for Criminal Lunatics in Scotland. They are either forced into Asylums, where their presence irritates the other Patients, and where their previous habits, too often degraded and vicious, exercise a pernicious influence upon others ; or they are sent to a prison, and deprived of all those means of cure, alleviation, and enjoyment, which are provided for other classes of the insane. A Criminal Lunatic Asylum for Scotland, would be a great boon to Asylums in general, and to this unfortunate class of persons.

The suicidal impulse was less frequently manifested than in some of the years immediately preceding the past. The following table, shews the number of cases exhibiting this distressing feature :—



TABLE V.—*Illustrative of Suicidal Tendency in those Admitted.*

	Males.	Females.	TOTAL.
Have attempted Suicide, . . . . .	5	16	21
Have meditated Suicide, . . . . .	11	15	26
Total, . . . . .	16	31	47
<i>Form of Insanity during which Suicide was attempted—</i>			
Acute Mania, . . . . .	0	3	3
Epileptic Mania, . . . . .	0	1	1
Puerperal Insanity, . . . . .	0	1	1
Moral Insanity, . . . . .	2	1	3
Melancholia, . . . . .	0	6	6
Monomania of Fear, . . . . .	0	1	1
„ Suspicion, . . . . .	0	1	1
General Paralysis, . . . . .	2	0	2
Dementia, . . . . .	1	2	3
Total, . . . . .	5	16	21
<i>Form of Insanity during which Suicide was meditated.</i>			
Acute Mania, . . . . .	1	1	2
Epileptic Mania, . . . . .	0	1	1
Moral Insanity, . . . . .	5	0	5
Melancholia, . . . . .	2	6	8
Monomania of Fear, . . . . .	3	1	4
„ Suspicion, . . . . .	0	1	1
„ Unseen Agency, . . . . .	0	2	2
Dementia, . . . . .	0	3	3
Total, . . . . .	11	15	26
<i>Means used in attempts made—</i>			
Strangulation, . . . . .	1	6	7
Drowning, . . . . .	1	5	6
Suspension, . . . . .	2	5	7
Choking, . . . . .	0	1	1
Precipitation, . . . . .	0	4	4
Poison, . . . . .	0	3	3
Venesection, . . . . .	1	1	2
Burning, . . . . .	0	4	4
Unknown, . . . . .	0	1	1
Total, . . . . .	5	30	35

Although the cases of this kind were less numerous than in previous years, the individuals affected with this impulse were not less resolute in their efforts to attain their end. Some of them made many attempts, and in many ways, requiring all the vigilance



Suicidal impulse which a most painful anxiety and responsibility could dictate to frustrate them. One illustration, among many others which could be given, may suffice to shew the ingenuity and determination with which such attempts are persevered in. A female, after several other failures at suicide, attempted to set fire to herself, by lighting her cap at the fire, and then applying it to her clothing. Two days afterwards she tried to smother herself under a heap of mattresses. She soon made another attempt to hang herself. On the day following, being closely watched, she tried to strangle herself with a stay lace while in the parlour, in the presence of the attendants, and surrounded by Patients, concealing the attempt by pretending to go to sleep, with her face covered with her apron. A few days afterwards, she made a second attempt of the same kind with the strings of her apron. About a week after this, she made a fresh attempt to set fire to herself. On the following day, she succeeded in stealing a portion of an apron-string, and getting it lit, then spreading out her clothes, she sat down upon it, in the hope of setting herself in a blaze. In a few days after, being foiled in an attempt to choke herself, by stuffing a large piece of cloth down her throat; she again attempted to burn herself in the same way. In a few days more, she tried to drown herself in the bath. And these are but the more striking events of a series occurring during several months of painful watching, and tending to shew the strength and persistence of this painful thirst after death.

Attempts at suicide are not unfrequently threatened or simulated in Asylums, to gain some indulgence or selfish ends, by some of those moral delinquents, who are at all times to be found among the inmates of a large Asylum.

One such malingerer, who had made many threats of destroying himself, at last suspended himself by a sheet to the bars of a window looking into a common throughfare, and where he could not fail to be seen immediately; he was accordingly seen by an attendant, who in great alarm, instantly cut him down, and reported the attempt. On coming to the spot, I reprimanded the attendant severely in presence of the lad, for having interfered to prevent such a troublesome pest to the house from hanging himself, if he was inclined to it, and ordered him immediately to hang him up again, and leave



him as he found him. The attendant, who seemed to think I was serious, gravely set about executing my orders, when the Patient jumped out of bed, threw himself on his knees, and begged me for the love of God to spare him this time, and he never would make such an attempt again. His petition was of course granted, and he has since kept his vow, and turned out a useful and active worker.

The causes of the disease in those admitted during the past year, were, as far as could be ascertained, as follows :—

TABLE VI.—*Causes of Disease in those Admitted.*

CAUSE OF DISEASE.	Males.	Females.	TOTAL.
Anxiety, . . . . .	4	2	6
Terror, . . . . .	2	4	6
Grief, . . . . .	4	10	14
Disappointed Affection, . . . . .	3	4	7
Reverses of Fortune, . . . . .	7	2	9
Domestic Disagreements, . . . . .	1	4	5
Imprisonment, . . . . .	1	0	1
Religious Anxiety, . . . . .	3	1	4
Over-Study, . . . . .	0	1	1
Chagrin, . . . . .	0	1	1
Mental Excitement, . . . . .	0	3	3
Intemperance, . . . . .	22	11	33
Opium Eating, . . . . .	0	1	1
Epilepsy, . . . . .	7	4	11
Injury of Head, . . . . .	3	1	4
Childbearing, . . . . .	0	9	9
Menorrhagia, . . . . .	0	1	1
Amenorrhœa, . . . . .	0	3	3
Climacteric Change, . . . . .	0	4	4
Suppression of Milk, . . . . .	0	1	1
Secret Vice, . . . . .	1	0	1
Healing of Old Sore, . . . . .	0	1	1
Coup de Soleil, . . . . .	2	0	2
Bright's Disease, . . . . .	0	1	1
Bad Health, . . . . .	9	4	13
Previous Attack, . . . . .	11	14	25
Unknown, . . . . .	18	27	45
Total, . . . . .	98	114	212

Intemperance, as heretofore, continues to figure as the most frequent cause of insanity. It was the cause assigned in 22 per Causes.



cent. of the cases in which a cause was ascertained; and in the case of males alone, 27·5 per cent., or more than one in four were attributed to this cause. Notwithstanding the prominence of this cause, it may be a matter of gratification to know, that it is a less frequent cause than in several preceding years. In the years from 1848 to 1852 inclusive, it was assigned as the cause in 37·5, 40, 34·4, 31·5, and 40 per cent. in the cases of the males admitted into the Asylum, in whom the cause was ascertained.

Griefs, anxieties, and distress occasioned by reverses of fortune and domestic afflictions, come next in order as the most frequent causes of this malady. The case ascribed to imprisonment, occurred to a young lad who stole under the urgent cravings of hunger, and became insane two days after he was committed to prison. In one of the cases ascribed to Epilepsy, the symptoms of insanity were developed under the influence of Mesmerism, which was being employed for the purpose of curing the Epilepsy. Of the Puerperal cases, one was ascribed to the use of chloroform during delivery; but of all the cases of Puerperal Insanity admitted into the Asylum since the introduction of chloroform into medical practice, amounting to 44, this is the first and only one to which this anæsthetic had been administered during labour.

A female was admitted labouring under Bright's disease of the kidneys, who was described as having had two paralytic attacks at intervals of some months previous to her admission. She believed herself at one time to be the Queen of California, at another to be a poor beggar woman. Since her admission, she has had repeated attacks of Syncope, followed by stupor, which I suppose are identical with what were described as the paralytic attacks, and which are due doubtless to the circulation of urea in the blood, occasioned by the disease under which she labours.

The next table exhibits the form of disease in those who recovered, and illustrates as usual the greater curability of Acute Mania, and of those forms of Insanity accompanied with excitement, than of those characterised by depression, melancholy, or loss of mental power.



TABLE VII.—*Form of Disease in those Discharged Recovered.*

FORM OF DISEASE.	Males.	Females	TOTAL.
Moral Insanity, . . . . .	7	4	11
Mania Acute, . . . . .	9	23	32
„ Epileptic, . . . . .	2	3	5
Delirium Tremens, . . . . .	2	0	2
Dementia, Acute, . . . . .	1	3	4
„ Chronic, . . . . .	0	2	2
„ Epileptic, . . . . .	0	1	1
Melancholia, . . . . .	1	11	12
Monomania of Fear, . . . . .	0	9	9
„ Pride, . . . . .	1	2	3
„ Suspicion, . . . . .	3	7	10
„ Superstition, . . . . .	1	0	1
„ Unseen Agency, . . . . .	1	0	1
Demonomania, . . . . .	0	1	1
Total, . . . . .	28	66	94

The Patients continue to be admitted at an earlier period of their illness than during former years, as appears from the following table, shewing that the community is becoming more and more alive to the importance of early treatment in an Asylum in this disease.

TABLE VIII.—*Duration of Disease previous to Admission in those Discharged Recovered.*

DURATION OF DISEASE.	Males.	Females.	TOTAL.
Under 1 month, . . . . .	14	24	38
„ 2 „ . . . . .	1	7	8
„ 3 „ . . . . .	2	6	8
„ 6 „ . . . . .	2	3	5
„ 1 year, . . . . .	3	6	9
„ 2 „ . . . . .	1	3	4
„ 4 „ . . . . .	0	1	1
Unknown, . . . . .	5	16	21
Total, . . . . .	28	66	94

The succeeding table shews the period of residence in the Asylum of those who recovered. As usual, more than one-half of the recoveries are seen to take place within six months; after that, the chances of restoration gradually diminish as time elapses; and the number restored to sanity after a year's treatment, comes to be only a tithe of the whole.



TABLE IX.—*Period of Residence of those Discharged Recovered.*

	Males.	Females.	TOTAL.
Under 1 month, . . . . .	1	0	1
" 2 " . . . . .	6	8	14
" 3 " . . . . .	9	9	18
" 4 " . . . . .	6	15	21
" 5 " . . . . .	1	5	6
" 6 " . . . . .	1	7	8
" 7 " . . . . .	1	5	6
" 8 " . . . . .	0	5	5
" 10 " . . . . .	1	4	5
" 1 year, . . . . .	0	2	2
" 2 " . . . . .	2	5	7
" 3 " . . . . .	0	1	1
Total, . . . . .	28	66	94

The causes of death are next enumerated. They were mostly the direct result of the disease causing Insanity, or of those affections with which it is most frequently associated.

TABLE X.—*Causes of Death.*

CAUSE OF DEATH.	Males.	Females.	TOTAL.
General Paralysis, . . . . .	6	1	7
Epilepsy, . . . . .	2	0	2
Apoplexy, . . . . .	1	0	1
Meningitis, . . . . .	0	1	1
Serous Apoplexy, . . . . .	0	1	1
Phthisis, . . . . .	2	9	11
Pneumonia, . . . . .	1	1	1
Bronchitis, . . . . .	0	0	1
Gangrene of Lung, . . . . .	1	0	1
Pneumo-thorax, . . . . .	0	1	1
Hydro-thorax, . . . . .	0	2	2
Morbus Cordis, . . . . .	0	1	1
Rupture of Thoracic Aneurium, .	1	0	1
Choked, . . . . .	1	0	1
Carcinoma, . . . . .	1	0	1
Peritonitis, . . . . .	0	1	1
Diarrhoea, . . . . .	2	1	3
Tuberculosis, . . . . .	1	0	1
Erysipelas, . . . . .	1	0	1
Exhaustion, . . . . .	3	7	10
Total, . . . . .	24	27	51

Several cases of sudden death occurred, one from Apoplexy, another from Disease of the Heart, a third from the rupture of an



Aneurism, and a fourth from the Patient being choked. This Patient laboured under General Paralysis, and swallowed with such difficulty that he was fed on spoon meat. He succeeded however in snatching a large morsel of bread from another Patient, and was choked in attempting to swallow it. The foreign body was immediately removed; yet, although every means were used to restore animation, the powers of life were already too much exhausted by disease, to recover from the shock of suspended animation, and the Patient never rallied.

The tables which follow exhibit the ages of those who died, and the length of time they had resided in the Asylum.

TABLE. XI.—*Ages of those Deceased.*

AGES.	Males.	Females.	TOTAL.
From 10 to 20 years of age, . . .	1	0	1
„ 20 „ 30 „ „ . . .	3	5	8
„ 30 „ 40 „ „ . . .	8	8	16
„ 40 „ 50 „ „ . . .	5	7	12
„ 50 „ 60 „ „ . . .	5	7	12
„ 60 „ 70 „ „ . . .	1	0	1
„ 70 „ 80 „ „ . . .	1	0	1
Total, . . .	24	27	51

TABLE XII.—*Period of Residence of those Deceased.*

PERIOD OF RESIDENCE.	Males.	Females.	TOTAL.
Under 2 weeks, . . . . .	1	0	1
„ 1 month, . . . . .	2	0	2
„ 2 months, . . . . .	3	1	4
„ 4 „ . . . . .	3	1	4
„ 6 „ . . . . .	1	3	4
„ 1 year, . . . . .	1	3	4
„ 2 „ . . . . .	1	6	7
„ 3 „ . . . . .	0	3	3
„ 4 „ . . . . .	2	3	5
„ 5 „ . . . . .	3	2	5
„ 6 „ . . . . .	1	0	1
„ 7 „ . . . . .	3	3	6
„ 9 „ . . . . .	0	1	1
„ 11 „ . . . . .	2	0	2
„ 12 „ . . . . .	1	0	1
„ 18 „ . . . . .	0	1	1
Total, . . . . .	24	27	51



Of the Patients who died, one had been an inmate of the Asylum for eighteen years, and she left behind her her mother and a brother, who have been respectively twenty-two and fourteen years in the Asylum.

**Treatment.** The treatment of the Patients has been conducted on the same principles as formerly: the removal by appropriate remedies of local diseases; the employment of sedatives in cases of excitement; of tonics, alteratives, and nourishing diet, in cases of depression; and the use of all those moral appliances which the resources of the Institution has hitherto so amply supplied.

About five-sixths of the Patients in the Pauper Department continue to be employed daily in the various trades and occupations which have been introduced into the Asylum. Working in the garden for the males, and in the washing-house and laundry for the females, may be mentioned as the most beneficial of all the modes of employment in use. The record of work done, which is appended to this Report, will shew the activity which prevails in this department.

The Library continues to increase; it has received considerable additions by purchase, by the liberal donations of friends, and by the addition of periodical works regularly received, and in a great measure paid for out of the profits of our Monthly Journal, the "Mirror." We receive at the present moment 35 newspapers, periodical and serial publications, weekly, of which some are newspapers published twice, or thrice, or daily, during the week. A liberal supply of Tracts, presented by the Religious Tract Society, has again enabled us, during the past year, to make a Sunday issue of them regularly throughout the wards.

The report of the Chaplain, which is appended, contains an ample account of the religious services, and of the results which he witnessed from his visitations to the sick.

The inmates of the Asylum have continued, during the past year, to enjoy all the means of recreation and healthy amusement, which are now deemed inseparable from every well regulated Asylum. Regular walking parties, daily drives, occasional excursions and pic-nics, games of bowls, quoits, cricket, and curling, with all the in-door amusements, such as bagatelle, billiards, bowls, recitations, lectures, concerts, evening parties, and our never-failing attraction,



the weekly Ball, where both sexes meet to enjoy the exhilarating and healthy influence of active exercise and music, and to benefit by the discipline imposed during its progress.

The games of cricket and curling afforded during their seasons a very great amount of beneficial and active exercise; they were great sources of happiness to all who engaged in them, and of lasting benefit to some. The season of each was concluded by a dinner party, in which all the officers of the Asylum and Patients met together in such terms of social intercourse, as were found highly conducive to cordial feelings of friendship and mutual regard.

In conclusion, I beg to offer my best thanks to the Managers for the support they have afforded me in carrying out the great objects of the Asylum, and to all the officers of the Establishment for their cordial co-operation in all the plans devised for the recovery or happiness of those placed under our care.

I believe I am fully warranted in stating, that the Asylum is in excellent working condition; and that order, discipline, activity, and prosperity are to be found pervading every department of the Institution.

DAVID SKAE, M.D.

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### CHAPLAIN'S REPORT.

It is always pleasing to be able to speak kindly and favourably of those with whom people are associated, and to express gratitude for those circumstances which induce them to proceed with cheerfulness in the discharge of the various duties incumbent upon them. In a large Institution, like Morningside Asylum, where there are so many persons occupying different positions, it is only to be expected that they will exert themselves in such a way as may reflect credit on their own particular department. When they do so in a right and generous spirit, while they rejoice in their own success, they will be happy to behold the progress of general prosperity. And in this way, their individual exertions will produce the best effects, and they will merit the approbation of the Physician, who shall, under



the direction of the Managers, superintend and regulate the whole of the establishment.

The religious services have been well attended during the past year, and nothing has occurred that can have any tendency to shake the belief of their great and paramount importance. On the contrary, the more their efforts are watched and duly considered, they will appear to be productive of the greatest good. All seem to be well aware of the use and necessity of such services. The congregation is generally equal to the accommodation in the Chapel, and there can be no doubt there would be more present in a larger place, and one exclusively appropriated for religious purposes. At morning prayers, on the week days, there is always a good attendance, and much decorum and propriety prevail.

The inmates are furnished with Tracts, and other publications of a moral and religious character; and care is taken in their selection, and all that is improper excluded. They are read carefully, and there is every reason to believe that they are highly beneficial in their effects. The Religious Tract Society must be again honourably mentioned, for so readily responding to the application made to them. Much instruction and improvement are derived from the judicious and excellent works they have so kindly and repeatedly sent.

The services of the sanctuary will always do much good, when they are discharged aright; and when large bodies of people are prevented from the enjoyment of them, the consequences are most disastrous. Without them the prospect is gloomy and dreary indeed. They apply comforts to the distressed, support the weary in the time of trial, and lead men to see, in their afflictions and blessings, the hand of a gracious and merciful God. In the time of calamity, they induce men to seek the influence of the Holy Spirit to enable them to anticipate that city which is prepared for those who follow Him who died for his people, and rose again for their justification; who is to them who confide in Him, as "a refuge from the tempest, and a covert from the storm, as rivers of water in a dry place, and as the shadow of a great rock in a weary land."

Some of the inmates of the Asylum, who had hitherto been careless and indifferent, and heedless of every thing solemn and



sacred, have, upon their death-beds, in perfect calmness and consciousness, expressed their gratitude to Almighty God that they had been brought to a place where they had been provided with so many things that are fitted to promote their best interests. In visiting the sick, and endeavouring to administer consolation to the desponding, there has been much to encourage; and in the general intercourse with the inmates, there is much that is pleasing and interesting, and a mutual feeling of kindness, respect, and friendship is fostered and maintained.

With reference to the conduct of the officers of the Institution, and the various servants, it affords me much pleasure to speak very favourably. They have done themselves credit by the regularity of their attendance upon the ordinances of religion, and have endeavoured to strengthen the hands of the Chaplain. I have to thank the officers for their support in carrying out all that is calculated to preserve that respect, without which the office of a minister of the Gospel is entirely and hopelessly useless, and for their ready aid in following out what it has been necessary to recommend. I feel grateful to the other servants of the Institution, for the kindness they are ever ready to shew, and their general politeness and respect towards those who occupy places of greater responsibility. I express my thanks to those clerical friends who have kindly officiated for me during the past year, and whose services have been highly appreciated. And, in conclusion, I may express my belief, that the retrospect of the past year is such as to afford every satisfactory evidence of the prosperity of the Institution, and that its utility is in no way diminishing.

ROBT. LORIMER.



# ABSTRACT OF PROVISIONS, &c., ISSUED IN ROYAL EDINBURGH ASYLUM FOR THE YEAR 1854.

34

ARTICLES.	WESTERN DEPARTMENT.					EASTERN DEPARTMENT.					TOTAL FOR BOTH DEPARTMENTS.	
	FOR QUARTERS ENDING—					FOR QUARTERS ENDING—					TOTAL IN E. D.	lbs. oz.
	TOTAL IN W. D.					TOTAL IN E. D.						
	Mar. 31.	June 30.	Sept. 30.	Dec. 31.	lbs. oz.	Mar. 31.	June 30.	Sept. 30.	Dec. 31.	lbs. oz.		
Roasting Meat . . .	448 . .	507 8	480 . .	470 . .	1905 8	2116 . .	2280 . .	2325 8	2344 . .	9115 8	11021 . .	Roasting Meat, . .
Boiling Meat . . .	4653 . .	4910 . .	4997 . .	4995 . .	19555 . .	2141 . .	2263 . .	2236 . .	2093 . .	8673 . .	28228 . .	Boiling Meat, . .
Houghs . . .	7122 . .	7470 . .	7320 . .	6925 . .	28837 . .	590 . .	524 . .	568 4	520 . .	2112 4	30949 4	Houghs . . .
Ox Heads . . .	12740 . .	13430 . .	13000 . .	13085 . .	53855 . .	42 4	88 4	60 . .	58 12	249 4	53855 . .	Ox Heads . . .
Pork Ham . . .	133 . .	130 . .	140 . .	160 . .	563 . .	511 . .	623 . .	483 . .	448 . .	2065 . .	563 . .	Pork Ham . . .
Suet . . .	13320 . .	13546 . .	13692 . .	13636 . .	54194 . .	258 . .	126 . .	140 . .	253 . .	777 . .	56259 . .	Suet . . .
Oatmeal . . .	1680 . .	1640 . .	1780 . .	1840 . .	6940 . .	156 . .	204 . .	183 . .	253 . .	738 . .	18266 . .	Oatmeal . . .
Flour . . .	4368 . .	4368 . .	4368 . .	4424 . .	17528 . .	216 . .	216 . .	234 . .	216 . .	882 . .	6849 . .	Flour . . .
Barley . . .	1404 . .	1521 . .	1521 . .	1521 . .	5967 . .	98 . .	70 . .	154 . .	126 . .	448 . .	3775 . .	Barley . . .
Split Pease . . .	850 . .	916 . .	730 . .	831 . .	3327 7	28 . .	42 . .	14 . .	28 . .	112 . .	119 . .	Split Pease . . .
Whole Rice . . .	.. . .	.. . .	.. . .	7 . .	.. . .	42 . .	14 . .	14 . .	14 . .	84 . .	84 . .	Whole Rice . . .
Ground Rice . . .	.. . .	.. . .	.. . .	.. . .	.. . .	60 . .	40 . .	40 . .	60 . .	200 . .	1620 . .	Ground Rice . . .
Sago . . .	320 . .	360 . .	380 . .	360 . .	1420 . .	70 . .	42 . .	42 . .	42 . .	196 . .	196 . .	Sago . . .
Arrow Root . . .	.. . .	.. . .	.. . .	.. . .	.. . .	133 14	137 14	139 10	137 3	548 9	1211 . .	Arrow Root . . .
Tapioca . . .	150 11	162 4	174 5	175 3	662 7	133 14	137 14	139 10	137 3	548 9	1211 . .	Tapioca . . .
Tea . . .	755 12	763 12	783 12	766 . .	3069 4	129 13	126 12	128 4	128 4	513 1	3552 5	Tea . . .
Coffee . . .	2752 . .	2926 . .	2874 . .	2868 . .	11420 . .	948 . .	1001 . .	1069 . .	1057 . .	4075 . .	15495 . .	Coffee . . .
Raw Sugar . . .	98 . .	91 . .	116 8	110 . .	415 8	201 8	201 8	327 8	214 8	945 . .	1360 8	Raw Sugar . . .
Loaf Sugar . . .	45 8	45 8	48 . .	52 . .	191 . .	182 . .	182 . .	182 . .	182 . .	728 . .	919 . .	Loaf Sugar . . .
Fresh Butter . . .	707 . .	701 . .	733 . .	737 . .	2878 . .	656 . .	636 . .	612 . .	638 . .	2542 . .	5420 . .	Fresh Butter . . .
Salt Butter . . .	204 12	207 8	205 . .	204 . .	821 4	200 4	164 6	225 8	241 8	831 10	1652 14	Salt Butter . . .
Cheese . . .	2240 . .	2576 . .	2576 . .	2464 . .	9856 . .	224 . .	336 . .	448 . .	448 . .	1456 . .	11312 . .	Cheese . . .
Common Salt . . .	36 . .	.. . .	36 . .	36 . .	108 . .	36 . .	18 . .	18 . .	18 . .	80 . .	188 . .	Common Salt . . .
Mustard . . .	56 . .	70 . .	56 . .	49 . .	231 . .	14 . .	.. . .	14 . .	14 . .	42 . .	273 . .	Mustard . . .
Pepper . . .	70 . .	70 . .	98 . .	90 . .	328 . .	42 . .	28 . .	14 . .	64 . .	148 . .	476 . .	Pepper . . .
Currants . . .	45 . .	48 . .	37 . .	43 . .	178 . .	41 . .	37 . .	26 . .	24 . .	128 . .	306 . .	Currants . . .
Candles . . .	121 . .	137 8	143 . .	176 . .	577 8	.. . .	9 . .	.. . .	.. . .	9 . .	586 8	Candles . . .
Starch . . .	578 . .	948 . .	624 . .	604 . .	2754 . .	104 . .	123 . .	104 . .	124 . .	455 . .	3209 . .	Starch . . .
Soda . . .	222 . .	128 . .	148 . .	120 . .	628 . .	4 8	.. . .	.. . .	.. . .	4 8	632 8	Soda . . .
White Soap . . .	2170 . .	2137 . .	2367 . .	1918 . .	8592 . .	106 . .	126 . .	132 . .	163 . .	527 . .	9119 . .	White Soap . . .
Yellow Soap . . .	448 . .	640 . .	608 . .	512 . .	2208 . .	64 . .	.. . .	64 . .	32 . .	160 . .	2368 . .	Yellow Soap . . .
Soft Soap . . .	.. . .	.. . .	.. . .	.. . .	.. . .	.. . .	.. . .	.. . .	.. . .	.. . .	.. . .	Soft Soap . . .
Current Loaves . . .	.. . .	.. . .	.. . .	74 . .	74 . .	.. . .	.. . .	.. . .	24 . .	24 . .	98 . .	Current Loaves . . .
Cakes Short Bread . . .	.. . .	.. . .	.. . .	36 . .	36 . .	.. . .	.. . .	.. . .	14 . .	14 . .	59 . .	Cakes Short Bread . . .
4 lb. Loaves Bread . . .	3018 . .	3270 . .	3226 1	2899 . .	12413 1	2255 . .	2340 . .	2445 . .	2285 . .	9325 . .	21738 1	4 lb. Loaves Bread . . .
6 oz. Loaves Bread . . .	102476 . .	107851 . .	96354 . .	92639 . .	393320 . .	652 1	659 3	667 . .	667 . .	2646 1	399320 . .	6 oz. Loaves Bread . . .
Sweet Milk . . .	1125 . .	1137 1	1150 . .	1150 . .	4562 1	13 . .	13 . .	13 . .	13 . .	52 . .	7208 3	Sweet Milk, gals. . .
Skimmed Milk . . .	3420 . .	3458 . .	3496 . .	3496 . .	13870 . .	13 . .	13 . .	13 . .	13 . .	442 . .	13922 . .	Skimmed Milk, do. . .
Eggs . . .	143 . .	143 . .	143 . .	143 . .	572 . .	35 . .	24 . .	24 . .	12 . .	96 . .	1014 . .	Eggs, doz. . . .
Table Salt . . .	.. . .	.. . .	.. . .	.. . .	6 . .	36 . .	6 . .	27 . .	71 . .	140 . .	102 . .	Table Salt, packets . . .
Vinegar . . .	.. . .	.. . .	.. . .	.. . .	48 . .	870 . .	930 . .	960 . .	765 . .	3525 . .	188 . .	Vinegar, bottles . . .
Beer . . .	975 . .	1050 . .	1170 . .	1065 . .	4260 . .	105 4	101 8	105 7	110 1	422 8	7785 . .	Beer, gals. . .
Porter, pint bottles . . .	267 7	296 3	246 3	291 1	940 . .	105 4	101 8	105 7	110 1	422 8	1362 8	Porter, pint bottles . . .



ARTICLES.	EASTERN DEPARTMENT.				WESTERN DEPARTMENT.				TOTAL FOR BOTH DEPARTMENTS.	
	FOR QUARTERS ENDING—				FOR QUARTERS ENDING—					
	Mar. 31.	June 30.	Sept. 30.	Dec. 31.	Mar. 31.	June 30.	Sept. 30.	Dec. 31.		
Apricots, . . .	...	...	6	...	...	...	...	...	6 Dozen	Apricots.
Beans, . . .	...	...	78	12	...	...	100	28	206 Pecks	Beans.
Brocoli, . . .	15	134	149	...	4	65	...	...	218 Dozen	Brocoli.
Beetroot, . . .	52	...	71	19	5	...	...	6	82 Dozen	Beetroot.
Brussels Sprouts, . . .	12	...	36	24	...	...	...	2	38 Gallons	Brussels Sprouts.
Cabbage, . . .	66	344	1128	332	720	723	736	736	4043 Dozen	Cabbage.
Cauliflower, . . .	...	...	187	48	...	...	69	41	297 Dozen	Cauliflower.
Carrots, . . .	...	...	1378	752	...	...	160	920	2458 Dozen	Carrots.
Celery, . . .	53	...	62	9	22	...	...	4	88 Dozen	Celery.
Cress, . . .	...	22	22	...	...	14	...	...	36 Bundles	Cress.
Cherries, . . .	...	...	10	...	...	...	...	...	10 Pints	Cherries.
Currants, . . .	...	...	97	...	...	...	9	...	106 Pints	Currants.
Gooseberries, . . .	...	...	278	...	...	...	...	...	351 Pints	Gooseberries.
German Greens, . . .	52	100	165	13	20	...	...	6	191 Dozen	German Greens.
Kidney Beans, . . .	...	...	48	...	...	...	15	...	63 Gallons	Kidney Beans.
Leeks, . . .	180	184	418	54	560	526	...	139	1643 Dozen	Leeks.
Lettuce, . . .	...	17	118	45	...	15	116	22	271 Dozen	Lettuce.
Melons, . . .	...	...	15	...	...	...	...	...	15 ...	Melons.
Mustard, . . .	...	39	39	...	...	10	...	...	49 Bundles	Mustard.
Onions, . . .	45	25	122	52	53	18	...	59	252 Pecks	Onions.
Ditto, Bundles, . . .	...	83	838	108	...	115	351	209	1513 Bundles	Ditto.
Potatoes, . . .	632	599	2493	770	832	408	1785	2761	8279 Pecks	Potatoes.
Pease, . . .	...	...	252	31	...	...	282	51	585 Pecks	Pease.
Parsnip, . . .	37	...	53	16	22	...	...	3	78 Dozen	Parsnip.
Parsley, . . .	97	140	633	184	...	90	276	243	1242 Bundles	Parsley.
Pears, . . .	...	...	3	...	...	...	...	...	3 Pecks	Pears.
Plums, . . .	...	...	10	...	...	...	...	...	10 Dozen	Plums.
Radishes, . . .	...	49	96	...	...	16	37	...	149 Dozen	Radishes.
Rhubarb, . . .	...	410	721	...	...	112	38	...	871 Dozen	Rhubarb.
Red Cabbage, . . .	...	...	22	22	...	...	...	10	32 Dozen	Red Cabbage.
Savoy, . . .	319	84	415	12	14	...	...	16	445 Dozen	Savoy.
Spinach, . . .	...	75	119	...	...	2	10	...	131 Gallons	Spinach.
Strawberries, . . .	...	...	142	...	...	...	...	...	185 Pints	Strawberries.
Turnip, . . .	350	97	1060	215	314	32	561	560	2527 Dozen	Turnip.

JAS. ROBERTSON, Gardener.



# STATEMENT OF WORK

DONE AT

## THE ROYAL EDINBURGH ASYLUM,

*During the Year ending 31st December, 1854.*

### BY TAILORS.

#### WESTERN DEPARTMENT.

New Suits, . . . . .	£183	7	6½	
New Suits, who pay, . . . . .	2	2	3	
Sundries, . . . . .	2	1	6	
				£187 11 3½
883 Cloth Jackets repaired, at 6d. each, . . . . .	22	1	6	
16 Pair Trowsers, „ „ 9d. „ . . . . .	0	12	0	
1091 „ „ „ 6d. „ . . . . .	27	5	6	
387 Vests, „ „ 4d. „ . . . . .	6	9	0	
1237 Plaiding Jackets, „ „ 2d. „ . . . . .	10	6	2	
1189 Do. Pair Drawers, „ 2d. „ . . . . .	9	18	2	
123 Canvas Dresses, „ „ 1s. „ . . . . .	6	3	0	
22 Coats at 1s., 2 at 1s. 3d., 1 at 1s. 5d., 16 at 1s. 6d., 1 at 1s. 9d., 8 at 2s., 4 at 2s. 6d.,	3	17	8	
				86 13 0

#### EASTERN DEPARTMENT.

New Clothes, . . . . .	4	3	5	
Sundries, . . . . .	1	18	0	
Repairs, . . . . .	2	3	1	
Private Individuals and Attendants' Accounts,	39	1	0	
				47 5 6

### BY SHOEMAKERS.

#### WESTERN DEPARTMENT.

214 Pair of New Shoes for male patients at 6s. 6d.,	69	11	0	
209 Pair „ „ female „ 4s.,	41	16	0	
1 Pair Boots at 10s. 6d., 6 at 9s., 24 at 6s. 6d.,	11	0	6	
214 Pair of Braces, at 9d., . . . . .	8	0	6	
4 Carpet Bags, at 7s. 6d., . . . . .	1	10	0	
Carry forward,	£131	18	0	£321 9 9½



Brought forward, £131 18 0 £321 9 9½

BY SHOEMAKERS—*Continued.*

Waste-belts and other sundries, . . . . .	3	7	2	
Repairs for males, . . . . .	30	5	0	
Ditto for females, . . . . .	5	7	5	
Amount of work for attendants and private individuals, . . . . .	50	2	0½	
				220 19 7½

BY PRINTERS.

"Mirror," printed monthly, from January to December, . . . . .	23	5	6	
Reprints of Mirror, . . . . .	6	18	2	
Contents of Mirror, . . . . .	1	4	6	
Annual Report for 1853, . . . . .	20	8	0	
Daily Returns, Circulars, Order Books, . . . . .	16	16	6	
Obligations, Regulations, and Passes for Attendants, . . . . .	6	3	0	
Diet-rolls, List of Office-Bearers, Weekly Reports, . . . . .	5	13	6	
Receipts, Comparison and Pathological Tables, . . . . .	3	13	6	
Memorials and Warrants, Abstract of Provisions, . . . . .	3	12	0	
Gate-keeper's Returns, Ball-orders, Hand-bills, &c., . . . . .	5	11	0	
Library Labels, Testimonials, Poems, Songs, &c., . . . . .	15	0	6	
				108 6 2

BY MASONS.

WESTERN DEPARTMENT.

Slapping, Cutting Ragglings, boring and clearing Water-closets, Ventilators, Baths, Cesspools, Drains, Washing-house, Water-pipes, Window and Door-sills, Cruives, &c., . . . . .	6	9	9	
Building, altering, and repairing Hot Air-pipes, Furnaces, Flues, Boilers, Canns, Copes, Grates, Baths, Troughs, Wells, Roofs, and Dykes, . . . . .	11	5	1	
Hewing Pavements and Stones, lifting and relaying do., and Causeway, . . . . .	11	4	2	
Stones, Pavements, Lime, fire, arch, and common Bricks, Fireclay, Mastic, Grate-sides and Backs, . . . . .	11	12	0½	
				40 11 0½

EASTERN DEPARTMENT.

Slapping, Cutting Ragglings, boring and clearing Water-closets, Ventilators, Baths, Cesspools, Drains, Water-pipes, Windows, Doors, &c., . . . . .	3	16	6½	
Building, altering, and repairing Hot Air-pipes, Furnaces, Flues, Boilers, Canns, Copes, Grates, Baths, Roofs, &c., . . . . .	3	0	7	
Hewing Pavement and Stones, lifting and relaying do., and Causeway, . . . . .	0	10	8	
Stones, Pavement, Lime, fire, arch, and common Bricks, Grate-sides and Backs, . . . . .	1	7	3	
Amount of Work for Cottage, . . . . .	1	11	3	
				10 6 3½

Carry forward, £701 12 11



Brought forward, £701 12 11

## BY BLACKSMITHS.

## WESTERN DEPARTMENT.

Making, altering, and repairing Cistern, Baths, Furnace, Furnace-bars, Boilers, Steam-pipes, Hot Air-screens, Stoves, Flues, Gratings, Force-pump, Wringing-machine, Printing-press and Rollers, Galvanic-battery, Mangle, Cart and Garden Barrow Mountings, . . . . .	16 11 6	
Door-plates, Handles, Keys, Locks, Hinges, Cruicks, Nuts, Hooks, Catbands, Hasps, Snecks, Stays, Staples, Brackets, Punches, Holdfasts, . . . . .	14 15 11½	
Coal-scuttles, Italian Iron-bolts, Smoothing-irons, Stands for do., Shovels, Pots, Pans, Minching-knife, Steel, Forks, Hatchet, Pails, Crans, Fire-guards, Gas-stick, Scissors, Quoits, Truant, Mop-nails, and Firoles, . . . . .	5 12 4	
Garden-seats, Beams and Scales, cast-iron Window-frames, Steps, Grates, lining Coal-bunker, Ring for Fishing-net, Rail and Supports for the front Door-lamp, Iron Bedsteads, and other sundries, . . . . .	13 6 3	
		50 6 0½

## EASTERN DEPARTMENT.

Making, altering, and repairing Baths, Furnaces, Boilers, Stove-pipes, Steam-pipes, Water-closets, Ventilators, Window-rods, Water-pump, Smoke-jack, Hurley, House-bells, Grates, Pots, Pans, Fire-guards, Coal-scuttles, Shovels, Tongs, Knives, and Italian Iron-bolts, . . . . .	3 17 10	
Door-plates and Handles, Keys, Locks, Hinges, Cruicks, Catches, and other sundries, . . . . .	3 16 4	
Amount of Work for Cottage, . . . . .	1 14 9	
Amount of Work for Masons, . . . . .	1 18 11	
Amount of Work for Gardeners, . . . . .	7 9 7	
Amount of Work for Carpenters, . . . . .	4 8 5	
		23 5 10

## BY UPHOLSTERERS.

## WESTERN DEPARTMENT.

*New Work.*

Making 68 Canvas-frames, 6 Seaweed Mattrasses, . . . . .	19 19 6	
27 Cushions, 24 New Strapping, 53 Straw Palliasses, . . . . .	15 15 0	
14 Seaweed Pillows, 6 Hair do., 9 Chair-bottoms, . . . . .	4 16 2	
Padded-room Canvas-frame, covering 2 Forms, and 1 Stool, . . . . .	2 0 6	
9 Balls Twine, Sofa, and other sundries, . . . . .	1 12 3	
Carry forward, . . . . .	£44 3 5	£775 4 9½



Brought forward, £44 3 5 £775 4 9½

BY UPHOLSTERERS—*Continued.*

*Repairs.*

Stuffing, Twilting, and repairing 25 Strappings,	1	4	6	
107 Palliasses, 4 Hair-bottom Chairs, 1 Hair-pillow,	8	2	3	
122 Seaweed-pillows, 26 Canvas-frames,	4	15	3	
252 Seaweed Mattresses, and 3 Hair Mattresses,	31	18	0	
				90 3 5

EASTERN DEPARTMENT.

*New Work.*

Making 25 Cushions, 5 Strappings, 13 Palliasses,	6	1	7	
5 Feather Pillows, 4 Hair do., 12 Chair-bottoms,	4	11	0	
7 Canvas-frames, 1 Seaweed Mattress, 4 Hair do.,	11	8	6	
1 Hair-bolster, Leather-bag, Easy-chair, 2 Cushions,	2	16	6	
				24 17 7

*Repairs.*

Stuffing, Twilting, and Repairing 1 Cushion, 4 Strapping,	0	3	2	
2 Palliasses, 18 Seaweed Pillows, 6 Hair do., 6 Feather do.,	1	1	4	
2 Chair-bottoms, 2 Canvas-frames, 2 Sofas, 1 Trunk,	1	6	8	
6 Seaweed Mattresses, 26 Hair do., and 3 pieces Matting,	10	11	0	
Amount for repairing Cart Harness,	0	7	10	
Amount of work to private individuals,	6	13	4	
				20 3 4

BY PLASTERERS, GLAZIERS, &c.

WESTERN DEPARTMENT.

Amount of Account for Glazier Work,	24	13	8	
Do. Plasterer and Slaters' do.,	21	10	11½	
				46 4 7½

EASTERN DEPARTMENT.

Amount of Account for Glazier Work,	8	15	2½	
Do. Plasterers and Glaziers' do.,	8	9	8	
				17 4 10½

BY PLUMBERS.

WESTERN DEPARTMENT.

*Plumber Work.*

Fitting up, altering, and repairing Water-closets,  
Water, Steam, Rain-water, and Waste-pipes,  
Cisterns, Hot Air-cisterns, Rhoads, Ridges,  
Baths, Shower and Douche do., Pumps, Sinks,

Carry forward, £973 18 7½



Brought forward, £973 18 7½

BY PLUMBERS—*Continued.*

Urinals, Boilers, Wash-hand-basons, Cast-iron-basons, Valves, Washers, Roofs, Boxes, Trays, Chains, Plugs, Cannisters, Cocks, Stopcocks, Ballcocks, Nosecocks, Lever-handles, Thermometer, Cesspools, Holdfasts, Nails, Tacks, Putty, Solder, Wire, &c., . . . . . 36 19 2

*Gas-Fitter's Work.*

Fitting up, altering, and repairing Lustres, Lamps, Pendants, Brackets, Lamp-posts, Pipes, Couplings, Galleries, Burners, Glass Globes, Shades, Reflectors, Holdfasts, Nails, Tacks, Putty, Solder, Wire, &c., . . . . . 9 6 10½

*Tinsmith's Work.*

Making, repairing, and altering sundry articles, 12 9 9  


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58 15 9½

## EASTERN DEPARTMENT.

*Plumber Work.*

Fitting up, altering, and repairing Water-closets, Baths, Cesspools, Boilers, Pipes, Waste-pipes, Rhoads, Roofs, Shower-baths, New Basons, Chains, Cocks, Nose-cocks, Stop-cocks, Nails, Putty, Solder, Wire, &c., . . . . . 14 14 10½

*Gas-Fitters' Work.*

Fitting up, altering, and repairing Lustres, Lamps, Brackets, Pipes, Couplings, Burners, Glass-shades, Nails, Putty, Solder, Wire, &c., . . . . . 4 18 3½

*Tinsmith's Work.*

Making, repairing, and altering sundry articles, 3 2 5

## COTTAGE.

Amount of Plumber, Gas-Fitter, and Tinsmith Work, 17 9 7  


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40 5 2

## BY CARPENTERS AND JOINERS.

## WESTERN DEPARTMENT.

Making, altering, and repairing Water-closets, Floors, Doors, Baths, Windows, and Window-shutters, . . . . . 21 15 2  
 Chests, Boxes, Chest of Drawers, Chairs, Tables, Trays, . . . . . 26 9 10  
 Shelvings, Linings, Broom-handles, Steps, Pailing, Coal-bunker, . . . . . 20 3 4  
 Sheds, Washing-tubs, Weighing-machine, Ventilators, Water-pump, . . . . . 21 4 0

Carry forward, £89 12 4 £1072 19 7



Brought forward, £89 12 4 £1072 19 7

BY CARPENTERS, &c.—*Continued.*

Cart-sides and Frames, Forms, Meat-hoist, Hurley- Rollers, . . . . .	31 18 6
Laundry-poles, Letter-box, Presses, Seats, Parti- tions, Window-blinds, Minching-board, Bed- stretchers, Mantel-pieces, Stools, Mell, Ladder, Beds, Flower-stands, Dressing-glasses, Square Writing-desks, Scaffolding, Sinks, Mangle, Frame, Dog-kennel, Paper-cutters, Porridge- stick, Wickets, Stumps, and Cricket-bats, Job- bing, and other sundries, . . . . .	12 19 2
Shammy-skins, Glue, Sand-paper, Pack-sheet, Tapes, Window-blind, Cord, Sash-line, Twine, Nails, Hinges, Locks, Hat-pins, Window-blind Mounting, Chest-handles, and French Polish, . .	30 17 10½

EASTERN DEPARTMENT.

Making, altering, and repairing Floors, Doors, Windows, Window-rollers, Window-blinds, Chairs, Tables, Sofa, Beds, and Bed-stretchers, . . . . .	12 7 2
Broom-handles, Drawing-board, Steps, Chest of Drawers, Chests, Boxes, Dressing-glasses, Forms, Seats, Writing-desk, Mantel-piece, Trays, and Coal-bunker, . . . . .	7 5 2
Porch, Hurley, Pailing, and other sundries, . . . . .	19 15 0
Glue, Sandpaper, Nails, Hinges, Locks, Window- blinds, Cord, Sashline, Chest-handles, French- polish, . . . . .	14 1 6
Amount of Work for Cottage, . . . . .	12 13 0
Amount of Account for Coffins, . . . . .	36 7 0
Amount of Account for Gardeners, . . . . .	14 2 2
Amount of Account for Masons, . . . . .	0 2 2
Amount of Account for Plasterers, . . . . .	0 2 0
Amount of Account for Smiths, . . . . .	0 1 6
	<hr/> 282 4 6½

BY PAINTERS.

1512 Square yards Whitewashing, at 1d. per Yard, . . . . .	6 6 0
768 " " Size Tinted, " 1½d. " . . . . .	4 16 0
387 " " Stone Colours, " 2d. " . . . . .	3 4 6
519 " " 1 Coat Oil, " 4d. " . . . . .	8 13 0
2287 " " 2 Coats, " 6d. " . . . . .	57 3 6
925 " " 3 Coats, " 8d. " . . . . .	30 16 8
160 " " 4 Coats, " 10d. " . . . . .	6 13 4
1711 " " Imitation Woods, &c., " . . . . .	171 2 0
Amount of Sundry Work not measured, . . . . .	29 2 4
	<hr/> 317 17 4
	<hr/> £1673 1 5½
Deduct value of Materials used for the above, . . . . .	831 5 1¼
	<hr/> £841 16 4¼

JAMES SMITH, *House-Superintendent.*



## ARTICLES MADE BY FEMALES IN WESTERN DEPARTMENT.

	£	s.	d.		Brought forward, £74	4	0
245 Gowns, . . . at 18d.	18	7	6	66 Pillow-cases, . . at 2d.	0	11	0
47 " . . . , 30d.	5	17	6	10 Worked Net-collars, 6d.	0	5	0
238 Petticoats, . . , 3d.	2	19	6	34 Mattrasses, . . , 4d.	0	11	4
188 Night-gowns, . . , 4d.	3	2	8	24 Pair Blankets, . . , 3d.	0	6	0
428 Flannel and Cotton Shifts, . . , 4d.	7	2	8	1 Set Bath-curtains, 2s.,	0	2	0
424 Men's Striped Shirts, . . , 6d.	10	12	0	7 Polkas, . . . , 2s.,	0	14	0
331 Females' Aprons, , 2d.	2	15	2	1 Vallance, . . . , 1s.,	0	1	0
111 Males' " , 4d.	1	17	0	204 Pair Shoes bound, 2d.	1	13	8
551 Pair Stockings, , 4d.	9	3	8	134 " Boots, . . , 9d.	5	0	6
164 Towels, . . . , 1d.	0	13	8	2 " Stays, . . , 15d.	0	2	6
306 Sheets, . . . , 2d.	2	11	0	31 Habit Shirts, . . , 3d.	0	7	9
48 Napkins, . . . , 1d.	0	4	0	6 Long Night-gowns, 2s.	0	12	0
4 Sets Curtains, , 30d.	0	10	0	8 Sewed Collars, , 8d.	0	5	4
298 Caps, . . . , 3d.	3	14	6	17 " " , 15d.	1	1	3
3 Sewed Caps, . . , 8d.	0	2	0	12 Yards Sewed Muslin, 6d.	0	6	0
27 " " , 11d.	1	4	9	12 " Worked Lace, 3d.	0	3	0
12 Window-blinds, , 2d.	0	2	0	2 Tiddys, . . . , 2s.	0	4	0
542 Dozen Thread Buttons, . . . , 1d.	2	5	2	3 Pair Gloves knitted, 4d.	0	1	0
63 Bed-covers, . . , 2d.	0	10	6	10 Veils Worked, , 18d.	0	15	0
35 Table-cloths, . . , 3d.	0	8	9	1 Cloak, . . . , 15d.	0	1	3
				2 Shawls Knitted, , 18d.	0	3	0
				2 Scarfs worked, , 30d.	0	5	0
				4 Pin-cushion Covers, 1s.	0	4	0
Carry forward, £74	4	0			£87	19	7

## REPAIRED.

	£	s.	d.		Brought forward, £42	3	5
4858 Men's Striped Shirts, . . , 1d.	20	4	10	375 Sheets, . . at 1d.	1	11	3
364 Gowns, . . , 2d.	3	0	8	6959 Pair Stockings, , 2d.	57	18	3
504 Petticoats, . . , 2d.	4	4	0	93 Pair Blankets, , 2d.	0	15	6
895 Shifts, . . . , 2d.	7	9	2	162 Pillow-cases, , 1d.	0	13	6
354 Night-gowns, , 2d.	2	19	0	22 Table-cloths, , 1d.	0	1	10
744 Aprons, . . , 1d.	3	2	0	24 Men's Collars, , 1d.	0	2	0
285 Caps, . . . , 1d.	1	3	9	36 Pair Stays, . . , 2d.	0	6	0
Carry forward, £42	3	5			£103	11	9

## ARTICLES MADE BY FEMALES IN EASTERN DEPARTMENT.

81 Pillow-covers.	2 Flannel Under-dresses do.
46 Sheets.	15 Neckerchiefs.
24 Collars.	28 Pocket Handkerchiefs.
16 Shifts.	15 Slip Boddice.
20 White Petticoats.	16 Under-dresses.
6 Black do.	52 Towels.
14 Pin-covers.	8 Worked Collars.
4 Pair Slippers worked.	1 Apron braided.
2 Pair Stockings knitted.	10 Gowns.



ARTICLES MADE BY FEMALES—*Continued.*

12 Quilts.	4 Pair Drawers.
18 Toilet-covers.	12 Tray-cloths.
2 Polkas.	2 Ottoman-covers.
2 Leather Work Brackets.	1 Travelling-bag worked.
4 " " Stands.	13 Night-caps netted.
2 Velvet-cushions.	1 Stool-cover.
3 Worked do.	4 Net-caps trimmed.
6 Pair Worked Cuffs.	14 Night-caps.
4 Frills.	6 Plain-collars.
18 Yards Worked Trimming.	14 Habit-shirts.
1 Dressing-gown.	

## REPAIRED.

1440 Pair of Stockings.	27 Blankets.
4 Pair „ Silk do.	62 Gowns.
6 Sofa-covers.	82 Quilts.
24 Habit-shirts.	22 Under-dresses.
32 Night-caps.	24 Table-cloths.
342 Shirts.	42 Pillow-covers.
62 Night-gowns.	102 Sheets.
42 Petticoats.	10 Pair of Cuffs.
48 Shifts.	

J. U. MACDOUGALL, *Matron.*VALUE OF STOCK IN HAND, 31<sup>ST</sup> DECEMBER 1854.

Provisions, &c., . . . . .	£34	11	2
Blankets, Plaiding, Bed-covers, Mattresses and Pillows, . . . . .	248	4	4 $\frac{3}{4}$
Made Clothes, Shoes, and Leather, . . . . .	204	1	7 $\frac{1}{4}$
Stockings and Socks, . . . . .	13	12	5 $\frac{1}{2}$
Prints, Derry, Gingham, and Cottons, . . . . .	36	9	6 $\frac{1}{2}$
Dowls, Canvas, Sheeting, Pack-sheet, Tick, and Hessian, . . . . .	84	19	9 $\frac{1}{2}$
Tapes, Pirns, Fingering and Wheeling-worsted, and Small Wares, . . . . .	38	19	11
Spoons, Combs, Carpet-bags, Dressing-glasses, Matts, &c., . . . . .	23	3	7 $\frac{3}{4}$
Flannel, Tartan-shawls, Handkerchiefs, &c., . . . . .	24	14	8
Tweeds, Cloth, and Corduroy, . . . . .	162	2	8
Made Linens, Shirts, and Women's Clothes, . . . . .	50	3	6 $\frac{1}{4}$
Flannel Shirts and Drawers, . . . . .	33	2	3
Crockery, Glass, Brushes, and Sundry Furnishings, . . . . .	99	14	9 $\frac{3}{4}$
Wood, Paints, Lead, Iron, Window-glass, Gas-fittings, and Ironmongery, . . . . .	154	0	5 $\frac{3}{4}$
Pigs, valued at . . . . .	84	10	0
	£1292 10 11		

JAMES SMITH, *House-Superintendent.*



# APPENDIX

STATE OF THE UNION

1860

THE PRESIDENT OF THE UNITED STATES

THE SECRETARY OF THE DEPARTMENT OF THE INTERIOR

THE SECRETARY OF THE DEPARTMENT OF AGRICULTURE

THE SECRETARY OF THE DEPARTMENT OF COMMERCE

THE SECRETARY OF THE DEPARTMENT OF JUSTICE

THE SECRETARY OF THE DEPARTMENT OF THE ARMY

THE SECRETARY OF THE DEPARTMENT OF THE NAVY

THE SECRETARY OF THE DEPARTMENT OF THE TREASURY

THE SECRETARY OF THE DEPARTMENT OF THE WAR

THE SECRETARY OF THE DEPARTMENT OF THE MARINE CORPS

THE SECRETARY OF THE DEPARTMENT OF THE COAST AND GEODETIC SURVEY

THE SECRETARY OF THE DEPARTMENT OF THE MOUNTAIN SURVEY

THE SECRETARY OF THE DEPARTMENT OF THE TERRITORY

THE SECRETARY OF THE DEPARTMENT OF THE DISTRICT OF COLUMBIA



# APPENDIX

TO THE

## ANNUAL REPORT OF THE ROYAL EDINBURGH ASYLUM FOR 1854.

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PATHOLOGICAL APPEARANCES OBSERVED IN THE BRAIN  
DURING THE YEAR 1854 ;

AND

ABSTRACT OF THE CEREBRAL PATHOLOGY OF 411 CASES.

---

Post-mortem examinations were permitted in 41 cases. They were made with much care, and the following are the results :—

Of those examined, 3 had been cases of Acute Mania, 15 of Dementia, 5 of Dementia with Epilepsy, 3 of Melancholia, 9 of Monomania, and 6 of General Paralysis.

*Calvarium was of unusual Thickness* in 6 cases ; 1 of Acute Dementia, 1 of Dementia, 3 of Dementia with Epilepsy, and 1 of Melancholia.

*Calvarium was thinner than usual* in 9 cases ; 2 of Melancholia, 1 of Dementia, 4 of Monomania, and 2 of General Paralysis.

*Diploe was absent* in 2 cases of Monomania.

*Abnormal Adhesion of Dura Mater to Calvarium* existed in 4 cases ; 1 of Dementia with Epilepsy, 2 of Monomania, and 1 of General Paralysis.

*Pus in the Cranial Sinuses* was found in 2 cases ; 1 of Dementia with Epilepsy, and 1 of Acute Dementia ; in the latter case, *Pus* was also found in the internal ear, and *Sero-Purulent Effusion* beneath the Arachnoid, and in the lateral ventricles.



*Increased Thickness of Dura Mater* was found in 3 cases ; 1 of Acute Mania, 1 of Acute Dementia, and 1 of Dementia with Epilepsy.

*Thinness of Dura Mater* was noticed in 5 cases ; 2 of Dementia, and 3 of Monomania.

*Ossific Deposit in Falx Cerebri* existed in 1 case of Monomania.

*Abnormal Adhesion of Arachnoid to Dura Mater* was found in 4 cases ; 1 of Acute Dementia, 1 of Dementia with Epilepsy, 1 of Monomania, and 1 of General Paralysis.

*Serous Effusion into Sac of Arachnoid* existed in 22 cases ; 1 of Acute Dementia, 8 of Dementia, 2 of Dementia with Epilepsy, 5 of Monomania, and 6 of General Paralysis.

*Extravasation of blood into Sac of Arachnoid* was found in 2 cases of General Paralysis.

*Organised Lymph in Sac of Arachnoid* was found in 1 case of General Paralysis.

*Opacity and Thickening of Arachnoid* was found in 26 cases ; 1 of Acute Mania, 2 of Acute Dementia, 7 of Dementia, 6 of Dementia with Epilepsy, 2 of Melancholia, 4 of Monomania, and 4 of General Paralysis.

*Granular Deposit in Arachnoid over general surface* was noticed in 2 cases of General Paralysis.

*Congestion of Membranes* was noticed in 12 cases ; 1 of Acute Mania, 3 of Dementia, 1 of Acute Dementia, 2 of Dementia with Epilepsy, 1 of Monomania, and 4 of General Paralysis.

*Sub-Arachnoid Serous Effusion* was found in 22 cases ; 1 of Acute Mania, 1 of Acute Dementia, 6 of Dementia, 2 of Dementia with Epilepsy, 6 of Monomania, and 6 of General Paralysis.

*Sub-Arachnoid Sero-Sanguinolent Effusion* occurred in 1 case of Dementia with Epilepsy.

*Adhesion of Membranes to Cortical Substance* was found in 3 cases of General Paralysis.

*Paleness of the Grey Matter* was noticed in 17 cases ; 2 of Melancholia, 6 of Dementia, 1 of Acute Dementia, 6 of Monomania, and 2 of General Paralysis.

*Grey Matter* was of a dark tint in 3 cases ; 1 of Dementia with Epilepsy, 1 of Dementia, and 1 of Melancholia.



*Grey Matter had a Violaceous tinge* in 5 cases ; 1 of Acute Mania, 1 of Dementia with Epilepsy, 1 of Monomania, and 2 of General Paralysis.

*Grey Matter had a yellow tint* in 2 cases ; 1 of Acute Mania, and 1 of General Paralysis.

*Grey Matter was softened* in 2 cases ; 1 of Dementia, and 1 of General Paralysis.

*Grey Matter presented limited yellow softening* in 3 cases ; 2 of Dementia with Epilepsy, and 1 of General Paralysis.

*White Matter was softened* in 2 cases ; 1 of Dementia, and 1 of General Paralysis.

*Punctæ Vasculosæ* were very numerous in 15 cases ; 1 of Acute Dementia, 2 of Dementia, 5 of Dementia with Epilepsy, 1 of Melancholia, 2 of Monomania, and 4 of General Paralysis.

*Apoplectic Effusion* was found in 1 case of Monomania.

*Serous Effusion into Lateral Ventricles* was found in 16 cases ; 2 of Acute Mania, 1 of Melancholia, 5 of Dementia, 2 of Dementia with Epilepsy, 2 of Monomania, and 4 of General Paralysis.

*Sero-Sanguinolent Effusion into Lateral Ventricles* occurred in 1 case of Acute Dementia.

*Granular Deposit in Membrane of Lateral Ventricles* was found in 3 cases ; 1 of Dementia with Epilepsy, and 2 of General Paralysis.

*Cystic Bodies in Choroid Plexuses* occurred in 9 cases ; 1 of Acute Mania, 1 of Dementia with Epilepsy, 4 of Monomania, and 3 of General Paralysis.

*Pineal Body* was unusually large in 4 cases of Dementia.

*Veins of Galen* were much dilated and clogged with decolorized clots in 1 case of Dementia with Epilepsy.

The brain was carefully weighed in every case, and the weights, with those of other viscera, together with the specific gravity of the grey and white matter of the brain, are given in tables XIII. and XIV.

As the value of such records depends greatly upon the number of cases examined, I have, in table XV., arranged the morbid appearances found in the brain during the last 17 years, which includes 411 cases. (See page 50.)



TABLE XIII.—Weights of Organs and Specific Gravity of Cerebral Matter.

M A L E S.																
Age.	FORM OF INSANITY.	CAUSE OF DEATH.	Encephal.	Cerebell. Fons, &c.	Heart.	Right Lung.	Left Lung.	Liver.	Spleen.	Right Kidney.	Left Kidney.	Specific Gravity of				Stature. ft. in.
												Cerebrum.		Cerebellum.		
												Grey.	White.	Grey.	White.	
17	Dementia c. Epilepsy,	Tuberculosis, . . .	39½	6	9½	34	33	57½	8	5½	6	1038	1044	1038	1043	5 7
22	Dementia, . . .	Exhaustion, . . .	50½	6½	10½	19½	18½	48½	4	5½	5½	1040	1040	1042	1044	5 0
28	Dementia, . . .	Pneumonia, . . .	44½	5½	10½	60	25½	72	21½	4	3½	1032	1047	1030	1043	5 9½
30	Dementia, . . .	Phthisis, . . .	50	6½	7½	30	39½	24	5½	4½	5	1032	1043	1036	1042	5 5
30	General Paralysis, . .	General Paralysis, . .	43½	6½	6	30	22½	53½	5½	5	5	...	...	...	...	5 5
30	General Paralysis, . .	General Paralysis, . .	52	7½	9½	14½	19	57	5½	5½	5½	1037	1039	1035	1036	5 10
32	Monomania of Fear,	Gangrene of Lung,	50	6½	11½	72	36	75	7	8	7½	1043	1052	1044	1047	6 0
35	Dementia, . . .	Phthisis, . . .	50	6½	11	58½	28	53	4½	5	9	1043	1045	1042	1044	6 1
35	General Paralysis, . .	General Paralysis, . .	49	6½	7½	42	16	42½	4	3½	3½	1037	1032	1032	1044	5 4
35	Dementia c. Epilepsy,	Epilepsy, . . .	45	6½	13½	44½	23	39½	7	3½	3½	1035	1043	1036	1045	5 6
37	General Paralysis, . .	Suffocation, . . .	49½	7	9	20½	21½	58	5½	5	5	...	...	...	...	5 6
38	Acute Mania, . . .	Pleuritis, . . .	48½	7	11½	27	22½	66½	6½	6½	6½	1040	1041	1044	1043	...
43	Dementia c. Epilepsy,	Epilepsy, . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	3
43	Monomania of Fear,	Exhaustion, . . .	54	6½	7½	26½	13	36½	2½	4	4	...	...	...	...	5 6
46	Dementia, . . .	Rupture of Aneurism,	46½	6½	12	12½	7½	48½	3½	4½	4½	1034	1041	1043	1043	5 4
53	Dementia, . . .	Cancer of Stomach,	56	7½	...	36	14	44½	4½	5	5½	1042	1052	1042	1056	5 7
53	Acute Dementia, . .	Exhaustion, . . .	51	6½	11	24	32½	39	3½	5½	6½	...	...	...	...	5 5
54	Monomania of Fear,	Apoplexy, . . .	49	6	16½	24½	20½	60½	4½	3½	3½	1044	1042	1044	1046	5 6
54	General Paralysis, . .	General Paralysis, . .	46	7	11½	38	30	45½	3½	5½	6	1037	1043	1039	1043	5 7
59	Monomania of Suspicion	Diarrhoea, . . .	58	8	13½	28	25½	51½	9½	5½	5½	...	...	...	...	5 1½
64	Dementia c. Epilepsy,	Diarrhoea, . . .	47½	5½	12½	34	20½	56½	5	3½	4½	1033	1043	1033	1034	5 7

MALES.



TABLE XIV.—Weights of Organs, and Specific Gravity of Cerebral Matter.

F E M A L E S.																
Age.	FORM OF INSANITY.	CAUSE OF DEATH.	Encephal.	Cerebell. Pons, etc.	Heart.	Right Lung.	Left Lung.	Liver.	Spleen.	Right Kidney.	Left Kidney.	Specific Gravity of				Stature. ft. in.
												Cerebrum.		Cerebellum.		
												Grey.	White.	Grey.	White.	
26	Acute Mania, . . .	Serous Apoplexy,	53	7½	9½	18	21	52¾	6	5¼	5¾	1043	1042	1042	1044	5 5½
30	Dementia, . . .	Phthisis, . . .	43	5	11	34½	15½	45	4¾	5	4¼	1038	1045	1042	1044	5 3
31	Dementia, . . .	Phthisis, . . .	46	5½	16½	...	34	46	7¾	5	5	...	...	...	...	5 7½
31	Dementia, . . .	Bronchitis, . . .	43	5½	7½	...	...	39	8½	3½	3½	...	...	...	...	...
32	Dementia, . . .	Pneumo-thorax, . . .	46	5½	7½	18½	17	43½	5½	5½	6	1042	1044	1042	1045	5 5½
32	Dementia c. Epilepsy.	Peritonitis, . . .	44	6½	9½	29	20	51½	3½	6½	5½	1042	1047	1043	1048	5 4
36	Dementia, . . .	Phthisis, . . .	42¾	5½	7½	20½	20½	50½	5½	5½	4½	1039	1045	1043	1044	5 4½
39	Monomania of Pride,	Phthisis, . . .	61½	7	8½	31	30	60	4½	5½	5	1031	1043	1039	1042	5 6
39	Melancholia, . . .	Exhaustion, . . .	53	5½	8½	11½	16¾	38	3	4½	4	1036	1038	1043	1044	5 3
41	General Paralysis, . .	General Paralysis,	40	6	7	16¾	24½	47	5	4	4½	1038	1040	1036	1047	5 6
44	Melancholia, . . .	Phthisis, . . .	40½	5½	6½	22	20½	37½	4	3½	3½	1039	1043	1042	1042	5 1
44	Monomania of Suspicion	Phthisis, . . .	45½	6¼	7	51	18	43	7½	3½	3½	1043	1045	1041	1045	5 6
45	Monomania of Fear,	Exhaustion, . . .	47¾	5½	8½	35	22	47	6¾	4	4	...	...	...	...	5 3
48	Dementia, . . .	Gangrene of Leg,	53	6	...	...	...	...	...	...	...	1037	1042	1039	1045	5 3
49	Acute Dementia, . . .	Meningitis, . . .	47	5¾	9½	6¾	12½	41½	4	5½	4½	1032	1038	1042	1045	5 0
49	Acute Mania, . . .	Exhaustion, . . .	44	5½	7½	15½	24	47	5½	4	4½	...	...	...	...	...
50	Monomania of Fear,	Exhaustion, . . .	47	6¼	6½	25	8¾	40½	4	4	4	1033	1043	1039	1037	5 5
51	Dementia, . . .	Hydrothorax, . . .	48½	6¼	13½	30½	19¾	41½	4½	3½	2¾	1038	1045	1038	1045	5 1½
51	Monomania of Fear,	Exhaustion, . . .	50	6¼	6½	11½	11½	29½	2½	3½	4	...	...	...	...	5 2
59	Melancholia, . . .	Hydrothorax, . . .	46	6	9½	12¾	19¼	30	4½	3½	3½	1044	1043	1048	1047	5 5½



TABLE XV.—CEREBRAL PATHOLOGY OF 411 CASES OF INSANITY.

MORBID APPEARANCES.	Moral Insanity.	Mania.				Melancholia.	Monomania.	Dementia.	General Paralysis.	Epilepsy.		Imbecility.	Total.
		Acute.	Chronic.	Periodic.	Puerperal.	Delir. Tremens.				With Mania.	With Dementia.		
Number of Cases examined, . . . . .	3	9	32	4	3	3	61	149	82	6	19	7	411
Calvarium of unusual thickness, . . . . .	1	...	2	...	...	...	15	36	12	1	6	2	79
" " thinness, . . . . .	...	4	3	...	...	...	9	9	7	...	...	...	40
Diploe absent, . . . . .	1	3	2	...	...	...	6	21	7	...	1	1	44
Osseous Projections from Inner Surface of Cranium, . . . . .	...	...	several.	...	...	...	...	...	3	...	6	...	12
Ossific Deposits in Dura Mater, . . . . .	...	...	...	...	...	...	3	...	4	...	...	...	10
Tumours in Dura Mater, . . . . .	...	...	...	...	...	...	...	1	1	...	...	...	5
Abnormal Adhesion of Dura Mater to Calvarium, . . . . .	1	4	4	...	...	...	...	2	13	3	4	1	76
Opacity and Thickening of Arachnoid, . . . . .	2	6	20	1	2	1	32	87	61	5	12	5	252
Congestion of Membranes, . . . . .	...	6	12	1	2	...	13	38	34	3	9	3	134
Abnormal Adhesion of do. to Convulsions, . . . . .	...	...	...	...	...	...	...	6	36	...	...	...	43
Sub-arachnoid Serous Effusion, . . . . .	2	7	16	1	2	...	...	70	46	3	7	3	202
" Serous-effusion into Sac of Arachnoid, . . . . .	...	6	9	1	1	...	2	3	4	1	1	1	15
Sero-sanguinolent, . . . . .	2	...	...	...	...	...	26	61	44	2	8	4	171
Pus in Sac of Arachnoid, . . . . .	...	...	1	...	...	...	...	2	3	...	1	...	7
Granular Deposit on do., . . . . .	...	...	1	...	...	...	...	2	1	...	...	...	4
Coagulable Lymph in do. at Base of Brain, . . . . .	...	...	2	...	...	...	...	1	3	...	...	...	4
Atrophy of Optic Nerves, . . . . .	...	...	...	...	...	...	...	1	3	...	...	...	6
Grey Mater unusually pale, . . . . .	1	2	...	1	1	...	12	26	8	...	...	...	4
" " dark, . . . . .	...	...	9	...	...	...	8	27	27	2	4	1	67
" of a violaceous tint, . . . . .	...	1	1	...	...	...	2	4	9	...	1	1	86
White Matter softened, . . . . .	1	2	3	...	...	...	6	16	26	...	...	...	18
" Matter softened, . . . . .	...	...	...	...	...	...	5	10	5	...	2	...	56
" hardened, . . . . .	...	...	1	...	...	...	1	7	5	...	1	...	23
Lateral Ventricles contained Serous Effusion, . . . . .	2	4	5	...	1	...	9	35	20	...	6	4	91
" " Sero-sanguinolent do. . . . .	...	1	...	...	...	...	...	1	...	1	...	...	3
Granular Deposit in Lining Membrane of do., . . . . .	...	1	1	...	...	...	3	4	20	...	1	...	30
Pus in Lateral Ventricles, . . . . .	...	...	1	...	...	...	...	2	...	...	...	...	3
Blood Clots in Brain, . . . . .	...	...	1	...	...	...	4	2	...	2	...	1	10
Notes in Chemoïd (out of 102 cases only)	...	3	1	1	...	...	10	9	10	...	2	...	36



The general conclusions to be derived from the preceding abstract are, that, in a large proportion of the deaths, well-marked appearances were found indicating increased vascular action, or slow inflammatory processes affecting the membranes of the brain, and producing thickening and serous effusions. These appearances were most constant and most distinct in the deaths from General Paralysis, where there was also found a peculiar kind of *softening of the grey substance* of the brain, and on examining this part of the brain under the microscope, the cells of which it is principally composed, appeared to be enlarged and altered in form. In these cases, *adhesion* of the membranes to the surface of the convolutions was present in all instances where there was not such a quantity of serous effusion interposed as to prevent it;—in stripping off the membranes, small layers of grey matter were stripped off with them, particularly on the lateral surfaces of the hemispheres.

With the exception of the morbid changes last mentioned, which are limited to cases of General Paralysis, all the other morbid appearances are found very frequently in the brains of persons who have died of other diseases, and without any mental affection. And, on the other hand, cases are not unfrequently to be met with in the dead-house of the Asylum, of Patients who had exhibited, during life—for many months or even years—all the symptoms of raving madness, and in whose brains the morbid appearances described are altogether wanting, and in which the brain could not be distinguished from that of one who had died in all the vigour of a sound mind.

From these facts it must be inferred that the morbid appearances described, although the very frequent concomitants of Insanity, do not constitute the pathological conditions by which the symptoms of mental derangement are produced; and that we are, in fact, ignorant of the true pathology of this disease.

There are many considerations which may well lead us to doubt whether any other morbid changes in the structure of the brain may ever be discoverable in Insanity. The analogy of the symptoms to those produced by poisons which are known to enter the blood, the suddenness of the invasion in some cases, and the suddenness of the cure in others, even occasionally of long standing, the remark-



able remissions, and at times the temporary restoration for a few hours or moments, to perfect sanity in persons long plunged in profound Dementia, or labouring under a chronic and protracted Mania, are facts which lead to the reflection that Insanity may be a disease of the blood, or may depend upon a peculiar orgasm of the nervous centres,—upon conditions not to be discovered in the brain after death.

Pathological investigations, however, for changes in the nervous substance itself, are not to be abandoned until we have exhausted all our means of observation; and it occurred to me, accordingly, some years ago, to commence a series of experiments by collecting the *weights* of the brain, cerebrum and cerebellum,—by measuring the *breadth* of the *grey matter*,—by endeavouring to determine the degree of *hardness or softness* of the cerebral substance, by ascertaining by what length of a column of water it could be broken up,—and, more lately, by taking the *specific gravity* of the grey and white substance of different parts of the brain.

In an hospital for the Insane, where the deaths are much fewer than in a large general hospital, it takes some years before a sufficient number of data can be accumulated to warrant any general inferences; and I feel that the data which I possess, although the accumulation of some years, are still rather meagre. I am induced, however, to record them, as offering a few very interesting suggestions, which may lead others to follow similar methods of observation, and thus facilitate the collection of a larger number of facts.

My measurements of the grey matter, and experiments on the hardness and softness of the cerebral substance, I do not propose to detail at present, as I have no similar observations on the brains of persons dying sane with which to compare them. I shall confine myself, therefore, to the *weight* and *specific gravity* of the brain, and to such general deductions only from those observations as the number of facts seem to warrant. I shall leave for another opportunity several comparisons and inquiries which might be instituted through these methods, inasmuch as the data seem to me too few to justify speculations which relate to more special questions.

I have compared my observations on the weights of the brain with those collected in the Royal Infirmary of Edinburgh, by the



late Dr John Reid and Dr Peacock, and the experiments on its specific gravity, with those published by Dr Sankey in the "British and Foreign Medico-Chirurgical Review," for January 1853 (vol. xi., p. 240), and made in the Royal London Fever Hospital. The weights used were avoirdupois.

The observations made of the weights of the Brain comprise 199 cases, of which 98 were males and 101 females. The following tables exhibit the weights of the heaviest and lightest Encephalon, Cerebrum, and Cerebellum (with the pons and medulla), and their average weights at different periods of life. The figures are arranged in parallel columns with those of the corresponding results from the tables of Drs Reid and Peacock. Weights.

On comparing the columns showing the heaviest Brains in the Sane and Insane *males*, it will be seen that in only one instance did the Encephalon exceed 60 ounces in the Insane, while in several of the Sane it amounted to 62 ounces and upwards, the heaviest Brain in the one series being 60 oz. 8 dr., and the heaviest in the other being 62 oz., 12 dr. It will also be seen that, with two exceptions, the superiority in weight was among the Brains of the Sane in each of the quinquennial or decennial periods into which they are classified. Whether this justifies the inference that persons having large brains are less frequently the subject of Mental Derangement than others, I shall not venture to say; but the fact is a striking one when contrasted with the results derived from a comparison of the average weight of the entire number of cases, where it appears that the average weight is increased in persons dying Insane. The average weight in the Insane from 15 to 90 years of age being 50 oz., 2 dr., and in the Sane 49 oz., 14 dr.

Different results are derived from a comparison of the weights of the Brains of the *females*; here, in one exceptional case, the Brain weighed  $61\frac{1}{2}$  ounces in a female who died Insane, but in a majority of cases the greatest weight was on the side of the Sane. On taking the average of all the cases, the weight of the Brain in the Insane was 44 oz. only, and in the Sane 44 oz. 5 dr.



TABLE XVI.—Comparative Weight of Brains of the Sane and Insane.

M A L E S.																																		
Age.	Numbers Weighed.						Heaviest.						Lightest.						Average.															
	Encephalon.		Cerebrum.		Cerebellum.		Encephalon.		Cerebrum.		Cerebellum.		Encephalon.		Cerebrum.		Cerebellum.		Encephalon.		Cerebrum.		Cerebellum.											
	Sane.	Insane.	Sane.	Insane.	Sane.	Insane.	Sane.	Insane.	Sane.	Insane.	Sane.	Insane.	Sane.	Insane.	Sane.	Insane.	Sane.	Insane.	Sane.	Insane.	Sane.	Insane.	Sane.	Insane.										
oz.	dr. oz.	dr. oz.	dr. oz.	dr. oz.	dr. oz.	dr. oz.	dr. oz.	dr. oz.	dr. oz.	dr. oz.	dr. oz.	dr. oz.	dr. oz.	dr. oz.	dr. oz.	dr. oz.	dr. oz.	dr. oz.	dr. oz.	dr. oz.	dr. oz.	dr. oz.	dr. oz.	dr. oz.										
16-20	8	4	7	4	7	4	56	0 56	0 47	0 48	8	7	2	7	8	40	4 39	8 34	0 33	8	5	4	50	13 46	6 43	5	6	6	6	dr.				
20-25	16	7	10	7	11	7	61	2 57	12 54	0 52	0	7	2	7	0	47	0 48	0 41	7 41	8	5	0	52	3 52	1 45	8	6	6	6	dr.				
25-30	24	8	15	8	15	8	56	8 55	4 49	0 48	8	7	0	7	8	38	0 44	8 38	0 37	4	5	8	49	10 50	9 43	14	6	1	6	dr.				
30-40	41	26	28	26	28	26	62	8 56	0 54	8 49	8	8	7	10	12	40	8 44	0 35	9 37	8	5	0	51	1 50	1 45	6	6	6	6	dr.				
40-50	44	25	32	25	32	25	62	12 58	0 49	0 50	8	7	8	10	8	0	34	0 41	12 37	13 36	0	5	0	49	4 49	4 43	5 42	8	6	5	6	dr.		
50-55	22	11	20	11	21	11	59	0 56	8 51	0 50	4	8	4	7	4	42	2 41	0 36	6 35	0	5	0	51	4 49	3 44	15	42	2	6	6	dr.			
55-60	10	7	8	7	8	7	52	14 60	8 46	12 53	12	6	14	8	0	39	0 41	4 39	0 34	12	4	5	12	48	1 50	6 42	9	44	0	6	3	6	dr.	
60-70	18	8	10	7	12	7	60	4 52	8 51	13 45	8	7	4	7	8	40	0 44	0 34	8 38	10	4	5	12	48	8 48	2 43	8	41	11	5	13	6	7	dr.
70-80	5	1	5	1	5	1	54	10 57	8 48	2 51	0	6	8	6	8	43	8 57	8 38	4 51	0	5	4	8	48	2 57	8 42	4	51	0	5	14	6	8	dr.
80-90	3	1	3	1	3	1	52	0 48	0 45	8 41	12	6	8	6	4	40	12 48	0 40	12 41	12	5	14	4	49	13 48	0 43	10	41	12	6	3	6	4	dr.
	191	98	138	97	142	97	62	12 60	8 54	8 53	12	8	8	8	0	34	0 39	8 34	0 33	8	4	14	5	49	14 50	2 43	11	43	13	6	3	6	7	dr.
Total.																																		



TABLE XVII.—Comparative Weight of Brains of the Sane and Insane.

F E M A L E S .

Age.	Numbers Weighed.						Heaviest.						Lightest.						Average.						
	Encephalon.		Cerebrum.		Cerebellum.		Encephalon.		Cerebrum.		Cerebellum.		Encephalon.		Cerebrum.		Cerebellum.		Encephalon.		Cerebrum.		Cerebellum.		
	Sane.	Insane.	Sane.	Insane.	Sane.	Insane.	Sane.	Insane.	Sane.	Insane.	Sane.	Insane.	Sane.	Insane.	Sane.	Insane.	Sane.	Insane.	Sane.	Insane.	Sane.	Insane.	Sane.	Insane.	
13-16	1	1	1	1	1	1	oz. 1 41	dr. oz. 0 39	dr. oz. 0 35	dr. oz. 8 33	dr. oz. 8 5	dr. oz. 8 41	dr. oz. 0 39	dr. oz. 0 35	dr. oz. 8 33	dr. oz. 8 5	dr. oz. 8 41	dr. oz. 0 39	dr. oz. 0 35	dr. oz. 8 33	dr. oz. 8 5	dr. oz. 8 41	dr. oz. 0 39	dr. oz. 0 35	
16-20	13	1	9	1	9	1	oz. 1 49	dr. oz. 12 39	dr. oz. 8 43	dr. oz. 8 35	dr. oz. 8 4	dr. oz. 8 40	dr. oz. 14 39	dr. oz. 8 35	dr. oz. 13 35	dr. oz. 1	dr. oz. 8 44	dr. oz. 14 39	dr. oz. 8 39	dr. oz. 0 35	dr. oz. 12 4	dr. oz. 8 44	dr. oz. 14 39	dr. oz. 8 39	
20-25	13	7	10	7	10	7	oz. 1 50	dr. oz. 0 48	dr. oz. 0 43	dr. oz. 4 41	dr. oz. 11 6	dr. oz. 5 44	dr. oz. 0 37	dr. oz. 12 38	dr. oz. 0 31	dr. oz. 12 4	dr. oz. 0 46	dr. oz. 13 43	dr. oz. 13 41	dr. oz. 6 37	dr. oz. 15 5	dr. oz. 13 43	dr. oz. 13 41	dr. oz. 6 37	
25-30	13	6	11	6	11	6	oz. 1 50	dr. oz. 0 53	dr. oz. 0 43	dr. oz. 14 45	dr. oz. 8 6	dr. oz. 0 39	dr. oz. 0 38	dr. oz. 8 35	dr. oz. 8 32	dr. oz. 4 4	dr. oz. 4 43	dr. oz. 2 46	dr. oz. 12 37	dr. oz. 11 40	dr. oz. 3 5	dr. oz. 4 43	dr. oz. 12 37	dr. oz. 11 40	
30-40	33	29	25	29	25	29	oz. 2 54	dr. oz. 0 61	dr. oz. 8 45	dr. oz. 2 54	dr. oz. 8 6	dr. oz. 8 38	dr. oz. 0 39	dr. oz. 8 32	dr. oz. 12 33	dr. oz. 4 4	dr. oz. 4 45	dr. oz. 3 46	dr. oz. 0 39	dr. oz. 140	dr. oz. 3 5	dr. oz. 4 45	dr. oz. 3 46	dr. oz. 140	
40-50	23	24	18	24	18	24	oz. 2 53	dr. oz. 0 53	dr. oz. 0 47	dr. oz. 14 46	dr. oz. 0 5	dr. oz. 8 43	dr. oz. 12 37	dr. oz. 0 32	dr. oz. 8 31	dr. oz. 4 4	dr. oz. 12 45	dr. oz. 3 44	dr. oz. 0 38	dr. oz. 11 5	dr. oz. 3 5	dr. oz. 12 45	dr. oz. 3 44	dr. oz. 11 5	
50-55	5	11	4	11	4	11	oz. 2 48	dr. oz. 0 52	dr. oz. 0 42	dr. oz. 14 46	dr. oz. 0 5	dr. oz. 8 43	dr. oz. 14 37	dr. oz. 8 38	dr. oz. 132	dr. oz. 4 4	dr. oz. 0 46	dr. oz. 0 45	dr. oz. 6 39	dr. oz. 12 5	dr. oz. 9 5	dr. oz. 10 46	dr. oz. 9 5	dr. oz. 6 39	
55-60	2	9	2	9	2	9	oz. 2 44	dr. oz. 0 55	dr. oz. 0 38	dr. oz. 12 49	dr. oz. 0 5	dr. oz. 8 43	dr. oz. 4 41	dr. oz. 8 38	dr. oz. 235	dr. oz. 12 5	dr. oz. 0 43	dr. oz. 10 46	dr. oz. 9 35	dr. oz. 10 40	dr. oz. 3 5	dr. oz. 10 46	dr. oz. 9 35	dr. oz. 10 40	
60-70	14	13	14	13	14	13	oz. 2 48	dr. oz. 12 50	dr. oz. 0 41	dr. oz. 2 44	dr. oz. 0 6	dr. oz. 0 36	dr. oz. 2 34	dr. oz. 12 31	dr. oz. 230	dr. oz. 0 5	dr. oz. 12 43	dr. oz. 3 44	dr. oz. 5 37	dr. oz. 10 38	dr. oz. 6 5	dr. oz. 12 43	dr. oz. 5 37	dr. oz. 10 38	
	117	101	94	101	94	101	54	0 61	8 47	0 54	8 7	8 36	2 34	12 31	2 30	0 4	8 44	5 44	0 38	8 38	3 5	8 44	5 44	0 38	8 38
Total.																									



The comparison, however, establishes, I think, a strong presumption, that the absolute weight of the Brain is increased in the Insane, when we reflect that, in many cases of Insanity, the absolute *size* of the brain must be materially diminished by the large quantity of serous effusion found in the ventricles, arachnoid sac, and sub-arachnoid tissue.

This increase in weight, however, appears to depend chiefly upon an increase in the weight of the *Cerebellum*; for, on comparing the weights of the Cerebra in the two series of cases, it will be found that the difference is inconsiderable, and indeed in the case of the females that it is in favour of the Sane. On comparing, however, the columns showing the weight of the *Cerebellum* (with the pons and medulla) in the two classes, it will be found that there is almost a uniform preponderance in the weights of those of the Insane. The average weight in all the cases of the Insane males exceeds that of the Sane by 4 drachms, and in the females by 5 drachms.

In Table XVIII., the ratio between the *Cerebellum* (with the pons and medulla) and the Cerebrum is given at the different ages distinguished. Here the same fact is very clearly brought out; in almost every instance the *Cerebellum* in the Insane being heavier in relation to the Cerebrum than it is in the Sane. From the average of the entire number, the *Cerebellum* was found in the males to be as 1 to 6.748 in the Insane, and as 1 to 7.06 in the sane; and in the females as 1 to 6.64 in the Insane, and only 1 to 7 in the Sane. The *Cerebellum* therefore is considerably heavier in relation to the Cerebrum in the Insane.

This mode of estimating the results appears to me to be free from the source of fallacy arising from the small number of cases compared, when we compare the absolute weights together, as here, on examining all the cases separately, we find, in almost every instance, the *Cerebellum* of each brain heavier in relation to its own Cerebrum in the Insane than in the Sane.

Further inquiries, and a larger number of data, may modify these results; but, I think, from those which I have thus collected, it may be regarded as highly probable that there is *an increase in the weight of the Cerebellum in persons dying Insane.*



TABLE XVIII.—*Ratio of Cerebellum to Cerebrum in the Sane and Insane.*

MALES.			FEMALES.		
Age.	Ratio of Cerebellum to Cerebrum.		Age.	Ratio of Cerebellum to Cerebrum.	
	Sane.	Insane.		Sane.	Insane.
16-20	1 to 6.8333	1 to 6.6494	13-16	1 to 6.4545	1 to 6.0909
20-25	1 „ 7.1569	1 „ 6.9333	16-20	1 „ 6.7826	1 „ 7.7777
25-30	1 „ 6.8557	1 „ 6.5607	20-25	1 „ 7.2747	1 „ 6.4574
30-40	1 „ 7.0784	1 „ 6.4859	25-30	1 „ 7.44	1 „ 6.1238
40-50	1 „ 6.8614	1 „ 6.2962	30-40	1 „ 7.0213	1 „ 6.6666
50-55	1 „ 7.2143	1 „ 6.6408	40-50	1 „ 6.7368	1 „ 6.5851
55-60	1 „ 6.8787	1 „ 6.9019	50-55	1 „ 7.511	1 „ 6.8394
60-70	1 „ 7.4839	1 „ 6.4757	55-60	1 „ 6.867	1 „ 6.7604
70-80	1 „ 7.0851	1 „ 7.8462	60-70	1 „ 6.764	1 „ 6.4632
80-90	1 „ 7.0505	1 „ 6.68			
	1 to 7.0606	1 to 6.7480		1 to 7	1 to 6.6405
	Average.			Average.	

On arranging the weights of the brain according to the form of disease under which the Patients laboured, and taking the average, the following results were obtained:—

TABLE XIX.—*Comparative Weights of the Brain in the various forms of Mental Disease.*

Form of Mental Disease.	Heaviest.						Lightest.						Average.					
	Encephalon.		Cerebrum.		Cerebellum.		Encephalon.		Cerebrum.		Cerebellum.		Encephalon.		Cerebrum.		Cerebellum.	
	oz.	dr.	oz.	dr.	oz.	dr.	oz.	dr.	oz.	dr.	oz.	dr.	oz.	dr.	oz.	dr.	oz.	dr.
MALES.																		
Mania, . . .	60	8	53	12	7	0	48	8	41	8	5	12	53	13 $\frac{1}{2}$	47	1 $\frac{1}{2}$	6	12
Monomania, .	58	0	51	0	8	0	47	0	40	4	5	8	52	11 $\frac{5}{8}$	45	6 $\frac{6}{7}$	6	11 $\frac{9}{17}$
Dementia, . .	56	0	49	8	8	0	39	8	33	8	5	0	49	11 $\frac{3}{8}$	43	2 $\frac{1}{3}$	6	9 $\frac{2}{13}$
Gen. Paralysis,	58	0	50	8	7	12	41	4	34	12	5	12	46	6 $\frac{1}{2}$	42	9 $\frac{1}{3}$	6	13 $\frac{1}{13}$
FEMALES.																		
Mania, . . .	53	0	45	8	7	8	39	8	35	0	4	8	45	8 $\frac{8}{11}$	39	8	6	0 $\frac{8}{11}$
Monomania, .	53	0	47	12	6	8	38	8	32	8	5	4	45	4	39	5 $\frac{1}{4}$	5	14 $\frac{3}{4}$
Dementia, . .	55	0	49	0	7	8	37	0	31	4	5	0	46	3 $\frac{3}{8}$	40	1 $\frac{3}{4}$	6	1 $\frac{3}{8}$
Gen. Paralysis,	42	0	36	12	6	0	39	8	33	8	5	4	40	8	34	12	5	12



In Mania, the average weight of the Encephalon in males was 53 oz.  $13\frac{1}{2}$  dr.; in Monomania, 52 oz.  $11\frac{5}{8}$  dr.; in Dementia, 49 oz.  $11\frac{3}{8}$  dr.; and in General Paralysis, 46 oz.  $6\frac{2}{3}$  dr.; the weight being greatest in Mania, and least in General Paralysis. In comparing the average weights of the Cerebella, etc., however, in the same series, while they are found to follow the same decrease from Mania, the highest, through Monomania to Dementia, the weights being respectively 6 oz. 12 dr., 6 oz.  $11\frac{9}{17}$  dr., and 6 oz.  $9\frac{2}{3}$  dr.; the cases of General Paralysis present the highest average, the average weight being 6 oz.  $13\frac{1}{3}$  dr. From the fact that in General Paralysis the morbid appearances are most constant and most distinctly marked, this result might, perhaps, be anticipated, if we assume what I have endeavoured to show, that the relative weight of the Cerebellum to the Cerebrum is increased by Insanity, and that the Cerebellum is the organ principally affected. This increase, too, would appear from a review of the history of the cases to bear a constant relation to the form of the disease, and to be greatest in more protracted and gravest cases. On comparing the average weight of the Cerebellum to that of the Cerebrum in the cases classified as above, it was found in males to be as 1 to 6.9735, 6.7549, 6.5625, and 6.2511, in Mania, Monomania, Dementia, and General Paralysis respectively. Excepting Mania, the same gradual increase in the relative weight of the Cerebellum was found to obtain in the females, the Cerebellum being to the Cerebrum in them as 1 to 6.5338, 6.412, 6.5943, and 6.0435 in same class of cases respectively.

It appears, therefore, that in cases of comparatively short duration, there is the smallest amount of increase in the relative weight of the Cerebellum, and that in General Paralysis the greatest increase takes place.

In reflecting upon these results, the impaired control over the voluntary movements, which forms so marked a feature of General Paralysis, and the very constant increase of the relative weight of the Cerebellum in this disease, must at once be viewed as very interesting and important facts in connection with the functions ascribed to the cerebellum by Fleurens, and other physiologists.



May it not be asked—supposing it to be established by an extended series of observations, that there is uniformly an increase in the relative weight (and specific gravity, as we shall presently see,) of the Cerebellum as compared with the Cerebrum in all forms of Insanity—whether it may not be inferred that the Cerebellum is the organ through which we exercise self-control,—control over the volitions, and successions of our thoughts, as well as over the voluntary muscular movements;—a perturbed volition or a loss of self-control, being, of all other symptoms, the most essential characteristic and pathognomonic feature of Insanity?

The specific gravity of the *grey* and *white* substance of the Brain was taken in 80 cases, of which 39 were males and 41 females. In the following table, the results are arranged in parallel columns with those of Dr Sankey, and classified into decennial periods of age. The one half of the table exhibits the specific gravities of the *grey*, and the other half that of the *white* matter.

Specific Gravity.

A glance at the table will at once show that the specific gravity in the cases of Insanity was almost uniformly higher, and this observation applies to both the *grey* and *white* matter.

In Dr Sankey's cases, the lowest specific gravity of the grey matter was 1028, in the Asylum ones the lowest was 1030; the highest in Dr Sankey's cases was 1046, in mine 1049; while the average specific gravity in all the cases of both sexes was, in the former, 1034, and in the latter, 1038, showing an increase in the specific gravity in the cases of Insanity.

Grey Matter.

The lowest specific gravity of the medullary substance in the healthy brains was 1032, in the diseased 1032; the highest in the healthy was 1048, in the diseased 1053; the mean of all the cases was 1·0411 in the sane, and 1·0429 in the Insane, showing an increase in the specific gravity of the *white* matter of the brain in cases of Insanity.

White Substance.

These results are corroborative of those obtained by Dr Sankey, in his observations at the London Fever Hospital, where in all the cases complicated with cerebral symptoms of a grave character preceding death, such as Convulsions, Strabismus, Paralysis, and utter unconsciousness, the specific gravity was high, averaging both in the *grey* and *white* matter 1041. He makes two exceptions in



TABLE XX.—Specific Gravity of the Grey and White Substance of the Brain in the Sane and Insane.

Cerebrum.																	Cerebellum in the Insane.			
Ages.	Males.						Females.						Both Sexes.				No. of Obs.	Males.	No. of Obs.	Females.
	No. of Observations.		Mean Specific Gravity.		No. of Observations.		Mean Specific Gravity.		Total No. of Observations.		Mean Specific Gravity.		Insane.							
Sane.	Insane.	Sane.	Insane.	Sane.	Insane.	Sane.	Insane.	Sane.	Insane.	Sane.	Insane.	Sane.	Insane.	Sane.	Insane.	Sane.	Insane.			
15-20	4	3	1.037	1.0426	11	...	1.0353	...	15	3	1.0357	1.0426	1	1.038	...	...	...			
20-30	3	7	1.037	1.0397	6	4	1.037	1.0377	9	11	1.037	1.039	4	1.0357	3	1.0403	...			
30-40	9	12	1.0355	1.0383	4	12	1.0336	1.0387	13	24	1.0349	1.0385	8	1.0401	5	1.042	...			
40-50	9	5	1.0355	1.0362	7	11	1.0358	1.0369	16	16	1.0356	1.0367	2	1.043	8	1.0392	...			
50-60	2	7	1.033	1.0391	1	9	1.029	1.0384	3	16	1.0316	1.0387	6	1.0407	4	1.0405	...			
60-70	6	5	1.0365	1.0348	4	5	1.0325	1.039	10	10	1.0349	1.0369	2	1.0365	...	...	...			
70-80	...	...	...	...	2	...	1.032	...	2	...	1.032	...	...	...	...	...	...			
Total,	33	39	...	...	35	41	...	...	68	80	...	...	...	...	20	...	...			
Average	...	...	1.0357	1.0383	...	...	1.0336	1.0381	...	...	1.0345	1.0382	...	1.0393	...	1.0405	...			
15-20	5	3	1.0398	1.045	11	...	1.0405	...	16	3	1.0401	1.045	1	1.043	...	...	...			
20-30	3	7	1.0416	1.0449	6	4	1.0410	1.0417	9	11	1.0412	1.0437	4	1.0412	3	1.045	...			
30-40	9	12	1.0419	1.0433	4	12	1.040	1.0424	13	24	1.0413	1.0429	8	1.0444	5	1.0446	...			
40-50	8	5	1.0418	1.0404	7	11	1.0421	1.0421	15	16	1.0419	1.0416	2	1.0455	8	1.0429	...			
50-60	3	7	1.0410	1.0439	1	9	1.042	1.0449	4	16	1.0412	1.0444	6	1.0457	4	1.0442	...			
60-70	6	5	1.0413	1.0418	4	5	1.041	1.0412	10	10	1.0411	1.0415	2	1.039	...	...	...			
70-80	...	...	...	...	2	...	1.0410	...	2	...	1.0410	...	...	...	...	...	...			
Total,	34	39	...	...	35	41	...	...	69	80	...	...	...	...	20	...	...			
Average	...	...	1.0413	1.0433	...	...	1.0411	1.0427	...	...	1.0411	1.0429	...	1.0437	...	1.0439	...			
GREY SUBSTANCE.																	{ Sane, 1.0345. Insane, 1.0382.			
GREY SUBSTANCE.—Lowest,																	{ Sane, 1.046. Insane, 1.049.			
WHITE SUBSTANCE.																	{ Sane, 1.0411. Insane, 1.0429.			
WHITE SUBSTANCE.—Lowest,																	{ Sane, 1.048. Insane, 1.053.			
Mean,																	Mean,			
Mean,																	Mean,			



regard to the white matter, in both of which the specific gravity was below the mean—these were both cases of children of eight and ten years of age, and both of tubercular Meningitis. Deducting these cases, the average specific gravity of the white matter in his series of cases, complicated with cerebral symptoms, was 1043.

On examining my cases in detail, I find that in most of those cases where the specific gravity of the grey matter was considerably below the mean, the patients had died of Phthisis, and in other instances of exhaustion occurring at an advanced age. Where exceptions to this general inference were met with, it was found that either the symptoms immediately preceding death were of a grave character, or that the morbid appearances found in the membranes indicated chronic inflammatory action.

I have also taken the specific gravity of the grey and white matter of the Cerebellum in 43 cases. I have placed on the table the averages at different ages. The number of observations is too few to warrant more than a presumption that the specific gravity of the Cerebellum is higher than that of the Cerebrum. The difference is much more apparent when, instead of comparing averages, the specific gravity of the Cerebellum is compared with that of the Cerebrum to which it belonged.

I have not been able, as yet, to obtain a sufficient number of data shewing the specific gravity of the cerebellum in the sane, to furnish comparisons with the observations I have made. Dr Sankey has kindly furnished me with a number of observations made by him; but as he has not separated the grey from the white matter, but has taken his specific gravity from a portion of brain containing both, I cannot compare my observations with his directly. I may state, however, that they tend to the same general conclusion, that the specific gravity of the Cerebellum is higher than that of the Cerebrum, and that it is so in healthy brains as well as in diseased ones, although probably in a smaller ratio.

Through the kindness of Dr Haldane, I have been enabled to make a few observations on the specific gravity of the grey and white matter of the Cerebellum in persons dying in the Royal Infirmary. The number of cases suitable for a comparison of this kind, of cases dying without any cerebral symptoms, has as yet been



rather too small to merit a special record. I may, however, state, that in a series of five cases of males dying without cerebral symptoms, the average specific gravity of the grey substances of the Cerebellum was 1042, that of the Cerebrum being 1041. In the cases of the Insane examined by me, the average was 1040 for the Cerebellum, and 1035 only for the Cerebrum, showing a much greater increase in the ratio in the Insane than in the Sane, although the absolute specific gravity was less in these particular cases.

The white substance of the cerebellum in the 5 cases referred to, had an average specific gravity of 1.0443, while that of the Cerebrum was 1.0430. In the cases examined in the Asylum, the average specific gravity of the white substance of the Cerebellum was 1.044, while that of the white substance of the Cerebrum in the same cases was 1.039 only—thus showing a small increase in the absolute specific gravity of the white substance of the Cerebellum in the Insane in the cases compared, and a very considerable increase in the relative specific gravity to that of the Cerebrum in the case of the Insane.

From these data, although limited, I infer that the specific gravity of the Cerebellum is increased in Insanity, and attains a greater increase in relation to that of the Cerebrum than it does in persons dying Sane.

In comparing the specific gravity in the different forms of mental disease, and taking the average of all the cases of each kind, I find the lowest specific gravity of the grey matter to occur in cases of Dementia, where, however, it is still 0.003 above the average in the sane. The next highest specific gravity occurs in cases of Melancholia and Monomania, the next in General Paralysis, the next in Mania, and the highest in Epilepsy.

Of the white substance, the lowest average of specific gravity occurred in cases of Mania (1040), the next in Dementia (1041), the next highest in General Paralysis, the next in Monomania (1044), and the highest also in Epilepsy, being 1.0458.

The results of the preceding observations are curious and interesting. They are inferences certainly from a comparatively limited number of data; but they are, I think, sufficient to prove that more extended observations of a similar kind may probably lead to some



satisfactory and important deductions regarding the pathology of Insanity, and the functions of the Brain.

In conclusion, I think it right to state, that the specific gravity of the central substance was taken exactly in the same manner as that followed by Dr Sankey. A number of jars were prepared with solutions of common salt, the density of which was determined by the urinometer. A series was prepared, ranging from 1.030 up to 1.050. Small portions of cerebral matter were dropped into these solutions, until a jar was found in which the portion so dropped floated midway, at the point to which it sank. This fluid gave the specific gravity, and to insure accuracy, and avoid fallacies arising from the spontaneous evaporation of the fluid, the specific gravity of the fluid was in every experiment tested afresh by the urinometer at the time of the observation. The temperature of the room was 60° F. It is right to repeat the precaution pointed out by Dr Sankey, namely, to take the first effect of the experiment, and that only; as by allowing the portion of brain to remain a few minutes only in the solution, its specific gravity rapidly alters by endosmose, and it will soon sink even in the strongest solutions. From not attending to this precaution, it is, I presume, to be explained why, in the pathological report lately published of a Metropolitan Asylum, the brain is stated in many cases to have had a specific gravity of 1.090 and upwards!

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