

Fourteenth annual reports for 1872 / Sussex County Lunatic Asylum, Haywards Heath.

Contributors

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SUSSEX

COUNTY LUNATIC ASYLUM

HAYWARDS HEATH.



FOURTEENTH ANNUAL REPORTS

FOR 1872.

LEWES:
PRINTED BY GEO. P. BACON, HIGH STREET.

1873.

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COMMITTEE OF VISITORS AND OFFICERS.

1873.

EASTERN DIVISION.

1. Burrell, Walter Wyndham, Esq., Cuckfield.
2. *†Campion, Captain William Henry, Danny, Hurstpierpoint.
3. Carpenter, Charles, Esq., Brighton.
4. Darby, George, Esq., Markly, Hawkhurst.
5. Day, John, Esq., Uckfield House.
6. *Godlee, Burwood, Esq., Lewes.
7. Hankey, John Alexander, Esq., Balcombe Place, Cuckfield.
8. *Laurie, Peter Northall, Esq., Pax Hill, Lindfield.
9. Lewis, Captain William Rowe, Hollington, Hastings.
10. *†Meek, Major George, Brantridge Park, Balcombe.
11. *Norman, John Manship, Esq., Dencombe, Crawley.
12. †Rose- Holden, Colonel John Rose, The Ferns, Wivelsfield.
13. *†Sclater, James Henry, Esq., Newick Park, Lewes, *Chairman*.
14. †Sergison, Captain Warden, Cuckfield Park.

WESTERN DIVISION.

1. Aldridge, Major John, St. Leonards, Horsham.
2. Borrer, Captain Cary Hampton, Horsham.
3. †Dickins, Charles Spencer Scrase, Esq., Coolhurst, Horsham.
4. Fletcher, Sir Henry, Bart., Ham Manor, Arundel.
5. Gibson-Carew George Carew, Esq., Sandgate Lodge, Steyning.
6. Goring, Revd. John, Clerk, Wiston Park, Steyning.
7. *Lloyd, Colonel George Kirwan Carr, Lancing, Shoreham.
8. Wisden, Captain Thomas Faulconer, Broadwater, Worthing.

BRIGHTON BOROUGH.

1. Burrows, Sir John Cordy, Knt., Brighton.
2. *Hollis, William Mellet, Esq., 7, St. George's Place, Brighton.

OFFICERS.

Medical Superintendent.—S. W. D. Williams, Esq., M.D.

Assistant Medical Officer.—Richard Greene, Esq., L.R.C.P.E.

Chaplain.—Revd. Thomas Edw. Crallan, M.A.

Apothecary.—Alfred H. Newth, Esq., M.B.

Clerk and Steward.—Mr. S. A. Mortlock.

Housekeeper.—Mrs. Stroud.

Head Attendants.—Mr. T. W. Buckle (Male Department).

Miss Buckle (Female Department).

Treasurer.—George Whitfeld, Esq., Lewes.

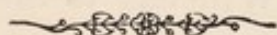
Clerk to the Visitors.—H. Jones, Esq., Lewes.

*Member of the House and Finance Committee.

†Member of the Farm Committee.

SUSSEX COUNTY LUNATIC ASYLUM, HAYWARDS HEATH.

FOURTEENTH ANNUAL REPORT OF THE COMMITTEE OF VISITORS.



*To Her Majesty's Justices of the Peace for the County of Sussex,
assembled in Quarter Sessions, held at Lewes, in and for
the Eastern Division of the said County, on Monday, the
thirtieth day of December, 1872 ; and at Petworth, in and
for the Western Division of the said County, on Thursday,
the second day of January, 1873.*

THE COMMITTEE OF VISITORS of the Sussex County Lunatic Asylum appointed at the Epiphany Sessions, 1872, are happy to report very favourably of the efficient condition of the Asylum, both in its internal organisation and management, as well as in the satisfactory state of its inmates.

The accommodation in the Asylum having lately been more than sufficient for the number of county patients, the Committee have, with the sanction of Her Majesty's Secretary of State, been able to receive 53 lunatic patients belonging to the Borough of Maidstone, and also 28 patients belonging to the St. Pancras Union, at a charge of fourteen shillings per week each, and they have also in the Asylum 14 private patients, at a charge of 16s. each weekly.

The conduct of the Officers during the past year has been satisfactory. The Committee entertain the same high

opinion of the zeal and ability with which Dr. Williams continues to discharge his very responsible duties as Medical Superintendent.

The numbers at present in the Asylum are 331 males and 383 females, making a total of 714.

The general increase has, however, been sensibly checked by the largely increased number of patients from time to time reported by Dr. Williams to the Committee as cured and fit for discharge.

The number of such patients during the past year has been 88.

The attention of the Committee has been directed steadily to keeping down the cost of maintenance, and the Committee are glad to report that in spite of a continued rise in the price of most of the necessaries of life, the weekly rate of maintenance has been kept during the entire year at the same amount, namely, 9s. 6d. per head.

The condition of the Farm continues to improve, and its returns this year both in corn and in root crops have been satisfactory, while cultivation by lunatic labour offers many advantages both as a curative means and as a valuable source of employment of lunatic patients.

The Committee beg to refer the Court to the annexed Report of the Medical Superintendent, and to the Statistical Tables appended thereto, for information as to the details of the working of the Asylum during the past year.


JAMES H. SCLATER,

Chairman.

28th December, 1872.

INCOME and EXPENDITURE for the Year ending December 31st, 1872.

AVERAGE WEEKLY EXPENDITURE for the Year for each Patient, from Weekly Rate.					
	QUARTERS ENDING				Average for the Year 1875.
	March 31st.	June 30th.	Sept. 30th.	Dec. 31st.	
Provisions.. .. .	\$ 6.	\$ 6.	\$ 6.	\$ 6.	\$ 6.
	4 7½	4 8½	5 7½	5 8½	4 9½
House and other Expenses	2 9½	1 9½	1 7½	2 9½	1 11½
Clothing	0 4½	0 7½	0 3½	0 4	0 4½
Salaries and Wages	2 2½	2 1½	2 1	2 6½	2 1½
Medicine, Wine and Spirits	0 3½	0 2½	0 2½	0 2½	0 2½
Incidentals	0 6½	0 6½	0 1	0 6½	0 6½
Nett Cost	9 9½	9 2	9 0	10 7½	9 5½
Weekly Rate charged to the Unlaid contributing to the Asylum.. .. .	9 0	9 0	9 0	9 0	9 0
Do. do. Not contributing do.	16 0	16 0	16 0	16 0	16 0
Do. do. for Private Patients	26 0	26 0	26 0	26 0	26 0



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SUSSEX LUNATIC ASYLUM, HAYWARDS HEATH.

BALANCE STATEMENT for the Quarter ending 31st December, 1872.

ASSETS.		DEBITS.	
	£ s. d.	1872.	£ s. d.
1872. Sep. 30. To Unions &c., in Arrears, viz.:—		Dec. 31. To Amount due to Sundry Tradesmen, on Account of Maintenance, Repairs, Improvements, &c.	2704 8 4
" Seafood	21 2 6	" Ditto on Cheques not paid in	180 0 0
Dec. 31. Due from Unions Contributing	3436 17 0	" Ditto due to Clerk, Steward's account...	141 16 5
" not contributing	1310 16 5		
" Ditto, County Treasurers	87 10 6		
" Ditto, Private Patients	123 7 2		
" Due for Repairs, Alterations, and Improvements	432 6 10		
" Ditto, Sale of Stores, &c.	314 16 1	Surplus Balance	5482 15 2
" Cottage Rent	1 12 6		
" Cash in Banker's hands	2780 10 11		
	<u>£8508 19 11</u>		<u>£8508 19 11</u>

Examined by Finance Committee, this 25th day of January, 1873.

(Signed)

(Signed)

JAMES H. SCLATER, *Chairman*.
JOHN MANSHIP NORMAN.
GEO. MEEK.

S. A. MORTLOCK,
Clerk of the Asylum.

FARM AND GARDEN ACCOUNT.

Dr.

From 1st January to 31st December, 1872.

Cr.

	£	s.	d.	£	s.	d.	By Sale of—	£	s.	d.	£	s.	d.
To Estimated Value of Live Stock	1276	14	0				Calves.....	58	17	6			
Estimated Value of Dead ditto	436	15	0				2 Horses.....	36	7	6			
Tenants' Valuation	432	9	0				Hides and Skins	177	10	11			
Estimated Value of Provender	431	15	0				Rough Fat, &c.	43	19	9			
				2577	13	0	Wheat	255	17	0			
							Roots	5	14	2			
							Discount	3	1	0			
							Use of Stock	14	16	0			
							Sundries.....	6	4	0			
											602	7	10
To Purchase of—							By Produce Supplied to House:—						
1 Bull	34	13	0				13,204 lbs. Beef ..@ -/7	385	2	4			
84 Cows and Beasts	1872	13	4				13,145 „ ditto ..@ -/8	438	3	4			
1 Calf	4	14	6				17,702 „ ditto ..@ -/8½	608	10	1½			
274 Sheep	830	0	6				15,324 „ ditto ..@ -/7½	494	16	9			
Hay	43	12	9				19,330 lbs. Pork ..@ -/7½	604	1	3			
Pigs.....	16	14	1				9,058 lbs. Mutton @ -/9½	367	19	6½			
Oil Cake.....	232	0	0				4,705 „ ditto ..@ -/9½	186	4	9			
Bran	19	7	10				3,893 „ ditto ..@ -/10½	170	6	4			
Oats	47	9	9				87 Livers, &c....	25	0	3			
Barley and Maize.....	386	9	6				241 Bells@ -/11	11	0	11			
Straw	190	15	0								3,291	5	7
Seeds and Plants	119	5	11				15,403½ galls. Milk..@ -/11	706	0	1			
Manure and Lime ...	97	2	0				5,770 Eggs@ -/1	24	0	10			
Implements	24	15	1				140 Poultry@ 2/-	14	0	0			
Wages of Bailiff, Gardener, Cowman, Carter, and other Servants employed on Farm	366	12	2				211 Rabbits@ -/10	8	15	10			
Thrashing	8	10	7								752	16	9
Thatching, &c.	9	5	1				2,230 bus. Cabbage@ 1/-	111	10	0			
Valuation	7	7	0				132½ „ Onions @ 2/-	13	5	0			
Grinding	37	12	1				628½ „ Potatoes@ 2/8	83	16	0			
Railway Carriage	35	1	4				351½ „ Peas ..@ 2/-	35	3	6			
Sundries.....	33	6	9	4417	8	3	296½ „ Beans ..@ 2/-	29	13	0			
							176 „ Carrots @ 2/-	17	12	0			
							443 „ Parsnips@ 2/-	44	6	0			
							245 „ Turnips @ -/10	10	4	2			
							2,244 Cauliflower @ -/2	18	14	0			
							Other Vegetables, Herbs, &c.	29	9	9			
							Fruit and Rhubarb	17	5	11			
							Vegetables and fruit supplied to Medical Superintendent.....	20	3	6			
Rates and Taxes	45	15	7								431	2	10
2200 Bushels of Grains, at 4d. per Bushel	36	13	4				Carting Coals, &c.	39	8	10			
Estimated Rent on Land	150	0	0	232	8	11	Keep of House Horse ..	23	8	0			
											62	16	10
							By Estimated Value of Live Stock	1327	2	0			
							„ Dead ditto ..	443	15	0			
							„ Tenants' Valuation.....	431	15	0			
							„ Provender ..	572	13	0			
Balance in favour of Farm				688	4	8					2775	5	0
											£7,915	14	10

ESTIMATED VALUE OF FARM STOCK:—

1871.—December 31:—	£	s.	d.	1872.—December 31:—	£	s.	d.
31 Cows and Fattening Beasts.....	595	0	0	29 Cows, Fattening Beasts and Calves	626	18	0
8 Horses	262	15	0	70 Sheep	181	8	0
42 Fat Sheep	109	4	0	6 Horses.. ..	259	10	0
156 Head of Swine	289	13	0	143 Head of Swine	242	10	0
152 Head of Poultry	19	7	0	170 Head of Poultry ...	16	1	0
6 Ferrets	0	15	0	Ferrets	0	15	0
	1,276	14	0		1327	2	0
Dead Stock, Implements, &c.....	436	15	0	Dead Stock, Implements, &c.	433	15	0
Tenants' Valuation	452	9	0	Tenants' Valuation	431	15	0
Provender	431	15	0	Provender	572	13	0
	£2,577	13	0*		£2,775	5	0*

Examined by Finance Committee,
January 25th, 1873.

JAMES H. SCLATER, Chairman.
J. MANSHIP NORMAN.
GEO. MEEK.

(Signed) S. A. MORTLOCK, Clerk and Steward.

* These Valuations were made by Mr. Thos. Bannister, Haywards Heath.

An Abstract of the Annual Returns of Pauper Lunatics chargeable to the several Unions and places in the County of Sussex, 1st Jan., 1873.

CHARGEABLE TO UNIONS AND COUNTY.	In County Asylum.		In Private Asylum.		In Asylums in other Counties.		In Work- houses.		In Lodg- ings or Boarded out.		With Friends.		TOTAL.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Battle	8	13	1	..	..	..	3	3	1	..	2	4	15	20
Brighton	73	73	..	..	..	..	50	48	..	..	16	21	139	142
Chailley	9	10	..	..	..	..	1	..	..	..	3	5	13	15
Chichester (Incorporatn)	10	5	..	..	..	..	..	1	..	..	1	3	11	9
Cuckfield	11	18	..	..	..	..	4	5	..	1	2	5	17	29
Eastbourne	9	14	..	..	..	1	1	1	..	..	..	1	10	17
East Grinstead	10	7	..	..	..	1	12	10	..	..	5	2	27	20
East Preston	7	13	..	..	..	..	1	6	..	1	7	3	15	23
Hailsham	10	11	..	..	..	..	5	5	..	..	3	6	18	22
Hastings	21	25	..	..	1	..	2	4	..	..	2	..	26	29
Horsham	11	19	..	1	..	..	4	10	..	1	5	11	20	42
Lewes	5	15	..	..	1	..	3	5	..	..	..	1	9	21
Midhurst	6	7	..	..	..	..	2	2	1	2	5	7	14	18
Newhaven	5	5	..	..	..	..	2	5	..	..	..	..	7	10
Petworth	7	6	1	..	1	..	4	4	..	..	2	1	15	11
Rye	7	9	..	..	..	..	6	5	..	..	3	5	16	19
Steyning	11	20	..	..	..	..	4	7	..	..	4	7	19	34
Thakeham	4	4	..	..	..	..	2	1	..	..	..	2	6	7
Ticehurst	9	13	..	..	..	..	7	5	1	..	2	2	19	20
Uckfield	12	15	..	..	..	..	3	4	2	..	7	9	24	28
Westbourne	4	9	..	..	..	..	2	3	..	..	1	2	7	14
Westfrie	1	2	..	..	..	..	..	..	..	..	1	1	2	3
Westhamphett	21	21	..	..	..	..	4	6	..	..	3	6	28	33
County-Eastern Division	7	6	..	..	..	..	..	..	..	..	..	..	7	6
Do. Western do.	1	..	..	..	..	..	..	..	..	..	..	..	1	..
TOTALS.....	279	340	2	1	3	2	122	140	5	5	74	104	485	592

SUMMARY.

Years	In Asylums		In Workhouses.		With Friends.		TOTALS.		
	M.	F.	M.	F.	M.	F.	M.	F.	M. & F.
1st January, 1855.	92	127	79	54	45	85	216	266	482
1st January, 1868.	242	31	95	107	62	84	399	492	891
1st January, 1869.	250	318	102	110	67	84	419	512	931
1st January, 1870.	246	326	109	108	72	83	427	517	944
1st January, 1871.	275	348	116	120	79	101	470	569	1039
1st January, 1872.	264	341	111	141	84	120	459	602	1061
1st January, 1873.	284	343	122	140	79	109	485	592	1077

S. A. MORTLOCK,

Clerk of the Asylum.

THE
MEDICAL SUPERINTENDENT'S
FOURTEENTH ANNUAL REPORT.

Fourteenth Annual Report. THE Medical Superintendent has the honour to submit the Fourteenth Annual Report to the Committee of Visitors.

Numbers on the 31st Dec., 1871. On the 31st December, 1871, the numbers in the Asylum were Male 261, Female 341. Total, 602.

Admissions. The admissions during the year have been, Male 138, Female, 130. Total 268.

Discharges. The discharges during the year have been, Male 32, Female 56. Total 88.

Deaths. The deaths during the same period have been, Male 35, Female 32. Total 67.

Mean Annual Population. The mean population resident during the year has been, Male 294.9, Female 369.3. Mean average 664.2.

Numbers this day 31st Dec., 1872. The numbers in the Asylum this day (31st December, 1872) are Male 332, Female 383. Total 715.

Numerical results of the year. The several numerical results are summed up in the first Table in Appendix A to this Report.

Annual per cent-ages for 1872. The Numerical Results of the year 1872 yield the following per centages :—

(a.) The Discharges (including the cases Relieved) are 32.8 per cent. on the admissions of the year. Excluding those cases Relieved, the per centage of Recoveries on the admissions stands at Male 16.6, Female 33.8. Average 25. This apparently low per centage of recoveries is due to the admission of nearly 100 chronic Lunatics from St. Pancras and Maidstone. The recoveries on the admissions from the County are at the rate of 35.6 per cent.*

(b.) The mean Annual Mortality is Male 11.8. Female 8.6. Average 10.1. Mean Annual Mortality.

The following Table details the chargeability of the seven hundred and fifteen Patients to-day in the Asylum :—

	M.	F.	T.
Patients chargeable to Unions and Boroughs in			
Sussex	280	344	624
Patients chargeable to St. Pancras.....	27	...	27
" " Maidstone	21	28	49
" " other out county Unions	1	2	3
Private Patients	3	9	12
Total.....	332	383	715

It will thus be seen that there are now 280 Males and 344 Females in this Asylum chargeable to Sussex, against 277 Males and 350 Females so charged this time two years ; so that the opinion expressed in the Report of last year that

* On the mean number resident it is Male 7.8, Female 11.5. Average 10.1.

“the numbers in the Asylum may be kept within reasonable limits,” is so far verified.”*

This result is to be obtained, as was then pointed out, by the discharge of chronic and harmless lunatics to the care of their friends, and the early discharge of convalescents. In Appendix B to this report will be found a detailed account of the cases thus discharged, with some further information on the matter.

History of the
Year.

The history of the year is uneventful, and with the exception of an increase of upwards of 100 to the population, there is nothing very prominent to report.

This large increase, which has necessarily added greatly to the labour and responsibility entailed on the staff, is to be accounted for in the following way :—

A reference to last year's report will show that it was therein stated that there was vacant accommodation for 116 Males and 72 Females. It was therefore determined to receive out county patients at a remunerative maintenance rate of 14s. a week. A contract was entered into with the Borough of Maidstone to receive all the lunatics chargeable to that borough, and on May 29th, 22 Males and 31 Females were transferred here from the Kent County Asylum. A similar contract was entered into with the Union of St. Pancras, limiting it, however, in this case, to males, and on August 30th, 21 men were admitted, and on Sept. 10th, six more. All these cases were transferred without accident, and have gradually settled down comfortably, the majority being chronic, and comparatively harmless.

Accidents.

The following accidents have occurred during the year :—

* Notwithstanding the very considerable increase in the Pauper Lunatics of this County. (See Table, Page 9.)

1. E. S., a feeble old woman fell down the steps leading to the airing court, and fractured the tibia and fibula of the right leg, and the radius of the right arm.

2. D. D., an epileptic, fell, on November 18th, in coming out of the W. C., and received a comminuted fracture of the right humerus. The Medical Superintendent was in the ward at the time, and so can vouch for the purely accidental nature of the occurrence.

Both these patients are progressing as favourably as their enfeebled constitutions can allow.

W. W., a male patient, suffering from melancholia, had been working for some months on the farm, with apparent benefit, and was considered quiet and harmless. Homicidal Attacks.

On June 4th he was engaged hoeing a field in company with an attendant and three other patients. Suddenly, without previous warning, he came behind the attendant, and struck him down with the hoe, inflicting several severe wounds on the scalp. The attendant was rendered unconscious by the blows, and when he came to himself the patient was standing calmly by him, and helped him back to the House. The attendant was much hurt, and did not recover his wonted health for many months.

C. B., a patient who has worked almost from the opening of the Asylum, in the shoemaker's shop, suddenly commenced, on the 21st June, cutting up one of the shoes. The master shoemaker went, a little too abruptly, to prevent him; a struggle ensued, and before he could obtain the knife from the patient, he received a long gash on the fleshy part of the fore-arm. He was back at his work, however, in a week or so.

These two instances exemplify what risks the attendants

on the insane have to encounter in their daily ministration, and would prompt to a more lenient judgment than is often passed on them, if in the heat of sudden, and often greatly provoked, irritation, they occasionally forget the almost sacred nature of their mission.

Escapes.

H. H. made her escape from the Asylum on the evening of February 25th, by creeping through a large ventilator, and as she was not retaken within two weeks, she was discharged according to the statutory requirements.

She was readmitted under an order of the Secretary of State from Lewes Gaol, on August 3rd, having been sent there for failing to obtain sureties to keep the peace towards her sister, with whom she had resided since her escape.

Two or three others have made attempts at escaping, but without accomplishing their object, and the latter part of the year has been remarkably free from any such endeavours.

Inquests.

On October the 11th, H. B. died very suddenly, whilst dressing. He had previously been in apparently fair, though not robust, health.

The circumstance was reported at once to the Coroner, and he held an inquest on the 12th October, having previously directed the Medical Superintendent to perform a *post mortem* examination.

This examination revealed an aneurism of the left ventricle of the heart, which was, without doubt, the cause of his death, and the jury returned a verdict to that effect.

C. P. E.— On Friday afternoon, the 6th of December, this patient, a case of dementia—indeed, almost of amentia—suddenly fell down, apparently in a fit, whilst working in

the garden. On being removed to the Infirmary he became very sick and vomited a quantity of matter, smelling strongly of tar, and containing portions of undigested carrots and parsnips, knotted shoe laces, fragments of tobacco pipe, rusty nails, sand, and cinders, &c., &c. A still larger quantity was removed by the stomach pump. He never rallied, but died at 3 a.m. on the morning of the 7th inst.

A coroner's inquest was held on December 9th, and the following verdict was returned :—" Having poisoned himself by taking gas tar and carbolic acid—that there was no negligence on the part of the officers, and that all poisonous things should be kept away from the patients in future."

1. A very commodious cottage has been erected for the gardener at the top of the garden, and the greenhouse, pits, &c., &c., moved to the same locality. This is a great improvement. The gardener has now all the requirements of his art close to hand, and everything directly under his eye.

Alterations and
Improvements.

2. The original meat larder was placed in the basement under the kitchen. This was not only a very inconvenient position, but owing to its confined situation most inimical to the due preservation of the meat. A new and perfectly detached larder was, therefore, ordered, and is now nearly completed.

The old meat larder will be turned into a vegetable room, the present vegetable room being most inconveniently situate in the midst of the females' wards.

Both the above buildings were erected by our own artisans, from designs supplied by Mr. H. Card, of Lewes.

3. The new portions of the Females' Infirmary, and of F 6, have been thoroughly well painted and decorated, and

the former is now one of the most pleasing features of the establishment. The large single bedrooms it contains, furnished, as they are, with a fireplace and cheerful furniture, have been found extremely useful in treating many bodily ailments.

4. Many minor additions, too numerous to enumerate, have been made to the furniture, books, flowers, games, &c., &c., of the establishment.

Donations.

The warm thanks of the patients are due to the under-mentioned ladies and gentlemen for gifts that have tended to alleviate the irksomeness of their detention here; viz:—

£200 from a lady who does not wish her name to appear, to be expended in the recreation and amusement of the patients.

A large parcel of Pictures, Prints, &c., from J. M. Norman, Esq.

Four Parrots from Major Meek.

Many volumes of the Illustrated London News, from W. M. Hollis, Esq., and Mr. W. J. Smith, of Brighton.

Amusements.

Knowing how invaluable, as a remedial agent, recreation is, it has been the endeavour of the Medical Superintendent to keep the excellency and frequency of the amusements fully up to the standard of previous years. In this he has, as heretofore, been well supported by the staff generally, the members of which have, without exception, ever been willing to put themselves to inconvenience and trouble to promote the object in view. His thanks are also due to many kind friends and neighbours, for assistance accorded in this good work.

On November 29th a troupe of Amateur Minstrels, from Brighton, styling themselves the Prairie Birds, gave a most amusing entertainment, which was greatly appreciated; and the Medical Superintendent is glad of this opportunity of acknowledging the kindness that prompted the trouble taken to amuse the patients.

During the winter the weekly balls, and in summer the fortnightly picnics, when the weather permitted, have been regularly kept up. On several occasions, also, small parties spent the day on the beach at Brighton.

The celebration of the anniversary of the opening of the Asylum was held, as heretofore, on July 25th. The day was observed as a general holiday throughout the establishment, and an unusually large number of visitors added to the success of the day by their presence.

The cricket club flourished vigorously through the summer months, and frequent matches were played with neighbouring village clubs.

The only drawback to the success of the amusements is the confined space of the recreation room, which was built for the Asylum when it was supposed that about 400 would be the limit of the population. But now that the Asylum contains 800 beds, the old room is totally inadequate to contain the numbers who troop to it. Hence much disappointment and annoyance.

In June, Henry Clarke, the master shoemaker, who had New Organist. acted as organist for many years, resigned his situation, being about to emigrate. On the representation of the Medical Superintendent, the Committee of Visitors increased the salary of the post of organist sufficiently to enable a competent man to be obtained to fill the situation, and at their

meeting in August, the Committee sanctioned the appointment of Mr. Stokes, organist of Charminster, to the vacant post; the agreement with him being that he was also to act as assistant to the Chaplain in the schools, as bandmaster, as choirmaster, and leader of the glee class. Although he has not been many months here, there is already a very marked improvement in the singing classes and the band, and the Chaplain reports that he receives efficient help in the teaching in the schools. Altogether, therefore, the new arrangements in this department may, so far, be considered a success. The effectiveness of the Chapel services has been much increased by the erection of an organ, purchased partly out of the donation already mentioned.

Appendix B.
Medical Records.

Following the precedent of last year, the Medical Officers have noted down any subjects of interest that have occurred in the practice of their profession during the year, and publish them in a detached Appendix* to this Report.

The Staff.

The changes in the staff have not been numerous, and it has not been necessary to discharge anyone.

Amongst those who have left, however, are several old and valued servants of the county, two of whom went away to be married. Every year it becomes increasingly more difficult to replace such, and the question where to find really respectable and efficient nurses and attendants appears yearly more troublesome to solve.

Looking at the fact of the great increase in the price of all the necessaries of life, and that many of them were receiving the same wages as when they first entered the service of the establishment ten years ago, the artisans had their wages at the commencement of winter increased by the

* If the Appendix does not accompany this Report, a copy can always be obtained by applying to the Medical Superintendent.

Visitors by one shilling per week per man. The wages of the Male Attendants have also been lately revised and increased.

The scale of wages is now as follows :—

The Charge and First Class Attendants.—Enter at £30 and rise £1 a year to £40.

The Second Class Attendants.—Enter at £30 and rise £1 a year to £36.

The Under Attendants.—Enter at £24 and rise £1 a year to £30.

The scale for the Females remains as heretofore, viz. :—

The Charge Nurses.—Enter at £20 and rise £1 a year to £25.

The Second Class Nurses.—Enter at £18 and rise £1 a year to £20.

The Third Class Nurses.—Enter at £15 and rise £1 a year to £18.

In concluding his Report, the Medical Superintendent Conclusion. cannot refrain from remarking with much pleasure on the cordiality and spirit of forbearance which have marked the conduct of the officers towards one another in the performance of their harassing duties, and of the efficient help he has received from all. Owing to the large number of admissions, and the greatly increased population, the medical work this year has been unusually heavy, and the Medical Superintendent would be wanting in proper appreciation, if he did not specially mention the very valuable aid he has received in this part of his duties from Dr. Greene, the Assistant Medical Officer.

To the Committee of Visitors, the Medical Superintendent desires to tender his thanks for the support they have given him in the performance of his work, and for the very substantial appreciation they have been good enough to show of his services.

(Signed)

S. W. D. WILLIAMS,

Medical Superintendent.

31st December, 1872.

THE CHAPLAIN'S FOURTEENTH ANNUAL REPORT.

- Fourteenth Annual Report. THE Chaplain has the pleasure of laying before the Committee of Visiting Magistrates his Report for the Fourteenth Year of the existence of this Asylum.
- Sunday Services. The services on Sunday in the Chapel and in the wards have been conducted during this year according to the arrangements made in September, 1869. The same orderly, reverent, and attentive behaviour has been maintained.
- Administration of Holy Communion. The Holy Communion has been administered at the customary times in the Chapel and in the Female Infirmary.
- Daily Prayers. The Morning Prayers in the Dining Halls have been continued, the conduct of the patients being marked by order and attention.
- Classes. The classes have been continued as formerly. The number attending each class has considerably increased, and the Chaplain has found the assistance rendered by Mr. Stokes, the organist, very valuable.
- Library. The Library still furnishes the means of mental relaxation to a large number of the household, and the books in the wards are appreciated by many of the patients.
- Visits, &c. The Chaplain has frequently visited the infirmaries, wards, &c., and has enjoyed much interesting conversation with many of the patients.

The Commemoration Festival was observed on July 25th. Commemoration.
 The sermon was preached by the Rev. H. Kirkpatrick, M.A.,
 Rector of West Hoathly, the lessons being read by the Rev.
 J. Foster, M.A., Vicar of the Parish, and the Rev. J. H.
 Rush, M.A. The choir was led by Mr. White, of Cuckfield.

52 burials and 15 removals have taken place in the course Burials.
 of the year.

The service in the Chapel has been greatly improved by Conclusion.
 the munificent gift of a handsome organ, and the appointment
 of a skilled organist. The Chaplain here desires to express
 his sense of the hearty effort made by the late organist to do
 his best for the service during the many years whilst he
 presided at the harmonium, and at the same time to thank
 the staff generally for the support they have afforded him in
 the execution of the duties of his office.

(Signed) THOMAS E. CRALLAN, M.A.,
 Chaplain.

Haywards Heath, Dec. 31st, 1872.

METEOROLOGICAL REPORT.

THE past year will long be remembered for its remarkable meteorological phenomena.

The chief points were the excessive amount of rainfall, the great number of rainy days, and the high temperature.

To the end of the first fortnight of October, the rainfall, although considerable, was not excessive. Up to that date 23.27 inches of rain had fallen upon 157 days ; but as, on the average of the four previous years up to the corresponding day of October, 19.03 inches of rain had fallen on 122 days, and in 1869, on 140 days, 22.63 inches of rain had fallen, there was nothing hitherto very remarkable. When, however, out of the remaining 78 days it rained on 64, and in that time 14.92 inches of rain fell, it became plain that the total rainfall of this year would prove excessive indeed. We had, in fact, taking the whole year through, two days wet out of every three, and twelve inches of rain above the average fall for this locality.

The temperature was remarkable, not for any extremes of heat or cold, but rather for a general high temperature throughout the year, accompanied, as might be expected, with much cloud, moisture, and many thunderstorms.

The period of greatest cold was the week commencing March 20th, and ending March 26th. Up to the former of these dates the spring appeared to give promise of being warm and early, and the fruit trees were well in bloom ; but the cold of that week completely destroyed the blossom, and with it the hope of a crop.

The greatest rainfall in twenty-four hours occurred on October 21st, amounting to 1.60 inches.

The usual table is annexed.

THOMAS E. CRALLAN.

Meteorological Observations taken at the County Lunatic Asylum during 1872.

Year 1872.	Pressure of atmosphere corrected and reduced.		Temperature of the Air.											Radiation Thermometer.				Wind.								Rain.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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			Maximum.		Minimum.		Range.		Of all Maxima.		Of all Minima.		Daily Range.		Daily Temperature.		Dew point.		Humidity Satn. 100.		Maximum in Sun.		Minimum on Grass.		Range.			Mean Maximum.		Mean Minimum.		Mean Velocity in miles per diem.		N. N.E. E. S.E. S. S.W. W. N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									

(Signed) THOMAS E. CRALLAN.

REPORT BY THE VISITING COMMISSIONERS IN LUNACY.

SUSSEX LUNATIC ASYLUM,

Haywards Heath, June 20th, 1872.

TO-DAY and yesterday we visited the Sussex Asylum. We have now inspected its wards, workshops, and offices, and seen all the patients except two on trial.

These are the changes which have occurred amongst the patients since our colleagues' visit in March, 1871. The total number is now reduced from 684 to 664. That number comprises 287 males and 377 females. (There is accommodation in the Asylum for 792.) Eighty-eight men and 125 women have been admitted; 97 men and 56 women have been discharged. Of the 97 men discharged, 60 were chargeable to Middlesex, and at the expiry of the contract for their reception here were transferred to the Asylum at Hanwell. Of the admissions, 22 men and 31 women were received under a contract with the Borough of Maidstone from Kent Asylum. Of the discharges, the number recorded as recovered is, 30 of the male sex, and 39 of the female. The deaths have been 41 in each division, all from ordinary causes. Three males and 1 female are on trial; 2 of these being idiot boys, who live near in the families of artisans employed in the Asylum, and who were brought to us at our visit yesterday, we saw. The out county patients at present here are the 51 referred to as received from Kent Asylum (their weekly maintenance is 14s.), and 1 man chargeable to Essex,

who, having been attacked by insanity at Hastings, is temporarily in this Asylum by arrangement. The weekly charge for the private patients (2 males and 5 females) is 16s.

We found the patients remarkably free from excitement, and none made complaint of ill-treatment. A great number of the women were engaged in needlework in their respective wards, and others in reading and amusing themselves, the means for which are ample. The women belonging to the least favourable class were in the airing-court ; the same class of men were also in their airing-court. In the workshops, 10 men were engaged in the tailors' shop, 11 in the shoe-makers', 13 in the mat-making and basket department, and 4 with the upholsterer, when we visited. The total number of men employed yesterday, according to the returns, was 170 ; the women employed, 239.

Only one man was in seclusion during the time of our visit, and he was so treated for violence arising from a paroxysm of epileptic mania.

Since our colleagues' visit in March of last year, only 5 males on eight occasions, and 19 females on 33 occasions, have been secluded. There is no record of any resort to restraint of a mechanical kind ; we find, however, that packing in wet sheets, as medical treatment, has been employed in the cases of 16 males and 22 females. This packing for medical treatment should be recorded in the Medical Journal, and under the head of restraint.

The patients were neatly dressed when we visited them, and clean in person and clothing.

The condition of the several wards and dormitories is very satisfactory ; they were scrupulously clean and well ventilated

during our passage through them. The day-room for the laundry patients has been very well furnished, and is exceeding comfortable.

We saw 230 males and 350 women in their respective halls at dinner, and tasted that which was served to them, which was excellent. The men had suet pudding with currants, the women had soup with meat in it, and vegetables; both sexes had beer. The demeanour of all was orderly.

On Sundays at the Chapel there are three services, as all the patients able to attend cannot be accommodated otherwise. The number who attended last Sunday was 199 men and 240 women.

The associated entertainments are numerous; 160 patients have this day been taken to a pic-nic on a common two miles away.

Since the last visit the following alterations and improvements have taken place:—

The airing-court for females, No. 5, has been laid out and planted.

The male scullery and attendants' mess-room has been enlarged.

Two male wards and as many female wards have been painted and papered.

Mirrors and mantel-piece ornaments have been placed in female wards.*

A new cottage has been provided for the gardener.

In our visit to the laundry, we observed that the steam-

* Bought out of donation referred to at page 16.

drying closet is too hot for the employment there of patients ;
we saw one so employed.

The bathing arrangements are very good ; each patient is
bathed twice weekly, and the water is changed for every
patient.

We have derived great satisfaction from our visit during
the past two days. The state of the Asylum is highly
creditable to those concerned in its management.

(Signed)

CHARLES PALMER PHILLIPS,	} Commissioners
ROBERT NAIRNE,	



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APPENDIX A.

CONTAINING THE

TABLES OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION, &c.

The Medical Superintendent desires to acknowledge the services rendered to him by the Clerk and Steward of the Asylum (Mr. S. A. Mortlock) in the compilation of these Tables.

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TABLE 1.

Showing the Admissions, Re-Admissions, Discharges, and Deaths during the Year 1872.

				Male.	Female.	Total.
In the Asylum, 1st January, 1872 ..				261	341	602
	M.	F.	T.			
Admitted for the first time during the year	130	119	249			
Re-Admitted during the year	8	11	19			
Total Admitted.....				138	130	268
Total under care during the year				399	471	870
Discharged or Removed :						
	M.	F.	T.			
Recovered.....	23	44	67			
Relieved	7	11	18			
Not Improved	2	1	3			
Died	35	32	67			
Total Discharged and Died during the year				67	88	155
Remaining in the Asylum, Dec. 31st, (inclusive of absent on trial), 2 Males				332	383	715
Average numbers resident during the year				294.9	369.3	664.2

TABLE II.

Showing the Admissions, Re-Admissions, and Discharges, from the Opening of the Asylum to the present date, 31st December, 1872.

	Male.	Female.	Total.
Admitted during the Period of $13\frac{1}{2}$ years	1106	1054	2160
Re-Admissions	61	98	159
Total of Cases Admitted	1167	1152	2319
Discharged or Removed :			
	M.	F.	T.
Recovered.....	225	328	553
Relieved	77	71	148
Not Improved	116	41	157
Died	417	329	746
Total Discharged and Died during the $13\frac{1}{2}$ years	835	769	1604
Remaining, December 31, 1872	332	383	715
Average numbers resident during the $13\frac{1}{2}$ years	246	282	528

TABLE III.

Showing the Admissions, Discharges, and Deaths, with the Mean Annual Mortality and proportion of Recoveries per cent. of the Admissions for each Year since the Opening of the Asylum, July 25, 1859.

YEAR.	Admitted.			Discharged.									Died.			Remaining 31st Dec. in each year.			Average No. Resident.			Per centage of Recoveries on Admissions.			Per centage of Deaths on average Nos. Resident																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									

* This apparently low per centage of recoveries is due to the admission of nearly 100 chronic Lunatics from St. Pancras and Maidstone. The recoveries on the admissions from the County are at the rate of 35.6 per cent.

TABLE IV.

Showing the History of the Annual Admissions since the Opening of the Asylum, with the Discharges and Deaths, and the Numbers of each year remaining on the 31st December, 1872.

Admitted.				Of each year's Admissions Discharged and Died in 1872.										Total Discharged and Died of each Year's Admissions to 31st Dec., 1871.										Remaining of each year's Admissions Dec. 31, 1872.				YEAR.				
New Cases.		Relapsed Cases.		Re-covered.			Relieved.			Not Im-proved.			Died.			Re-covered.			Relieved.			Not Im-proved.			Died.				M.	F.	Tot.	
M.	F.	M.	F.	M.	F.	Tot.	M.	F.	Tot.	M.	F.	Tot.	M.	F.	Tot.	M.	F.	Tot.	M.	F.	Tot.	M.	F.	Tot.	M.	F.	Tot.					
1859...	143	164	...	...	307	...	...	...	...	...	...	...	4	2	6	11	16	27	1	4	5	5	2	7	73	49	67	116	1859		
1860...	79	104	1	...	184	...	...	...	...	...	...	...	...	3	3	6	16	30	46	7	7	14	10	16	26	32	15	18	33	1860	
1861...	102	60	1	6	169	...	...	...	...	...	...	...	...	1	1	2	10	19	29	10	4	14	40	5	45	32	20	11	16	27	1861
1862...	58	64	2	5	129	...	...	...	...	...	...	...	...	1	1	2	16	27	43	4	3	7	1	2	3	29	21	10	15	25	1862
1863...	58	22	1	...	81	...	...	...	...	...	...	...	...	...	2	11	5	16	3	4	7	2	1	3	32	9	3	12	1863		
1864...	56	62	8	8	134	...	...	...	...	...	...	...	...	1	1	2	16	19	35	4	3	7	2	5	7	30	20	12	22	34	1864
1865...	62	50	5	7	124	...	...	...	...	...	...	...	...	...	2	12	17	23	4	6	10	...	2	2	2	35	16	14	16	30	1865
1866...	64	84	6	5	159	...	...	...	...	...	...	...	...	1	1	2	14	26	40	5	9	14	1	1	2	32	30	18	22	40	1866
1867...	63	80	1	13	162	...	...	...	...	...	...	...	...	1	1	2	20	29	49	8	9	17	1	5	6	22	27	18	22	40	1867
1868...	116	61	3	12	192	...	...	...	...	...	...	...	...	1	2	3	19	33	52	17	2	19	47	...	17	20	37	18	17	35	1868
1869...	57	61	3	7	128	...	...	...	...	...	...	...	...	2	4	6	19	18	37	3	5	8	4	1	5	15	18	17	20	37	1869
1870...	76	71	7	12	166	...	...	...	...	...	...	...	...	3	5	8	27	33	60	1	1	2	1	1	1	26	10	22	29	51	1870
1871...	42	52	10	12	116	1	4	5	11	12	23	3	3	6	7	3	10	20	28	48	1871
1872...	130	119	8	11	268	...	...	...	...	...	...	...	...	2	10	12	...	...	...	...	...	...	...	...	...	...	99	88	187	1872	
TOTAL	1106	1054	61	98	2319	2344	67	711	18	2	1	3	35	32	67	202	284	486	70	60	130	114	40	154	382	297	679	332	383	715	TOTAL	

Summary of the Total Admissions, 1859-72.

	Male.	Female.	Both Sexes.
Per centage of Cases Recovered	19.3	23.5	23.9
Relieved	6.6	6.2	6.4
Not Improved	9.9	3.6	6.8
Dead	35.7	28.5	32.1
Remaining	28.5	33.2	30.8
	100.	100.	100.

TABLE V.

Showing the Causes of Death during the Year.

CAUSES OF DEATH.	Male.	Female.	TOTAL.
<i>Cerebral or Spinal Diseases.</i>			
Inflammation and other Diseases of the Brain, Softening, &c. ...	6	7	13
Epilepsy	2	4	6
Progressive Paralysis of the Insane	5	4	9
Maniacal or Melancholic Exhaustion or Decay	3	0	3
Apoplexy	0	1	1
<i>Thoracic Diseases.</i>			
Inflammation of Lungs, Pleuræ or Bronchi	4	1	5
Pulmonary Consumption	6	3	9
Disease of the Heart	4	6	10
<i>Abdominal Diseases.</i>			
Disease of Kidneys	2	1	3
Abscess of Liver	1	0	1
Erysipelas	0	1	1
Poisoning by Carbolic Acid.....	1	0	1
Decay of Old Age	1	2	3
Cancer	0	2	2
TOTAL.....	35	32	67

TABLE VI.

*Showing the length of Residence of those Discharged Recovered,
and in those who have Died during the year 1872.*

Length of Residence.	RECOVERED.			DIED.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 1 month	„	1	1	4	2	6
From 1 to 3 months	6	7	13	9	5	14
„ 3 „ 6 „	8	16	24	2	2	4
„ 6 „ 9 „	2	6	8	3	1	4
„ 9 „ 12 „	1	5	6	1	2	3
„ 1 „ 2 years	3	7	10	5	3	8
„ 2 „ 3 „	3	2	5	2	6	8
„ 3 „ 5 „	„	„	„	1	2	3
„ 5 „ 7 „	„	„	„	1	1	2
„ 7 „ 10 „	„	„	„	3	1	4
„ 10 „ 13 „	„	„	„	4	7	11
TOTAL	23	44	67	35	32	67

TABLE VII.

Showing the Duration of the Disorder on Admissions, Discharges, and Deaths during the Year 1872.

Duration of Disease on Admission in Four Classes.												
CLASS.	The Admissions.			Recovered.			Removed, Relieved, or otherwise.			The Deaths.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
FIRST CLASS— First attack, and within three months on admission.....	52	44	96	8	21	29	4	6	10	13	12	25
SECOND CLASS— First attack, above three and within twelve months on admission.....	11	12	23	2	4	6	2	2	4	6	7	13
THIRD CLASS— Not first attack, and within twelve months on admission.....	27	31	58	10	18	28	3	2	5	7	5	12
FOURTH CLASS— First attack or not, but of more than twelve months on admission	31	30	61	...	...	...	...	1	1	5	7	12
Not ascertained	17	13	30	3	1	4	...	1	1	4	1	5
TOTAL.....	138	130	268	23	44	67	9	12	21	35	32	67

TABLE VIII.
Showing the Ages of the Admissions, Discharges, and Deaths during the Year 1872.

AGES.	The Admissions.			The Discharges.			The Deaths.		
	Recovered.			Removed, Relieved, or otherwise.					
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
From 5 to 10 years.....	1	...	1	...	...	...	1	...	1
" 10 15	4	...	4	...	...	...	...	...	...
" 15 20	5	10	15	...	5	6	...	...	...
" 20 30	35	28	63	3	11	14	3	3	6
" 30 40	27	28	55	4	9	12	6	2	8
" 40 50	22	23	45	1	7	11	5	11	16
" 50 60	20	19	39	5	11	16	3	3	11
" 60 70	10	10	20	2	1	3	5	5	10
" 70 80	6	3	9	1	...	1	5	4	9
" 80 90 .....	...	...	4	...	...	...	...	2	2
" 90 and upwards.....	...	...	...	...	...	...	...	...	...
" Not ascertained	8	5	13	3	...	3	2	2	4
TOTAL.....	138	130	268	23	44	67	35	32	67

TABLE IX.

Condition as to Marriage in the Admissions, Discharges, and Deaths during the Year 1872.

Condition in Reference to Marriage.	The Admissions.			The Discharges.				The Deaths.		
	Male.	Female.	Total.	Recovered.		Removed, Relieved, or otherwise.		Male.	Female.	Total.
				Male.	Female.	Total.	Male.	Female.		
Single.....	64	51	115	6	19	25	4	5	9	20
Married	54	51	105	13	19	32	5	5	10	27
Widowed	13	22	35	2	6	8	0	1	1	18
Not ascertained	7	6	13	2	0	2	0	1	1	2
TOTAL.....	138	130	268	23	44	67	9	12	21	67

TABLE X.

Showing the probable Causes, Apparent or Assigned, of the Disorders
in the Admissions, Discharges, and Deaths of the year.

CAUSES.	The Admissions.			The Discharges.						The Deaths.		
				Recovered.			Removed, Re- lieved or otherwise.					
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
MORAL.												
Religion	5	3	8	1	1	2	1	3	4	1	1	2
Family Trouble	10	13	23	1	3	4	..	..	..	2	1	3
Love	1	2	3	..	3	3	1	1	2	..	1	1
Fright	1	2	3	..	..	..	..	..	..	..	..	..
PHYSICAL.												
Consanguinity of Parents .....	..	1	1	..	..	..	..	..	..	..	..	..
Climacteric .....	..	1	1	..	1	1	..	..	..	..	..	..
Loss of Sight .....	..	..	..	1	..	1	..	..	..	..	..	..
Intemperance	8	6	14	2	..	2	..	1	1	..	..	..
Weakness.....	..	2	2	..	1	1	..	..	..	..	..	..
Fever.....	1	3	4	..	1	1	..	..	..	..	..	..
Disease of the Brain.....	1	..	1	..	..	..	..	..	..	..	..	..
Injury to Head	2	..	2	..	..	..	..	..	..	1	..	1
Puerperal State .....	..	3	3	..	3	3	..	..	..	..	..	..
Epilepsy	8	4	12	..	1	1	..	..	..	1	3	4
Hereditary Tendency	6	3	9	2	..	2	1	..	1	1	1	2
Overwork	3	..	3	..	..	..	..	..	..	1	..	1
Venesection	1	..	1	..	..	..	..	..	..	..	..	..
Sunstroke.....	7	..	7	..	..	..	1	..	1	2	..	2
Masturbation	1	..	1	..	..	..	..	..	..	..	..	..
Old Age	3	..	3	..	..	..	..	..	..	..	..	..
Smoking .....	..	..	..	..	..	..	..	..	..	1	..	1
Kidney Disease .....	..	..	..	..	..	..	..	..	..	1	..	1
Not ascertained	80	87	167	16	30	46	5	8	13	24	25	49
TOTALS	138	130	268	23	44	67	9	12	21	35	32	67

TABLE XI.

Patients' Daily State and Employment. Average.
(Compiled from the Daily State Book, which is made up from the Ward Returns.)

Ward Returns.)

OCCUPATION OR TRADE.		Daily Average No. of Patients.
<i>Male Patients.</i>		
Working Party.	{ With the Gardener and out-door Attendants...	60
	{ With the Farm Attendants.....	14
	{ With the Cowman.....	4
With the	Carpenter	2
"	Bricklayer.....	3
"	Upholsterer	3
"	Basketmaker	3
"	Tailor.....	13
"	Shoemaker	12
"	Matmaker.....	12
"	Painter	8
"	Engineer	1
"	Baker	3
"	House Attendant	4
"	Bath	3
In the Dining Hall	"	8
"	Steward's Stores, Brewhouse, &c.....	5
"	Wards (cleaning)	40
<i>Daily Average number Employed</i>		198
<i>Female Patients.</i>		
In Laundry and Wash-house		57
" Kitchen		8
" Dining Hall		14
" Wards, &c. (Cleaning)		40
" " (Needlework)		130
" Vegetable Room		10
<i>Daily Average Number Employed</i>		249

ATTENDANCE AT—	DAILY ATTENDANCE.			
	M.	F.	TOTAL.	
" Sunday Chapel	218	240	458	
" Weekday "	250	306	556	
" School	30	30	60	
" Weekly Ball	100	90	190	
" Other Entertainments	120	100	220	
Walk about Grounds	180	200	280	
" beyond "	100	100	200	
" on Terraces	300	320	620	
NIGHT REPORT.				
Number of Wet Cases.....	5	6	11	
" Dirty "	5	5	1	
" Noisy (at Night).....	4	5	9	
<i>Average number Resident } (mean Annual Population) {</i>		295	369	664

TABLE XII.
THE ESTABLISHMENT.
OFFICERS.

Medical Superintendent	£600	{	Furnished Apartments, Coals, Vegetables, and Laundry.
Chaplain	200		
Clerk to Visitors.....	150	{	None.
Apothecary	120		
Asst. Med. Officer	150	{	Lodging, Board, Washing, and Attendance.
Clerk and Steward.....	150		
Housekeeper	60		
Head Attendant (Female Depart- ment)	70		
Ditto (Male ditto)	95		House, Coals, and Gas.

ATTENDANTS AND SERVANTS.

1 Clerk and Steward's Clerk	£31	0	0	Board, Lodging, and Washing.
1 Male Attendant (Night)	64	0	0	} None.
1 Ditto Ditto ...	55	0	0	
1 Organist	52	0	0	

Board, Lodging, and Washing:—

1 Male Attendant (Dining Hall)	40	0	0	1 Head Laundry Maid ...	22	0	0
3 Ditto	36	0	0	1 Laundry Maid	19	0	0
2 Ditto	35	0	0	1 Ditto	18	0	0
1 Ditto	34	0	0	1 Ditto	16	0	0
1 Ditto	33	0	0	2 House Porter & Wife...	53	0	0
3 Ditto	32	0	0	1 Cook	20	0	0
1 Ditto	30	0	0	1 Dairy Maid	17	0	0
1 Ditto	28	0	0	1 Kitchen Maid	14	0	0
3 Ditto	27	0	0	1 Housemaid	15	0	0
2 Ditto	26	0	0	1 Ditto	14	0	0
3 Ditto	24	0	0	1 Farm Attendant	30	0	0
1 Female Attendant (Night)	20	0	0	1 Ditto	24	0	0
1 Ditto	18	0	0	1 Store and House Porter	29	0	0
1 Ditto (Dining Hall)	24	0	0				
2 Ditto	25	0	0				
3 Ditto	22	0	0				
1 Ditto	21	0	0				
1 Ditto	20	0	0				
4 Ditto	19	0	0				
3 Ditto	18	0	0				
2 Ditto	17	0	0				
2 Ditto	16	0	0				
3 Ditto	15	0	0				
1 Ditto	12	0	0				
1 Ditto (Workroom)	23	0	0				

House, Coals, Vegetables, &c.

	per Week.				per Week.		
Tailor.....	1	3	0	Bricklayer's Labourer ...	0	17	0
Shoemaker	1	3	0	Painter and Glazier	1	10	0
Ditto	1	3	0	Blacksmith	1	5	0
Mat Maker	1	3	0	Stoker ...	1	0	0
Basket Maker	1	3	0	Ditto	0	18	0
Upholsterer	1	10	0	Cowman	0	17	0
Baker ..	1	5	0	Cow Boy	0	11	0
Brewer	1	5	0	Carter	0	17	0
Butcher.....	1	0	0	Carter's Boy	0	4	0
Under Garden Attendant	1	0	0	Ditto	0	2	6
Carpenter ...	1	10	0	Assistant Carter.....	0	16	0
Bricklayer.....	1	10	0				

TABLE XIII.

Contract Prices of the Principal Articles of Consumption for the Year 1872.

ARTICLES.	QUARTERS ENDING											
	March.			June.			September.			December.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Beef from Farm...	0	4	8	0	5	4	0	5	6	0	5	2
Mutton do. ...	0	6	6	0	6	6	0	6	4	0	7	0
Flour, Households ...	2	3	10	2	1	8	2	6	3	2	7	1
" Seconds ...	2	1	10	1	19	2	2	3	9	2	4	7
Meal ...	1	15	0	1	13	0	1	16	0	1	16	3
Malt ...	3	0	9	3	0	3	3	0	3	3	7	0
Hops ...	9	12	0	9	12	0	8	15	0	4	14	0
Cheese ...	2	18	0	2	18	0	2	18	0	3	0	0
Butter ...	5	10	0	5	6	0	5	6	0	5	8	0
Bacon ...	3	14	0	4	0	0	4	0	0	3	10	0
Sugar, Raw ...	1	12	0	1	13	0	1	13	0	1	12	0
" Refined ...	2	7	0	2	7	0	2	7	0	2	6	0
Treacle ...	0	19	0	0	19	9	0	19	9	1	0	0
Soap, Yellow ...	1	9	6	1	9	0	1	9	0	1	9	0
" Soft ...	0	19	6	0	19	6	0	19	6	0	17	0
Coals, Wallsend ...	0	18	9	0	18	9	1	8	6	1	8	6
" Nixon's ...	0	18	5	0	18	5	1	11	6	1	11	6
Coke ...	0	11	6	0	11	6	0	14	6	0	14	6

TABLE XIV. *Continued.*

DINNER.

	Male Patients.	Female Patients.		Male Patients.	Female Patients.
Sunday	Bacon and Suet Pudding, with Rice and Fruit in season.	Roast Meat, with Rice and Fruit in season.	Thursday	Roast Meat or Pickled Pork.	Plum Pudding and Treacle Sauce.
Monday	Mutton Broth or Bread and Cheese, (3oz).	Meat Pudding.	Friday	Meat Pudding.	Mutton Broth or Irish Stew.
Tuesday	Meat Pudding.	Meat Stew.	Saturday	Irish Stew.	Meat Pudding or Bacon 4oz., with Suet Pudding 8oz.
Wednesday	Plum Dumpling and Treacle Sauce.	Meat Stew.	When Rice and Fruit Pudding is given on Sunday, 4 oz. less Suet Pudding to Males, and 1 oz. less Meat to Females.		

Extra Diet for Sick.—Mince Meat, Steak, Mutton Chop, Fowl, Fish, Eggs, Mutton Broth, Beef Tea, Essence of Beef, Milk, Arrow Root, Rice Pudding, Batter Pudding, Sago, Barley Water, Gruel, Oranges, Biscuits, Calf's Foot Jelly, Porter, Bitter Ale, Port Wine, Sherry, Brandy, Gin, Whisky, Rum, Lemonade, Soda Water.

Extra Diet for Working Patients.— $\frac{1}{2}$ Pint Beer, 2 oz. Bread, 1 oz. Cheese, at 11 A.M., and $\frac{1}{2}$ Pint Beer at 4 P.M., the Laundry Patients 4oz. Bread with Butter and $\frac{1}{2}$ Pint Tea. Tobacco and Snuff given as indulgences.

Attendants' and Servants' Diet.—Men, 1 lb. Uncooked Meat; Women, $\frac{3}{4}$ lb. ditto; $\frac{1}{4}$ lb. Vegetables, 1 lb. Bread, 2 Pints Beer daily. 2 oz. Tea, $\frac{3}{4}$ lb. Sugar, $\frac{1}{4}$ Coffee, $\frac{1}{2}$ Butter, 1 lb. Cheese weekly. $\frac{1}{4}$ lb. of Meat may be exchanged for Pudding or Pie, at the discretion of the Housekeeper.

Cocoa for One Hundred Patients.— $3\frac{1}{4}$ lb. Cocoa, $6\frac{1}{4}$ lb. Treacle, 3 Gallons Milk, or more, if the Dairy yields it.

Coffee Ditto $1\frac{1}{2}$ lb. Coffee, $\frac{1}{4}$ lb. Chicory, 5lb. Treacle, 2 Gallons Milk.

Tea Ditto 1 lb. Tea, 4 lb. Sugar, and 2 Gallons Milk.

Mutton Broth Ditto { The Liquor of the Cooked Meat, Bones, &c., 25 lb. Meat, 3 lb. Scotch Barley, Oatmeal, Rice, 10 lb. Turnips, Cabbage, Parsnip, Leek, Onion, Artichokes, or other Vegetables, Herbs, Salt, and Pepper.

Meat Pie Ditto Dripping Crust, 31 lb. Flour, 50 lb. Potatoes, 13 lb. Meat.

Meat Pudding Ditto 25 lb. Meat, 25 lb. Flour—Boiled or Baked.

Meat Stew Ditto 25 lb. Meat, in a Stew with Potatoes and other Vegetables mixed with Rice and Barley.

Plum Pudding 100 lbs. weight. Flour, 46 $\frac{1}{2}$ lbs., Suet, 6 $\frac{1}{4}$ lbs., Raisins, 7 $\frac{1}{4}$ lbs.

HAYWARDS HEATH, 31st December, 1872.

(Signed)

S. W. D. WILLIAMS, M.D.,
Medical Superintendent.

1. The first part of the paper is devoted to a general discussion of the problem.

2. In the second part, we consider the case of a single particle.

3. The third part is devoted to the case of a system of particles.

4. In the fourth part, we consider the case of a continuous medium.

5. The fifth part is devoted to the case of a system of continuous media.

6. In the sixth part, we consider the case of a system of particles and continuous media.

7. The seventh part is devoted to the case of a system of particles and continuous media.

8. In the eighth part, we consider the case of a system of particles and continuous media.

9. The ninth part is devoted to the case of a system of particles and continuous media.

10. In the tenth part, we consider the case of a system of particles and continuous media.

11. The eleventh part is devoted to the case of a system of particles and continuous media.

12. In the twelfth part, we consider the case of a system of particles and continuous media.

13. The thirteenth part is devoted to the case of a system of particles and continuous media.

14. In the fourteenth part, we consider the case of a system of particles and continuous media.

15. The fifteenth part is devoted to the case of a system of particles and continuous media.

(*Second Series.*)

APPENDIX B.

TO THE

FOURTEENTH REPORT OF THE SUSSEX COUNTY LUNATIC ASYLUM,
HAYWARDS HEATH,

CONTAINING

CLINICAL NOTES BY THE MEDICAL OFFICERS,

S. W. D. WILLIAMS, M.D.

R. GREENE, L.R.C.P.E.

A. H. NEWTH, M.B.

TOGETHER WITH A

*Paper on the Connection between Atmospheric Conditions and certain
States of the Insane, by the Chaplain,*

REV. T. E. CRALLAN, M.A.



1872.

“Read not to contradict and confute; nor to believe and take for granted; nor to find talk and discourse, but to weigh and consider.”—LORD BACON.

“Instead therefore of lamenting that we know so little, let us rather seek to profit by what others have gained, and use our best endeavours to add, however gradually, further acquisitions of our own.”—FEUCHTERSLEBEN.

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APPENDIX B.

The Discharge of Harmless and Chronic Lunatics.

The discharge of harmless and chronic lunatics, and of convalescent patients not yet quite recovered from an acute attack, to the care of relatives willing to be burdened with them, has now had an extended trial of two and a half years.

A recital of the results obtained may be considered not uninteresting in these latter days, when the army of lunatics is adding to its sum total with such giant strides.

And first, as to the *modus operandi*. The Medical Superintendent, from time to time, picks out cases in the asylum he considers fit for a trial, and being satisfied, as far as it is possible to be satisfied, that the case is neither homicidal, nor suicidal, and having assured himself that the relations are both fitted and willing, and able, to receive the case, he recommends the patient to the Committee of Visitors for discharge in the ordinary way. Occasionally, if there be any doubt in the matter, the Visitors require the relative receiving the case to sign a bond according to the requirements of 16 and 17 Vict., c. 97, sect. lxxxii., of the Lunacy Acts.

It need scarcely be remarked that there is nothing new in this proceeding. Indeed, it has been in force for many years not only in Sussex, but all over the kingdom. What is, however, claimed for it is, that it has been much more extensively used here than elsewhere, and that by these means the numbers in the Asylum remain stationary for the first time since the opening of the institution, in the year 1859. It was, indeed, the rapid increase in the numbers, and the awful vista of never ending bricks and mortar that this increase opened up, which almost forced some

such plan on the attention of the authorities, unless the size of the asylum was to increase beyond due limits.

The anticipations entertained have been most encouragingly borne out. During the decade, ending Midsummer, 1870, the numbers increased

From	Males, 172.	Females, 227.	Total, 399.
To	„ 272.	„ 347.	„ 619.

which gave a total increase of 220 souls, being at the rate of 22 patients a year. At the present moment of writing, viz., 8th February, 1873, there are 273 males, and 344 females, total 617, in the Asylum chargeable to Sussex. So that during the last two years and seven months there has been, instead of the old increase, a positive decrease of two, whereas if the rate of increase had gone on, as in former years, we should have had at least 30 more chronic lunatics or imbeciles in the Asylum to contend with than we have.

During the last two and a half years exactly fifty chronic patients have thus been discharged, and the following table gives numerically the results:—

TABLE I.

Showing, Numerically, the Results of the 50 Chronic Lunatics Discharged.

Remaining with Relations.	Returned to the Asylum.	Dead.	Started again in life.	In Workhouse.	Unknown.	Total.
23	6	2	10	1	8	50

Both this table and the following one have been compiled by writing to the Medical Officers of the Unions into which the patients have gone to reside, and asking them to furnish us with information as to how the patient is

getting on, whether his relatives seem to treat him kindly, and whether he is any annoyance to his neighbours or the public at large. We have failed to elicit answers in only seven cases, and our thanks are due to those medical men who so kindly and promptly answered our queries. From this table it will be seen that only six out of the fifty cases have been returned on our hands. All these six were, with scarcely an exception, cases of recurrent mania, who were experiencing a more than usually prolonged lucid interval, which had led us to hope that the periodicity of their attacks had been broken. Such cases are, of course, not favourable for such a trial. Still no harm was done, and the patient had the benefit of a few months' intercourse at home with his friends. Two have died from natural causes, and from the great majority of the other forty-two the accounts, as will be seen from the following table, which gives a *resumé* of each individual case, have been most satisfactory. Twenty-three still remain with the relatives who undertook their charge, whilst ten have improved so much as to be enabled to resume their former avocations.

TABLE II.—Giving a detailed History of each Individual Case of the 50 Discharged.

Number.	Sex.	Admitted.	Discharged.	Duration in Asylum.	Form of Insanity, &c., &c.	Remarks of Union Doctor, of Friends, or Others.
1.	F	20th April, 1866.	6th May, 1870.	(About) 4 years.	Melancholia.	Died in workhouse of cancer, on 29th Nov., 1871. By D. Richards, M.R.C.S.
2.	M	17th Nov., 1866.	27th May, 1870.	4 years.	Arrested General Para- lysis. Working at trade as a painter.	Working steadily at his trade as painter, and earning 35s. a week. As a rule quiet, and quite harmless. From brother.
3.	F	6th Nov., 1868.	30th June, 1870.	2 years.	Mania Chronic.	Called at my house about three months ago, and I thought her manner very strange. By Mr. W. B. Smith, R. O., Brighton.
4.	F	1st Jan., 1869.	1st July, 1870.	1½ years.	Recurrent Mania. To care of married sister.	Resides now with sister. Appeared to be- have herself tolerably well during the time she was with her brother. By J. B. Collins, M.R.C.S., &c.
5.	F	2nd Aug., 1866.	30th July, 1870.	4 years.	Imbecile. Went to union house.	No answer.
6.	F	5th Oct., 1866.	3rd Aug., 1870.	4 years.	Imbecile. Went to her father's care.	Resides with father, doing the work re- quired for a cottage, her father trusting her with money to pay bills, &c. Conducts her- self respectably and quietly, never annoying either her family or others. By W. B. Turner, M.R.C.S., &c., &c.
7.	F	17th Sept., 1869.	4th Aug., 1870.	1 year.	Melancholia. To care of husband.	Looks pale and has a rather wild look about her. She lives in comfort with her husband, and attends to the comforts of the house; is, in fact, more comfortable than before her confinement in asylum. She is on good terms with her neighbours. By W. B. Turner

8.	F	7th Aug., 1867.	8th Aug., 1870.	3 years.	Chronic Mania. Violent at times, and much annoyed at her detention.	Still with her relations, and last report of her was that she improved in all respects. By H. Holman, M.R.C.S., &c.
9.	M	6th Dec., 1867.	5th Sept., 1870.	3 years.	Chronic Mania. Delusions.	Travelling about the country at his old trade as a hawker. From brother.
10.	M	1st Jan., 1867.	23rd Sept., 1870.	3½ years.	Mania.	No answer.
11.	F	7th Aug., 1870.	30th Dec., 1870.	6 months.	Melancholia. To care of her mother. Very suicidal on admission.	Appears well. Never heard of her annoying her neighbours, or of her relations being unkind to her. R. Gravely, M.R.C.S., &c.
12.	F	10th Feb., 1868.	1st Jan., 1871.	3 years.	Mania. Returned to union. Re-admitted.	Returned to asylum after 18 months' absence.
13.	M	8th Sept., 1865.	9th Feb., 1871.	6 years.	Melancholia. To care of his wife.	Quite well, and following his usual occupation. By H. Holman, M.R.C.S., &c.
14.	F	9th Aug., 1870.	3rd March, 1871.	7 months.	Hysterical Mania. To care of her mother.	I learn from her friends that she is doing well. By H. J. Ashburner, M.R.C.S., &c.
15.	F	2nd June, 1869.	31st May, 1871.	2 years.	Chronic Mania supervening on Acute Mania. To care of mother.	Quite well, and works most perseveringly with her needle. She has not shown the least sign of mental disturbance since she came home. By J. Underwood, M.D.
16.	F	28th Jan., 1868.	31st May, 1871.	3 years.	Recurrent Mania. To care of mother. Re-admitted after 14 months.	Returned to the Asylum after 14 months' absence.
17.	F	9th April, 1870.	24th June, 1871.	14 months.	Mania with Paralysis. To care of husband.	Appears to be very comfortable, respectably dressed, and was occupied at needlework. Her intellectual powers are much improved, but is still paraplegic. By J. H. Bull, M.R.C.S.
18.	F	21st April, 1869.	24th June, 1871.	2 years.	Chronic Mania. To care of sister. Re-admitted after 1½ years, unnecessarily.	Has again been allowed to return to her friends, and is living now comfortably with them.

TABLE II. (continued).—Giving a detailed History of each Individual Case of the 50 Discharged.

Number.	Sex.	Admitted.	Discharged.	Duration in Asylum.	Form of Insanity, &c., &c.	Remarks of Union Doctor, of Friends, or Others.
19.	M	28th Feb., 1871.	29th June, 1871.	(About) 1½ years.	Senile Insanity. To care of wife.	Died.
20.	M	24th April, 1871.	30th June, 1871.	2 months.	Imbecile.	Employed as labourer, and I believe gives satisfaction to his employer. Has not in any way annoyed his neighbours, and I have every reason to believe that he is kindly treated. B. J. Tuck, M.R.C.S., &c.
21.	F	1st June, 1869.	20th July, 1871.	2 years.	Chronic Mania. To care of brother.	Is a German, and returned to Germany.
22.	F	9th May, 1865.	8th Aug., 1871.	6 years.	Chronic Mania. To care of husband.	No answer.
23.	M	23rd July, 1861.	29th Aug., 1871.	10 years.	Melancholia. To care of brother.	Visited the Asylum lately, and seemed quite well and happy, and plenty of work with his brother.
24.	F	23rd March, 1871.	4th Oct., 1871.	6 months.	Imbecile. To care of mother.	No answer.
25.	M	4th Sept., 1867.	16th Oct., 1871.	4 years.	Chronic Mania. Es- caped.	Not been able to learn anything about him. It appears to me that he is somewhere in Brighton. By J. Underwood, M.D.
26.	F	8th June, 1871.	15th Nov., 1871.	6 months.	Senile Insanity. To care of daughter. Re- admitted in six months, daughter being too poor to maintain her.	

28.	M	4th May, 1871.	29th Dec., 1871.	8 months.	Mania from want. Got him a situation.	care of father.	resides at home. By C. A. Smith, M.R.C.S., &c.
29.	F	1st March, 1870.	29th Jan., 1872.	2 years.	Melancholia. To care of husband.	No answer.	Still doing well in the situation obtained for him. From his master.
30.	M	23rd May, 1871.	13th Feb., 1872.	10 months.	Melancholia. Escaped.	Gone to New Zealand. His mother says he was of sound mind when he left. D. Richards, M.R.C.S., &c.	
31.	F	3rd March, 1871.	28th Feb., 1872.	10 months.	Imbecile. To care of mother.	Mother very kind, has trouble with her now and then. Mind better than a few months ago. She has never annoyed her neighbours. By a lady who takes an interest in her.	
32.	F	27th Oct., 1869.	28th Feb., 1872.	2½ years.	Chronic, supervening on Acute Mania. To care of sister.	Glad to answer all your queries satisfactorily. By H. J. Ashburner, M.R.C.S.	
33.	F	13th Sept., 1871.	6th April, 1872.	7 months.	Acute Mania. To care of sister.	No answer.	
34.	F	5th Feb., 1872.	6th April, 1872.	3 months.	Senile Imbecility. To care of husband.	No answer.	
35.	F	4th June, 1870.	27th April, 1872.	2 years.	Melancholic and Suicidal. To care of mother. Very anxious always to leave.	Well taken care of by mother and brother, and she is contented and happy. She is perfectly quiet, and no annoyance to anyone. By Rev. J. C. King, Vicar of Bury.	
36.	F	6th Feb., 1871.	30th April, 1872.	14 months.	Mania with Delusions. To care of husband.	Husband says she is very quiet, but his foreman says she is at times very excitable. She never, however, annoys her neighbours. By J. H. Bull, L.S.A.	

TABLE II. (continued).—Giving a detailed History of each Individual Case of the 50 Discharged.

Number.	Sex.	Admitted.	Discharged.	Duration in Asylum.	Form of Insanity, &c., &c.	Remarks of Union Doctor, of Friends, or Others.
37.	F	16th Aug., 1871.	28th May, 1872.	(About) 10 months.	Chronic Mania. To workhouse.	On the whole tractable and willing to work, but is at times depressed and sullen. Better and more cheerful than on her admission to workhouse, but requires careful management. By W. F. Crosskey, M.D.
38.	M	23rd Nov., 1870.	1st June, 1872.	1½ years.	Mania, violent at times. Discharged at earnest wish of father, but brought back after six months.	Re-admitted.
39.	M	22nd June, 1871.	30th July, 1872.	1 year.	Acute Melancholia with refusal of food, and suicidal impulse. Dis- charged, when recover- ing, to care of son.	He is in constant work, at peace with his neighbours, and in good health. By L. Smythe, M.D.
40.	F	2nd March, 1872.	3rd Aug., 1872.	5 months.	Hypochondriacal. Never should have been sent to asylum.	Decidedly better in body and mind. She attends carefully to her children, and is cer- tainly no annoyance to anyone. By Rev. J. C. King, Vicar of Bury.
41.	F	14th Nov., 1870.	3rd Aug., 1872.	2 years.	Chronic Mania, super- vening on Acute Mania. To care of husband.	Appeared to be quite rational, and to be cheerful and comfortable. I do not find that she is any annoyance to her neighbours, or that her husband uses her unkindly. By Rev. Geo. A. Clarkson, Vicar of Amberley.
42.	F	6th Jan., 1872.	5th Sept., 1872.	7 months.	Melancholia. To care of son.	Appears well. Never heard of her annoy- ing her neighbours, nor of her relations being unkind to her. By R. Gravely, M.R.C.S., &c.

43.	M	12th May, 1872.	14th Sept., 1872.	4 months.	Mania. To care of wife after her earnest and repeated solicitation.	At present he is not, nor has he been since his discharge, any nuisance to any one that I can hear of. His only friend appears to be his wife, who treats him kindly, By J. S. Bostock, M.R.C.S., &c.
44.	F	28th June, 1872.	3rd Oct., 1872.	4 months.	Melancholia. Much distressed at being in an asylum, and away from husband.	No answer.
45.	M	9th Sept., 1872.	19th Oct., 1872.	6 weeks.	Admitted as dangerous lunatic. Discharged to medical man's house.	Doing well, and gaining a living by teaching.
46.	M	March, 1872.	30th Oct., 1872.	8 months.	Admitted apparently with Mania of General Paralysis. The mania passed off, and he returned to his father's home, the paralysis being arrested.	He is harmless, and except being occasionally noisy does not annoy the neighbours. Wife very indulgent to him, and he is well taken care of. He is, however, far from sane. By T. D. Jones, R. O. for Maidstone.
47.	M	21st May, 1872.	31st Oct., 1872.	5 months.	Melancholia. Discharged to care of his wife.	No answer.
48.	M	3rd June, 1870.	18th Nov., 1872.	2½ years.	Mania. Criminal.	Doing well.—Brother.
49.	F	29th May, 1872.	4th Dec., 1872.	6 months.	Epileptic Insanity. Fits not frequent.	Doing well.—Mother.
50.	F	10th July, 1871.	5th Dec., 1872.	1½ years.	Mania. Very ill for many months.	Husband says she is doing well.

Some of these cases are of very considerable interest in many ways, thus:—

No. 2.—Had all the well-marked premonitory symptoms of Progressive Paralysis of the Insane, and on admission his case was viewed as being hopeless. For some months he gradually became worse, then the more prominent symptoms underwent a remission, and ultimately he became so much better that he was enabled to work at his trade of painting. The intellect was, however, permanently clouded, his speech was thick, his gait somewhat unsteady, and his ideas always exalted, though his mind was free from positive delusion. So he remained for fully three years, being kept in the Asylum under the impression that the disease must ultimately further develop itself, and run its usual sad and fatal course. Such, however, was not the case. The symptoms simply remained *in statu quo*, and a well-to-do brother being willing and anxious to give him a further trial in the world, he was allowed to leave the Asylum. I have since heard of his helping to repaint and decorate a Cabinet Minister's house, and he earns regularly from 30s. to 40s. a week. His brother says that he remains much as when he left the Asylum, and that he occasionally has a slight exacerbation of excitability, but that, on the whole, he conducts himself with propriety.

No. 11.—On admission was severely injured by a bill-hook with which she had attempted to commit suicide. The suffering she experienced from her injuries seemed to entirely cure her of all suicidal propensity, and, therefore, although congenitally an imbecile, she was allowed to return to the care of her mother, who had a comfortable home to receive her into. That was upwards of two years ago, but there has been no return of the suicidal tendency, and therefore no cause to regret the course pursued.

No. 13.—Was in the Asylum for the long period of six years. He laboured under the delusion that he had committed the unpardonable sin, and although this left him after a time, his mind remained apparently permanently weakened. His manner was silly, and his ways eccentric. Eventually his wife begged so hard for him to have a trial, that it was granted her, and the result has been very

satisfactory. The return to his home and its old associations had the most happy effect on him. He obtained a little work, and, getting on by degrees, has at last come to be able entirely to support his wife and family.

No. 17.—Was admitted with acute mania, on which paraplegia supervened. The more acutely maniacal symptoms soon subsided, but her mind remained permanently weakened and the paraplegia permanent. At her husband's urgent request she was permitted to return to him, and with him she remains, well and carefully cared for, although he is but a working artisan. So he will be able to keep her as long as there is no return of the mania.

No. 22.—Remained in the Asylum six years. Hers was an ordinary case of chronic mania, of which so many are to be found in our County Asylums. There was no doubt of her insanity, but she was harmless enough, and very industrious. We therefore induced her husband to try her at home when she passed her climacteric, and she has now been out upwards of 18 months.

No. 23.—Was much such a case as No. 13. He had the same delusion, and apparently the same permanent mental weakness. He remained in the Asylum for ten years, and was an extremely useful patient, almost entirely managing the Sewage Farm. His brother was induced to receive him to his home on trial, and he has done even better than could have been expected. He lately visited the Asylum, looking the picture of health, and apparently quite sane.

No. 29.—Failing to obtain employment this patient became melancholic, and, attempting to stab his mother, was brought to the Asylum. He very soon got better and, one of the magistrates offering him employment, he was discharged, and has since remained steadily and quietly at work.

No. 43.—This case was considered so hopeless that although his wife was most anxious to have him at home, her importunity was resisted for some time as it was not considered possible that he could control himself out of the Asylum. At last, however, she was allowed to take him out under 16 and 17 Vict., cap. 97, sec. lxxxii. The result has falsified all previous misgivings, as he has, so far, done fairly well, and works steadily at his trade as a journeyman watchmaker.

There are, however, without doubt, certain drawbacks to this scheme. The very patients who are the best fitted for being thus discharged to the care of their relations are exactly those who make themselves most useful in the various industries of the Asylum. This has been found to be the case very markedly of late in the Asylum. The gardener, the farm bailiff, the various master artisans, the needle-room women, &c., complain that the class of patients sent to them are not nearly so useful as formerly, and this is no doubt true. Therefore more employés are required, and the weekly rate of maintenance is slightly raised thereby, but although the ratepayers may be caused pecuniarily to suffer slightly in this wise, they will eventually be enormously the gainers if we are enabled to stave off any further building. Had the former rate of increase been maintained during the last three years, in a year or so from now the females' side would have been nearly full, and provision would have had to be made for another 50 or 100 patients. We hope now to be able to delay any such enlargement for many years. And again, although the various trades languish somewhat for want of the old chronic harmless cases, a decided advantage accrues to the patients remaining, even from that fact, because, as we always keep up the numbers employed to a certain standard, if good cases are not forthcoming, the less promising ones are pressed into the ranks, and are taught a trade and kept out of mischief.

Cases Illustrative of the Treatment of Acute Mania.

There is no more important question than the treatment of Acute Mania, and at present there is no subject more debated. One class of alienists believes in a purely expectant therapeutics, another in one or more of the various sedatives, and a third in some form of water treatment, alone or combined with the latter.

The pathology of Acute Mania being as yet unsolved, its treatment is of course empirical, and statistics must be called in and exclusively relied on to determine which course should be followed. But statistics are often

notoriously untrustworthy, and in matters connected with insanity they must be especially so. For instance, this disease has never been very satisfactorily defined, and perhaps never will be, for what one physician would call Acute Mania another would describe as Acute Melancholia. Consequently, before proceeding to detail the following cases, it is necessary to state that we rejected all such as were in the least doubtful, and have inserted those only where the symptoms were unquestionably those of Acute Mania. In addition to these, twenty-eight cases of so-called Mania have been admitted to the females' division during the year, and have been submitted to various forms of treatment, medicinal and otherwise; but as the vast majority of such cases will recover, whatever be the line pursued, no good end would be served by publishing them. It is evident that these might be used to prove the value of any drug in the pharmacopœia, or even to establish the advantages of pure expectancy over drugs.

The field of psychology has now a hundred workers in it where formerly it had one, and we may hope soon to see more light shed over the pathology of that disease which attacks the highest point of our organisation and so frequently leaves a wreck behind it; but whatever future investigations may demonstrate, it is certain that Acute Sthenic Mania has several very close points of resemblance to some of the eruptive fevers. Like them, for instance, it sometimes runs a rapid course, with quick pulse, high temperature, and great prostration, and like them, a post-mortem examination often reveals no cause of death, perhaps reveals nothing save a slight hyperæmic condition of the cerebral hemispheres and their membranes. Unlike them, and these seem the most important differences, it is neither infectious nor contagious, and one attack, so far from giving immunity to a second, predisposes to it, though the first attack is generally the most acute.

In fevers the mental aberration is regarded merely as a symptom or complication; in mania it has been all but universally regarded as the disease itself, and treatment has been too often directed with a view solely to subdue the excitement and thus subdue the disease. In most of

our County Asylums this treatment has been weighed in the balance, and in most we venture to think it has been found wanting.

Until lately "sleep at any price" was the motto for the treatment of delirium tremens; "quietude at any price" is still the orthodox treatment of mania.

The writings of Maudsley have dispelled many illusions connected with former views of insanity, and although this author is a believer in the medicinal treatment of mental diseases, he has yet shown that in some cases it is better to wait patiently "until the fury of the storm has passed, and then give support." In all cases the great desideratum is to find a drug or line of treatment which will prevent the brain from becoming permanently injured, and the patient lapsing into chronic insanity. We fear that this has not yet been discovered.

We know that the life of a typhus case sometimes hangs on the timely exhibition of a dose of opium or chloral, or he is kept alive by stimulants till the poison has exhausted itself; so in this disease judicious stimulation, or a powerful sedative, is often the only means of saving our patient. Say hypodermic morphia be given, sleep follows, and perhaps food will be taken when the soothing influence of the drug is elicited. This is frequently verified in the wards of this Asylum.

This paper, then, will give a brief *resumé* of the treatment and results of all the cases of acute mania admitted to the Females' Division during the year 1872, excepting those suffering from progressive paralysis and epilepsy.

As conium is comparatively a new remedy in this disease, those cases treated with it will be given at greater length than the others. This drug has for some considerable time been used in some of the French asylums in the treatment of insanity, and recently Dr. Crichton Browne has, through the columns of the "Lancet," introduced it to the notice of English alienists. Dr. Browne's experience with it has been satisfactory in the extreme, and more than sufficient to demand a fair trial at the hands of his fellow-workers. We have, consequently, ordered it in several consecutive cases of acute mania, in two cases of subacute mania, and in one case of what, for the want of

a better name, we may call chronic exaltation. In the acute cases the treatment was commenced within twenty-four hours after admission, in some within two hours, so that no time was lost on our part, and it is almost unnecessary to add that no other treatment of any kind was pursued, except in Case XII., who had the Turkish bath weekly.

Following in the footsteps of Dr. Harley, Dr. Browne believes that the succus of the British pharmacopœia is the most certain preparation of hemlock, and in this opinion we fully concur, although we fear that even it is by no means always reliable. All the observations detailed here were made with it.

In all the following cases recovery is dated from the time at which convalescence was fairly and completely established, and when all chance of relapse had passed, and not from the day of discharge. Patients are discharged from this Asylum once a month only—hence the necessity for this mode of calculation.

CASE I.—Twenty-four years of age; had been insane for a few days previous to admission. Cause of insanity stated to be desertion by her lover.

Treated without medicine; but had for the first ten days a guarded allowance of alcoholic stimulants. Recovered in 25 days.

CASE II.—Eighteen years of age. Mania, supposed to have been caused by fever. Treated with bromide of potassium and Indian hemp, which, having no perceptible effects, were omitted after nine days' trial, and morphia and hydrocyanic acid substituted. Recovered in 122 days after admission.

CASE III.—Age 85. Had been insane for a few weeks. When brought to the Asylum was almost dead, and had to be treated with nutritive enemata and a free allowance of stimulants, under which a rapid physical improvement took place, and in five days the mental excitement had abated in a marked degree. She is now in a state of dementia, from which the only release will be the day of death.

CASE IV.—Age 40. Cause, religion. Treated without medicine. Recovered in 71 days.

CASE V.—Age 19. Insanity supposed to have been caused by debility consequent on miscarriage. Treated

without medicine for the first eight weeks, but had water treatment in the form of cold and warm douches. She seemed to improve much under this treatment, but relapsed, and at the end of the eighth week was treated with morphia and hydrocyanic acid. Recovered in 90 days after commencing the above, or in 146 days from admission.

CASE VI.—Age 23. Ill for three days. Treated with morphia and hydrocyanic acid for the first twelve days, when all the acute symptoms vanished; but left patient in a state of dementia, from which there is at present no sign of recovery.

CASE VII.—Age 39. Duration two days. Cause family trouble. No medicine. Recovered in ten days.

CASE VIII.—Age 31. Duration a week. The excitement disappeared in four weeks without medicinal treatment. She had then a feverish attack, and on emerging from it the type of insanity was seen to be completely changed to a low form of melancholia, from which she is slowly recovering.

CASE IX.—Age 36. Ill for seven days. Cause unknown. Brought to the Asylum in a straight jacket.

April 13th.—The Case Book states that on admission she was in a very excited state, constantly talking and muttering to herself in incoherent and unintelligible language. Was placed in a padded room, where she did not remain still for an instant, hammering at the door with her fists, or tossing up and down the room. Ordered three drachms of the succus conii every four hours.

14th.—Had a very restless night, and was often noisy, but is now somewhat quieter. Has taken a fair amount of food. Continue medicine.

15th.—Slept scarcely any during the night. Is noisy and restless this morning; worse than she has been at any time since admission. To have half-ounce doses of the succus every three hours until further orders.

16th (11 a.m.).—Slept an hour or two last night; is rather quieter now (4.30 p.m.). She seems under the influence of the hemlock. The pupils are widely dilated, and the eyes have a peculiar heavy, glaring look. Muscles of the superior extremities almost powerless. Omit the medicine. (7.30.) The catheter had to be passed.

17th.—Much quieter.

18th.—She is in a state of semi-stupor; very quiet, but does not seem to understand any question put to her. She can stand without assistance, but on attempting to walk she totters, and would fall if not supported.

19th.—She is brighter looking this morning, and more conscious. Pupils normal. Is able to walk a little.

29th.—She is now as dull and listless as she was before restless and excited.

May 4th.—No sign of any mental improvement.

9th.—She is sometimes dirty in her habits, tries to undress herself, and has other signs of approaching dementia.

19th.—She becomes worse; obstinately refuses her food, and requires to be fed with brandy and eggs.

Total quantity of the succus used was nine ounces and one drachm.

Result, dementia.

CASE X.—Age 28. Ill for 14 days.

May 4th.—On admission was so much excited that the usual stethoscopic examination of the thoracic viscera could not be made. To have two drachms of the succus conii every four hours.

5th.—Quieter this morning; slept at times during the night, but in the intervals was noisy. Takes food moderately.

7th.—A little better, though still restless and excited at times. Conium to be increased to ʒiij .

8th.—Had $2\frac{1}{2}$ ozs. of the succus during the last 24 hours. Passed a restless and noisy night, and is no better this morning. To have $4\frac{1}{2}$ drachms of the conium every four hours.

9th.—She seems slightly under the influence of the hemlock. One dose was omitted during the night.

10th. Slept well last night, and had no conium from 6 p.m. on the 9th till 9 a.m. to-day, when it was continued in the last mentioned doses, as symptoms of restlessness again showed themselves.

11th.—At the evening visit yesterday she seemed fully under the influence of the conium. Pupils widely dilated, and the eyes had the same appearance as in Case IX.;

pulse intermittent and weak, muscular power of the upper limbs almost gone. Medicine omitted.

12th.—She continues quiet, but is dull and heavy looking, and refuses to speak.

14th.—She is a shade brighter looking this morning.

20th.—She continues to improve, and is gradually losing her demented expression.

25th.—She is worse since last entry, and there is sometimes great difficulty in getting her to take her food.

Total quantity of succus used was $13\frac{1}{2}$ ozs.

Result, dementia.

CASE XI.—Age 50. Chronic exaltation. Had at different times been under treatment with various medicines, as chloral, hypodermic morphia, digitalis, &c.; but none of these effected more than a very transient benefit.

May 11th.—Ordered $\mathfrak{z}\text{ij}$ of the succus conii three times a day.

12th.—To have the medicine every four hours.

15th.—Not any quieter. Conium to be increased to 4 drachm doses.

18th.—Conium has had no effect.

19th.—Increase to 5 drachm doses.

21st.—Still no improvement. Succus to be increased to $\mathfrak{z}\text{vj}$.

22nd.—Conium has had no perceptible effect as regards the mental state, but the pupils are *contracted*, and the pulse is weak, slow, and easily compressible. Omit medicine. Total quantity taken 32ozs.

Result, no improvement.

CASE XII.—Age 26. Cause of insanity unknown. Duration two weeks. Was for the first four weeks treated with chloral and morphia, but without any marked improvement following.

April 26th.—To have the Turkish bath weekly.

27th.—Was noisy during the night.

29th.—Ordered $\mathfrak{z}\text{iss}$ of the S. Conii every four hours.

30th.—She is a shade better. Dose of conium to be increased to $\mathfrak{z}\text{ij}$.

May 1st.—Somewhat quieter. Continue medicine.

2nd.—Conium to be omitted after 8 p.m., as she is to have the bath to-morrow.

4th.—She is decidedly better.

7th.—There is now a decided improvement. For the first time since admission she employs herself.

11th.—Omit conium.

June 2nd.—Since last she has gone on steadily, and must now be regarded as having recovered.

Total quantity of conium taken, 11ozs.

Recovered in 33 days after the treatment by conium was commenced, or in 61 days after admission.

CASE XIII.—Age 15. Ill for many months previous to admission, and was in very weak health.

The succus conium was ordered, but the delicate condition of the patient, and her refusal of food and medicine, prevented a fair trial in this case, consequently it was omitted after a few days.

CASE XIV.—Age 19. Had been ill for several weeks. Cause unknown. Admitted May 20th, where the Case Book describes her as being noisy, restless, and excited; her language is incoherent, and she is unable to attend to or answer questions. Ordered two drachms of the succus every four hours.

May 21st.—Was quiet during the early part of the night, but became restless toward morning, and is excited now.

22nd.—No better. Conium to be increased to three drachms.

23rd.—Not any change. Increase conium to four drachm doses.

24th.—Conium has had no effect as yet. Increase dose to five drachms.

25th.—At 10 p.m. last night she was hot and feverish; with weak, quick pulse (115).

Face intensely flushed, and pupils slightly dilated; expression of the eyes, wild and glaring; quite unlike the dull appearance observed in Cases IX. and X. Two doses of the conium were omitted.

27th.—Increase conium to six drachm doses.

28th.—Has been more excited this morning. Increase conium to seven drachms.

29th.—Conium to be increased to one ounce.

30th.—Had one ounce of the succus conii every four hours for the last day and night. Was noisy and restless

during the night, and is so now. Omit medicine. Total quantity taken, two pints.

June 3rd.—She has still a very wild, excited appearance, and is prone to bursts of violence and destructiveness. Ordered a dose of the sedative mixture* three times a day and the Roman bath weekly.

June 10th.—Decidedly better mentally.

21st.—Keeping very steady.

Recovered in 88 days after admission.

CASE XV.—Age, 48. Duration of Insanity, 10 days.

June 1st.—Noisy, violent, and restless. To have three drachms of the S. Conii every four hours.

2nd.—Conium to be increased to four drachm doses.

3rd.—Had a moderately quiet night, but has been very restless this morning, and occasionally noisy, requiring to be kept in padded room. Increase conium to six drachms.

4th.—Better. Continue med.

5th.—Not so well again. Increase Succus to seven drachms.

7th.—Slightly improved; but the Succus has had no perceptible effect on pulse, temperature, pupils, or muscular power. Increase dose to one oz.

8th.—Much the same as yesterday. Increase dose to nine drachms.

9th.—Quieter.

10th.—Seemed better yesterday evening, but is again talkative and excited, although not to the same extent as on admission. Increase Conium to ten drachms.

11th.—Better. Much more rational in her speech. Complains now of feeling giddy and weak in the limbs after having taken the medicine.

14th.—Still improving. Omit med. Total quantity taken, eight pints.

May be regarded as having recovered in 30 days; but, being a recurrent case, had to be detained under observation for much longer.

CASE XVI.—Age, 28. Cause, family trouble. Duration of disease, one week.

June 6th.—Three drachms of Succus every four hours.

7th.—There is great difficulty in getting her to take her

* For formula see Appendix for 1871, p. 19.

medicine, but she has had it every four hours since admission. Was noisy and destructive during the night. Conium to be increased to four drachm doses.

8th.—Very noisy. Increase Conium to five drachms.

9th.—Passed a restless night, and is noisy now. Increase Conium to six drachms.

10th.—Slept a little during the night, and is a trifle quieter now.

11th.—Much the same as yesterday. Increase Conium to one oz. doses.

12th.—Was noisy at times during the night, but had several hours' sleep. Increase Conium to ten drachms.

13th.—She is not any better; noisy during the night, and destructive by day. Omit Conium. Total quantity, 38 oz.

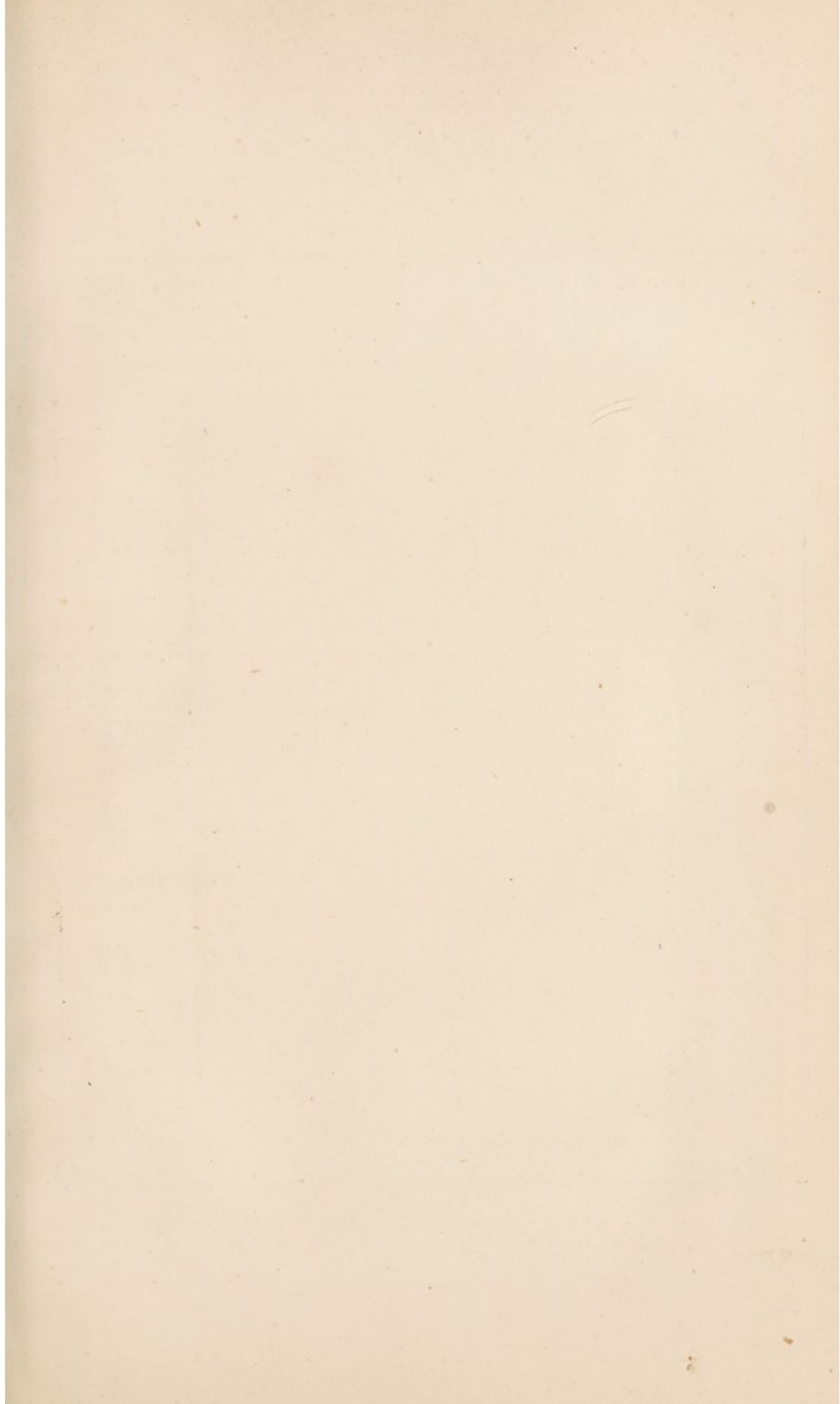
Patient improved under subcutaneous morphia in half grain doses; but this improvement was only temporary. Finally, she was cured by the wet sheet packing. See page 28. Recovered in 121 days after admission, or in 14 days after the wet sheet packing was commenced.

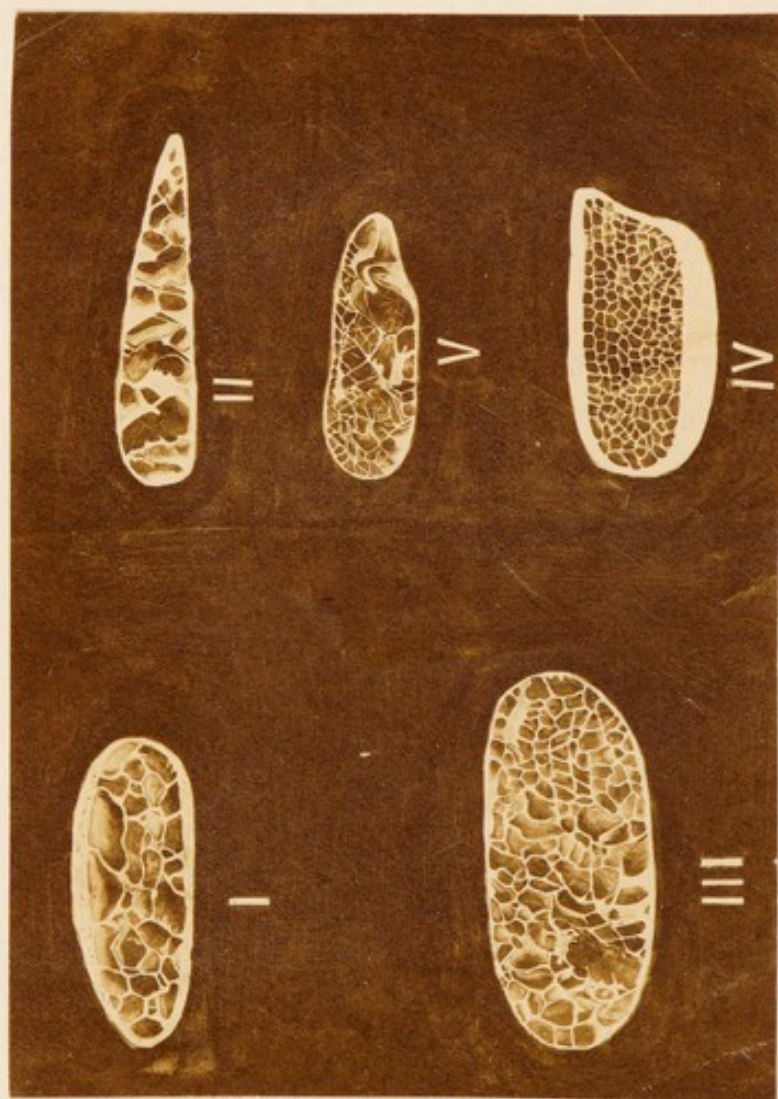
Physical Appearances of the Ribs in the Insane.

That the ribs of the insane are very liable to fracture is an actual fact, and fracture of one or more occurs oftener than can possibly be detected. The following results of certain investigations that have been made as to the physical nature of the ribs in the insane will show how, in some cases, fracture *seems* almost inevitable, for the *bones* broke at the slightest pressure. There have not been sufficient cases to tabulate them with any regard to age, mental state, or bodily disease. It would be interesting to know if there be any relation between the brain disease and the rib disease; whether the exhaustion of brain substance by mental excitement has or has not any connection with a wasting of the bony matter. If the phosphoric acid which is being largely excreted during an attack of acute mania, representing so much destruction of nerve substance, is not indirectly derived from a decomposition of the osseous texture. And on the other hand, as in Progressive Paralysis and Dementia, there is a deficient excretion of phosphoric acid, we may inquire if

No.	PATIENTS.			Observations on 6th Rib.				Remarks.
	Age	Sex	Mental Disease.	Cause of Death.	Weight of 1 inch.	Circumference. inch.	Force required to Break.	
1	77	M	Dementia	Brain Softening	28.4	1.62	20lbs.	Soft and greasy
2	72	M	Epileptic Mania	Epilepsy (sudden)	33.5	1.5	19lbs.	Large bones, very greasy
3	65	M	Chronic Mania	Disease of Brain	29.27	1.4	15lbs.	
4	43	M	"	Tubercle	27.60	1.3	16lbs.	Brittle
5	74	M	Senile Melancholia	Disease of Heart	25.45	1.3	16lbs.	
6	39	M	Melancholia	Phthisis	22.31	1.3	24lbs.	
7	32	F	General Paralysis	General Paralysis	22.30	1.3	23lbs.	
8	44	M	Mania	Softening of Brain	20.00	1.12	16lbs.	Filled with dark substance
9	25	F	Epileptic Mania	Epilepsy	20.58	1.25	16lbs.	
10	70	F	Senile Dementia	Sanguineous Apoplexy	22.35	1.30	8lbs.	Greasy
11	38	M	Mania	Brain Softening and Phthisis	23.23	.9	9lbs.	
12	57	M	Chronic Mania	Pneumonia	17.	1.27	17lbs.	
13	35	F	Mania	Chronic Meningitis	12.	1.	3lbs.	See below*
14	53	M	Melancholia	Exhaustion from Melancholia	31.35	1.25	12lbs.	{ Filled with non-oily } { red fluid }
15	9	M	Idiot	Epilepsy	18.99	1.25	20lbs.	
17	48	M	Prog. Paralysis	Prog. Paralysis	18.77	1.5	14lbs.	Very brittle
18	48	F	Epileptic Dementia	{ Epilepsy and Amyloid degen- } { eration of Liver and Kidneys }	16.25	1.	12½lbs.	Soft
19	31	F	Prog. Paralysis	Prog. Paralysis	16.00	1.	15lbs.	Soft, skull very thin
20	46	F	Mania	Syncope from Disease of Heart	16.	1.25	14lbs.	
21	23	F	Idiocy	Phthisis	13.89	.87	6lbs.	{ Splintery fracture, } { easily bent }
22	65	F	Dementia	Bright's Disease	12.00	1.06	3lbs.	Easily broken
23	73	F	Chronic Mania	Pericarditis and Pneumonia	8.75	1.25	2lbs.	Very brittle
24	70	F	"	Disease of Heart and Kidneys	5.03	1.06	under 1lb.	Mollities, no grease
25	35	F	"	Phthisis	19.6	1.25	19lbs.	Delicately made, firm
26	26	M	Epileptic Dementia	Acute Phthisis	27.48	.9	30lbs.	Very white
27	32	M	Coma	Inflam. of Brain and Membranes	38.9	1.5	23lbs.	
28	51	M	Mania	Phthisis and Fatty Heart	24.9	1.5	12lbs.	White
29	73	M	"	Syncope from Disease of Heart	25.7	.9	18lbs.	
30	59	M	"	Abscess of Liver	30.	1.2	24lbs.	

* Near the sternal cartilage the bone was in some ribs a mere shell, filled with a non-oily, brownish-red fluid.





SECTIONS OF RIBS.

in these cases the bones become more dense from the blood containing an excessive quantity of that material destined for renewing both brain and bone, by the former extracting less, and the latter more, than its normal quantity. For we have noticed, as the accompanying Table will show, that it is specially in those cases where there has been little mental activity that a dense osseous tissue is met with, such for instance as Cases 1, 2, 6, 15, and 26, among the males, and Nos. 7, 9, 19, 20, and 25 among the female cases; while Cases 10, 11, 13 were those in which there was much mental excitement with deficient bony material; Nos. 21, 22, 23 are cases of partial mollities ossium.

The table must be allowed to speak for itself; the observations need to be much more extended for obtaining any reliable facts from them. We are continuing them, however, and hope to be able to form some data as to the relation between the waste of bone structure and nervous substance when more cases are examined.

We have also made a chemical analysis of the bones, but as it did not prove satisfactory we have omitted it. Next year we intend conducting these analyses in a different manner.

The Photographs on the opposite page are taken from drawings made of sections of the ribs. All the specimens of ribs we have met with may be classed under one of these five divisions:—

Fig. I. is apparently a normal bone, the walls are of moderate thickness, and the cancellous tissue is regular, in firm plates filled with healthy marrow, and the rib elastic. Of this there were twelve specimens. Average force required to fracture these ribs was 16lbs.; but a healthy bone would need a stronger force than this.

Fig. II. The ribs following this class were very narrow, and the bony structure thin; they were very liable to fracture. Of this kind there were only two specimens.

Fig. III. We only met with one rib like this. It was thick, rounded, almost solid, and exceedingly soft and greasy.

Fig. IV. The bones following this type were remarkable for the thickness of their bony tissue, especially on the lower border. They were white, free from grease, and hard. Though much force was generally required to fracture them, yet this does not show a corresponding power to resist injury, for as a rule they were very inelastic, hence, on the contrary, liable to fracture from a fall or a blow. They were not all so thick as the photograph shows, but gradually merged into a normal thickness. The average force required to break them was 19lbs., but many of them were very deficient in mineral matter. Some in this class were only fractured by a force over 30lbs.

Fig. V. Specimens of this class were excessively fragile, fracturing by a very slight force; in fact, they were but a mere shell of bone, in some cases not thicker than writing paper, filled generally with a dark non-oily fluid. Instead of plates the cancellous tissue appeared mostly like very narrow rounded filaments of bone.

Packing in the Wet Sheet.

Within these last twelve months the Commissioners in Lunacy have determined to insist upon packing in the wet sheet being entered in the medical register under the heading of Restraint. And on their visit to this Asylum last June they left a request to that effect in their Report. This request has, therefore, under protest, been adopted. It is now fully ten years since this mode of treatment was introduced into this Asylum by the then Medical Superintendent, Dr. Lockhart Robertson, with the full knowledge and consent of the Commissioners in Lunacy. After so many years, therefore, it seems rather hard that in these latter days we should have to deface our records with the ugly word Restraint, when in reality no more restraint is being now used than has been employed for the last ten years. The non-restraint system has our sympathies so entirely, and the traditions of this Asylum are so com-

pletely on the same side, that we could not at first make up our minds to again resort to what such high authorities called restraint, and for many weeks after the visit of the Commissioners no wet sheet packing was prescribed. But eventually its absence from our repertoire of remedial agents was so much felt, and its partial disuse so powerfully demonstrated to us its usefulness, that at last, remembering the words of Thomas à Kempis, that "it is great wisdom not to be rash in thy proceedings, nor to stand stiffly in thine own conceit," we abandoned our sentiments, and returned to the packing; feeling, indeed, that if we were satisfied of its beneficial effects, we had no right to deprive our patients of its advantages. We still, however, hold that to call packing in the wet sheet "restraint" is a misnomer. The sedative action of cold water is a recognised therapeutical agent, and not long ago the medical papers teemed with reports of cases of disease wherein the temperature is abnormally high, and wherein the cold water bath was used with great effect. This remedy is, however, decidedly heroic, and we prefer to use the much less powerful agency of the wet sheet. But it is none the less a matter of treatment, and should not be designated restraint. After all, what is the mode of procedure?

It has thus been described:—A piece of Mackintosh sheet is laid over a mattress, and a folded blanket is laid over that. An ordinary sheet is then wrung out of cold water, and laid on the blanket. On this, the patient is placed on his back, and the sheet is rapidly wound round him, so as to include the arms in its folds. The blanket is then tucked over the body, and three or four blankets laid over these. At the expiration of an hour, the patient, who by that time perspires freely, and is quite hot, is taken out of the sheet, made to stand up in a shallow bath, and well rubbed in a dripping wet sheet, and then the same process is gone through again, and repeated according to the physique of the patient. Occasionally, instead of using the dripping wet sheet to rub the patient down after the packing, two cold pails are thrown over him as he sits in a hip bath. This self-same treatment is submitted to by the most delicate ladies

in many of the hydropathic establishments, and as far as our experience goes, is quite harmless, no ill effects having resulted to any of the patients for whom we have prescribed it. And to very many patients it has appeared to be *the* one thing that has effected a cure, whilst to others it has been a great means of amelioration in their condition.

Thus to take, during the past year, the case of C. B., the commencement of her recovery dated most markedly from the time she was put under the wet sheet treatment. Her case is as follows:—She was admitted on June 6th, 1872, with acute mania of one week's duration, She was suicidal, noisy, destructive, and quite incoherent. but her general health was fairly good. She was treated with succus conii for many days, and took a large quantity of it without the least benefit. On the 14th she was "still very noisy, destructive, and sleepless," the conium was therefore omitted, and muriate of morphia substituted for it. For a day or two she was quieter, but on August 13th she relapsed, and was as excited as ever. Subcutaneous morphia was then used, but with scarcely any benefit. About this time her general health began to improve, but there was no corresponding mental amelioration, her habits became dirty, and there was every evidence of the mania lapsing into a chronic stage. It was then ordered that she should be packed every day for four hours; changing the packing at the expiration of each hour. The result was most satisfactory, and within a week she was convalescent.

The physiological action of the wet sheet is still a moot point, but we cannot help thinking that it is an agent of considerable eliminative power, and this is the opinion apparently of Dr. Parkes, and of the German authorities on the subject, viz., Lehmann and Wundt. This opinion also appears to have been shared by Dr. Lockhart Robertson. That it increases immensely the amount of the excretion, especially of the urine, cannot for a moment be doubted. Thus, F. B., who was packed on Dec. 30 for three hours, passed $4\frac{1}{2}$ pints of urine in the 24 hours. On other days her urine was scanty, ranging from $\frac{3}{4}$ of a pint to two pints. Again, S. A. D. passed $3\frac{1}{2}$ pints of urine

on January 6th. On the 7th she was packed for four hours, and she passed four pints that could be collected, besides an unknown quantity voided whilst in the pack. During the 24 hours after she passed 3 pints. As nearly as could be made out, T. M.'s daily excretion from the kidneys amounted to about 34 oz. During one week of packing, he passed 294 oz., or an average of 42 oz. daily.

It is a well-recognised fact that in many cases of acute asthenic mania, the urine is very scanty—often not more than from one to two pints in twenty-four hours and the catheter is passed only to find the bladder empty. Frequently, in these cases, packing will cause a copious flow of urine, and must, by these means, one would imagine, tend to promote a return to healthy action of an important organ, and thus indirectly aid in the return of the mental equilibrium. The case of J. B. was a good illustration of this action of the wet sheet. He was admitted into this Asylum on 11th December, 1867, with acute sthenic mania, and amongst the other ordinary physical symptoms of the disease was retention of urine. The exact quantity passed during the first few days he was in the Asylum was not accurately measured, but was undoubtedly very small, and did not certainly exceed two pints. He was packed for several days, several hours each day, and the amount of urine voided increased immediately, and soon reached a normal quantity of pints. We have many such instances as the above recorded, but those quoted will probably suffice to demonstrate the assertion we commenced with.

Fæces.—Packing appears also to promote, in many cases, copious evacuations from the bowels, although the stools are always firm. Thus, it will generally be found that patients who are being packed have two evacuations from the bowels daily, and these stools are, as a rule, of a dark colour, as though the biliary secretion had been increased. It is entirely exceptional, indeed—so rare as to be almost never—that this free alvine secretion degenerates into diarrhœa.

The increased action of the skin, although difficult to demonstrate, must necessarily be great, as patients are invariably all in a glow when taken out of the sheet, and their skins congested.

The temperature of the body is invariably slightly re-

duced by packing; thus 10 healthy persons, who were packed for one hour, lost on an average one degree each, one losing as much as two degrees, whilst with two the temperature remained much as before the packing. In acute Sthenic Mania, and in the early mania of Progressive Paralysis, the temperature is frequently a degree or so above the normal standard. An hour's packing scarcely ever fails to correct this abnormality, and must, in this way, be immensely valuable as a curative agent.

Experiments have also frequently been made as to the effect packing has on the weight of the body, but the results have hitherto been of a somewhat negative nature, some few patients gaining, others losing considerably, but the majority being uninfluenced in this special particular.

The Use of Electricity in Insanity.

Though many years have elapsed since electro-therapeutics were first introduced to the notice of the profession, their employment has not become so general as might have been expected. In fact, there are really few physicians who use electricity with much confidence, and many are prepared to ridicule its supposed efficacy. This want of success has arisen from various causes, each of which has in some measure tended to retard the progress that should have been made in this branch of study. The electric current is an intangible remedy; it cannot be weighed or measured, and given to a nurse to administer; in fact, there is some difficulty, as will be noticed further on, in correctly estimating the strength of the galvanic current in actual use. The instruments employed for this purpose are delicate, expensive, and liable to derangement. Then we understand little of its *modus operandi*, for we know so little of the physiology of nerve element. Physiologists have, however, been directing their attention to the electrical currents in nerves, and this study, further carried out, will lay the foundation of a purer and more scientific treatment of nervous diseases. Till then we have to be content to work in the dark, and by, to a certain extent, a haphazard application of galvanism, to form a series of experiments, the results of which are a guide in its future application.

But the chief drawback to its more frequent use, is on account of the immense amount of labour it occasions to the medical attendant. For it is no light work to have to stand by to watch the patients as they are submitted to its influence one by one for a period varying from a quarter to half an hour each sitting, for weeks or months, and to record the state of the pulse, &c., before and after its use. Thus many ridicule the value of the galvanic battery in disease who are really too lazy or too much occupied to devote so much time and patience to its employment.

The experiments of Pflüger, Bois Reymond, Matteucci, Weldon Phillips, Duchenne, Russel Reynolds, and many others, demonstrating the close analogy there is between the force residing in, and conducted by nerve elements, and that originating from an electric or galvanic apparatus, are so strong that electro-therapy seems peculiarly indicated in nervous diseases. And the benefit that has resulted from its use in many nervous diseases strongly confirms this indication. Especially has it been of service in cases of paralysis, where the nerve force originating in the spinal cord seems either to be deficient or to have lost its power to influence the parts to which it is distributed. Galvanism seems to awaken the dormant energies of the nerve-cells, or in some way to increase the flow of that subtle fluid or influence conducted by the spinal nerves.

Regarding then the brain as an originator and recipient of nerve force, and insanity in its varied forms as some derangement of this nerve force, either at its origin in the nerve-cells, or during its transit along the nerves, either to or from the cells, there seems to be some plausible ground for the anticipation that as the application of electricity does good in some forms of nerve disease of the spinal cord, it would be of benefit in mental diseases; and this anticipation has been practically verified, though at present imperfectly, yet with sufficient success to lead us to hope that when its use is more understood, its value will be greatly increased.

There is a tendency to regard disease of the brain as being exclusively due to blood-poisoning, or to deficient, irregular or increased supply of blood to the brain, and,

acting on this idea, remedies which are supposed to influence the heart or its vessels have been extensively prescribed.

Now, this hæmatic theory of insanity, though probably true in certain instances, cannot be so in all, for we may positively affirm that most insanity is due either to disease of the cells originating nerve-force, to some irregularity or interference in the conductivity of this force, or some affection of the silver cords that convey nervous power, whether it be subservient to the mental or physical functions. In other words, insanity may be regarded as an affection of the material elements through which the mind expresses itself, or takes cognizance of transmitted impressions.

A celebrated living authority on mental diseases has observed that "not only have the electrical properties of nerve-element and the ultimate chemical changes during its function been hitherto entirely disregarded by those who have written on the pathology of insanity, but it would be no injustice to assert that nerve element itself as a living entity has been almost ignored. The main stress has always been laid upon the blood-vessels, as if they were the primary agents in initiating and keeping up cerebral disorder."

Therefore, supposing it possible to influence the nerve-force or its conductors by electricity, it would be equally possible to be able in certain cases to establish by its means a healthier tone of the nervous elements, and consequently of the morbid expressions to which those disordered nerve elements give rise.

We know that paralysis sometimes arises from excessive functional activity, the nerve force is, as it were, exhausted, of which we have an instance in Scrivener's palsy. Then, as insanity is frequently due to excessive mental activity, not necessarily the activity of thought, ideas, &c., but of all those phenomena which have a mental source, such as love, joy, anger, &c., and that the nervous power of the brain may be exhausted, we argue that the electric current is indicated in mental disease. But in order for electricity to be established with confidence as a therapeutic agent in mental disease, we must arrive at a more perfect pathology of insanity, and its varied phenomena must be

localised. The instrument, too, from which we obtain our supply of electric force must be more under control, and more certain in its effects, for though a writer has observed that Stöhrer's battery "is the most perfect in this mortal life," we have found it far from being so, and feel confident that a much more convenient apparatus might be designed. Attention should be directed not so much to the supply of the electricity as to its application. The rude electrodes accompanying the various galvanic batteries are unworthy of the present scientific age, they are uncertain, clumsy and painful.

It is necessary to take the greatest caution in employing electricity, for if one form may do good it follows that the opposite form may do harm. The galvanic current is not a child's plaything which can do no injury, it is a potent remedy either for good or evil. It is unadvisable to employ it in those diseases where we suspect central disorganization. Dr. Todd has "seen cases in which, after the employment of electricity for some time, that agent has excited something like an inflammatory process in the brain." Dr. Tanner also observes "where there is any structural disorganization they (electricity and galvanism) do harm. Thus they aggravate the mischief in cerebral hæmorrhage, in softening and atrophy of the cerebral substance, in pressure from tumours, and in paralysis due to disease of the spinal cord. But after reparation of the mischief (as by absorption of the clot, the nerve-substance being left uninjured), when paralysis remains without any muscular rigidity, galvanism will do good. It is also useful in hysterical, rheumatic, and lead palsy; as well as in reflex paralysis from disease of the urinary organs, diphtheria, fever, etc. And in malnutrition and atrophy of muscular tissue, it acts well by augmenting chemical changes in the muscles, and increasing therefore the supply of blood to them."

Therefore endeavouring to find the probable cause of insanity, we shall arrive at a position to be able to estimate the value of electricity in particular cases, and the proper seat and form of its application. More especially in pursuing this branch of study, must the association of mental disease with psychology be disregarded; that is, we must

not look to the expression of the mental derangement as an exclusive guide in classification and treatment but endeavour to seek in other organs the origin and perpetuation of the mental aberration.

Then having found the presumed seat of the disease, and presupposing it is suitable for electric treatment, we have next to study what form of electricity is best adapted. And here, perhaps, it will not be out of place to quote from a recent work published in Germany, on the subject of Electrotherapy in Psychoses, by Dr. Arndt, of Greifswald. He says "It is necessary first to distinguish between the effect of the induced current and that of the direct current; the first, which has the greater tension, produces especially physical effects (shock, etc.), whilst the second has more of a chemical action, and acts essentially upon nutrition. But in psychoses the purpose to be aimed at is before all an excitation, like that for example produced by douches, cold baths, etc.; it is then necessary to employ the induced current, but at the same time taking care to notice the difference of the effects produced according to the mode and place of application, either of the positive or negative pole. We know that a current applied to a nerve induces in it a particular irritation, which Du Bois Raymond has designated by the word *electrotonos*; but this *electrotonos* varies according as the positive or negative pole occasions it; in the first place we obtain *anelectrotonos*, in the second *catelectrotonos*; but *catelectrotonos* increases the irritability of a nerve, whilst *anelectrotonos* diminishes it." He then describes various indications which he believes justify the employment of one or the other state, and the positions to which the poles should be applied. But his statements are speculative, and cannot, in the present state of our knowledge, be received with much confidence.

"When it is desired," he goes on to say, "to excite, that is to raise the vital force, or to ward off states of commencing paralysis, we then employ *catelectrotonos*; when, on the contrary, it is necessary to calm, that is to diminish irritability, we use *anelectrotonos*. With regard to the effect of electricity in psychoses, it varies according to the form of the disease."

Dr. Arndt does not seem to think it is applicable to melancholia; in fact, he believes that, in some cases, where the delirious conceptions have been of an agonising nature, these morbid feelings have been increased by the current. Nor does he believe it of any service in secondary forms of madness, such as dementia. But it is essentially in the states of simple depression that its results are favourable; it then acts by exciting the nervous centres. Consequently all cases which are already in a state of abnormal irritability would contraindicate its use. In short, he infers that the induced current is only applicable to cases of simple depression and feebleness of nerve force. The experiments that have been conducted at our asylum seem to confirm this statement, for we have found it most useful in those cases where there has been much excitement with depressed bodily functions—the mania of weakness.

With regard to the application of the electrodes, Dr. Arndt's experiments led him to conclude that it is not necessary nor advisable to act directly on the brain. For, according to his ideas, the majority of mental diseases have their origin either in the spinal cord or the medulla oblongata, and it is especially upon these parts that the current should be brought to bear. In rare cases does it seem desirable to employ anelectrotonos, that is to deprive the nervous centres of their irritability. He concludes by advising the greatest caution in every case, for electricity is not one of those agents which are not dangerous if they do no good, and a current badly applied may have disastrous effects. He reminds us that the study of electrotherapy in mental diseases has only just begun, but that nevertheless the number of cases which can with certainty be considered to have been benefited by its use are so considerable that this agent ought to take rank amongst the therapeutic means at the physician's disposal, and if at the present time the many trials that have been made do not appear very encouraging, the failure in the majority of cases may be attributed to it having been employed in a haphazard manner, without any very precise indications for its use.*

* See also "Journal of Mental Science," vol. xvii., p. 423.

It is clear, therefore, that this branch of study needs persevering industry ; the various effects of the establishment of anelectrotonos or catelectrotonos have to be carefully estimated and appreciated. It will not do to treat every case in the same way, unless for the sake of observation, and then the effects must be most closely watched. If we use galvanic powers indiscriminately, as a means to treatment, we shall only be disappointed, for while in some cases good has been done, in others there has been harm done.

During the past year we have employed electricity in several cases of insanity, and have watched the effects with great interest. We now take the opportunity of laying the result before our co-workers.

Necessarily our observations have been rudimentary, having had little to guide us in our experiments, therefore we are speaking from experience obtained both from negative and positive results. Certainly, on the whole the treatment of insanity by electricity has been satisfactory, for though a study of the subjoined cases may not reveal such strikingly beneficial results from its use, yet, considering the unsatisfactory nature of the cases submitted to its influence, and their apparently hopeless condition, we may congratulate ourselves on the happy effects that have in so many instances followed the persevering application of the continuous current. Again, we have in every instance established a state of anelectrotonos ; firstly, for the sake of observation, and, secondly, because it seemed to be that form to which the patients would most readily submit. It seems, however, questionable what direction the current of the nerves influenced takes. For there being two sets of nerves—efferent and afferent—it is difficult to decide on which the current acts ; whether it modifies, for instance, an excessive peripheral current by an opposing current, or whether it acts by exciting a sluggish one to increased action. If both results are possible we can easily understand how one and the same direction of the electric current may be indicated in opposite states. Thus, if the excitement of mania or the depression of melancholia arise from excessive nerve action reflected from some source of irritation, we may, by depressing this exalted state of

neurility, improve the mental health; or, perhaps, the result may be obtained from inducing a balance of nervous power by sending a current from the brain to the seat of disordered function. On the other hand, we may have the origin of the perverted nervous action in the brain itself, and it may be possible, by either anelectrotonos or catelectrotonos, to restore the mental balance. In the one instance we may do so by depressing the outcoming current, and in the other by stimulating the opposite set of nerves. Of course, all these ideas are speculative, but they are suggestive, and may probably lead us to a more careful use of the galvanic current; at least, it will teach us not to confine ourselves to one particular mode of using galvanism just because it seems peculiarly indicated, but having failed with one method it gives us the hope that another may do good.

Then as to the form of the electricity, we have employed the constant galvanic current as being the most satisfactory and least painful. The battery we have used has been Dr. Stöhrer's, containing forty cells. It is simple, cleanly, compact, convenient, readily put in and out of working order, and moderate in price. It consists of alternate plates of zinc and carbon, immersed in glass cells containing dilute sulphuric acid. By a simple contrivance the trough holding the cells is easily raised or lowered, so as to place the plates in or out of the fluid. A small apparatus to which the wires are attached, called the commutator, runs along the top of a bar supporting the plates, and connected to the latter by two pieces of brass, so that movement either to the right or left increases or decreases the number of cells in actual contact with the wires, whilst an ebony handle influences the direction of the current. The strength of the current employed varies according to individual susceptibility, some being scarcely able to bear a few cells (six or eight), whilst the full power of the battery will hardly affect others. Roughly, we estimate the strength of the current by the number of cells in connection with the commutator; this, however, gives but a fallacious estimate of the real force of the current in actual use. The atmospheric state has much influence in increasing or decreasing the amount of electricity conveyed

along the wire. Then, again, by use the plates of the battery become coated with zinc sulphate and weakened in their action. Further, the conductivity of the skin varies in particular individuals, and consequently some receive more than others. So it is not possible to confine ourselves to any particular number of cells, nor even to make a guess at any estimate of the amount of electricity each case received. Our foregoing observations will readily convey the idea how false any such estimate would be, even if we employed the most delicate and accurate galvanometer. We have, therefore, contented ourselves by increasing or decreasing the current at each sitting until we believe the patient has a moderate amount; this can easily be told by reversing the current. If the person starts, it is of sufficient strength; if he does not feel it, we increase it till he starts, when the current is broken. Our experience leads us to think that it is better to employ a lower power than the full strength the patient can bear, at least at first. It does much harm to terrify by a painful application, and it is always well to gain the patient's confidence by a gentle application. It will be found to increase the power, probably by influencing more fully the terminal nerve fibres, to have the hands or feet placed in acidulated water with one pole dipping in the vessel, whilst the opposite pole is placed at some distant part. We can thus also send a current up or down both extremities at the same time.

Here it may not be out of place to mention a caution that should be observed: salts will increase the conductivity of the fluid, but the salt used must be one that by decomposition will not cause injury to the skin. For instance, we employed for a short time a solution of ammoniac chloride, both to moisten the electrodes and also dissolved in the water, in which the hands were placed, but the liberated ammonia blistered the skin.

The following cases, which have not been chosen with peculiar regard to any special indications for its use, are some of those in which electricity has been employed. They speak for themselves, but we would draw attention to the first six and last two cases in which there seems to have been a most decidedly beneficial effect produced by this remedy. We had hoped to have submitted more

patients to its influence, but owing to a great influx of admissions, and increase in various duties, we have not been enable to carry out our experiments on a more extended scale:—

No. 2162.—Male, 51, single, soldier. Had an attack of brain fever when about 18 years of age. Enlisted in the army at the age of 30 years, and served in Malta and India. His conduct during service was good, and he was considered temperate and steady. About two years ago he had an attack of sunstroke while in India, and after being in the hospital there a short time, was discharged as unfit for service. On admission he seemed to be in a low melancholic state, with greatly depressed bodily powers. “Unable to comprehend simple questions; acts without purpose; puts his fingers in the fire; throws his clothes out of the window; runs about in an excited state almost nude. Spirits very much depressed; does not sleep much; and refuses his food” Stimulants and nourishment were frequently given, but the restlessness continued, and he required constant attention to prevent him injuring himself; he also had to be fed and dressed. It seemed as though nothing would be of use to stay his downward progress. The electric treatment was tried with little hope of success, but it had a marvellous effect, for in a few days he was conscious and able to feed himself; in less than a month the treatment was discontinued and the patient convalescent. In this case there was, at the first application of the electricity, much flushing of the face and congestion of the superficial veins. The pulse also was accelerated after every sitting. The patient himself seemed conscious of the improvement effected by the electricity, and warmly expressed his thanks.

No. 1885.—Female, aged 50, married. Duration of insanity above seventeen months; had an attack sixteen years before, and then resided in an Asylum for eighteen months. On admission she was suffering from melancholia, with excitement. Is very violent, constantly talking nonsense, and falls down in a praying attitude to strangers, begging them to have mercy on her. Frequently bursts into tears, throws herself violently on the ground; very sleepless. Bodily health impoverished.

Treatment.—Chloral, ergot, morphia, bromide of potassium, cannabis indica. Cold and warm douches; wet sheet packing and other remedies were used with success, but she began to evince a tendency to dementia, and has become very stout, but works pretty well. Electricity was employed, current from head to hand, and since then she has improved mentally, and will shortly be discharged.

No. 111P.—Female, 26 years of age, single, farmer's daughter. Duration of insanity three months; cause unknown. Bodily health fair; mentally she seems in a state of depression, with a most determined propensity to commit suicide by strangulation.

Treatment.—Chloral in increasing doses was given to produce sleep, and she had a Turkish bath once a week. She broke out into a state of great excitement, with violence, a fortnight after admission, and endeavoured in every way to destroy herself; this was frustrated by constant watchfulness, nurses being told off to attend her night and day, with orders never to leave her side for an instant. Packing, subcutaneous morphia, ergot, and various other remedies were tried, but with the exception of some slight improvement from the packing she seemed little better. Electricity has lately been employed, since when she has appeared brighter, and less inclined to suicidal attempts. Both the patient and her friends acknowledge the benefit that has resulted from the use of the electric treatment. She converses rationally, employs herself in needlework skilfully, is, in fact, now convalescent, and leaves the Asylum shortly.

No. 2188.—Male, 45 years of age, married. No cause can be assigned for his present attack, but it is believed he has been insane before. On admission he was in low bodily health, with a weak heart and rapid pulse; sleepless. Mentally, he seemed intensely melancholic, but with a wild appearance and extremely restless manner; could not comprehend questions, or answered in a rambling manner. Nothing was given him but purgatives and stimulants; for a week after admission his restlessness rather increased, and the case was thought to be hopeless. Electricity was then tried; he resisted it furiously, but it

was persevered with, even though sometimes he required restraining by six people. The pulse at first was very rapid (140), but it gradually became slower and fuller at each application until it obtained a normal state. In each case it was slightly increased by the electricity. Coincident with the improvement in the state of the pulse his mental and bodily powers improved.

No. 1982.—Female, aged 36, married. Duration of insanity, five months. *Bodily* health on admission, fair. *Mentally* in a state of acute mania, with delusions, it was said, on religious subjects, but her mutterings were unintelligible. Spirits were exalted; she was dangerous to others, and sleepless.

Treatment.—The furious excitement was calmed by Conium, but she seemed to lapse into a state of dementia; became dirty in her habits, requiring to be fed and dressed, and observed an obstinate silence. *Electricity* was applied first with the electrode to the head, and the anelectrode to the hand, but as this reduced the frequency of the pulse, and did not make much change, the current was reversed. After this she improved somewhat, began to converse rationally, behaves better, and now dresses and feeds herself. Her husband notices a great improvement in her. She has lately been working well in the laundry, and is convalescent.

No. 1990.—Female, aged 28, married. Duration of insanity, about seven months; supposed to have been caused by pregnancy and a hereditary predisposition. She is in a very depressed state, and is also much confused mentally; bodily health fair. After admission she seemed to brighten up a bit, but soon showed a tendency towards dementia. After the electricity had been applied the pulse increased; she could only bear twelve to twenty cells. Positive pole to head, and negative to hand. She has improved, and is now working steadily.

No. 2068.—Male, 23 years of age, single, groom. Insanity of nine months' duration, cause of which is unknown. Is in a peculiarly terrified state; fears injury from almost any object; thinks the trees or table will fall on him. His spirits are greatly depressed, and he says "he is punished in this way because he has written the Holy Name back-

wards." Has attempted suicide by drowning. Health fair, but has a cold and clammy skin.

Treatment.—Cold douches were chiefly used, but failed to rouse him from his depression. Electricity was successful to a certain extent; but it had to be discontinued at the end of a month, as ulcers broke out on his feet.

No. 1761.—Female, aged 30, servant. Duration of insanity, about three years; has been in this Asylum before. Her previous attack was attributed to "brain and typhus fever," when about 16 years of age. She is generally in a kind of hysterico-cataleptic state, showing no sign of animation, but just doing what is told her, and remaining in the position in which she is placed.

Treatment.—Various remedies have from time to time been used, but with no result. Electricity seemed to increase the strength of the pulse, which is usually almost imperceptible, and very rapid; but the mental symptoms were unimproved.

No. 2056.—Female, aged 32 years, married. Duration of insanity, nine months; supposed to have been caused by loss of child and hereditary taint. The first symptoms observed were depression of spirits. Expresses great fear of being burnt, and has tried to drown herself. Has attempted suicide several times since she has been in the Asylum, once or twice by strangulation. Bodily health, fair.

Treatment.—Chloral, opium; cold douches were tried without avail. The electric treatment was persevered in for three months; but, though she somewhat improved at the end of that time, it was only slightly. She seems to be lapsing into a state of dementia.

No. 2085.—Female, domestic servant, aged 30. Insanity has been observed in her for nearly four years. It is of a religious character, and appears to have been caused by disappointment in love, while an hereditary tendency pre-disposed to it. She will stand for a long while in a kind of trance, gazing at some unseen object; then will suddenly assume an attitude of prayer, and after muttering some words in a mechanical way, will rise and resume her former state. She shows no religious ecstasy; in fact, her manner is very lost and quiet. She answers questions

with extreme difficulty, and as curtly as possible, but civilly. Says she has been conversing with Christ, and believes the Medical Officer is He. She is a well-made, delicately formed woman, with light auburn hair, and fair complexion. Is tolerably stout, and appears in good health.

Treatment.—An alternate warm and cold douche were given night and morning for about a month, but they had no effect. *Electricity* was applied, the positive electrode being placed on the right or left temple, and the negative in the opposite hand. With few exceptions, the result was to increase the pulse considerably; this was partly due to the effects causing pain and some excitement, for at first and on some other occasions the beats were as many as 120 in the minute. Sometimes the pulse decreased in frequency. At the end of each application she used to fold her hands in prayer and say, "For what we have received, &c." She improved at first under its use, so much so, as to be able to employ herself; but it ceased to produce any further good after about three months' application.

No. 2004.—Female, aged 23, domestic servant. Insanity first made its appearance in March, 1872, and was attributed to the death of her sister in a lunatic asylum. On admission she was in a state of mania, verging on dementia. Was subject to periodical attacks of excitement and destructiveness, when she made use of disgusting language, and was very quarrelsome. Occasionally laughed heartily without any reason, or burst into tears. Was sleepless, and dirty in her habits at night, with a tendency to wander about the dormitory. She is a stout, rather coarse made girl, but with some suspicions of heart disease.

Treatment.—*Chloral*, in ten to twenty grain doses, had no effect; in fact it did not seem to suit her at all; the restlessness and talkativeness continued unabated, though the drug was tried for ten days. *Digitalis* was next administered, but she was reported as being more noisy than ever afterwards. *Opium* was added to the mixture, but there was still no improvement, even from increased doses. Then shower-baths were employed, and subcutaneous morphia injected, but without result. *Electricity* was tried; at first little effect was perceived, except decrease in frequency of pulse. As she was excited when first

placed under its influence, and required to be restrained by four nurses, the decrease might have been the result of becoming calmer. Pulse before application 80, after 64. Afterwards it was increased both in fulness, steadiness, and frequency; on one or two occasions it was over 100 after the application, but generally the increase was only two to four beats. The current was passed from the head to the extremities, varying the seat of the electrode; sometimes it was placed on the left temple, sometimes on the right, and the other electrode in the opposite hand. The number of cells was from 20 to 24; occasionally this number had to be reduced, as there was a tendency to cause charring of the skin. Four days after its first application she is reported as being "much improved mentally." This improvement continued steadily to progress, and though occasionally subject to relapses these are not nearly so violent nor so frequent now. In every respect she has improved considerably, *and is now convalescent*. The treatment was discontinued after four months.

Electricity has also been used in several other cases, such as rheumatism, locomotor ataxia, obscure disease of the liver, with variable success. It has also been employed in other cases of insanity, but not having been found beneficial after a few applications was discontinued. One case died after three applications of the battery, but there seemed no reason to think the death was in any way accelerated by it. On the contrary, the pulse became steadier during its use.

From the above observations, meagre though they be, we are confident that in the galvanic battery we have a powerful tonic or stimulant; further study, however, being required to estimate its true importance, and to decide in what cases it is most applicable. Our experience leads us to think that recent cases of melancholia or mania, with lowered vital powers, are those in which a current passing from the centre to the peripheries seems to produce great benefit; and that it seems to have no effect on those cases that have become chronic, or in which secondary symptoms are setting in, or in which we have reason to suspect central disorganization.

Cannabis Indica in the Treatment of Migraine.

Although the symptoms of Migraine have been described with a clearness which forces us to believe that the writers must often have been themselves the sufferers, its treatment remains in a most unsatisfactory condition. The most opposite remedies have been tried and found useless, and at last the unhappy patient gives up all treatment in disgust, regarding himself as the martyr to a disease which time may enable him to outlive, but over which medicine possesses no control. Every physician has had strong evidence that this is too often true.

Arsenic, quinine, and other tonics and anti-periodics, together with subcutaneous morphia and alcoholic stimulants, seem to have the common property of being perfectly valueless as regards a permanent cure, seldom giving even temporary relief, and that in a limited number of cases only.

Some years ago we were induced to make a trial of the Indian Hemp, and have since used it frequently, and have nearly always seen it productive of more or less benefit to the patient. The following six are the only cases of which we possess notes. They are consecutive, and have been attended within the last two years. Two only are patients in this Asylum—convalescent as regards their mental affection—while the others are officials connected with the Institution.

To guard against optimism—that common fault of medical writers, and source of our scepticism—we have detailed these cases as nearly as possible in the patients' own words.

CASE 1. Male. Had suffered from sick-headaches for about four years. At first the intervals of the attacks averaged at least fourteen days, but soon they were reduced to eight or nine, and latterly four or five days never passed without a seizure. The Indian Hemp was taken, though not as regularly as we wished, for eight weeks, and during that time the patient had but two attacks, and these were reduced both in length and intensity. It is now nearly three months since the use of the drug was discontinued, and in that time there have been two "very slight" attacks, and one rather severe, but of short duration.

CASE 2. Female. For upwards of twenty years this patient has been subject to Migraine, and during the last few years the paroxysms, which were extremely severe—in fact, the worst we ever saw—recurred every eight or ten days, and generally lasted from twenty-four to thirty-six hours, or even longer. Half-grain doses of the Indian Hemp were ordered night and morning, and after having been persevered in for five or six weeks great improvement followed, the attacks being very much slighter, and diminished in frequency to once a month. The dose was gradually increased to one grain, and now the headaches are still less severe and frequent, sometimes scarcely deserving the name of “sick-headache.”

Here, taking into consideration the duration of the disease, a cure could scarcely be hoped for; but after the drug had been taken for a few weeks a most marked amelioration was apparent. Moreover, this patient was an inveterate tea and coffee drinker, and could by no means be persuaded to give up the use of these wretched stimulants; otherwise, there is little doubt that still greater relief might have been obtained. In this case there was vomiting with every paroxysm, and as usual the violence of the attack abated gradually after the stomach had ejected its contents. It might be argued from this that emetics would be useful, but direct experiment demonstrates that this is not often the result, and, indeed, can hardly be expected when we remember that the vomiting “merely indicates the lowest point of nervous depression.”

Almost every kind of treatment had been tried with this patient, and although many of the *remedies* had been persevered with for months and months, not the slightest benefit ever accrued.

CASE 3. Female. In this case the seizures recurred about five times a month, but the disease could scarcely be called severe, as the attacks were comparatively slight. They were reduced to once a month by one-third grain doses of the extract.

CASE 4. Female. From the notes furnished us here, it would seem that the attacks were not diminished in frequency; but the patient admits not having taken the medicine regularly, though she states that a double

dose, taken when the headache was coming on, often relieved it.

CASE 5. Female. Had been a sufferer for twelve years. The headaches recurred about once a week, ten days being the longest interval. A month after commencing the Indian hemp she had the satisfaction of seeing the intervals lengthened to five or six weeks, and the attacks much slighter.

CASE 6. Male. Here the seizures came on every fortnight or three weeks. The use of the drug was begun in half grain doses upwards of three months since and discontinued a fortnight ago. From the first dose being taken to the present time this patient has never had a "sick-headache."

These will show that though the *Cannabis Indica* may often fail to cure, it scarcely ever fails to effect some improvement even in the most apparently hopeless cases. And Case 2 will also show that this drug may be taken for very many months, in comparatively large doses, without producing any unpleasant effects or in any way injuriously affecting the economy. It would also seem that, unlike opium and some other narcotics, it may be given up abruptly without requiring the exercise of any fortitude by the patient.

The best preparation is undoubtedly the alcoholic extract, and its purity cannot be too strongly insisted on, as inferior qualities lead to failure and disappointment. The tincture is, we think, a faulty preparation, not only on account of its villainous taste, but because, after having been made for a short time, a deposit is frequently formed which may, and probably does, contain part of the active constituents, and is in danger of not being taken.

The dose should, of course, vary according to the age and constitution of the patient and the severity of the attacks. As a rule it will be sufficient to prescribe one-third of a grain every night, or every night and morning, and it may be increased to two-thirds of a grain. More than one grain should not be thought of except in very bad cases.

As an adjunct to the treatment, especially in anæmic patients, cod liver oil will often be found highly useful,

and the inhalation of three or four drops of the nitrite of amyl seems to be the most certain agent for giving temporary relief from the pain. In the above cases, however, no drug whatever was used excepting the *Cannabis Indica*.*

The Results of Night Nursing.

It is said still to be a matter of doubt in certain quarters whether the night nursing carried on in the majority of our English asylums is an unmixed benefit. It is argued by some that the turning out of the unhappy dement or idiot two or three, or perhaps four times in a night, is a piece of cruelty. "Let him wallow in his own mire," say they, "if it be pleasing to him in his own eyes so to do, rather than that he should be disturbed in his slumbers to attend decently to the calls of nature." In many, if not most respects, lunatics have to be treated as children, and we never heard that a mother, regardful of the well-being of her infant, is in the habit of allowing the child to follow its own bent in such a matter. Besides, the sentiment is a mistake. Those classes of the insane who appear on the night records are, as a rule, but little removed from the beasts, in the majority of their ways and feelings. To disturb a sane man after he had once fallen asleep, would be tantamount to spoiling his night's rest; but it is not so with an idiot or a dement. If you wake up one of his class, you will find in the very great majority of cases, that directly he is left, he curls himself up, and is asleep again almost immediately.

The importance of night nursing was recently very forcibly urged on our attention in this asylum. The night nurses commence their duties at eight p.m., and from then to six the next morning, visit the wards every two hours. Some patients they get out of bed once, others twice, and a few at each visit. They learn by experience the number of times it is necessary to get each of the cases out to keep them clean. The result is that our wet and dirty cases are reduced to a minimum—from 3 to 6 wet cases each night, and about 3 dirty each week being the average.

* Reprinted from the "Practitioner," for Nov., 1872.

One night recently, owing to a circumstance it is unnecessary to go into here, no patient was taken out of bed, on the females' side between 8 p.m. and 4 o'clock the next morning. On the beds being examined, 27 women out of those usually attended to during the night were found to have wetted their beds, and there is but little doubt but that with a very few nights of similar neglect, every one of the 40 would habitually wet their beds. Could anything more degrading, not only to the unhappy patients, but also to their attendants, be imagined? And consider the large amount of extra dirty work that would be thrown upon the laundry department. Carlyle says, "In every unit of us is some belief and wish, different for each." But that there can be any difference of opinion on the subject just considered, shows of what universal application the dictum of the great satirist is capable.

Note on Chloral.

Next to sub-cutaneous morphia the introduction of the Hydrate of Chloral has proved the greatest boon to asylum physicians, for in it we possess an agent which exerts its hypnotic action with very great certainty, and also with safety, when even moderate care is used in its administration.

As this was the first Asylum in Great Britain in which it was used in the treatment of insanity, a few remarks, founded on a $3\frac{1}{2}$ years' experience, may not seem out of place.

As a curative agent in any form of mental disease, we believe it can lay no claim, but as a palliative or sleep-producer it is useful in many if not in all.

In acute mania a single dose is not unfrequently followed by the happiest results. A patient, who in the evening was violent and excited, or worn out from want of rest, will, after a thirty, forty, or sixty grain dose of Chloral, obtain eight or ten hours' sleep, and seem so much improved afterwards that in our earlier trials we almost hoped for a cure. Sooner or later, however, generally towards evening, the restlessness will return, to be again

relieved by the Chloral, and, as a rule, a smaller dose will now be productive of the same beneficial results. And thus the patient, in a longer or shorter time, will be steered through the disease, and restored to health. It is not probable that the duration of the attack has been much lessened by the treatment, but most assuredly the ulterior consequences have been mitigated, convalescence, in a purely physical point of view, taking place sooner, and this is something to have accomplished. In acute mania, it is better, if possible, to limit its use to the night: and one large dose is more valuable than two or three smaller ones.

In the general restlessness and agitation of progressive paralysis, it is often useful, and contrary to the experience of some physicians, we have never seen it followed by bad consequences, or by increase of the paralysis other than could be accounted for by the natural course of the disease. Fifteen or twenty grains night and morning will here be a sufficient dose. On glancing over the cases of progressive paralysis so treated, and over others treated with digitalis, we are, however, inclined to give the preference to the latter drug, though it cannot be safely given without intermission for so long a period as the Chloral.

In that form of chronic mania verging on dementia, and accompanied by destructive habits, the Chloral Hydrate has, as far as our experience goes, no equal, and observation convinces us beyond doubt that its use may be continued for many months without affecting the general health.

In melancholia, we do not use it much, regarding it as inferior to opium, and vastly inferior to sub-cutaneous morphia.

It is unfortunate, but nevertheless true, that Chloral, even in large doses, will occasionally fail to produce any effect at all, and in these cases the most careful examination cannot detect the cause of failure. The analysis of Pellagio shows that the blood of animals poisoned with Chloral contains chloroform in the same proportion as would be obtained by bringing a like quantity of Chloral in contact with an alkali out of the body. It is, therefore, probable that when Chloral fails, its failure is owing to the

absence of that alkali which causes it to unfold its action. It is also stated as a curious fact that Chloral produces its wonted effect when administered by enema, while Chloroform, when introduced into the rectum, has no influence, even if absorbed.*

Flushing of the face or chest has been rarely seen, and seemed only to supervene when a stimulant had been given together with or shortly after the medicine; but as we usually prescribe it to be given at bed-time, the flushing might have been present during the night, and escaped observation.

As yet no fatal or dangerous effects have been seen in this Asylum, although a great deal has been used,† and it has often been considered necessary to order large doses of the drug. It is not easy to say what would be a poisonous dose. We saw in consultation a delicate female who had accidentally taken three drachms and forty-five grains in one draught. She slept continuously for twenty-four hours, and was very somnolent for twenty-four hours longer, while the peculiar chloroform-like odour of the breath was distinctly perceptible at many yards' distance from the patient.

On the Use and Abuse of Seclusion.

Dr. Rogers, the Medical Superintendent of the County Asylum at Rainhill, read a paper at the last meeting of the Medico-Psychological Association on "The Proposed Abolition of Seclusion."

In this paper he states he was induced to bring the subject before the General Meeting of the Association with a view to elicit the opinions of members on the subject.

The members present gave their opinions ‡ almost unanimously in favour of seclusion, provided it be used under direct medical authority. As no Medical Officer from this Asylum happened to be present at the meeting, this opportunity is taken to state that seclusion, moderately and judiciously used, is the practice here. (There seemed at

* "Archivio Italiano," November, 1870.

† The total quantity of Chloral Hydrate which has been used in this Asylum is forty-two pounds, representing about eleven thousand doses.

‡ See "Journal of Mental Science," October, 1872.

the meeting to be considerable difference of opinion as to what really constitutes seclusion, therefore it may be as well to state here that we always consider a patient in seclusion when he is alone in a room during the day time, the door of which is so fastened that he cannot let himself out.)

We are decidedly of opinion that seclusion, in certain forms of mental disease, is of the utmost benefit. We even go further, and affirm our strong belief that some cases of acute mania tend to become chronic if not kept in seclusion. Moreover, we believe that if a correct record could be kept, it would be found that in acute mania the duration of the disease would be lessened and the percentage of recoveries increased, by keeping patients thus suffering, in seclusion from the moment of their admission to the time when all the acute symptoms have subsided. We are most of us now agreed in viewing insanity as of purely somatic origin, and yet we shrink from treating it as we would any other bodily ailment. Supposing an organ other than the brain becomes the victim of disease, would any rational physician consider that the surest way to bring about a cure would be by increased action of the functions of that organ? And yet in acute mania, wherein the functional activity of the brain is most intense, thought following thought with most abnormal rapidity, we are advised to associate the case with the other patients; or we are told to submit him to the torture of being dragged round the airing courts by two attendants until he is exhausted, although we know that he is suffering from a disease that tends essentially to exhaustion, and that he will require all the physical power he is possessed of if he is successfully to grapple with the enemy who has met him in the gate. And all this that we may not defile the blank pages of the column in the "Medical Register" devoted to the record of "Seclusion." Surely this is decidedly helping our patient many steps down the hill that ends either at death or dementia.

At the same time we must not disguise from ourselves that seclusion is a very powerful agent, though some experiments instituted by us make us doubt whether it is anything like so subversive of the healthy nutrition of the

body as was stated by one gentleman at the meeting. He, quoting from the experiences of a gaol governor, stated that a prisoner in seclusion for three days loses 5 lbs. Nevertheless, it cannot be gainsaid that the majority of persons placed in seclusion in a darkened room do at first lose weight, though we doubt if this loss would continue, as the system would, in all probability, adapt itself gradually to the altered circumstances. The following are the results of the observations lately taken on this point in this Asylum.

I. E.	during	72	hours'	seclusion	lost	30oz.
L. G.	"	72	"	"	"	2oz.
M. S.	"	48	"	"	"	12oz.
T. M.	"	72	"	"	"	2oz.
S. T.	"	72	"	"	"	4oz.
C. K.	"	72	"	"	"	5oz.
T. R.	"	72	"	"	"	32oz.
A. S.	"	48	"	"	gained	2oz.

These patients were locked in a dark room, and were in bed. Care was taken that their diet should approximate as nearly as possible to the quantity taken usually. It will be seen that only one gained in weight, and that the remaining seven all lost substance, although the majority did so but slightly. Therefore, as the usual periods during which patients are secluded range from one to two or three hours, the ordeal may be set down as not a very trying one, as far as the physique is concerned.

Medical and Surgical Memoranda.

We are again fortunate in being able to report the absence of epidemic or zymotic disease during the year, and in all other respects the *annus medicus* has been uneventful, and, therefore, satisfactory. So far as we are aware no new drug has found its way into Asylum practice, if we except a Gum, which was brought under our notice by Dr. Sedgwick, and recommended by him as being probably useful in the treatment of those cases of insanity in the female where the prominent symptoms are of an erotic nature. In one such case so treated good results

followed its administration, the details of which we refrain from publishing until we collect a sufficient number to demonstrate the utility or non-utility of the drug.

Aortic Aneurism.—A case of aortic aneurism presented itself for treatment in T. K., a patient convalescent from recurrent mania.

The chief symptoms were dyspnœa, dysphagia, pain in the left arm, shooting down to the little finger, pain in the back—referred to the region of the third dorsal vertebra, palpitation on the least exertion, and frequent attacks of angina pectoris. For the latter, inhalation of the Nitrite of Amyl acted like a charm, always relieving the pain, and making sleep possible, and the patient's life bearable. Balfour's treatment with the Iodide of Potassium was persevered in for many months, and with the happy result of causing the dysphagia and pain in the arm to disappear, and the other symptoms to be much ameliorated. The Iodide is given in fifteen grain doses thrice daily. This medicine—like its sister preparation, the Bromide—seems to have but little effect in any diseases when given in much smaller doses, and, as pointed out by Dr. Balfour, it is necessary in aortic aneurism to saturate the system with it, without, if possible, giving rise to "Iodism."

Enuresis.—The management of an Asylum is to a certain extent shown by the number of "dirty" or "wet" cases appearing on the Ward Returns. While the former are very rare in this Asylum, the latter are limited chiefly to the Epileptic class. There are, however, a few who cannot be placed in this category, and these we have lately treated with Belladonna. The following are the results:—

CASE 1. T. J. During eighteen days previous to the Belladonna treatment being commenced, this patient was "wet" fifteen times; after it was commenced he was reported "wet" 100 times in 206 days.

CASE 2. C. E. Was "wet" six times in eighteen days previous to taking the medicine, but afterwards was never once on the report.

CASE 3. B. G. Before taking the Belladonna was "wet" daily. While taking it, was "wet" 17 times in 114 days.

CASE 4. C. P. In this case no benefit followed.

Phthisis.—Eighteen patients have been under treatment for pulmonary tuberculosis during the past year. In Lunatic Asylums every patient on admission is subjected to a careful stethoscopic examination, and it often happens that thoracic disease is detected in its earliest stage, when it is, of course, more amenable to treatment than at any other time. Eight of the above cases were in the first stage, and of these eight, six have so far improved as to be at present perfectly safe, and one, at least, may be regarded as cured. One case remains stationary, and two have died of intercurrent disease, viz., abscess of the liver and capillary bronchitis. One becomes slowly worse, and eight died purely from the lung mischief.

The treatment was in all cases the same as in former years. In the early stage the Roman bath is doubtless often a valuable accessory to the nutritive treatment, and if it were possible to diagnose a pre-tubercular state it would be in these cases still more useful. It is almost unnecessary to state that the bath is never used when the tubercle is softening, much less when there is a cavity. Whether life be simply a modification of oxygen, as some have been bold enough to suppose, it is certain that oxygen in the shape of pure atmospheric air is life to the consumptive patient, and without it no treatment is of much use; consequently everyone having phthisis, or a tendency to it, should be as much as possible in the open air during the day, and should invariably sleep in a room where pure air has free ingress, and respired air egress. Some authors, MacCormac for instance, would almost make us believe that a vitiated atmosphere is the sole cause of Phthisis pulmonalis.

In last year's Appendix we stated that hæmorrhagic phthisis was probably rarer in the insane than among the sane population; and the analysis of the above eighteen cases shows the truth of the remark, two only having had hæmoptysis. For this complication we have tried all the usual medicines, including ergot, digitalis, and mineral acids, gallic acid, inhalation of the tincture of the muriate of iron, &c.; but have never been able to satisfy ourselves that any of these had the slightest effect. If the hæmorrhage proceed from a small vessel it will certainly cease by

enjoining perfect quiet, suitable posture, and a careful regimen; while, if it come from a larger artery, it requires an immense amount of faith to believe that any drug introduced into the stomach can control it.

In tubercular diarrhœa we have yet to find an equal to Dover's powder and alum in ten grain doses.

For the "night sweats" the mineral acids, gallic acid, and oxide of zinc have been used. The last mentioned was probably the most successful, certainly it was the least injurious.

Cerebral Hæmorrhage was represented in two cases—one male and one female. (See Post-Mortem Examinations.

Cardiac Disease.—Eleven patients were under treatment at various times for heart disease. None of these call for any remark beyond the fact that restlessness was often calmed by morphia subcutaneously injected, this elegant mode of administering sedatives being in no class of diseases more unequivocally useful.

Asthma.—One case of asthma derived considerable benefit from thirty grain doses of chloral at bed time, and occasional inhalations of nitrite of amyl during the day. We are, however, here inclined to give the palm to chloroform, but in private practice the former is so far better that it may always be safely entrusted to the patient, while the latter should rarely or never be so trusted.

Pneumonia.—There were ten cases of pneumonia, and of these two died, an unusually large percentage for this Asylum. One of the fatal cases was 63 years of age, and the other had for many years been subject to heart disease.

Progressive Paralysis of the Insane.—The name "general paralysis" being here a complete misnomer, and, in fact, having no existence at all for the physician, we prefer the term Progressive Paralysis now coming into frequent use. During the past year sixteen patients have been under treatment for this incurable disease. Twelve of these have been treated with the Calabar bean with the following results:—One has improved, one is stationary, six are becoming rapidly worse, and four have died. As the remaining four were in the last stage when admitted, palliatives only were given to them.

Epilepsy.—Pursuing our investigations with the nitrite of amyl in convulsions, we were able to confirm the remarks which we formerly made regarding its power of lessening the duration and severity of a fit, and we also made an attempt to try its preventive power in a patient whose fits recurred in groups of eight or ten about once a month. When the amyl was given the number of fits was always below the average, but not much below it.

Progressive Locomotor Ataxia.—A typical case of this disease has been under observation for many months past. Lately some improvement has followed the use of galvanism.

The surgical cases have not been very important, and few of them seem to call for any special remark. The following fractures were treated during the year, very successful results being obtained in all, excepting the case of D. D. :—

Fracture of the Tibia, &c.—E. S., a woman of 77 years of age, who was lame from old fracture of the right femur, and who had on several previous occasions been under treatment for fractures, fell on the door-step leading into one of the airing courts and broke the right tibia and fibula, and also the right radius. The tibia gave way about four inches above the malleolus, the fibula near the neck, and the radius one inch above the styloid process. For the fractures of the leg we found it impossible to obtain perfect adjustment, either by McIntyre's splints, or by laying the limb on its outer side. We have experienced the difficulty before, and here it was probably increased by the deformity consequent on the old fracture of the femur. The same splints which we had used in a similar fracture, noted in the last number of this Appendix, were applied, and with the same satisfactory results. In most Text Books it is stated that the extended position is a bad one for treating fractures of the leg, but we feel certain that, even where the surgeon has his choice of procedures, it will often be found the best, especially where the fracture is very oblique, or where there is much tendency to retraction of the lower fragments.

The radius was treated with the ordinary straight splints, leaving out of the bandage the little and ring fingers.

Fracture of the Fourth Metacarpal Bone.—D. H., a male, was thrown against a table by a fellow patient, his hand being pressed between a corner of the table and his body, thus causing fracture of the bone. A firm pad in the palm, retained by a starch bandage, was all that was required for union, which was complete in three weeks.

Fracture of the Humerus.—D. D., a female epileptic and sufferer from heart disease, sustained a comminuted fracture of the shaft of the humerus by a fall, in which the weight of the body was thrown on the elbow. Rectangular splints were applied, and perfect coaptation secured, but the progress towards union has been extremely slow, and is now, six weeks after the injury, still imperfect.

Fracture of the Fibula.—A. R. had his right fibula broken by being knocked down by a fellow patient. The bones united very satisfactorily in the usual time.

Fracture of the Skull.—T. C., an attendant, when working on the farm in charge of a few patients, received a fracture of the skull in the following manner. One of the patients who had been employed daily on the farm for years, and who had never shown any homicidal tendencies, suddenly lifted a weeding hoe and repeatedly struck the attendant with it. The first two blows were received on the head, knocking the attendant down and rendering him unconscious. On recovering his senses he found the patient sitting at a little distance, weeping, and expressing great remorse for what he done. He voluntarily took off his own neckerchief to bind up the wound he had inflicted a few minutes previously, and then assisted in bringing the attendant to the Asylum. It was found on examination that the skull was fractured near the frontal eminence, on the left side. A piece of bone three-quarters-of-an-inch in diameter was removed, the edges of the wound drawn together by silver sutures, and an evaporating lotion, containing a small quantity of carbolic acid, applied to the head. The wound healed by the first intention, and the case altogether terminated very favourably, as well as rapidly, considering the severe nature of the injuries.

This case is instructive in a legal point of view, as it

shows that remorse for a crime is not incompatible with complete insanity. It is now seven months since the assault, and the patient has remained in his usual quiet, apparently harmless state, although he is, of course, not allowed to leave the Asylum.

Lupus.—J. B. was suffering on admission from lupus non exedens, of syphilitic origin. A cure was effected in a few weeks by the internal administration of ten grain doses of the iodide of potassium thrice daily, and by the external application of a weak solution of sulphate of copper.

Erysipelas.—There were seven cases of erysipelas. Six of them were not submitted to medicinal treatment, and they all speedily recovered; the seventh was a case of phlegmonous erysipelas occurring in a woman of 70 years of age, and a sufferer from cardiac disease. It proved fatal in five days in spite of the usual external and internal remedies.

Iritis.—Two cases of iritis were treated during the year. Both recovered by simply keeping the pupils dilated with atropine.

Aphonia.—A strip of blistering plaster placed over the thyroid cartilage had a magical effect in a case of aphonia.

The Case Books show that, in addition to the above, the following diseases have been under notice:—Orchitis, caries, sciatica, fistula-in-ano, paraphymosis, periostitis, cancer, aneurism, dislocation of elbow joint, &c., &c.

Numbers, Age at Death, and Date of Admis- sion and Death.	Mental and Physical State on Admission.	Assigned Cause of Death, Duration of Disease, &c.	Head and Spine.
1. <i>Æt.</i> 66. Admitted Aug. 11th, 1859. Died Jan. 6th, 1872.	Dementia. Feeble health. Health improved after admission.	Cancer of Stomach. Two years' duration. Examined 57 hours after death.	The cranial bones were thin and soft; dura mater adherent to bones; arteries slightly atheromatous; cerebral substance firm; grey matter pale; dark coloured deposit in the two crura, more marked in the left, weight of brain, 40½oz.
2. <i>Æt.</i> 73. Admitted July 30th, 1869. Died Feb. 20th.	Senile Mania. Very feeble health, which improved some- what.	Pneumonia and Pericarditis of two weeks' dura- tion. Examined 30 hours after death.	Cranial bones thin and soft; dura mater adherent to them, and separable into layers; it was roughened on its upper surface; arachnoid opaque and vessels atheromatous. Cerebral substance white, very firm and elastic; marked by numerous lacunæ; grey matter pale; lateral ventricles were full of fluid; optic thalami rather wasted, grooved on their surfaces, and rough; left smaller than right; weight of brain, 40oz.
3. <i>Æt.</i> 65. Admitted Aug. 14th, 1860. Died March 29th.	Dementia. Fair health.	Bright's disease of kidneys. Some years duration. Examined 41 hours after death. Rigor mortis slight.	Cranial bones thin and soft; dura mater very adherent to bone; on the right side of the dura mater there was a congested spot the size of half a crown; on the left and upper surface of the brain the pia mater was congested to an extent corresponding to that on the dura mater, but the brain beneath showed no signs of disease. Brain weighed 39½oz.; vessels, atheromatous and calcareous, especially the basilar arteries; pia mater much congested and easily removed; brain substance paler than usual, and moderately firm; not much fluid in the ventricles.

Thorax.

Both lungs and heart seemed healthy. Right lung weighed 9oz.; Left 7oz.; heart 7ozs.

Ribs exceedingly brittle, some a mere shell of bone, containing a dark-reddish fluid marrow; right pleura adherent to lung and diaphragm; contained about 4ozs. of fluid; right lung weighed 15½oz.; structure normal; left pleura adherent to parietes throughout; left lung could not be removed, as it was so broken up—showed the signs of the third stage of pneumonia. Heart—pericardium firmly adherent to the heart for about ¾ths of its extent. Muscular substance flabby, but the ventricles were pretty thick. Contents—clots and fluid blood. Valves seemed healthy; weight, 14oz.; circumference of aorta, 4in.; valves healthy.

Ribs very easily broken—mollities ossium; pleura slightly adherent to walls; right lung tissue healthy; weight 8oz.; left slightly consolidated at base; weight 17½oz. Heart—pericardium was thick, rough, adherent to heart, and contained little fluid, but there were some bands of recently organised lymph; left ventricle, much hypertrophied, contained clots; aortic valves incompetent with cartilaginous deposits.

Abdomen.

The cardiac orifice of the stomach was much thickened with fibrinous cancer, to about 1½in. tuberculated; cancer extended over lesser curvature of stomach, and up œsophagus, which was much contracted; stomach, with cancer, weighed 12oz.; liver, spleen, and kidneys, apparently healthy.

Alimentary canal appeared healthy; liver small, contracted, globular; weight, 40oz.; on section congested and nutmeggy; lardaceous in some parts. The nutmeg appearance seemed due to fatty degeneration; spleen congested and jelly-like. Weight, 4oz. There was a very small supplementary spleen; kidneys (left) 3½oz.—surface roughened by deep grooves capsule separated by fluid; cortical substance much atrophied; both cortical and medullary substance contained several cavities about the size of small marbles or large peas, in which was an oily fluid, nearly colourless, and scattered in the fluid were numerous bodies the size and shape of mustard seeds; supra renal capsule diseased, soft, and could hardly be removed; right, 4½; to all appearance healthy, supra renal capsule large, but healthy.

Peritoneal cavity contained rather over half a pint of fluid, but the membrane showed no sign of inflammation or decomposition. Liver, mottled, waxy; weight, 31oz.; gall bladder contained no bile. Spleen, mottled, waxy; capsule adherent. Kidneys (left), capsule easily removed; external surface of kidney was very irregular and granular; several small cysts were present; on section the natural papillæ or cones were abnormal; in only a few instances were there any traces of the tubes of Ferrein; the remaining portions of the medullary substance, though retaining somewhat the natural appearance, was yet composed of amorphous masses of light red substance; the cortical structure, too, showed little signs of any natural appearance; weight, 3½oz. Right, appeared to be one mass of fat, no normal structure in the least being pre-

Numbers, Age at Death, and Date of Admis- sion and Death.	Mental and Physical State on Admission.	Assigned Cause of Death, Duration of Disease, &c.	Head and Spine.
3 <i>continued.</i>			
4. <i>Æt.</i> 46. Admitted Sept. 30th, 1859. Died April 20th.	Mania. Health good. Subject to frequent attacks of syncope.	Syncope from Disease of Heart. Some years' duration. Ex- amined 46 hours after death. Rigor mortis very distinct. Body well nourished.	Cranial bones hard ; dura mater adherent to them. Base of skull, especially in the middle fossæ, was riddled with small holes, as if from caries ; pia mater and arachnoid not very opaque ; brain substance firm ; convolutions deep, but somewhat flattened and not numerous ; on section the white and grey substance appeared normal, but some parts at the base were rather soft ; weight of brain, 48oz.
5. <i>Æt.</i> 32. Aug. 9th, 1869.	Mania. Fair Health. Pregnant.	Progressive Paralysis of the Insane. 18 months' duration. Died June 5th. Examined 41 hours after death. Rigor mortis distinct.	Dura mater very adherent to skull ; pia mater milky in some places, with difficulty stripped from brain ; grey matter deficient ; white substance glistening, watery ; ven- tricles contained about 2oz. fluid, and lining membrane was papillated and roughened.
6. <i>Æt.</i> 54. Admitted Nov. 16th, 1861. Died June 18th.	Mania (periodi- cal and epileptic) Health good.	Cancer of Liver, about six months' duration. Ex- amined 65 hours after death. Skin and every part of the body ex- tremely jaundiced. Rigor mortis absent.	Cranial bones normal ; membranes yellow and tough ; subarachnoid fluid yellow, 2ozs. ; pia mater not very opaque ; white substance of brain pinkish ; grey matter abundant ; both soft ; no fluid in the ventricles, which were roughened on their surfaces.

Thorax.	Abdomen.
<p>Ribs very strong; pleura on right side somewhat adherent at upper part; right lung healthy, weighed 19oz.; left lung healthy, weighed 17oz.; at the upper lobe, however, it was adherent to the thorax, where was a small piece of consolidated lung substance, about the size of a walnut. Heart—muscular substance very pale and flabby, easily perforated by pressure; left and right ventricles were dilated, especially the right, and filled with a considerable quantity of fluid blood; this, however, was more congealed on the right side. Valves of pulmonary artery and aorta were very thin and translucent; tricuspid valves and calumnæ carnæ were very much attenuated; weight, 10oz.</p> <p>Ribs healthy. Right lung tuberculous at apex, and beginning to soften; weight 10½ozs. Left lung latent tubercle at apex; weight, 10½oz. Heart—muscular substance pale and flabby; right ventricle gorged with dark clots of blood; left ventricle empty; valves all apparently healthy; weight, 12oz.</p> <p>Ribs easily fractured. Lungs, right and left, weighed 12½oz.; both normal. Heart very flabby, quite empty; weight, 10½oz.</p>	<p>sent. The position of the pelvis was, however, marked by rounded masses of softer fat, while the cortical substance consisted of rather cartilaginous fat, disposed in layers. There were no markings showing the medullary portion. Several blood vessels opened into the masses of fat, but the renal artery was smaller than usual, and the ureter, though patent, was considerably diminished in size. Two calculi were imbedded in the fatty substance occupying the pelvis, the size of large peas.</p> <p>The intestines were inflated, and the rectum was loaded with hardened faeces and increased in size. Duodenum very large; pancreas almost wanting. Liver broke down easily on pressure, and was pale; in some places the bile ducts were dilated with bile, but the gall bladder was almost empty; weight, 48oz.; spleen gelatinous; weight, 4oz. Kidneys, both right and left, appeared normal in structure, but very firm, and cut with a grisly feel; supra-renal capsules normal. Ovaries wasted. Uterus enlarged; cavity contained about an ounce of dark fluid, which, however, did not have a foetid smell.</p> <p>Liver intensely congested, and very friable; weighed 42oz. Gall bladder contained about 2oz. bile. Spleen—capsule firmly adherent; substance congested. Kidneys—left contained several small cysts, filled with a dark oily fluid; substance somewhat soft; structure normal; weight, 5oz. Right—appearance normal; weight, 6½oz.</p> <p>Liver, congested and loaded with bile, seemed to be cancerous; weight, 45½oz. Spleen congested; 3¾oz. Kidneys much jaundiced; easily stripped; left weighed 4oz., and right 5oz. Signs of past pregnancy.</p>

Numbers, Age at Death, and Date of Admis- sion and Death.	Mental and Physical State on Admission.	Assigned Cause of Death, Duration of Disease, &c.	Head and Spine.
7. Æt. 48. Jan. 6th, 1870.	Epileptic dementia. Health fair.	Epilepsy and Amyloid De- generation of Liver and Kid- neys. Died June 25th. Rigor mortis almost absent. Body well nourished. Phthisis of two years' duration.	Dura mater adherent to skull in some places; brain unusually firm and watery, pinkish colour; grey matter thin; weight, 46oz.
8. Æt. 23. Admitted Oct. 28th, 1869. Died July 1st, 1872.	Idiocy. Delicate health. Very much deformed. Almost in Esqui- rol's third class of idiots.	Progressive Paralysis, twelve months' dura- tion. Examined 40 hours after death.	Brain substance normal; convolutions few; pia mater easily stripped; 1oz. of fluid in the ventricles; weight, 28½oz.
9. Æt. 31. Admitted May 29th, 1872. Died Aug. 10th.	Dementia. Fair health.	Progressive Paralysis, twelve months' dura- tion. Examined 40 hours after death.	Bones extremely thin, and membranes normal; brain substance dark and firm; ventricles contained about an ounce of fluid; the under surface of the posterior lobe was soft, and the grey matter had almost dis- appeared for the space of about a shilling; cerebellum unusually soft; weight of brain, 43oz.
10. Æt. 50. Admitted Aug. 3rd, 1872. Died Aug. 17th.	Melancholia. Fair health.	Softening of the base of the Brain. Examined 24 hours after death. Rigor mortis al- most gone. Body weighed 55lb.	Cranial bones very thin, especially the occipital bone; dura mater very adherent to skull; pia mater hyperæmic; crura cerebri were extremely soft and dark coloured; ventricles contained about an ounce of fluid.
11. Æt. 70. Admitted April 8th, 1862. Died Sept. 17th.	Chronic mania. Very feeble health.	Disease of the Heart and Kidneys. Ex- amined 27 hours after death. Rigor mortis distinct. Body weighed 84lb.	Cranial bones very soft; circle of Willis atheromatous; dura mater adherent to skull at its upper part; not much sub- arachnoid fluid; pia mater and arachnoid were not opaque; grey matter very pale and scanty, but the convolutions were deep; choroid plexus pale, and containing amyloid bodies.

Thorax.

Ribs soft, and easily fractured. Lungs—lower lobes adherent to the walls of chest, and consolidated; weight of left, 17oz.; right, 19oz. Heart—muscular substance very pale and flabby; valves, &c., healthy; weight 11oz.

Ribs easily fractured; left lung full of tubercle; weighed 19oz. Left lung had the appearance of tubercle at apex, and small masses were scattered throughout. Heart—muscular substance pale and flabby; valves competent and healthy; weight, 4oz.

Ribs normal, slight adhesion between right pleura and lung, also between left pleura and lung; weight of left lung, 14oz.; right, 15oz. Heart appeared normal; weight, 8½oz.

Both lungs much congested; right weighed 16oz.; left, 18oz. Heart normal; weight, 6oz.

The bones were remarkably soft throughout; in fact, typical of molities ossium. Left clavicle was fractured and surrounded by callous; ends united by cartilage. The ribs were exceedingly soft and friable, fracturing with a force under one pound. They were bent in at the sides near the vertebral column. In many cases fracture had happened, but there was not the slightest displacement, and the ends were united by cartilage and surrounded by callous. Lungs—right, 9½oz.; left, 10½oz.; both normal. Heart—pericardium contained about 4oz. fluid; surface roughened and thickened, with old inflammatory adhesions, and bands of organised lymph; muscular fibre firm; coronary vessels very large and tortuous. Left ventricle firmly contracted and empty. Mitral valve considerably thickened and roughened. Tricuspid and pulmonary valves healthy. Aortic valves thickened and rough, the one nearest the pulmonary artery being dilated to nearly twice its normal size, and retained a globular form.

Abdomen.

Liver in the last stage of amyloid degeneration; weight, 59½oz. Spleen weighed 9½oz. normal. Kidneys—right showed signs of amyloid degeneration; weighed 7oz. Left, like right, but not so far degenerated.

Liver showed signs of amyloid degeneration; weighed 27½oz. Spleen unusually firm; weighed 6½oz. Kidneys pale and flabby; right weighed 2oz.; left, 2½oz.

Liver weighed 37½oz.; spleen, 6½oz.; right kidney, 5oz.; left, 4½oz. All apparently normal.

Liver healthy, 29oz. Right kidney weighed 3oz.; left, 3½oz. Uterus contained several fibrous tumours embedded in the uterine walls; weight, 3¼oz.

Liver apparently healthy; weighed 27½oz. Gall bladder distended. Spleen contracted and amyloid; weight, 2oz. Kidneys—right largely dilated by multilocular cysts, apparently formed of the capsule of the organ dilated with urine. Left—cortical substance deficient, medullary also in some parts; several small cysts; weighed 2½oz.

Numbers, Age at Death, and Date of Admission and Death.	Mental and Physical State on Admission.	Assigned Cause of Death, Duration of Disease, &c.	Head and Spine.
12. <i>Æt.</i> 69. Admitted April 4th, 1872. Died Oct. 4th.	Senile dementia. Very feeble health.	Sanguineous Apoplexy. Duration unknown. Examined 49 hours after death. Rigor mortis present.	Cranial bones thickened; left temporal bone (alar) seemed somewhat depressed, but showed no signs of injury; occipital protuberance peculiarly prominent; the membranes were adherent to the skull cap, which was removed with difficulty; pia mater rather injected, arachnoid opaque, and pacchionian bodies large; vessels at base of brain atheromatous, and retained a cylindrical form, even when empty and cut; brain substance watery and glistening, puncta numerous; grey matter thin and pale; on the left side was a large cavity, ovoid in shape, with the apex posteriorly; it measured four inches long, three wide, and over three inches deep; the contents weighed 2oz., and consisted of clotted blood and broken up brain substance; the cavity seemed to communicate with some vessel of the choroid plexus; weight of brain, 41oz.
13. <i>Æt.</i> 25. Admitted Sept. 18th, 1872. Died Oct. 7th.	Epileptic mania. Health feeble.	Epilepsy. Duration unknown. Examined 25 hours after death. Weight, 172lb.	Cranial bones normal; dura mater thickened; arachnoid and pia mater opaque; brain substance soft, but watery; puncta sanguinea numerous; pacchionian bodies distinct; grey matter pale and thin; weight 49oz.
14. <i>Æt.</i> 35. Admitted Aug. 6th, 1864. Died Oct. 11th.	Puerperal mania. Very feeble health—this improved.	Capillary Bronchitis—7 days. Examined 44 hours after death. Rigor mortis distinct. Weight 122lb. Body well nourished.	Brain substance extremely firm; weight of brain, 37½oz.
15. Age unknown. Admitted Sept. 26th, 1872. Died Nov. 22nd.	Very feeble.	Chronic Meningitis. Duration unknown. Weight, 98lb. Body well nourished. Various scars of old abscesses on body and limbs. Examined 38 hours after death.	Bones rather soft; dura mater adherent, showing signs of old chronic inflammation; about 2oz. of sub-arachnoid fluid; the whole brain was extremely pale externally; the anterior and posterior lobes on both sides were firmly adherent; left centrum ovale was 2½in. diameter, the right 3in.; ventricles contained about 2oz. fluid; weight of brain, 36½oz.; under the microscope the brain tissue and vessels showed the usual signs of chronic inflammation, various exudation corpuscles being scattered throughout the brain matter, and the perivascular spaces were also crowded with nucleated corpuscles.

Thorax.

Abdomen.

Ribs very fragile. Right lung showed signs of recent pleurisy, being adherent to the walls by delicate fibrous bands. Weight, 26ozs. Left lung, 16oz. Both were slightly bronchitic. Heart—auricles and ventricles largely dilated with semi-fluid blood; structure feeble, but healthy. Left ventricle contracted. Valves slightly atheromatous. Weight, 11½oz.

Liver—structure normal, rather pale, 35½oz. Spleen very small, 2½oz. Kidneys pale and flabby; right, 4¾oz.; left 4½oz. Supra-renal capsules firm and distinct. Stomach contracted and empty. Cœcum distended with gas. Uterus showed signs of right lateral flexure.

Bones normal. Lungs somewhat congested. Right and left each weighed 17½oz. Heart weak. Valves competent. Contents of ventricles, fluid blood. Left ventricle firmly contracted. Weight, 11oz.

Liver showed signs of amyloid degeneration; weighed 42oz. Spleen congested and amyloid; weighed 15oz. Kidneys pale, but structure normal; left weighed 5½oz.; right, 5oz.

Ribs normal. Right lung 27oz.; bronchitic throughout. Left lung 24oz., also bronchitic; soft tubercle in middle lobe. Heart normal, 11oz.

Liver normal, 52½oz. Spleen, 5½oz. Right kidney, 5oz.; left, 6oz. The lower portion of the intestines was extremely dilated for about 20in. of its extent, the rectum being 16in. in circumference, and was reflexed over to the right side. There were little faeces in the intestines.

Lungs—left much congested, but floated. Weight, 19oz. Right also much congested, 29½oz. Heart—left ventricle firmly contracted; muscular substance healthy. Weight, 12oz. One of the mediastinal glands was enlarged to about the size of a nutmeg, and had undergone calcareous degeneration.

Liver pale, weighed 41oz. Spleen, 2¾oz. Kidneys paler than usual, and both weighed 3¼oz.

Clinical History of the most remarkable of the Autopsies.

Cancer of the Stomach.—Case 1.—But little history before admission. She was quiet and industrious, a widow and domestic servant. Resided for thirteen years in Bethnal House before coming here. Had delusions on spiritual matters, which, however, were not much manifested latterly. Had been in the habit of taking an opiate constantly; this was discontinued during her residence here, and her physical and mental health improved considerably. In fact, till the beginning of 1871, when diarrhoea set in, she had required little or no medicine. About this time, however, she began gradually to decline in health, and complained of pain and sleeplessness; this latter was relieved by chloral.

At the end of the year 1871, attention was first positively drawn to the special disease, and the following entry in the Case Book (No. v., p. 92) describes the symptoms observed:—"Dec. 1st. She continues to fail physically. She cannot take solid food, although there is not much difficulty in swallowing, but the food returns almost immediately. Vomiting is frequent, and generally comes on every third or fourth day. There is also pain in the right side, increased on pressure, below the ensiform cartilage, and the aortic pulsations raise the fingers when slight pressure is made. There is no bruit. The pulse on the right radial artery is stronger than that on the left, and it is also visible and sharper." At the end of the month fainting fits occurred, and diarrhoea again set in, but it was the diarrhoea of approaching dissolution, for she died within a fortnight.

Bright's Disease.—Case 3.—She was a blind old woman, who had been resident in this and the Hants County Asylum for just upon 24 years. Her physical health on admission was very fair, and it continued well till within two years of her decease. Her mental symptoms were generally characterised by great distrustfulness, and suspicions of injury about to happen to her. Was under the impression that her food had been poisoned; and that her room was filled with real and imaginary persons. Usually very talkative, and irritating to the other inmates. Especially noisy at night, for which chloral was given but failed,

morphia (gr. $\frac{1}{4}$) generally soothed her. Has for some time had caries of the two first phalanges of the right foot; this became worse, so that in June, 1871, she was confined to her bed. The discharge from her foot was of a watery, semi-purulent matter; this became less in quantity, but contained more pus. In March, 1872, her urine was found to be highly albuminous, sp. gr. 1014, and her face and ankles were swollen. From this time she became gradually worse, and died in a little over a week. The kidneys in this case were very interesting.

Cerebral Aneurism.—Case 12.—A married woman, had been suffering six months from extreme restlessness, with incoherent mutterings, and intense depression of spirits. Had several times threatened self-destruction by drowning. She was very voracious in her appetite, frequently picking her clothes to pieces, and sleepless at nights. Her manner had become gradually depressed for some time past, but no cause could be assigned for it, though an aunt was said to be similarly affected. Her bodily health was indifferent, there being signs of bronchitis and heart disease. “There was a tumour on the right side, reaching from the spine round the chest as far as the right nipple. It extends from the angle of the scapula downwards to the crest of the Ilium, or below it. The tumour is, apparently, of an erectile nature. There is also an abdominal protuberance, the nature of which is not very evident, but looks as though a parting of the recti muscles allowed the bowels to escape.”

For about the first six months after admission she remained pretty well, both mentally and physically, sleeping at nights as a rule, but occasionally restless, and conducting herself during the day with fair propriety. On Sept. 25th she had a slight fit in the morning, after which her right limbs were observed to be paralysed. The paralysis increased, and her health began rapidly to fail. Brandy and beef tea were administered at frequent intervals, but paralysis of the œsophagus occurring, enemata had to be given; these, however, frequently could not be retained. She became more and more somnolent, and died on the morning of October 3rd.

Fæcal Accumulation Simulating Ovarian or Uterine Disease.—Case 14, a female, aged 33 years at death, was admitted

into this Asylum, in August, 1864, suffering from puerperal mania, with suicidal tendencies, and desire to destroy her child; bodily health much reduced. She became more and more demented, with occasional outbreaks of excitement; but her general health somewhat improved. No particular treatment was adopted in this case, beyond attention to diet, occasional wet sheet packing, and Turkish baths, till she had been here three and a half years, when sedatives began to be administered; but not with any regularity, only when the excitement and restlessness were excessive.

Four years after admission she began to be very "dirty" in her habits, and was frequently troubled with diarrhœa.

One day in December, 1869, she was reported "very sick this morning. Her bowels are swollen, and she looks stout and flushed." Her abdomen continued to increase in size, and the enlargement was at first attributed to ovarian disease. This idea was strengthened by cessation of menstruation. She also complained of pain in the back and abdomen.

On June 6th, 1870, an examination *per vaginam* was attempted. The vagina was then found completely blocked up by a solid tumour. This tumour was an enormous mass of hardened fæces, lodged in the rectum. Attempts were at once made to remove these fæces; but, after three and a half hours' hard work, and the removal of an extraordinary quantity of fæcal matter, the bowels were not entirely cleaned out.

Two days after, the operation was renewed, this time under chloroform, and though but part of the mass could be removed, still an opening was made through it for the fæces to escape. Then strong purgatives, such as large doses of castor oil and black draught were given, with the result of producing large knotty stools.

About a month after this, the bowels were very much distended with flatus. This was relieved by a cold douche to the spine.

At the beginning of 1871, warm water enemata were given once a week, but she was still reported as being "dirty" in her habits, and the abdomen was still much distended.

In June, she had a turpentine and castor oil enema

thrown up by a long tube, with no result, however, but causing pain. In the evening after having had the enema, much of the fæcal accumulation was removed and broken up by the blade of a midwifery forceps, the ordinary rectal scoop being found insufficient for the purpose. A large quantity of hardened fæces, among which were what seemed to be pieces of bone, was removed. Another enema was then thrown up, with the hope of dissolving some of the hard masses, for there was still a considerable quantity left.

The following day she was sick, and there appeared to be some tenderness in the bowels. However, a powerful purgative was given, but without success. Ordered to have brandy frequently, diet to be restricted to liquid food (oatmeal porridge, &c.), and the bowels to be often kneaded by the hands. By these means the mass of fæces seemed broken up; but neither strong enemata or purgatives would remove it. Elaterium in half grain doses was tried, and acted pretty well at first; but after a time failed to do so. The rectum was then scooped out regularly twice a week for a fortnight, and afterwards the following enemata were given as often:—

R. Ol. Ricini $\bar{\text{z}}$ i.

Pulv. Aloes gr. xxx.

Sapon. Mol. $\bar{\text{z}}$ ii.

Aq. Bullientis $\bar{\text{z}}$ xx.

m. ft. Enema.

These acted admirably about four hours after their administration, and were continued pretty regularly once a week till her death.

The following entry from the Case Book records the result of the above treatment:—"July 9th, 1871. The operations have considerably relieved her; she is not nearly so tumid in the abdomen, and whereas before them she was constantly dirty, since the accumulation of fæces has been removed, she is not so at all, except after an enema or strong draught." She died of capillary bronchitis in October, 1872.

At the autopsy the lower bowels were found enormously enlarged, but almost entirely empty. The rectum was over fourteen inches in circumference, and the lower bowel was abnormally enlarged for more than two feet from its termination.

Numbers and Age.	Mental and Physical State on Admission.	Assigned Cause of Death and Duration of Disease.	Head and Spine.
1. Age, 49.	Mania. Weak health.	Progressive Paralysis. Two years.	Dura mater thickened. Arachnoid presented in many places a milky opaque appearance. Sub-arachnoid space contained 2oz. fluid. Convolutions of cerebrum deep and numerous. Ventricles contained 1oz. fluid. Weight of brain, 48½oz.
2. Age, 40.	Mania. Weak health.	Progressive Paralysis. Unknown.	Skull was very thick, in some places fully ½-inch. Dura mater thickened, extremely tough, and firmly adherent to both hemispheres of the cerebrum along the course of the longitudinal fissure. Sub-arachnoid space contained 4 or 5oz. of fluid. Pia mater opalescent with gelatiniform effusion. Brain substance pale and firm, and showed very few puncta vasculosa. Ventricles contained very little or no fluid. On cutting into the right corpus striatum a sanguineous clot, nearly half-an-inch in diameter, was seen. The clot was dark in colour, and of recent formation. Brain 51½oz.
3. Age, 77.	Dementia. Weak health.	Softening of Brain with Fatty Degeneration of Heart and Kidneys. Unknown.	Dura mater slightly thickened. 6½oz. fluid in arachnoid. Cerebrum extremely pale. Ventricles contained 1oz. fluid. Brain weighed 46½oz.
4. Age, 37.	Dementia. Good health.	Pulmonary Tuberculosis. Some years.	Dura mater adherent to skull. Arachnoid contained 3oz. fluid, and the membrane itself was more or less opaque throughout. Brain weighed 46½oz. Its substance was soft, the white matter muddy in colour, and showed numerous puncta vasculosa. The ventricles contained ¾oz. fluid. The walls of the left lateral ventricle were stained of a light orange colour. The surface of the left corpus striatum was uneven, and the body itself was ploughed up by a clot which extended through the optic thalamus to the crus cerebri.
5. Age, 74.	Senile Melancholia. Weak health.	Disease of Heart, and Lung Consolidation.	Skull very hard. Dura mater so adherent that it could not be stripped from the bone. Pia mater congested throughout. The brain presented nothing remarkable excepting that on cutting through the pons a dark, narrow streak was seen, and the pons was softer than usual. Weight of brain, 40oz.

Thorax.	Abdomen.
<p>Right lung, 33oz.; left lung, 18oz.; heart, 11½oz.</p>	<p>Liver, 55oz.; spleen, 7oz.; right kidney, 6oz.; left, 7oz.; both much congested.</p>
<p>Ribs all very brittle. Great deficiency of osseous tissue, with increase in the quantity of medullary substance. Right lung, 18½oz.; left, 14¼oz.; heart, 12¾oz.</p>	<p>Liver, 64oz.; right kidney, 5½oz.; left, 5¼oz.; pale, but showed no positive sign of degeneration. Right supra-renal capsule attenuated, and the medullary portion had almost disappeared. Spleen, 4¼oz.</p>
<p>Ribs remarkably brittle. Right lung, 21oz. (congested); left, 12oz.; heart, 12oz. Muscular tissue soft, and showed traces of fatty degeneration. Left ventricle hypertrophied.</p>	<p>Liver, 40oz. (congested), very friable; right kidney, 4¾oz. The capsule was removed with difficulty; numerous cysts were seen on the surface, and these were also observed on opening the kidney. The cavity left on emptying one of these cysts was ¾-inch in length, and almost half in breadth. The whole kidney was fatty; left weighed 4oz. It was similar to the right, but the degeneration was not so extensive, nor were the cysts as large or numerous. Spleen, 3oz.; very soft.</p>
<p>Right lung was 30oz.; left, 28oz. Both were loaded with tubercle, which was softening at the apices. Heart, 9½oz.; healthy.</p>	<p>Liver, 45oz. (fatty); right kidney, 4oz.; left, 3¾oz.; both normal. The left supra-renal capsule was normal in appearance. The right weighed ¾oz. No cortical or medullary substance could be detected, but the gland had uniformly degenerated into a hard mass of a light yellowish colour. On section it cut like fibrous tissue. It was fully ½-inch in thickness.</p>
<p>Ribs very brittle. On opening the chest enormous masses of fat were seen lying on the pericardium. Heart, 16oz. The aortic valves were incompetent, and all the cavities were dilated. Muscular fibre pale and very flaccid. Right lung, 36oz. The upper lobe was congested, and a portion of the lower was in the third stage of Pneumonia. The left lung 32oz., and was similar to the right.</p>	<p>The intestines and the mesentery were loaded with fat. Liver, 48oz., in a state of amyloid degeneration. Right kidney, 5oz.; left, 5½oz. The pelvis of each was filled with fat. Spleen, 3½oz.</p>

Numbers and Age.	Mental and Physical State on Admission.	Assigned Cause of Death and Duration of Disease.	Head and Spine.
6. Age, 44.	Dementia. Weak health.	Softening of Brain.	Sub-arachnoid space contained 6oz. fluid. Pia mater much congested. Grey matter of the cerebrum was darker than usual, and the whole substance of the brain was congested. Weight of brain, 46oz.
7. Age, 72.	Epileptic Dementia. Weak health.	Epilepsy.	Dura mater adherent to skull. Sub-arachnoid fluid scanty. Brain substance soft and watery. Convolutions numerous and deep. Very little fluid in ventricles. Brain, 52oz.
8. Age, 10.	Idiocy. Good health.	Convulsions, consequent on Cyst in the Brain.	Calvarium very small. On opening the membranes about 10oz. fluid rushed out of the sub-arachnoid space; but on removing the brain a large sac was seen occupying the whole of the space which should have been occupied by the posterior lobe of the left cerebral hemisphere, and from this sac the fluid had come. The sac involved the corpus striatum. The pia mater over the anterior lobe was opaque, and the brain substance corresponding was slightly depressed. The cause of this depression was not apparent. On cutting into the anterior lobe of the left hemisphere four small cysts were seen, the largest about the size of a pea. Similar cysts were seen in the right side of the cerebrum, which, although more numerous, were smaller. Brain, 29oz.
9. Age, 39.	Dementia. Weak health.	Gangrene of the Lung and Bright's Disease.	Dura mater adherent. 2oz. of fluid in sub-arachnoid space. Slight milky opacity of pia mater. Weight of brain, 47oz.
10. Age, 66.	Melancholia. Very weak.	Phthisis.	Pia mater opalescent, and its vessels much congested. 2oz. fluid in sub-arachnoid space. Brain substance, especially the white matter, was very soft. Weight, 52oz.
11. Age, 65.	Dementia. Good health.	Chronic Disease of the Brain and Membranes.	Numerous adhesions between the membranes and brain. 2oz. fluid in sub-arachnoid space. 2oz. fluid in ventricles. Choroid plexus very dark, and contained a few small cysts about the size of a pin head.

Thorax.	Abdomen.
<p>Right lung, 15oz.; left, 17oz.; heart, 11oz.</p>	<p>Liver, 44oz. (congested); spleen, 4oz.; right kidney, 5oz.; left, 5½oz.</p>
<p>Ribs very inelastic. Right lung, adherent to pleura, 26oz.; left lung, 18½oz. Slight deposit of tubercle at apex, of long duration and quite latent. Heart, 15½oz. Auricles filled with fluid blood. Ventricles empty.</p>	<p>Liver, 42oz. (soft); right kidney, 3¾oz.; left, 5½oz. (both congested); spleen, 4oz.</p>
<p>Heart, 7oz.; right lung, 14oz.; left, 13oz.; both congested.</p>	<p>Liver, 40½oz.; spleen, 8oz.; right kidney, 3½oz.; left, 3½oz.</p>
<p>Pericardium contained 1oz. fluid, which had apparently been effused a long time. Heart, 10oz. The ascending portion of the aorta was atheromatous. Right lung, 32oz. Lower lobe gangrenous. Apex contained tubercle, hard. Left also tubercular, 32oz.</p>	<p>Liver, 45oz.; right kidney, 4oz.; left 4oz. The cortical substance of both was studded with numerous small masses, about the size of a millet seed, and of cheesy appearance. Spleen, 4½oz.</p>
<p>The upper lobe of the left lung was loaded with soft tubercle, and the lower lobe was in a state of pneumonic consolidation, consequent on the above. The apex of the right lung was also tubercular. The pleuræ were adherent to the walls of the chest, and to their respective lungs. Heart, 13oz. Auricles gorged with dark clots. Muscular fibre pale and flabby. The walls of the left auricle contained about a dozen small cysts of the size of a pea.</p>	<p>Liver, 51oz. (pale, soft, and fatty); spleen, 12½oz. Right kidney, 3oz. Its pelvis was occupied by a mulberry calculus. About three drachms of pus surrounded the calculus, and the organ itself showed little trace of medullary substance, and could not have performed its function. The left kidney weighed 8oz., and appeared perfectly healthy.</p>
<p>Right lung, 25oz. (congested and adherent to chest at apex); left, 19½oz.; heart, 11oz.</p>	<p>Liver, 45½oz.; right kidney, 4¾oz.; left, 4¾oz.; spleen, 3½oz.</p>

Numbers and Age.	Mental and Physical State on Admission.	Assigned Cause of Death and Duration of Disease.	Head and Spine.
12. Age, 59.	Chronic Mania. Moderate health.	Abscess of Liver, &c.	Slight milky opacity of the pia mater. 1oz. fluid in sub-arachnoid space. Substance of brain pale and firm. Weight, 48oz.
13. Age, 48.	Mania (Religious). Delicate.	Phthisis and Brain Softening.	
14. Age, 32.	Very weak health.	Inflammation of Brain and Membranes.	Sub-arachnoid space contained 6oz. fluid. The pia mater had throughout a pink colour, and showed decided evidence of acute, or sub-acute inflammation at the fissure of Sylvius. The anterior and middle lobes could not be easily separated, and part of the brain substance adhered to the membranes on forcible separation. The cerebritis seemed to be confined to those portions of the brain immediately adjacent to the Sylvian fissure. The membranes were, in several places, thickened by old inflammatory action, and the general appearance of the morbid changes was that of an acute inflammation supervening on a chronic. Brain weighed 50oz. Except at the fissure of Sylvius it was unusually white and firm. Ventricles contained 1½oz. fluid.
15. Age, 51.	Mania. Very weak.	Phthisis.	Membranes had no unusual appearance. The sub-arachnoid space contained 2oz. fluid. Brain, 50oz. Substance pale and soft.
16. Age, 26.	Epileptic Dementia. Fair health.	Acute Pneumonic Phthisis.	Membranes healthy. The sinuses and external veins of the cerebrum were gorged with blood. Brain, 46oz. Very little fluid in ventricles.

Thorax.	Abdomen.
<p>Pericardium contained 1oz. fluid. The membrane was not adherent to heart, and showed no signs of inflammation on its Cardiac aspect, but was firmly attached to pleuræ. The left pleura contained about 6oz. fluid, which was evidently <i>not</i> of recent effusion. Right lung, 40oz.; left, 25oz. The right was intensely congested, and at the base showed traces of a former inflammation, while the apex was tuberculous. Heart, 15oz.</p> <p>Right lung, 21oz. Small tubercular cavity in apex. Whole lung greatly congested. Left, 19oz., contained more tubercle than the right, but it was here also confined to the apex, and there was no cavity. Heart, 8oz.</p> <p>Heart, 15oz.; right lung, 18oz.; left lung, 25oz., much congested throughout, and the lower lobe verging on the second stage of pneumonia.</p>	<p>Liver, 81oz. Its substance presented the usual appearance of advanced amyloid degeneration, and gave the usual reaction with iodine. The right lobe contained 40oz. pus. The liver was weighed <i>after</i> the pus was removed. Spleen, 13½oz., unusually pale. Pancreas, 9oz. In it a small calculus, about the size of a pea, was found. Right kidney, 6½oz.; left, 7oz. Peritoneum was adherent to the intestines, and to the stomach, liver, and pancreas by bands of organised lymph. Tubercular deposit was seen in many of the mesenteric glands.</p> <p>Liver, 45oz. (pale and friable); right kidney, 5oz. The cellular tissue around it contained about 1oz. pus, the origin of which was not apparent. Left kidney, 6oz.; spleen, 3½oz.</p> <p>Liver, 53oz. Gall bladder contained about 1oz. of dark, thick bile. Right kidney, 4½oz.; left, 4½oz.; spleen, 5oz.</p>
<p>Heart, 16oz. Pericardium contained 6oz. fluid, and was adherent to diaphragm by old bands of organised lymph. Ascending portion of the arch of the aorta was slightly dilated. Left lung, 40oz., loaded with tubercle; right lung, 51oz., also tubercular, and the tubercle had softened in the upper lobe.</p> <p>Heart, 11½oz. The upper lobes of both lungs contained soft tubercle and cavities. The lower lobes were in a state of pneumonic consolidation.</p>	<p>Liver, 68oz., fatty. Many of the mesenteric glands were tubercular. Right kidney, 6½oz.; left, 7½oz.; spleen, 9½oz.</p> <p>Liver, 46oz., appeared to be undergoing fatty degeneration. Kidneys, 6oz. each; spleen, 11½oz.</p>

Numbers and Age.	Mental and Physical State on Admission.	Assigned Cause of Death and Duration of Disease.	Head and Spine.
17. Age, 63.	Chronic Mania. Delicate.	Pneumonia (with disease of the heart).	Dura mater very adherent to skull. The arachnoid and pia mater had the usual opalescent appearance found in chronic lunatics. 2oz. sub-arachnoid fluid. Brain 45oz. The superficial veins were congested, but the brain itself showed no positive signs of disease.
18. Age, 53.	Melancholia. Delicate.	Exhaustion from Acute Melancholia, &c.	The dura mater was decidedly thicker and more opaque than natural, and the pia mater showed an inflammatory blush over it. There were about 5oz. fluid, of a pale straw colour, in the sub-arachnoid space. Brain weighed 47½oz. ; its convolutions were deep and numerous.
19. Age, 20.?	Dementia. Delicate.	Poisoning with Tar and Carbolic Acid. (Accidental.)	Dura mater intensely adherent to skull. External vessels of the brain and the sinuses were gorged with dark blood. Very little fluid in the sub-arachnoid. On cutting into the brain a distinct odour of crude carbolic acid was smelt. The brain substance was firm, and had a glistening bluish-white appearance. Puncta vasculosa decidedly more distinct than usual. Corpora striata had a brownish colour. The ventricles contained ½oz. fluid, and the choroid plexus was congested.
20. Age, 73.	Mania. Weak health.	Disease of the Heart.	Brain, 44oz. Substance very soft and "watery," Ventricles contained about 2oz. fluid.

Thorax.	Abdomen.
<p>Heart 12oz. The semilunar valves were roughened and contracted. The right lung weighed 54oz. and was in the third stage of pneumonia. The left lung weighed 16oz. The lower lobe was in the state known as collapse. The pleuræ showed signs of recent inflammation, and the cavity of the left contained 4oz. fluid.</p> <p>Pericardium showed no signs of inflammation, but it contained 2oz. serum. The valves were healthy, and the muscular tissue firm. Weight, 11oz. Right lung weighed 32oz. The upper lobe was tuberculous, and lower was undergoing pneumonic consolidation. Left, 22oz. Slightly congested, otherwise healthy.</p> <p>Scarcely any fluid in the pericardium, which was, however, thickened by old inflammatory action. Heart, 14oz. Both auricles were completely distended with dark blood. The coronary vessels were also gorged. Ventricles very firmly contracted. Right lung, 34oz. Old adhesions between the lung and the pleura, and also of the latter to the walls of the chest. Left lung, 28oz. Both were much congested, and there was soft tubercle in the apex of the left.</p>	<p>Liver, 54oz.; kidneys, 4oz. each; spleen, 5oz.</p> <p>Liver, 52oz.; spleen, 3oz.; right kidney, 5oz.; left, 6½oz.</p> <p>Stomach contained about half pint of a dark, grumous fluid, having an odour similar to, though much fainter than, the matter vomited. It also contained four nails, four pebbles, five pieces of tobacco pipes, some small cinders and sand. The mucous coat was much corrugated, and in fact presented a singular reticulated appearance. On the lesser curvatures was a congested spot about three inches in diameter. Two smaller spots were seen on the greater curvature. Throughout the small intestines there were considerable quantities of coagulated chyle, with tar, cinders, and carbolic acid. The lower down the bowel the more the contents had the appearance of a mixture of tar and cinders, the higher up, the more they resembled carbolic acid. At the caput cœcum coli were three pieces of tobacco pipes, two buttons, and two nails. Liver, 60oz. (looked unusually healthy, and smelt of carbolic acid); right kidney, 6½oz.; left, 6½oz. (both slightly congested); spleen, 4oz.</p>
<p>Heart, 14oz. Aortic valves thickened, contracted, and incompetent. The muscular tissue of the heart was pale and flabby. A section taken from the left ventricle and magnified 250 diameters showed that much of the muscle had undergone fatty transformation. The aorta showed great want of elasticity, and on the internal surface of the transverse portion of the arch was a large calcareous plate. Right lung, 24oz.; left lung, 21oz.</p>	<p>Liver, 50oz. Gall bladder was firmly contracted on two gall stones, each about one inch in diameter. Left kidney, 7oz.; right, 6½oz.; spleen, 3½oz.</p>

Remarks on Case IV. Cerebral Hæmorrhage.—On the 9th of December, 1871, this patient was seized with a fit, and on arriving in the ward, a few minutes afterwards, we found him in a state of deep coma, the pupils widely dilated, the face drawn to the left, and the right limbs paralysed. Next morning there was ptosis on the left side.

Although partial consciousness was restored on the 15th, intelligible speech did not return until many days later, but in a few weeks we had the satisfaction of seeing so much improvement take place that he could comprehend a simple question, give a correct answer, and walk about the ward with little assistance. No medicinal treatment was adopted, not even the customary drop of Croton oil laid on the tongue, for in our opinion the indiscriminate use of a powerful purgative does not seem to have any greater claim to confidence than the indiscriminate veni-section now happily belonging to a bygone age, and there is surely little fear of anyone who has ever looked at a clot in the brain employing blistering or bleeding in a case of suspected cerebral hæmorrhage.

In addition to the brain lesion, this patient had to contend with that scourge of England, pulmonary tuberculosis, under which he had been labouring for many years, and which now acquired unusual vigour, hurrying him on to death on the 7th of April—seventeen weeks after the apoplectic seizure.

The *post-mortem* examination was made forty-two hours after death. On taking a very thin slice off the corpus striatum, a dark, soft clot was seen, which had made a little progress towards organisation.

A deeper section showed that the clot had ploughed up the optic thalamus, and extended as far as the under surface of the crus cerebri; thus explaining the drooping of the eyelid observed shortly after the fit. The clot could not be traced as far as the third convolution.

Neither of these frequent concomitants of cerebral hæmorrhage, hypertrophy of the left ventricle of the heart, nor granular disease of the kidneys, was present, but reference to the table will show that the right supra renal capsule had undergone distinct pathological changes. This

makes the fourth instance out of the last sixty-four post-mortem examinations made here in which the supra renal capsules were markedly diseased.

Remarks on Case VIII.—*Arachnoid cysts* are by no means commonly met with, and cysts in the brain substance still more rarely so. There can be little doubt that this case belonged to the latter class, as the cyst had all the appearance of having grown from within the cerebrum, causing by its growth complete absorption of the brain substance overlying it. The presence of smaller cysts in the other lobes seems to confirm this view.

On the upper surface the cyst had met and identified itself with the arachnoid. The sac was capable of containing about half-a-pint of fluid.

Patient was a congenital idiot, and was subject to epileptoid convulsions, otherwise he was in robust health.

Remarks on Case XII.—*Abscess of the Liver* is not a very common disease in this country, and when it does occur deserves a careful description. This patient was admitted in January, 1865, suffering from chronic mania. He was then in a reduced state of health, and though he had a troublesome cough was regarded as free from serious organic disease. He soon recovered a fair amount of bodily vigour, which he preserved until the 12th of December, 1870, when he had an attack of hæmoptysis, which did not entirely cease until the 15th, and recurred on the 16th of January, 1871. There was now no doubt as to the presence of tubercle in the right lung. On September 1st, 1871, he passed a little blood, per rectum, the cause of which were hæmorrhoids. He was seized with a sharp attack of single pneumonia on the 8th of June, 1872, from which he recovered in three weeks.

Hepatic disease was now for the first time suspected, and our diagnosis inclined more to cancer than to abscess. The patient never complained of pain or uneasiness in the right side, but if he had his mental state was such that no dependence could have been placed in his statements. His language was always very incoherent, and he had the singular and fixed delusion that one of his fellow-patients was constantly defecating in his abdomen. Did this delusion take the place of pain, or arise from it? On the 8th

of August he had jaundice, which disappeared from the skin on the 12th, but the sclerotic retained its yellow colour for a day or two longer. He became much emaciated and gradually weaker until the 3rd of October, when he died.

During the last few weeks of his life he frequently vomited his food.

A *post-mortem* examination was made 30 hours after death, and a glance at the above Table will show what a mass of disease the body was.

The abscess was confined to the right lobe, chiefly to the convex surface, and had remained intact. The cavity of the abscess was well defined, and the cyst distinct, though thin. Anteriorly the substance of the liver overlying the abscess was barely half an inch thick. The pus was of a pale yellow colour, about the consistence of cream, contained no shreds, and had no disagreeable odour.

Patient had never, as far as is known, suffered from dysentery, never been subjected to surgical treatment for hæmorrhoids, nor had he ever received any blow or injury.

Remarks on Case XIV. Meningitis.—This patient was brought from an outlying and non-contributing borough, and, as usual in such cases, the history was meagre and unsatisfactory in the extreme.

He was admitted on the 28th of September, 1872, was 32 years of age, a soldier, and had served in the East Indies, where he had sunstroke in December, 1871, from which he was supposed to have recovered. Stated to have been insane for one month previous to admission.

When admitted his temperature was 101·5, pulse 120, respirations 26, and pupils widely dilated and insensible to light. None of these varied much until a few hours before death, which took place on the 7th of October, nine days after admission.

Remarks on Case XX. Poisoning by Carbolic Acid.—This patient, a case of dementia, was supposed to be about 18 or 20 years of age. He had been an inmate of the Asylum for nearly two years, and when admitted was in delicate health, suffering also from scrofulous ophthalmia.

For the first six months a great physical improvement

took place, but latterly it was observed that his health was again failing, and he became, if possible, more demented, and more addicted to his vicious habits.

Between four and half-past four, on the evening of the 6th of December, one of the medical officers was requested to see him, and it was stated by the attendant in charge that he had fallen down in a fit. On reaching the patient, he was found to be quite insensible, with contracted and immoveable pupils; pulse 104; limbs powerless; face, neither pale nor flushed. Breathing hurried and shallow.

Was at once removed to infirmary, and external warmth applied. In about half-an-hour he vomited a few ounces of a dark liquid, smelling strongly of coal tar, or crude Carbolie Acid. An emetic was given, which acted, but it was thought not sufficiently. The stomach was, therefore, emptied of its contents with the stomach-pump. The patient became slightly more conscious, though he did not rally in any other respect. A purgative was laid on the tongue, and stimulating enemata ordered. He became gradually worse, and died early on the morning of the 7th, only twelve hours after he was first seen to be ill.

A *post-mortem* examination was made fifty-six hours after death, the chief points of which are given in the above table. In addition, it may be stated that no part of the intestines showed the slightest signs of inflammation, or of the action of any irritant; but in some places, however, they presented a similar corrugated appearance to that of the stomach, though in a less degree.

All the organs smelt of crude Carbolie Acid, but the odour was, of course, strongest in the small intestines, next in the liver, spleen, and brain, and only very slightly in the kidneys.

For further particulars concerning this case, see "General Report," page 14.

On the Connection between Atmospheric Conditions and certain states of the Insane.

I have in this paper directed my attention to certain short periods of the past year, varying in duration from two to twenty-two days each, during which special manifestations of epileptic, maniacal, and melancholic symptoms have been exhibited by some of the patients, and to the discussion of the atmospheric conditions prevailing at the same periods, with a view, if possible, to ascertain how far these symptoms of brain disease are aggravated or diminished as the atmosphere is disturbed or calm. I have for this purpose selected twenty such periods, which may be classed as follows, viz. :—

Periods during which

1.—Epilepsy and mania are active, and melancholia quiescent .	2
2.—Epilepsy and mania quiescent, melancholia active . . .	3
3.—Epilepsy and melancholia active, mania quiescent . . .	1
4.—Epilepsy and melancholia quiescent, mania active . . .	3
5.—Epilepsy quiescent, mania and melancholia active . . .	2
6.—Epilepsy active, mania and melancholia quiescent . . .	3
7.—Epilepsy, mania, melancholia, all active	3
8.—Epilepsy, mania, melancholia, all quiescent	3
	—
	20

The minute discussion of all the details given in the following Table would require a larger space than this paper will allow, and, besides, would require still further data, in the shape of the exact limits of the rise and fall of the barometer, and of the fluctuations of temperature during the respective periods. Certain general facts, however, may be gleaned from these notes, which I will state as shortly as I can.

1st.—Epilepsy, under the following conditions, is

Active :—Weather, unsettled.

Barometer, much disturbed. Heavy S.W. gales.

or,—Weather, steady rain.

Bar., steady fall.

Winds, variable and light.

Temperature, variable.

or,—Frequent thunder and lightning

- Quiescent*.—Barometer, high.
 Temperature, low.
 Winds, moderate, in spite of variations of barometer
 and temperature.
or,—Fine, quiet weather.
 Barometer, high.
 Winds, moderate.
or,—Settled cloudy weather in winter, if mean daily
 temperature is high.
- 2nd.—Mania is
Active.—With heavy S.W. gales,
or,—With thunder and lightning, whatever the weather.
- Quiescent*,—With variable, moderate wind.
or,—Continued rainy weather without thunder.
or,—Continued steady fall of barometer.
or,—Continued fine weather without thunder.
- Melancholia is
Active.—Barometer, high.
 Solar Radiation, variable.
 Wind, moderate.
or,—Rough, rainy weather without thunder.
or,—Any weather with thunder.
- Quiescent*.—Heavy westerly gales.
 Temperature low.
 Barometer much disturbed.
or,—Continued high temperature.
or,—Continued fall of Barometer.

Now, all these conditions of weather and disease lead up to one conclusion, viz., that the absence or presence of thunder and lightning, or rather the varying electrical conditions of the atmosphere, of which thunder and lightning are only the most manifest forms, are more nearly connected with conditions of disease than any other of the better known meteorological facts.

I cannot help thinking that at present electricity is an element in our knowledge of disease which is far too little considered, because it is far too little known, and certainly in meteorological enquiries it is the most important element, though almost universally neglected by ordinary observers.

Mania—active. Melancholia—quiescent.	13th to 28th. Sixteen days.	Daily variations moderate.	Variations very moderate.	High.	Very high.	Moderate.	Quiet.	1.33	6	Variable	Fine quiet weather, with thunder and lightning.
	July 22nd to 30th. Nine days.	High. Daily variations moderate.	Very high. Steady.	High.	Very high.	Moderate.	Variable Quiet.	1.08	2	High.	Fine quiet weather. Occasional thunder.
	September 5th to 20th. Sixteen days.	High. Daily variations moderate.	High. Variable.	High.	Very high.	Moderate.	South and West. Moderate.	2.14	8	Variable	Weather cloudy. Thunder once.
5.— Epilepsy—quiescent. Mania—active. Melancholia—active.	January 19th to 31st. Thirteen days.	Low. Daily variations large.	Low. Very variable.	High.	Moderate.	Small amount.	Chiefly easterly. Very moderate.	.17	3	High.	Fine quiet weather. Thunder in the periods preceding and succeeding.
	August 9th to 20th. Twelve days.	High. Daily variations very moderate.	High. Steady.	Moderate.	Moderate.	Large amount.	Variable in direction and velocity.	2.05	12	Moderate.	Weather variable. Snow, frosts, rain, thunder.
6.— Epilepsy—active. Mania—quiescent. Melancholia—quiescent.	March 17th to 31st. Fifteen days.	Continual steady fall.	High. Considerable variations.	Very low.	Low.	Small amount.	W. and S.W. Considerable velocity.	1.10	7	High.	Weather showery, with S.W. gales and Thunderstorms.
	May 1st to 10th. Ten days.	Rapid fall, steady fall for four days, followed by rapid rise.	High. Steady.	Very variable.	High.	Small amount.					

TABLE I. (continued).—The following are the Notes I have made on these several Periods.

	Date.	Barometer.	Solar Radiation.	Terrestrial Radiation.	Mean Daily Temperature.	Cloud.	Wind.	Rain-fall in Inches.	No. of Wet Days.	Ozone.	Remarks.
7.— Epilepsy—active. Mania—active. Melancholia—active.	May 11th to 19th Nine days.	Continued steady fall.	Very variable. Great extremes.	High. Variable	Low.	Con- siderable	Variable in direction Moder- ate.	2.05	9	High.	Quiet rainy weather.
	February 7th to 27th. Twenty-one days.	High. Very unsettled.	High, following great depression, and interrupted by two similar depres- sions.	Moder- ate.	High.	Moder- ate.	Moder- ate. At first E., after- wards S. and S.W.	1.27	15	High.	Warm showery weather, with thunder. Epilepsy and Mania variable. Melancholia uniformly active.
	October 3rd to 17th. Fifteen days.	High. Daily fluctua- tions very considerable.	High. Variable.	Low.	Moder- ate.	Small amount.	Variable Moder- ate.	1.34	8	High.	Frequent lightning and thunder. Quiet, fine weather. Epilepsy, Man., Melan., all active.
	18th to 31st. Fourteen days.	Low. Very unsettled.	Low. Very variable.	High. Variable	High.	Large amount.	At first moder- ate and variable, then W. and S.W.	4.68	12	Variable	Thunder and lightning. Epilepsy and mania not so active. Melancholia

8.— Epilepsy—quiescent. Mania—quiescent. Melancholia—quiescent.	April 8th to 20th. Thirteen days.	Continued fall from very high to low. Daily fluctuations moderate.	High. Very steady.	Mod- erate, variable, tending down- wards.	Mod- erately high.	Small amount.	Variable in direction very mod- erate in amount.	·12	2	High.	Quiet fine weather.
	May 19th to 31st. Thirteen days.	High. Daily fluctuations very moderate.	High. Variations moderate.	Low at first, fol- lowed by steady rise.	Mod- erate to high.	Small amount.	Variable in direction very mod- erate in amount.	·53	6	Mod- erate.	Quiet fine weather.
	November 10th to December 1st. Twenty-two days.	Continued fall. Daily variations considerable.	Very low and very variable.	At first low, then high.	At first low, then high.	Con- siderable amount.	At first variable and mod- erate, then S.W. and violent.	4·40	20	At first variable, then high.	Stormy wet weather, with snow at first, afterwards thunder and lightning.

