

Statistics of insanity : being a decennial report of Bethlem Hospital, from 1846 to 1855 inclusive / by W. Charles Hood.

Contributors

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STATISTICS OF INSANITY.

STATE OF NEW YORK

IN SENATE

REPORT

OF THE

COMMISSIONERS OF THE LAND OFFICE

FOR THE YEAR 1881

ALBANY:
J. B. LEECH, PRINTER.
1882.

THE COMMISSIONERS OF THE LAND OFFICE HAVE THE HONOR TO ACKNOWLEDGE THE RECEIPT OF THE FOLLOWING:

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THE STATE OF NEW YORK

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DECENNIAL REPORT

OF

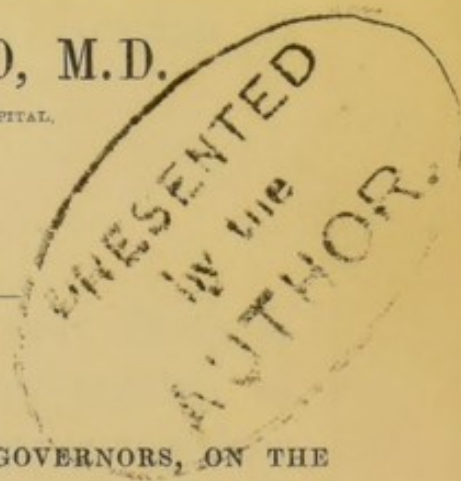
BETHLEM HOSPITAL,

FROM 1846 TO 1855 INCLUSIVE,

BY

W. CHARLES HOOD, M.D.

RESIDENT PHYSICIAN OF BETHLEM HOSPITAL,
&c. &c. &c.



"ORDERED BY THE GENERAL COURT OF GOVERNORS, ON THE
24TH OF NOVEMBER 1855, TO BE PRINTED AND CIRCULATED."

1856

LONDON; DAVID BATTEN, PRINTER AND PUBLISHER. S.

STATISTICS OF HOSPITALS

AND DISPENSARIES

IN THE UNITED STATES

FOR THE YEAR 1881

BY THE COMMISSIONERS OF THE GENERAL LAND OFFICE

WASHINGTON: GOVERNMENT PRINTING OFFICE, 1882.

THE COMMISSIONERS OF THE GENERAL LAND OFFICE

ARE PLEASANT TO HAVE THE

REPORT OF THE COMMISSIONERS OF THE GENERAL LAND OFFICE

FOR THE YEAR 1881

PRESENTED TO THE COMMISSIONERS OF THE GENERAL LAND OFFICE

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BETHLEM HOSPITAL.

A DECENNIAL REPORT,

BEGINNING 1845 AND ENDING 1855.

To the Right Worshipful the PRESIDENT,
the Worshipful the TREASURER, and the
GOVERNORS of the Royal Hospital of
Bethlem.

MY LORDS AND GENTLEMEN,

IN the Report presented to your Court in
January, 1856, I referred to the impossibility of
arriving at any definite and satisfactory conclusions
from the statistics of a single year, and I promised
myself the honor of submitting to you a review of
the Reports of the last ten years. I considered
that such a ~~cause~~ would enable me to improve
the tables in use, by amalgamating some, and
by adding others. There seemed, also, to be much

Course

The principal advantage of this alteration, as it would seem, is simplification ; but there is another consideration, which is, that such an arrangement would at once shew whether all the elements of the table were present. The different facts being now recorded in separate tables, an omission may be easily made but not easily detected. For example, our reports furnish us with the *age* of the patients admitted, the *age* of the patients discharged cured, and the *age* of the patients discharged uncured, in three tables, but they do not furnish us with the *age* of those who have *died*. This last table has been overlooked, and in this way an important element is wanting, since we would gladly know the influence of *age* upon the chances of death in the practice of this Hospital.

In the second instance, it seemed possible to add some tables to those already in use ; and it appeared desirable, among others, to add a table which would shew the numbers of the different forms of insanity which are admitted into the Hospital.

In this report, therefore, I have amalgamated the several particulars, contained in the scattered tables of the last ten years, in the manner already illustrated in the case of the "domestic condition" of the patients, and I have by this arrangement supplied a table which appeared to be wanting. In doing this I have had a view to the future as well as the past, for it would seem that the tables

which are best calculated to exhibit the experience of the past, must be equally well adapted to *collect* the information of the future.

It only remains to add, that frequent reference will be made to the works of Esquirol, Prichard, and Thurnam, as indeed is indispensable in any attempt to comment upon the statistics of insanity.

Three classes of patients are received into Bethlem Hospital, namely, curables, incurables, and criminals. It is to the first of these classes alone that we intend at present to advert. We purpose to do this because the *incurables* have no *special* interest attached to them. They are simply chronic cases for whom the Hospital offers, if necessary, an asylum for life; and any history of the *criminal patients* is not permitted by Government to be published. In leaving out these two classes, however, very little is omitted, for in the first place, their numbers are comparatively small, and in the second, there is nothing peculiar in the progress and issue of such cases. What we contemplate in the following pages, is to consider “the statistical history of the patients admitted as *curables* into Bethlem Hospital during the ten years ending December, 1855,” by noticing in succession the following subjects:—

1. Patients admitted as Curable (Table I.)
2. Age (Table II.)
3. Sex.
4. Education (Table III.)
5. Religion (Table IV.)
6. Domestic Condition (Table V.)
7. Social Condition (Table VI. and VI a.)
8. Residence (Table VII)
9. Apparent and Assigned Causes (Table VIII.
VIII a. and VIII b.)
10. Duration of Disease before Admission (Table
IX.)
11. Number of previous Attacks (Table X.)
12. Time of Attacks (Table XI)
13. State of the General Health (Table XII.)
14. Form of Insanity (Tables XIII. XIV. XV.)
15. Treatment of Insanity (Tables XVI. XVII.
XVIII. XIX.)
16. Causes of Death and post-mortem appearances
(Table XX.)

CHAPTER I.
OF PATIENTS ADMITTED AS CURABLE,
During the Ten years ending 1855.

TABLE I.
PATIENTS ADMITTED AS CURABLE,
From 1846 to 1855 inclusive.

	Admitted.			Discharged.*							
				Cured.				Died.			
	M.	F.	TOTAL	M.	F.	TOTAL	PER CT.	M.	F.	TOTAL	PER CT.
1846	125	168	293	66	95	161	54.95	3	7	10	3.41
1847	124	190	314	68	107	175	55.73	3	9	12	3.82
1848	118	188	306	74	82	156	50.98	2	9	11	3.59
1849	124	192	316	66	106	172	54.43	6	12	18	5.69
1850	135	209	344	74	123	197	57.26	20	11	31	9.01
1851	112	174	286	51	69	120	42.3	9	17	26	9.09
1852	101	167	268	49	94	143	53.35	15	12	27	10.07
1853	72	128	200	38	75	113	56.5	9	7	16	8.
1854	77	110	187	40	70	110	59.35	4	7	11	5.87
1855	78	137	215	48	84	132	61.68	5	7	12	5.6
	1066	1663	2729	574	905	1479	54.19	76	98	174	6.37

* To make this Table complete, and consistent with the others, it ought to contain the Number and Per Centage of those discharged "Uncured."

TABLE Ib.

Aggregate of the 100 years ending 31st December, 1855.

Admitted.	Cured	Per cent.	Died	Per cent.
19,373	8341	43.05	1603	8.27

The number of recoveries and deaths have varied greatly, and still vary in different Lunatic Asylums, and it is no easy task to procure any correct standard of comparison.

We may obtain an approximative standard, however, from the following table, which is taken from an excellent paper by Dr. Tuke, the Assistant Medical Officer in the York Retreat (Psychological Journal, July 1854, p. 466), and which is entitled "A Table which exhibits the Comparative Statistics of various Asylums in Great Britain, Holland, France, Germany, and Austria."

France, Germany, and Austria."										448	402	361	324
632	32	11	0	5	120	25	12	382	474	311	1251		
1007	72	21	71	4	143	36	69	298	767	401	2625		
2	1	7	9	2	173	27	38	609	128	78	2225		
523	11	7	4	2	110	70	67	787	110	77	1824		
0	12	5	0	10	131	31	48	212	767	72	2221		
732	174	38	78	61	141	202	74	2729	1072	1060			

Name and Description of Asylum.	Remaining under care, 1st Jan., 1854.	Numbers admitted.	Numbers recovered.	Numbers died.	Proportion of recoveries per cent. of admis- sions.	Mean Annual mortality per cent. of those resident.
Average of eleven Dutch } Asylums for pauper and private patients }	837	3087	1000	1125	32.40	14. 5
Average of nine English } County Asylums receiving paupers only }	3273	15548	5746	4551	36.95	13.88
Average of six English Coun- } ty Asylums receiving pri- vate and pauper patients }	1127	7738	3627	1256	46.87	10.46
Average of Metropolitan Li- } censed Houses, 1839—43, (more than half-paupers) }	1827	5850	1501	1209	25.65	14.68
The York Asylum, (one- } third paupers) 1814—44 }	157	1375	475	297	34.54	7.24
The York Retreat 1796—1847	84	593	292	141	49.24	4.74
Average of seven Scotch } Chartered Asylums (more than half paupers) }	1324	7130	3021	931	42.37	7.52
Average of ten Irish Asy- } lums (pauper) }	2147	10255	4957	1891	48.32	8. 7
Average of five American } Asylums (private and pauper) }	640	8675	4062	688	46.82	9.56
Charenton (private patients,) } 1826—1833 }	..	1557	518	546	33.26	14.96
Siegburg, 1825—40, (only } curable patients) }	..	1129	347	161	30.73	7. 4

The mean of these figures will give 39.74 per cent. of recoveries upon the numbers admitted, and 10 per cent. of deaths on the numbers resident.

The greatest number of recoveries, and the fewest deaths, are at the York Retreat; the recoveries ranging as high as 49.24 per cent., and the deaths as low as 4.74 per cent. The lowest number of recoveries, and the highest number of deaths, (except at Charenton, where the deaths were a trifle higher,) are in the Metropolitan Licensed Houses, the recoveries being 25.65 per cent., and the deaths 14.68 per cent. It is to be remembered, however, that the statistics in the table do not extend to the present day; and that the result would be very much more satisfactory if they did. The statistics of Charenton are not more recent than 1833, and those of the Metropolitan Licensed Houses only reach to 1843.

On this subject the experience of Bethlem Hospital is, in many respects, very interesting. On the authority of Stow, who derived his information from Dr. Tyson, the Physician to the Hospital at that time, 1294 patients were admitted between the years 1684 and 1703; and of these, 890, or about 2 in 3, were cured. But between the years 1784 and 1794, when 1664 patients were admitted, the number of recoveries was 574, or only a little more than 1 in 3. We next learn, from a report which Dr. Prichard obtained from Mr. Lawrence, (a Treatise on Insanity, 1835, p. 141,) that the number of recoveries *increased* after the Hospital was removed to its present site. This report extends from 1819 to 1833. During this period 2445 patients were

admitted ; and 1124, or 1 in a little more than 2, were discharged cured.

In speaking of the recoveries in Bethlem Hospital, and comparing them with the recoveries occurring elsewhere, it is necessary to bear in mind the particular rules of the Institution, which are peculiar to it and St. Luke's. These regulations render ineligible all applicants who have been insane for more than twelve months ; all who are afflicted with paralysis, epilepsy, or any other form of convulsive disease ; all who have been discharged, *uncured*, from other Hospitals ; and all aged and weak persons, and pregnant women. In addition to which, those who have not recovered at the expiration of a year after admission, are dismissed.* Rules so stringent must have considerable influence upon the number of recoveries and deaths ; and it is interesting to enquire what that influence may be. At first it might be supposed that the number of recoveries ought to be increased by leaving out unsatisfactory and hopeless cases ; but, on the other hand, many additional recoveries would undoubtedly be recorded if the uncured patients were not discharged at the end of twelve months : the effect, therefore, of the

* Although the Rules of the Hospital limit the period of residence for Patients on the Curable Establishment to one year, the Sub-Committee have the power of extending, on the recommendation of the Resident Physician, that time to fifteen or eighteen months, if the character of the complaint justifies the hope of recovery or improvement ; and the Committee so thoroughly recognize this advantage, that very few Patients are discharged "Uncured" who have not had the benefit of such extension.

rules of this Hospital upon these statistics is not at all evident. That many patients would recover if they were allowed to remain in the Hospital for a longer time than twelve months is very evident, and that this is so, may at once be shewn by a table which gives the experience of the Salpêtrière, under Esquirol, for a period of ten years. (Mental Maladies, 1845, p. 61.)

NUMBERS.	YEARS.											TOTALS.
Admitted.	1804	1805	1806	1807	1808	1809	1810	1811	1812	1813	1814	
209	64	47	7	4	3	2	0	1	1	0	0	129
212		73	54	4	2	2	1	0	0	0	1	137
206			78	49	10	3	1	1	1	0	0	143
204				60	55	11	1	0	2	0	0	129
188					64	57	4	2	1	0	2	130
209						48	64	9	4	1	3	129
190							48	51	7	1	3	110
163								44	30	8	3	85
208									75	41	11	127
216										50	49	99
2005												1218

Of these 2005 patients, who agreed in nothing except in being cases which were presumed to be curable, 604 recovered during the first year, 497 in the second year, 71 in the third, and 46 in the seven succeeding years. The numbers cured in the second year, as compared with those in the first year, are nearly as 5 to 6; sometimes even

more patients were cured in the second year than in the first: thus, in 1809, 209 patients were admitted, and of these 48 were cured in the first year, and 64 in the second year; and again in 1810, when 190 patients were admitted, 48 were cured in the first year, and 51 in the second. Such being the case, it is at once evident that the number of recoveries must be greatly affected by a rule which limits the time for recovery to a single year.

It is not easy to estimate how much the Hospital gains in the number of recoveries from the rules which exclude complicated and incurable cases; but we learn from Esquirol that 795 incurable cases, or cases considered as incurable, were admitted, between 1804 and 1813, into the Salpêtrière, which is open to all classes of patients; and that, during the same period, (as appears in the preceding table,) 2005 patients were admitted as curable, of whom 1218 were cured. Of these 1218 patients, 604 were cured in the first year, and 614 in subsequent years. In order, therefore, to arrive at any conclusion as to the influence of the rules of Bethlem upon the number of recoveries in that Institution, it is necessary to compare the number of cases which are not affected in consequence of the rule which limits the time of residence to one year, with the number of incurable or doubtful cases which, by other rules, are excluded. These, taking the experience of the Salpêtrière as a basis of calculation, will bear the proportion of 614 to 795; hence it appears, that the

increased chances of recovery by extending the time of residence are not quite equal to the number of doubtful or incurable cases which are excluded by the rules. The number of recoveries in Bethlem are, therefore, somewhat augmented by the rules as they at present stand.

This, moreover, is the conclusion to which we should arrive from the report of Bethlem itself, from 1819 to 1833, which was supplied to Dr. Prichard, by Mr. Lawrence, (*op. cit.*, p. 141.)

Remain- ing from	Admis- sion.	DISCHARGED.				Died.	Remain- ing.
		Cured.	Uncured.	By request of Friends	Improper objects.		
1819	81						
1820	124	60	33	11	22	4	
1821	135	43	36	7	28	6	
1822	165	66	43	5	27	11	
1823	145	72	49	4	19	5	
1824	155	59	55	5	31	6	
1825	170	70	48	7	29	12	
1826	162	70	63	6	24	6	
1827	149	64	41	2	15	9	
1828	204	111	48	6	34	6	
1829	195	126	42	2	29	10	
1830	201	110	45	4	30	6	
1831	212	98	55	5	41	6	
1832	163	92	41	2	35	5	
1833	184	83	44	4	21	7	124
	2445	1124	643	70	385	99	124

Here, then, there were 385 improper cases in 2445 admissions, consequently the number of proper admissions was 2060, viz. $2445 - 385$. Of these 2060 cases, 1124 were cured within the first year, and 643 were discharged uncured at the end of this time. Thus the comparison is between the 385 discharged as improper cases, and the 643 discharged uncured; and in order to arrive at a proper conclusion, it is necessary to enquire, how many of these discharged uncured would have been cured if they had remained longer in the hospital? Now in the experience of the Salpêtrière, already referred to, the proportion of the cured to the uncured, in the patients remaining after the end of the first year, is as 614 to 787; hence it follows, if the same proportion hold good in the two cases, that 281 of the 643 cases under consideration, would have been cured if they had remained longer in the hospital, and that 362 would not have been cured; a proportion which still shows that the numbers of recoveries in Bethlem are somewhat increased by the peculiar rules of the institution: for the 281 recoveries which were not effected for want of sufficient time, must be considered as more than counter-balanced by the 385 incurable cases which were rejected.*

It is very doubtful however, whether this con-

* It is to be remembered that this number of 385 incurable cases would have been considerably larger if the Hospital had been, like the Salpêtrière, open to all classes of Patients.

clusion is perfectly sound, and there is some reason to believe that Bethlem Hospital may in reality be not so much the gainer in the matter of recoveries. There is some ground for this supposition, inasmuch as the recoveries after the first year appear to be under-rated rather than over-rated. This may be gathered from the experience of the Retreat, at York, which is, that nearly 50 per cent. of the entire number of recoveries occur after the first year of residence. (Dr. Thurnam's Statistics of Insanity, p. 61.)

At all events, there is no doubt that the rule which limits the time of recovery, must operate unfavourably with regard to the interests of some of the patients now discharged uncured, a considerable number of whom might possibly have been cured, if an *indefinite* time of residence in the Hospital had been allowed them.

We have not the same opportunity of estimating the relative number of deaths. The mean annual mortality in English public Asylums, from their first establishment, up to about ten years ago, exclusive of Bethlem and St. Luke's, is estimated by Dr. Thurnam at 11.86 per cent: viz, "that of County Asylums for only paupers 13.88 per cent.; that of County Asylums receiving both private and pauper patients, 10.46 per cent.; that of Asylums for patients of different classes, supported wholly or in part by charitable contributions, 8.93 per cent.

The mortality of seven Scotch Asylums has been 7.52 per cent.; and that of 10 Irish District Asylums, during the comparatively short time they have been established, 8.7 per cent. Extended enquiry and consideration appear to justify our concluding, that taking considerable periods of time, during which there have been no extraordinary disturbing circumstances in operation, in a mixed County Asylum, or in one for the middle and opulent classes, as well as paupers, a mortality which exceeds 9 or 10 per cent. is usually to be considered as decidedly unfavourable, and one which is less than 7 per cent. as highly favourable. In regard to Pauper Asylums, I believe we may conclude, under similar limitations, that a mortality which exceeds 12 or 13 per cent. is very unfavourable; and that one which is much less than 10 per cent. is highly favourable." (op. cit., p. 137, 138.)

Here again the rules of Bethlem must influence the number of deaths, and in this case the effect must be of an unfavourable nature; for assuredly, more patients die in the earlier than in the later stages of the malady, when the disease has become chronic. This is seen in a decennial report of the Salpêtrière, as drawn up by Esquirol, thus:—

Annual Number of Admissions.	Years.										Totals.
	1804	1805	1806	1807	1808	1809	1810	1811	1812	1813	
271	46	21	15	8	1	6	2	1	1	1	102
301		48	29	16	7	2	4	1	0	2	109
292			49	22	9	2	1	4	2	1	90
297				64	25	3	2	2	4	1	101
252					35	23	8	1	3	1	71
299						35	31	7	3	1	77
260							30	22	9	3	64
233								26	20	9	55
301									23	10	33
298										26	26
2804											728

With these remarks then, we are in some measure prepared to appreciate the decennial experience of Bethlem, which is contained in the preceding table, (I.); and the conclusion must be, that we have no reason for dissatisfaction, when we find the recoveries varying so high as 54.19 per cent, and the deaths so low as 6.37; on the contrary, there is much reason for congratulation in the fact, that the aggregate experience of the hundred years, ending the 31st December, 1855, represents the cures as 43.05 per cent., and the deaths as 8.27 per cent. We shall advert to particulars in another chapter.

CHAPTER II.

TABLE II.

AGES OF PATIENTS ADMITTED AS CURABLE.

From 1846 to 1855, inclusive.

Ages.		Admitted.			Discharged.								
					Cured.			Uncured.			Died.		
		M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Under	20	92	92	184	59	65	124	21	15	36	4	5	9
From 20 to 25		136	218	354	80	145	225	38	57	95	3	6	9
„ 25 „ 30		144	241	385	71	148	219	58	65	123	6	9	15
„ 30 „ 35		144	234	378	70	120	190	44	93	137	12	5	17
„ 35 „ 40		163	218	381	84	114	198	46	76	122	15	17	32
„ 40 „ 45		105	179	284	63	83	146	26	76	102	7	9	16
„ 45 „ 50		85	157	242	42	70	112	22	67	89	9	10	19
„ 50 „ 55		76	128	204	43	65	108	21	50	71	8	8	16
„ 55 „ 60		51	84	135	34	56	90	11	21	32	4	7	11
„ 60 „ 65		40	70	110	21	35	56	5	12	17	4	14	18
„ 65 „ 70 and over..		30	42	72	7	4	11	5	10	15	4	8	12
		1066	1663	2729	574	905	1479	297	542	839	76	98	174

M. Esquirol considered that the liability to insanity went on progressively increasing after maturity; and this opinion has been held by many eminent

men : but Dr. Thurnam has shown that the conclusion has been arrived at by an erroneous way of regarding the data. M. Esquirol assumed that the liability to insanity at different ages is represented by the proportion which the *existing* cases of insanity bear to the existing population of the country, and hence the mistake ; for it is evident, that in two communities whose liability to insanity is really the same, the *existing* cases may be twice as numerous in one as in the other, and this for no other reason than that the period during which the patients are kept in the hospitals may be twice as great in one as in the other. The only way indeed to arrive at any correct decision in the matter, is to take the number of cases occurring at particular ages, and when this plan is adopted, the conclusion arrived at by Dr. Thurnam is, that the liability to insanity is nearly twice as great from 30 to 40 as from 50 to 60, and much more than twice as great as at any age subsequent to 60. Various other important considerations lead also to the same conclusion. “In the earlier and middle periods of life,” says Dr. Thurnam, “when the powers, the feelings, and the passions of man have, in common with their corporeal organs, attained their destined degree of maturity, and when they are the most disposed to irregular action and to violent disturbance, it was only to have been expected that he would be more liable to those disorders which lead

to, and constitute insanity, (as distinguished from mere superannuation on the one hand, and from imbecility and idiocy on the other,) than he would be during the period of advanced life, when the powers of the body, and the faculties of the mind are, usually, all more or less blunted and enfeebled; and to those who have attained to mature age, and who are actively engaged in the duties of social and civil life, it would have been a painful reflection, were it true, that the longer men live the more obnoxious are they becoming to the greatest of all personal calamities, and the more liable are their families and dependents, by such means, to be deprived of their care and protection." (*Op. cit.*, p. 165.)

Any conclusion upon this subject, in order to be absolutely correct, ought to be drawn from the number of cases admitted for the first time; for, as Dr. Thurnam says, "the influence which age may exert may be perfectly insignificant with the constitutional tendency to relapse, which remains after a first attack." The data, however, for this correction are yet insufficient, but there is little reason to doubt the correctness of Dr. Thurnam's conclusions. Indeed it is more than probable that these conclusions would be still more opposed to those of Esquirol, if they had been drawn from tables consisting simply of patients admitted for the first time; for it may be assumed that the liability to

relapse, does not diminish as life advances: and certainly the relapse of the cases occurring in early years are superadded to the cases occurring in later years.*

The largest number of patients admitted into the Retreat at York, (and these not less than one-third of the whole,) were admitted between the age of 20 and 30; and there was a gradual decrease in the numbers for each subsequent decennial period of life. More cases were also admitted into the Ohio Asylum between 20 and 30; and in this respect the experience of the American Asylum agrees with that of the Retreat. This is not to be easily explained. In America it is possible that the greater freedom in the mode of living amongst the rising generation may have much to do with the matter: but this consideration can scarcely apply to the Quakers who find their way into the Retreat. In the Quakers, perhaps, the explanation may be in the care which is taken of the community—a care which will single out a case as soon as the first symptom of the malady begins to be manifested, and which does not let poverty be any hindrance to the necessary treatment. At any rate there is no reason

* In order to secure correct data on this important topic, it would be well to imitate Dr. Thurman's example, and form tables in our Reports which would give the *age* at the origin of the disorder. There would be some difficulty in acquiring the data, but none that might not be overcome by a little perseverance.

to doubt the general conclusion which is drawn by Dr. Thurnam from the whole body of evidence; and certainly the experience in Bethlem during the last ten years is in harmony with it. Thus, in our own table, the numbers admitted between 20 and 30, and between 30 and 40, are nearly the same; 739 being admitted in the former period, and 759, an increase of 20, in the latter: and after 40 there is a gradual decrease in the numbers for each quinquennial period, 284, 242, 204, 135, 110, 72.

The influence of age upon the *recoveries* is very interesting. M. Esquirol gives tables which shew that the greatest number of cures were from the 25th to the 30th year, and from the 30th to the 35th year; and that they go on progressively diminishing from the 45th year to the end of life—the diminution being more uniform in men, and more abrupt in women. Recovery, however, may take place at later periods of life; and these very tables shew that 20 men recovered after the 50th year, of whom 4 were upwards of 70. (*Statistique de la Maison Royale de Charenton*, p. 135.)

Dr. Thurnam concludes that the probability of recovery is greatest in the young; and that it undergoes a very regular diminution as age advances.

According to our own table the recoveries under 25 amount to about three-fifths of the admissions, and to about one half, between 30 and 65, if we neglect certain inconsiderable fluctuations. After

65, as might be expected, the recoveries are greatly diminished, being about one-seventh. This will be seen on referring to the table.

The influence of age upon the number of deaths has also been carefully investigated; and Dr. Thurnam's conclusion is, that "the mortality of the insane increases in proportion to the age much more rapidly than is the case in the general population." (*Op. cit.*, p. 33.) In our own tables the mortality, as a rule, increases rapidly with the age. Under 20, it is 4.8 per cent.; between 20 and 25, 2.5 per cent.; between 25 and 30, 3.9 per cent.; between 30 and 35, 4.5 per cent.; between 35 and 40, 8.4 per cent.; between 40 and 45, 5.6 per cent.; between 45 and 50, 7.8 per cent.; between 50 and 55, 7.8 per cent.; between 55 and 60, 8.1 per cent.; and above 60, 16.9 per cent. The mortality, as a rule, increases with the age; but under 20 it is higher than in the decennium following, and between 35 and 40 it is much higher than in the years immediately preceding and following: a curious fact, which cannot be easily explained.

CHAPTER III.

SEX.

The opinion which prevailed up to the time of Esquirol was, that women were less liable to insanity than men; and this appears to be the correct opinion. Esquirol investigated the subject very carefully, and concluded that women were a little *more* subject to insanity than men, the proportions being about 38 females to 37 males; but Dr. Thurnam shews that he erred in his calculations, in forgetting that the proportion of adult females, in the general population, exceeds that of the males. The excess is 12 per cent. from the age of 20 to 30, 6 per cent. from 30 to 40, and 4 per cent. from 40 to 50. He also erred in comparing the *existing*, instead of the *occurring*, cases of insanity in the two sexes. This would have been a matter of no moment if the progress of the disease was the same in the two sexes, but such is not the case. The number of recoveries is greater in women than in men; and the number of deaths is nearly 50 per cent. higher in men than in women. It is therefore evident, that to compare the simple number of cases existing at any one time, would give no true result; and we must take the cases *occurring*, and not the cases existing, if we would arrive at any correct

conclusion respecting the comparative liability of men and women to insanity. Dr. Thurnam was the first to direct attention to this subject; and his conclusion, after a very careful examination of the evidence, was, that men are a little more liable to insanity than women. In the principal Hospitals for the insane in these kingdoms he shews, "the proportion of men admitted is nearly always higher, and in many cases much higher, than that of women; and as we know that the proportion of men in the general population, particularly at those ages when insanity most usually occurs, is decidedly less than that of women, we can have no grounds for doubting that the male sex is actually more liable to disorders of the mind than the female." (*Op. cit.*, p. 151.)

This, also, is the conclusion which is to be drawn from the special examination of the statistics of the Retreat at York; and it may be relied on with much confidence, as no statistics can be more accurate.

"At first sight," says Dr. Thurnam, "it might appear that women are more liable to insanity than men in the Society of Friends, for, without any greater facility existing for the admission of females, the number of women who have been admitted into the York Retreat has exceeded that of the men by 18 per cent., or, in other words, only 45 men have been admitted to 55 women. But it is requisite to know the relative proportion of the two sexes in

the Society of Friends (as a body) before we shall be justified in determining that insanity is really more prevalent among the females of that community. By returns, however, from all parts of England and Wales, it appears, that in this Society the excess of women over men, at all ages, amounts to about 20 per cent.; and there can be little or no question that the excess of adult females is still greater. Indeed after 15 years of age, before which insanity seldom occurs, we can, I think, scarcely estimate the excess of females over males in this community at less than 30 to 35 per cent. And thus assuming, as there is every reason for doing, that as respects the proportion of the two sexes attacked, the experience of the Retreat represents that of the Society at large, it will appear that in this community there are still from 10 to 14 per cent. more men than women attacked with mental derangement. This is an excess on the side of men in all probability considerably less than that which prevails in the kingdom generally." (*Op. cit.*, p. 153.)

In former years more women than men were admitted into Bethlem, as well as into St. Luke's, and the present data are in harmony with past experience:—1663 women having been admitted into Bethlem during the last 10 years, and 1066 men, *i. e.* 64 per cent. more women than men.

The influence of sex upon recovery is supposed to be *very* marked; and it is generally agreed that

the probability of recovery is *much* greater in women than in men. But this is not the conclusion which is to be drawn from the experience of Bethlem during the 10 years under consideration, for this experience shews that 905 out of 1663, or 54.4 per cent., recover among the women, and 574 in 1066, or 53.8 per cent., among the men—a difference in favor of the women, it is true, but far more inconsiderable than that which is usually supposed to exist.

On the other hand, it is admitted that insanity is much more likely to end in *death* in men than in women. The mortality among men, indeed, has been supposed to be nearly double that among women; and this is a very remarkable fact, for the excess in the general mortality is not more than 5 or 6 per cent. on the side of the males. In our own tables the mortality among the men is considerably higher than among the women, but not to the extent of being double. It is 7.3 per cent. among the men, and 5.8 per cent. among the women.

These facts are of great importance in estimating the effect of treatment in different Hospitals, for it must follow that the results will appear more favorable in direct proportion to the number of women admitted. This, for example, must be borne in mind in comparing the statistics of St. Luke's and Bethlem, for more women appear to be admitted into the former Hospital than into the latter.

CHAPTER IV.

TABLE III.

EDUCATION OF PATIENTS ADMITTED AS CURABLE,

From 1846 to 1855 inclusive.

Admitted.				Discharged.*								
				Cured.			Uncured.			Died.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Superior ..	79	78	157									
Good	293	294	587									
Moderate ..	616	1031	1647									
Indifferent..	59	200	259									
None	19	60	79									
	1066	1663	2729									

It is very desirable to arrive at some conclusion as to the influence of education upon insanity. The evidence, however, is still wanting which will enable us to do this, and we cannot supply the deficiency in any measure. On the contrary, our table is incomplete; and we are not able even to form an opinion as to the influence of education upon the chances of recovery and death. One thing only,

* The Tables hitherto in use afford no means of obtaining information on this subject, respecting "Patients Discharged."

indeed, appears certain, and this is, that a very large proportion of educated persons find their way into Bethlem : a fact which shews that little alteration would be necessary, so far as the patients are concerned, if it were thought desirable, as it appears to be, to send the uneducated poor to the asylums which are provided for them on the most princely scale in every county, and to reserve Bethlem Hospital for the reception of those ever to be pitied, "the poor educated insane of the middle class."

CHAPTER V.

TABLE IV.

RELIGIOUS PERSUASION OF PATIENTS ADMITTED AS
CURABLE

From 1846 to 1855 inclusive.

Admitted.				Discharged.*								
				Cured.			Uncured.			Died.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Church of England }	763	1251	2014									
Roman Catholic }	44	55	99									
Wesleyan ..	55	86	141									
Dissenters ..	204	271	475									
	1066	1663	2729									

Scarcely any thing is more difficult than to determine the real influence of religion upon insanity. It has been constantly repeated that Protestants are much more subject to insanity than Romanists, and that Protestants are subject just in proportion to the degree in which they allow their feelings to enter into their religious exercises. The Quakers have been thought to shew that a quiet religion is a preservation against insanity, and the Methodists

* The Tables hitherto in use afford no means of obtaining information on this subject, respecting "Patients Discharged."

the reverse. But these conclusions have been hastily formed, as Dr. Prichard has well shewn.

With regard to the comparative influence of Protestantism and Romanism in the production of insanity, it is not easy to form an opinion, for there are differences of habit, climate, and so on, which are as worthy of consideration as the mere differences of religion. The Prussian States on the Rhine may be considered as almost the only locality in which, habit and climate and other matter being similar, a comparison may be fairly instituted. Of these States Dr. Prichard gives the following particulars from Dr. Jacobi, as elements for the formation of an opinion. (Date of Table 1824.) (*Op. cit.*, p. 197.)

	Romanists.	Lutherans.
Düsseldorf.		
Population	395,031	239,840
No. of Lunatics	544	241
Aix-la-Chapelle.		
Population	320,793	9,382
No. of Lunatics	301	11
Trèves.		
Population	301,505	32,804
No. of Lunatics	202	18
Cologne.		
Population	323,283	50,001
No. of Lunatics	283	48
Coblentz.		
Population	250,613	121,595
No. of Lunatics	236	101

Hence it appears that the proportion of lunatics in the Catholic part of the population of the Provinces, compared with that in the Lutheran, is as 11 to 10, or one-eleventh part greater; so that, arguing from this single fact, Romanism, and not Protestantism, would seem to be the more favorable to the manifestation of insanity.

With regard to Methodism as predisposing to insanity, Dr. Prichard has some very admirable remarks. Cases of insanity falling under his own notice, he says, "have occurred among persons who had frequented churches or chapels, where the ministers were remarkable for a severe, impassioned, and almost imprecatory style of preaching, and for enforcing the terrors rather than setting forth the hopes and consolations which belong to the Christian religion." Foreign writers have supposed this to be the practice of the Methodists in particular; and M. Fabret, persuaded by the assertions of Darwin and Perfect, mentions the prevalence of Methodism in England, as a presumptive cause of the frequency of suicide among our countrymen. That none of the preachers of this sect have been deserving of such a censure, I shall not venture to affirm; but in the present time, at least, it cannot justly be laid, either generally or exclusively, to their charge. A vehement and impassioned mode of preaching has often been the practice in other sects, both among Protestants and Catholics, and in no in-

stances more remarkably than among the itinerant missionaries of the latter Church." (*Op. cit.*, p. 188). And then Dr. Prichard proceeds to give a quotation from M. Berthollet in illustration:—"In the Kingdom of Naples, a custom exists of preaching in favor of missions, by a particular set of priests; in order to animate the faith of believers, they accompany their orations with particular acts, which are often of such a nature as to produce too powerful an effect on weak minds; they hold their hands over flaming torches, and whip themselves with scourges garnished with iron points; their sermons are prolonged till the close of day, and the feeble glare of a few flambeaus heightens the effect of the scene." One of these sermons gave occasion to the case I am about to describe; the subject was *Hell*: to heighten the colouring of the frightful picture which the preacher had traced, he took a skull in his hand, and having raised a question as to the abode of the soul to which it belonged, he exclaimed, invoking it, "If thou art in heaven, intercede for us! If thou art in hell, utter curses! He then cast it from him with violence." The lady whose case is subsequently described in M. Berthollet's memoir was instantly affected by a morbid change in the nervous system. Strong emotions, excited by vehement preaching, produce continually in females and very sensitive persons fits of hysteria; and in those who are predisposed

to mania, there can be no doubt that similar causes give rise to attacks of madness.

It is a question how far the theological doctrines of the Calvinists, gloomily considered, may or may not predispose to insanity. There is, at present, little evidence from which a correct opinion may be drawn, but there is a statistical statement, in a paper by Dr. J. R. Hubertz, upon the State of Mental Diseases in Denmark, which deserves very careful consideration — (Journal of Psychological Medicine, July, 1853, p. 441)—This statement is, that the proportion of idiots and insane in every 1000 inhabitants varied considerably with the different sects to which these inhabitants belonged; the Romanists showing 3.34 in every 1000; the Jews, 5.85; and the Calvinists, 9.16: we are warned however that these data are not altogether trustworthy. Our own tables, unfortunately, do not throw any new light upon these questions, for we do not know the entire numbers of these different churches; neither do they throw any light upon the extent of the influence of religion, as affecting the chances of recovery or death, for the manner in which the cases terminated is not recorded. At present, indeed, they are altogether valueless; but this we hope will not be the case in future.

CHAPTER VI.

TABLE V.

DOMESTIC CONDITION OF PATIENTS ADMITTED AS CURABLE.

From 1846 to 1855 inclusive.

Admitted.	Discharged.											
	Cured.			Uncured.			Died.					
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Married....	545	819	1364	302	448	750	123	236	359	53	59	112
Single	475	719	1194	244	399	643	169	265	434	21	30	51
Widowed ..	46	125	171	28	58	86	5	41	46	2	9	11
	1066	1663	2729	574	905	1479	297	542	839	76	98	174

Dr. Prichard has collected certain data, from which it appears probable, that the condition of married life is *cæteris paribus*, much less liable to the excitement of madness than that of celibacy. The proportion of married and unmarried persons in the Salpêtrière and Bicêtre, during the 20 years ending 1822, according to a report by M. Desportes, was as follows :—(Prichard, p. 185.)

	Females.	Males.
Unmarried	980	492
Married.....	397	201
Widowers and Widows ..	291	59
Divorced	5	3
Not noted..	53	9
Total	1726	764

Dr. Prichard also refers to Dr. Jacobi's *statistics* to show that the case is the same in Germany, thus :—

	Females.	Males.
Unmarried	599	974
Married.....	156	176
Widowed	80	30
Total	835	1180

How are these numbers to be accounted for? “Is it,” Dr. Prichard asks, “through the restraints which the condition of celibacy imposes, or through the vices to which unmarried persons are more frequently abandoned? M. Esquirol is of opinion that where one case of insanity arises from the former cause, a hundred result from the latter.” Again: “we must take into our calculation, that married persons lead, in general, more regular lives in all respects than the unmarried; that they are

for the most part, more fixed in their pursuits and in their condition as to maintenance and employment; and that they are in a less degree subjected to causes which agitate the mind and excite strong emotions. These remarks, however, apply principally to men, and the difference observed in respect to numbers is almost equally great among females."

Let the explanation be what it may, the conclusion must certainly be, that marriage does not "predispose to insanity;" that marriage, in short, is a natural condition. At the same time, it must be remembered, that "many of the cases of insanity among unmarried persons occur in a class, who, as regards bodily and mental vigour, are less likely to be married than the average of the community at large; so that in such cases the celibacy must be regarded as an *effect*, rather than as a cause of the condition predisposing to insanity." (Thurnam *Op. cit.*, p. 72a.)

It is more than probable, however, that more extended enquiries may alter materially the aspect of the case as it now stands. Thus the experience of Bethlem Hospital, during the last ten years, does not support the idea that unmarried persons are more likely to become insane than the married; on the contrary, the married patients were more numerous than the unmarried, in the proportion of 1364 to 1194. The question must therefore remain in abeyance for the present; and in the meantime

we may notice the manner in which the chances of recovery or death are affected, or appear to be affected, by the domestic condition of the patient. We may not attach much importance perhaps to any such deduction, but it is curious to know that these chances are not the same in the married, unmarried, and widowed state; thus among the recoveries, we find 55.7 per cent. of the married, 53.8 per cent. of the unmarried, and 50 per cent. of the widowed; and among the deaths, we find 8.2 per cent. of the married, 4.2 per cent. of the unmarried, and 6.4 per cent. of the widowed.

CHAPTER VII.

TABLE VI.

SOCIAL CONDITION OF THE MALE PATIENTS.

		Admitted	Discharged.	
			Recovered	Died.
Members of the Learned Professions	Clergymen.....	6		
	Lawyers.....	6		
	Medical Men.....	11		
	Students	13		
Officers in the Queen's Service	Military Officers ..	5		
	Officers in the Customs	5		
Members of other Professions	Accountants	2		
	Actor.....	1		
	Architects	4		
	Artists	11		
	Authors.....	2		
	Dentist	1		
	Engineers	11		
	Schoolmasters	19		
	Surveyors	5		
	Musicians	18		
	Reporter	1		
Persons engaged in Commerce	Agents	5		
	Auctioneer.....	1		
	Brokers	13		
	Booksellers	5		
	Chemists	6		
	Cheesemongers	5		
	China Sellers.....	2		
	Clerks	111		
	Coal Dealers	4		
	Contractor.....	1		
	Corn Chandlers	4		
	Curriers.....	15		
	Drapers.	15		
	Eating-house Keeper	1		
	Egg Merchant	1		
	Fishmongers.....	15		
	Hosiery	3		
	Ironmonger	1		
	Merchants.....	3		

SOCIAL CONDITION OF THE MALE PATIENTS.—*continued.*

		Admitted	Discharged.	
			Recovered	Died.
Persons engaged in Commerce, <i>continued</i>	Milkmen	2		
	News Agent	1		
	Oilman	1		
	Old Clothes Dealers..	3		
	Publicans	15		
	Shopmen	12		
	Silk Mercers	2		
	Stationers	3		
	Tobacconists	7		
	Travellers	6		
	Wine Merchant	1		
Persons engaged in In- door Manufactures	Basket Makers	2		
	Brush Makers	3		
	Cane Maker	1		
	Carvers and Gilders..	5		
	Cigar Makers	5		
	Confectioner	1		
(a) In* sedentary occu- pations	Cork Cutter	1		
	Engravers	10		
	Flower Makers	3		
	Furriers	3		
	Glass Cutter	1		
	Glover	1		
	Goldsmiths	3		
	Hair Dressers	7		
	Hatters	8		
	Jewellers	5		
	Last Maker	1		
	Leather Worker	1		
	Mathematical Instru- ment Makers	4		
	Optician	1		
	Pipe Maker	1		
	Saddlers	4		
	Sail Cloth Maker	1		
	Shoe Makers	38		
	Tailors	28		
	Weavers	10		
	Watch Makers	7		
(b) Persons engaged in non-sedentary occu- pations	Bakers	28		
	Blind Maker	1		
	Bookbinders	7		
	Brass Founders	2		
	Brewer	1		

SOCIAL CONDITION OF THE MALE PATIENTS —continued.

		Admitted	Discharged.	
			Recovered	Died.
(b) Persons engaged in non-sedentary occupations—continued	Butchers	9		
	Carpenters.....	57		
	Chair Makers	4		
	Coach Makers	7		
	Colour Maker	1		
	Coopers	5		
	Cutler	1		
	Dyers.....	2		
	Farrier	1		
	Gold Beater	1		
	Gas Fitter.....	1		
	Japanners	4		
	Lath Render.....	1		
	Maltster.....	1		
	Millers	3		
	Painters.....	15		
	Plumbers	5		
	Printers.....	15		
	Rope Maker	1		
	Sawyers	9		
	Smiths	22		
	Wheelwrights	8		
	Upholsterers.....	2		
Persons engaged in Outdoor pursuits	Boat Builders	7		
	Bricklayers	13		
	Builders.....	3		
	Brick Makers	2		
	Carriers	3		
	Cabmen	6		
	Carmen	3		
	Dairyman	1		
	Drovers	2		
	Farmers.....	25		
	Fishermen.....	2		
	Fishmongers	2		
	Gardeners	13		
	Hawkers	14		
	Labourers	57		
	Light-house Keeper..	1		
	Miners	2		
	Sailors	35		
	Stokers	2		
Servants	Policemen	11		
	Postmen	3		

SOCIAL CONDITION OF THE MALE PATIENTS,—*continued.*

		Admitted	Discharged.	
			Recovered	Died.
(a) Public Servants ..	Soldiers	2		
	Railway Servants	3		
(b) Private Servants ..	Porters	9		
	Butlers	3		
	Grooms	5		
	Game Keeper	1		
	Ordinary Servants ..	22		
	Waiters	5		
	Cooks	2		
	Others	8		
Persons without Occu- pation or Trade		39		
Persons of unknown Occupation		5		

TABLE VI a.

SOCIAL CONDITION OF THE FEMALE PATIENTS.

		Admitted	Discharged.	
			Recovered	Died.
Wives, Widows, and Daughters of Pro- fessional men, Offi- cers, and Merchants		50		
Wives, Widows, and Daughters of Me- chanics, Labourers, and Servants.		380		
Persons occupied in Professional pursuits.	Artists	2		
	Governesses	110		
	Musicians	3		

SOCIAL CONDITION OF THE FEMALE PATIENTS,—*continued.*

		Admitted	Discharged.	
			Recovered	Died.
Persons engaged in Commercial pursuits.	Corn Dealers.....	3		
	Eating-house Keeper	1		
	Furniture Dealer	1		
	Greengrocer	1		
	House Agent.....	1		
	Lodging-house Keeper	15		
	Publicans	3		
	Shop Keepers	9		
Persons engaged in In-door Manufactures, &c. (a) In sedentary manufactures, &c.	Baker.....	1		
	Button Coverer	1		
	Cloth Worker	1		
	Dress Makers	189		
	Embroideress	1		
	Envelope Maker	1		
	Flower Makers	3		
	Glovers	2		
	Hat Liners	2		
	Lace Makers.....	7		
	Map Colourer .. .	1		
	Paper Makers	5		
	Shopwomen	13		
	Silk Winders	4		
	Tambour Worker....	1		
	Umbrella Maker	1		
	Upholsteresses	3		
	Weaver.....	1		
	Wig Maker	1		
(b) In non-sedentary manufactures, &c.	Charwomen	6		
	Confectioner.....	1		
	Water Gilder	1		
Persons occupied in Out-door pursuits.	Dairy Keeper	2		
	Hawkers	2		
	Milk Carriers	4		
Servants	Cooks.....	5		
	Housekeepers	6		
	Ladies' Maids	15		
	Laundresses	30		
	Nurses	29		
	Servants	260		

SOCIAL CONDITION OF THE FEMALE PATIENTS,—*continued.*

		Admitted	Discharged.	
			Recovered	Died.
Persons having no occupation.		68		
Persons whose occupation is not stated.		12		

In these tables we have arranged the patients admitted into Bethlem Hospital according to their social position, so that a single glance may serve to shew, in some degree, the circumstances affecting groups of patients. The actual tables are arranged alphabetically; but certainly a classified table, however imperfect, is to be preferred, for some such table must be traced from the alphabetical list before it is possible to form any opinion upon the data contained in it.

At present, however, the data are far too scanty to allow the formation of any sound opinion; and all that we can do is to notice a few salient points which present themselves on a cursory inspection of the column. It is curious, then, to notice that the medical men are nearly twice as numerous as the clergymen and lawyers, both of whom are equal in numbers; and yet this, perhaps, is what we might expect, when we consider the broken rest of the great majority of men of the medical profession: for

if this broken rest is sufficient to shorten the average duration of their lives appreciably, it must also tell very perniciously upon their mental health. Nor is it surprising that the number of schoolmasters and musicians should be so high. Under the head of schoolmasters are a large number of those generally unfortunate persons called "tutors;" which, no doubt, is a sufficient reason why schoolmasters, as a class, swell the list so considerably, for the unsatisfactory social position in which tutors are too often placed, tends necessarily to fret and irritate their minds. Musicians, on the contrary, themselves more excitable than the majority of the population, may be in danger from being made "too much of," by that part of society into which they are constantly welcomed. The number of clerks is high, though not higher, perhaps, than the extent of this class would lead us to expect. Comparing the number of those engaged in *sedentary mechanical in-door pursuits*, with those engaged in *non-sedentary mechanical in-door pursuits*, we do not find any very marked difference, but the preponderance is with the latter. Among the former, the shoemakers are most numerous, and then the tailors; among the latter, are first the carpenters, (including the cabinet-makers,) and then the bakers. These facts are curious, explain them as we may.

Among the female patients, the only points which seem to require notice, are the very large number

of governesses and dressmakers, (including milliners and sempstresses.) It is no wonder that an elegant, accomplished, and otherwise delicately nurtured lady, should pass from unhappiness to misery, and from misery to insanity, in a position which too often is not half so desirable as that of a domestic servant; and of the causes which operate upon thousands of the class of dressmakers, who are driven mad by penury, trouble, and perhaps remorse, it is not necessary to speak.

CHAPTER VIII.

TABLE VII.

RESIDENCE,

From 1846 to 1855 inclusive.

Admitted.				Discharged.*								
				Cured.			Uncured.			Died.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
London and its immediate neighbourhood. }	421	595	1016									
The Provinces	636	1048	1684									
Not ascertained .. }	9	20	29									
	1066	1663	2729									

The conclusion arrived at by Sir Andrew Halliday, that insanity is more prevalent in agricultural than in manufacturing districts, will be found to be fully substantiated by the returns, both of the Commissioners in Lunacy, and the Poor Law Commissioners. The twelve counties selected by Sir Andrew Halliday, where the inhabitants are principally employed in agriculture, were,—Bedford, Berkshire,

* The Tables hitherto in use afford no means of obtaining information on this subject, respecting "Patients Discharged."

Bucks, Cambridge, Hereford, Lincoln, Norfolk, Northampton, Oxford, Rutland, Suffolk, and Wilts. The total number of inhabitants in these twelve counties, was 2,012,979, and the total number of insane persons, 2526, that is, 1 insane person in 796 inhabitants. The twelve counties which he selected, where the inhabitants were not principally employed in agriculture, were,—Cornwall, Cheshire, Derby, Durham, Gloucester, Lancaster, Northumberland, Nottingham, Stafford, Somerset, York (West Riding), Warwick. The total number of inhabitants in these twelve counties was 4,493,194, and the total number of insane persons, 3,910, or very nearly 1 insane person in every 1149.

Taking the same twelve agricultural, and the same twelve non-agricultural counties, selected by Sir Andrew Halliday, we find from the reports of the Commissioners of Lunacy, as follows :—

Agricultural Counties.

In 1836, proportion of the insane to the population	1	in	614
„ 1843,	„	„	1 „ 810
„ 1847,	„	„	1 „ 712

Non-Agricultural Counties.

In 1836, proportion of the insane to the population	1	in	1420
„ 1843,	„	„	1 „ 1109
„ 1847,	„	„	1 „ 939

The same result is also shown by the Poor Law Commissioners' returns. In 1851, the number of

insane paupers in the same twelve agricultural counties, was 8,743; and their proportion to the population of the same twelve counties, 1 in 718. In the twelve non-agricultural counties, the number of insane paupers, was 12,189, and their proportion to the population of the same counties, 1 in 1015.

The experience of Norway, as set forth in a report by Professor Holst, is to the same effect, and the proportion of the insane in every 100 of the population is calculated as 0.201 in the towns, and 0.339 in the country; nor is it otherwise in Denmark. "Among the dense population of the isles, idiots and insane are found in the proportion of 2 to 3 in 1000; amongst the scattered population of the lignite formation of the west of Jutland, the proportion is 3 to 5 in 1000." (Dr. Hubertz in the *Journal of Psychol. Med.*, July, 1853, p. 443)

It appears, however, that M.M. Brierre de Boismont, Renardin, Guislain, Parchopp, and De Bouteville, have deduced an opposite conclusion from the experience of Belgium. (*Psychol. Medicine*, D. Noble, M.D., p. 270.)

At first sight also, an opposite conclusion would seem to be deducible, from the experience of the Retreat, at York, for of 415 patients, 228, or about 55 per cent., were admitted from cities and large towns, (including in this class, all places having a population much exceeding 5000); 101 or 24 per cent. were from small towns and villages; and 86

or 21 per cent. from more completely rural districts. Still, as Dr. Thurnam says, there is, perhaps, some reason for concluding that insanity is somewhat more prevalent in country Quakers than in town Quakers, for there can be no doubt, that a much larger portion than 55 per cent. of this community reside in cities and large towns.

There is no doubt indeed, that the general voice of experience is in favour of the idea, that insanity is less likely to originate in large towns than in the country; and this is certainly the lesson which we should deduce, if any, from the experience of Bethlem during the last ten years; for out of 2729 patients, 1684, or an excess of 63.9 per cent. were from the "provinces;" whereas only 1016, or 37.2 per cent. were from "London, and its immediate neighbourhood."

It might have been expected that cases of insanity would have been developed more frequently, where the mind is most excited, and where the struggle for existence is most eager and arduous; and it is not easy to find an explanation for the contrary state of the case. "The fact that insanity prevails so much in agricultural districts," says Dr. Prichard, "indicates that its developement is favored by some of the circumstances connected with the condition of agricultural life. The labouring of women in the field during pregnancy is, perhaps, as Halliday suggests, one cause. Hard

labour and low diet, to which males may be subjected, may perhaps have an influence on the offspring propagated by them; and in Wales and Scotland particularly, this may enter into the number of causes which render idiotism so prevalent: "It may be," suggests Dr. Thurnam, "that young persons who are deficient in mental power or in self-government, and who are so far more exposed to insanity, are not only more frequently put to agricultural pursuits by their friends, but that such individuals in after life will generally be but little inclined to exchange their rural pursuits for those of a city." (*Op. cit.*, p, 74a.) The explanation indeed, is not at all obvious; still we cannot but think that the human mind, with its high capabilities, is more likely to become deranged from having too little wherewith to exercise those capabilities fitly, than from having too much. If these faculties be not exercised, the mind will prey upon itself, and become diseased; and surely this sad event is more likely to happen in the country than in the town.

CHAPTER IX.

TABLE VIII.
APPARENT OR ASSIGNED CAUSES IN THE MALES.

Admitted.			Discharged.					
			Cured.		Uncured.		Died.	
	M.	T.	M.	T.	M.	T.	M.	T.
HEREDITARY, without any other apparent cause	89	89	64	64	22	22	3	3
Not ascertained	350	350						
MORAL.								
Anxiety.....	130		84		31		15	
Disappointment	26		19		7			
Reduced circumstances	68		36		23		9	
Excessive study, or Over-work	75		49		12		14	
Religious excitement	37		25		12			
Mental „	26		18		2		6	
„ distress	20		14		4		2	
Fright	4		3		1			
Jealousy.....	5		2		3			
Sudden prosperity	6		1		3		2	
Death of relations	18		14		2		2	
		415		265		100		50
PHYSICAL.								
Bodily illness	33		24		5		4	
Fever.....	15		8		7			
Intemperance	90		68		16		6	
Coup de Soleil	11		7		3		1	
Rheumatism.....	8		5		3			
Cholera	1		1					
Sensual excess	11		10		1			
Onanism	12		8		4			
Dyspepsia.....	14		11		2		1	
Concussion	17		8		7		2	
		212		150		48		14
	1066	1066	479	479	170	170	67	67

TABLE VIIIa.

APPARENT OR ASSIGNED CAUSES IN THE FEMALES.

Admitted.			Discharged.					
			Cured.		Uncured.		Died.	
	F.	T.	F.	T.	F.	T.	F.	T.
HEREDITARY, without any other apparent cause	171	171	114	114	43	43	14	14
Not ascertained	588	588						
MORAL.								
Anxiety	153		89		45		19	
Disappointment	71		56		13		2	
Reduced circumstances	29		22		7			
Excessive study, or Over-work	32		10		14		8	
Religious excitement	11		8		2		1	
Mental „	58		32		20		6	
„ distress	27		23		4			
Fright	48		37		10		1	
Jealousy	10				2			
Death of relatives	106		77		24		5	
		545		362		141		42
PHYSICAL.								
Bodily illness	55		43		8		4	
Fever	12		10		1		1	
Intemperance	40		25		11		4	
Rheumatism	4		4					
Dyspepsia	5		3		2			
Concussion	5				2			
Puerperal	112		83		26		3	
Over-lactation	50		33		14		3	
Hysteria	17		10		7			
Uterine disturbance	59		47		6		6	
		359		261		77		21
	1663	1663	737	737	261	261	77	77

TABLE VIII b.

APPARENT OR ASSIGNED CAUSES.

		Admitted.	Discharged.		
			Cured.	Uncured.	Dead.
Hereditary tendency, simply.	Males	89 in 1066, or 8.3 per ct	64 in 479, or 13.3 per ct.	22 in 170, or 12.9 per cent.	3 in 67, or 4.4 per cent.
	Females	171 in 1663, or 10.28 per ct.	114 in 737, or 15.4 per ct.	43 in 261, or 16.4 per cent.	14 in 77, or 18.1 per cent.
	Total	260 in 2729, or 9.8 per ct.	178 in 1216, or 14.6 per ct.	64 in 431, or 15. per cent.	17 in 144, or 11.8 per cent.
Causes not ascertained.	Males	330 in 1066, or 30. per ct.			
	Females	588 in 1763, or 35.3 per ct.			
	Total	918 in 2729, or 33.2 per ct.			
Moral Causes	Males	435 in 1066, or 40.8 per ct.	265 in 479 or 55.3 per ct.	100 in 170, or 58.8 per ct.	50 in 67, or 74.6 per cent.
	Females	545 in 1663, or 32.7 per ct.	362 in 737, or 48.9 per ct.	141 in 261, or 54. per ct.	42 in 77, or 54.5 per cent.
	Total	980 in 2729, or 35.9 per ct.	627 in 1216, or 51.5 per ct.	241 in 431, or 55.9 per ct.	92 in 144, or 62.5 per cent.
Physical Causes.	Males	212 in 1066 or 19.8 per ct.	150 in 479, or 31.1 per ct.	48 in 170, or 28.2 per ct.	14 in 67, or 20.8 per cent.
	Females	359 in 1663 or 21.5 per ct.	261 in 737, or 35.8 per ct.	77 in 261, or 29.5 per ct.	21 in 77, or 27.2 per cent.
	Total	571 in 2729 or 20.9 per ct.	411 in 1216, or 33.8 per ct.	125 in 431, or 29. per ct.	35 in 144, or 24.3 per cent.

It is usual to divide the causes of insanity into *predisposing*, and *exciting*, but there is infinite difficulty in carrying the division into effect. It continually happens, indeed, that predisposing causes are also exciting causes, or *vice versa*; and hence we prefer to disregard the division, and speak of the causes of insanity according as they are *moral* or *physical* in their nature. In practice, moreover, there are many cases in which the only cause which can be assigned is, what is called *hereditary tendency*; and there are not a few in which, from the want of the necessary data, the cause is not ascertained.

We will speak, then, of the causes of insanity in the following order:—

Hereditary tendency,
Cause not ascertained.

Moral Causes.

Anxiety and Distress,
Uncontrolled Emotions and Passions,
Perverted Religion.

Physical Causes.

Injuries to the Head,
Diseases of the Nervous System,
Fevers,
Intemperance,
Sensuality,
Intestinal Disorders,
Causes related more or less to the Uterus.

Hereditary tendency. “The constitutional peculiarity,” says Dr. Prichard, “whence arises the predisposition to insanity, is not generally distinguished, or to be certainly recognized by any remarkable external characters. The fact that it exists, and is a necessary condition to the development of mental disease, is to be inferred from the consideration, that the causes which induce madness in one person are precisely similar to those, which in other individuals are observed to call forth disorders of a different kind: for example, we may observe that among the physical agents which give rise to madness, there is none more influential than intemperance and the habitual use of ardent spirits. A very considerable proportion of lunatics in the lowest classes of society in some countries, owe their disease to this habit; but it is only in a certain proportion of persons addicted to intemperance that the phenomena of insanity make their appearance. Others, under the influence of the same noxious cause, are affected with apoplexy or paralysis; in many the brain escapes, and the liver becomes disordered, or dropsy takes place, with or without disease of the liver; in some, the lungs become the seat of morbid changes. It is evident that there must be an original difference in the habit of body, whence arises the diversity of results brought about by the same or very similar external agencies. This original difference is apparently a

peculiarity in the congenital constitution of each individual ; it may be transmitted from parents, or it may arise *de novo*, as other varieties in the congenital structure are known to do : hence it is of comparatively little moment, so far as the individual is concerned, to inquire whether his morbid predisposition has been derived by hereditary descent, or has sprung up with himself." (*Op. cit.*, p. 157.)

And not only is it of comparatively little moment to inquire whether the morbid predisposition is hereditary or acquired, but it is also exceedingly difficult to arrive at any correct conclusion upon the subject ; for either the friends of the patients are very apt to disguise the truth, or, as is frequently the case among the poor, little is known about ancestry, even so recent as the immediate parents.

There is nothing mysterious in hereditary tendency to insanity ; and when the characters of the malady are better known, this tendency, no doubt, will appear to be little more than a definite bodily state, which may be acquired under given circumstances, and when acquired may be transmitted. That it is a physical condition, implying chiefly weakness and imperfection in the brain, may be inferred from many facts. According to Van Sweiten, "almost all the insane have had convulsions during their infancy ;" (*Esquirol, Op. cit.*, p. 50,)—and this fact is an argument, not only that

the nervous system was unusually weak and delicate, but that it was rendered more weak and delicate by the convulsions. A similar conclusion may also be drawn from the very great number of idiots who appear in families producing lunatics; a fact which is very well established, and from which Dr. Prichard argues that mental derangement, considered generally, or with respect to the great aggregate of cases, may be looked upon rather as a congenital imperfection, than as a disease resulting from internal impression. Again, insanity is closely allied, not only to congenital idiocy, but to paralysis, epilepsy, and other diseases, which imply a want of power in the nervous system: in a word, the idea of hereditary tendency is definite enough, if care be taken to apprehend it, though not so clear as to necessitate the direct transmission of any given form of insanity.

Now, unquestionably, there are many cases in which hereditary predisposition is the only cause to which insanity can be referred. In the Bethlem tables the total number attributed to this cause simply, is 270 in 2729, or 10.28 per cent. among the women; and 8.3 per cent. among the men. It appears also that these cases are more unsatisfactory than the others, in so far as the chances of recovery are concerned, and less unsatisfactory in the chances of death. Thus, while the per centage of recoveries in both sexes is 51.5, where the cause of the disorder

was of a moral character, and 33.8, where the cause was of a physical character, the per centage was only 14.6 where the only cause that could be detected was hereditary predisposition; and again, while the per centages of deaths in the cases of insanity arising in moral and physical causes are 62.5 and 24.3 respectively, the per centage is only 11.8 where the disorder was simply due to hereditary predisposition.

There is no opportunity in Bethlem of calculating the influence which the hereditary tendency to insanity has upon the liability to relapse, but there is every reason to believe that this influence is very unfavourable. Thus we gather from Dr. Thurnam, that "of the cases in which a hereditary or congenital predisposition existed, as many as 47 per cent. have experienced second attacks; whilst of those in which no such predisposition was ascertained, not more than 32 per cent. have hitherto sustained relapses or second attacks of the disorder." (*Op. cit.* p. 85a.)

Cause not ascertained. The reports which are furnished with many patients are so scanty, and often so entirely uninformative, that a large number must always be entered under this head. In the Bethlem tables the numbers so entered during the ten years under consideration, are 918 in 2729, or 33.2 per cent; which is large, it is true, but not larger in all probability than might be expected,

seeing that persons will rarely be sufficiently interested to carefully notice the monotonous and dispiriting history of the poor.

Moral Causes. It is now very generally allowed that a much more important part in the production of insanity is played by moral than by physical causes. M. Georget (de la Folie, Paris, 1820, p. 80,) says, that at least 95 in every 100 lunatics have become lunatic from moral causes. M. Esquirol also thinks that more cases of madness originate in moral than in physical causes, the proportion being about 4 to 1; and M. Pinel, arguing from an experience of five years, arrives at a somewhat similar conclusion. Thus, (Guislain, de l'Alienation, v. i. p. 149.)

	Arising from	
	Moral Causes.	Physical Causes.
Mania	285	165
Melancholia	148	46
Suicide	31	8
Dementia	26	31
Idiotism	26	31

The experience of Bethlem, as gathered from the tables of the ten years under consideration, shews that the cases originating in moral causes are nearly double those originating in physical causes; the

numbers being 980 to 571 in 2727. It also shows that the chances of recovery are greater, and the chances of death also greater, in cases originating in *moral* causes; thus the mean per centage of recoveries in the cases arising from moral causes, is 51.5, and of deaths, 62.5; whereas the mean per centage of recoveries in cases arising from physical causes is 33.8, and of deaths, 24.3. It is also curious to learn that the chances of recovery are greater, and of death also greater, in the case of men becoming insane from moral causes, the numbers being 55.3, and 74.6; whereas the women have slightly the advantage, though very slightly, where the insanity has been induced by *physical* causes.

Anxiety and Distress, in their multiform aspects, appear to be the grand causes of insanity; and in the tables of Esquirol they form considerably more than one-half of the entire number of the category of moral causes. In the Bethlem table 60.2 per cent. among the men, and 70.9 per cent. among the women, may be classed more or less directly under these heads. It is very doubtful moreover, whether insanity ever arises from causes of an opposite nature, as from excess of joy. Indeed Esquirol has the remark, that the excess of joy which destroys life never takes away the reason; and he sets himself to explain away certain cases which are supposed to support a contrary conclusion. In answer to a

statement of Mead, that fortunes rapidly acquired produce insanity in England—he asks, for instance, whether the persons thus becoming lunatic may not have become so in consequence of laying aside their former habits for idleness and luxury, and so on. He says, moreover, that no case of insanity which could be fairly attributed to excess of joy, has fallen under his own notice, and he mentions two cases in illustration of the mistake. A minister informs his relative of his nomination to an important place, and this relation immediately fell into a state of hypochondriacal melancholy—joy was thought to be the cause of this misfortune, but the real cause proved to be *despair* at having to quit a mistress. A young man gains a prize in a lottery, and a few days afterwards he was seized with insanity; excessive joy was thought to be the cause, but the real cause proved to be the *fear* of losing his treasure. Certainly it is no argument to the contrary, that insanity originates occasionally in “sudden prosperity,” as in the six cases in the Bethlem tables; for here, *ennui* and many other analogous causes may have combined to unhinge a mind accustomed to action, and not trained to enjoy the “*otium cum dignitate*.” At any rate, nothing is known of these cases to contradict the *dictum* of Esquirol.

Uncontrolled Passions and Emotions. Arguing from the statistics of Esquirol, Dr. Prichard considers

that the uncontrolled passions and emotions deserve to rank next to anxiety and distress in causing insanity, but this opinion is scarcely borne out by the Bethlem tables. Jealousy is certainly not an unfrequent cause; thus we find in the ten years under consideration the insanity of 5 men and 10 women referred to it: neither is fright an unfrequent cause, particularly among the women, for 48 cases in 545 among the women, and 4 in 435 among the men, are attributed to fright; but the numbers are not so high as the statement of Dr. Prichard would lead us to expect.

Perverted Religion. The remarks which belong to this head have been anticipated on a former page, (pp. 30, &c.,) and here it only remains for us to notice the number of the cases ascribed to this cause; which are, 37 in 435 among the men, and 11 in 545 among the women. These numbers are high, but we doubt very much whether they would not be even higher, if more was known of the real history of the Bethlem patients.

Physical Causes. These causes have been thought to act more powerfully upon women than upon men, and the Bethlem tables do not contradict this idea. The difference, however, does not appear to be very great, for the per centage among the men is 19.8, and among the women 21.5.

Injuries to the Head. Accidents of this kind, as Dr. Prichard says, are more frequently causes of delirium than insanity; but instances sometimes occur in which insanity is the consequence, delirium being the intermediate link. In the Bethlem tables 17 cases among the men, and 5 among the women, are referred to "concussion."

Diseases of the Nervous System. It is not easy to estimate the importance of these diseases, as causes of insanity; epilepsy is no uncommon cause, but we have no authentic data to determine the degree of frequency. The same remarks apply also to paralysis. Insanity is often referred to insolation, or coup-de-soleil; a condition which acts by exciting inflammation, or a state akin to inflammation, in the encephalon. The heat of the kitchen fire acts in the same manner occasionally upon cooks; coup-de-soleil, indeed, and "coup-de-feu," as it may be called, are frequently mentioned in Esquirol's tables, and they occur not unfrequently in the Bethlem tables, in which 11 cases, all among the men, are referred to coup-de-soleil.

Fever. There is no doubt that the foundation of insanity may frequently be traced to the delirium of typhus; and that the mental malady is often connected with a metastatic inflammation of the brain, and its membranes, connected with rheumatism or

gout. At the same time it is not less true, that active fever and insanity must be regarded as antagonistic conditions rather than otherwise. Galen cites a case of insanity which was terminated by a quartan fever; and Belgarrie states a similar fact. M. Esquirol also tells us that he has known several instances of insanity terminated by fever, either continued or intermittent. (*Op. cit.*, p. 57) Where insanity is connected with fever, it is generally by the suppression of certain cutaneous eruptions, as of small pox, &c.

In the Bethlem tables, the cases referred to "fever," are 15 among 1066 men, and 12 among 1663 women; while the cases referred to "rheumatism," are 8 among the men, and 4 among the women.

Intemperance. Intemperance holds a high rank among the physical causes of insanity, as set forth in the Bethlem tables: the numbers under this head being 90 out of 212 among the men, and 40 out of 359 among the women. This contrasts unfavorably with the experience of M. Esquirol, who says, that among 336 lunatics staying in his own establishment, there were only three whose derangement was ascribable to this cause; but there is every reason to believe that intemperance is far more frequently the cause of insanity in this country at the present time, than was the case in France in the days of Esquirol.

Sensuality. Here again as in the case of intemperance in stimulating drinks, it is very difficult to arrive at any correct conclusion, for want of accurate data. In the Bethlem tables, however, the mental disorder is referred to "onanism," in 12 cases, and to "sensual excess" in 11 cases. M. Esquirol says that one-twentieth of the lunatics in the Salpêtrière had been prostitutes. But it is a question whether grief, and anxiety, and broken hours, may not have had a greater share in dethroning the reason than sensuality.

Intestinal Disorders. Dr. Prichard lays great stress upon intestinal disorder as a frequent cause of insanity. "The state of the intestinal canal," he says, "to which I allude, is itself much more frequently of an inflammatory nature than it has generally been imagined, or at least, than it was formerly supposed to be. In that condition of the canal which gives rise to costiveness, alternating with diarrhoea, and accompanied with indigestion, flatulence, and eructations, anorexia and nausea, transient but often acute pains in the hypochondria, livid and yellow suffusions of the skin, viscid secretions in the mouth, or redness of the fauces and palate with a glazed and dry surface; the whole train of symptoms often depends upon a low degree of chronic inflammation in the mucous membrane of the intestinal canal; and this is perhaps a fre-

quent, if not an ordinary state in those cases in which disorders of the nervous system supervene in complaints of the stomach and bowels." (*Op. cit.*, p. 206.) This disorder may originate in various ways, but generally in errors of diet. Worms can very rarely be traced as a cause of insanity.

Dr. Prichard's opinion, however, is scarcely borne out by the Bethlem tables, inasmuch as the cases referred to "dyspepsia," are comparatively few; 14 among the men, and 5 among the women. It is not at all improbable, however, that intestinal disorder has very often been overlooked by the persons supplying the past history of the patient; indeed, the subsequent history of the patient often renders it certain that this is the case.

Physical Causes peculiar to Females. Arguing from the history of *hysteria*, we are at once prepared to expect that uterine disorder in one form or another, will prove to be a frequent cause of insanity; and such is the fact. When the process of menstruation is insufficient and painful, there are often, as is well known, symptoms which may be said to foreshadow insanity; an irritable and quarrelsome disposition, a marked waywardness, a disposition to despond, and so on; and these symptoms are still more marked where the menses are altogether suppressed: amenorrhœa, there is reason to believe, is frequently one of the causes of insanity; certainly,

the menses are often suppressed in insanity, and their re-appearance is often contemporaneous with recovery.

The importance of uterine disturbance and hysteria, as physical causes of insanity, is well shown in the Bethlem tables; for in 359 cases, 76 are referred to these causes. It is also more than probable that uterine disturbance, or hysteria, has something to do with the cases ascribed to puerperal mania, and over-lactation; and if so then these numbers are greatly increased, and instead of being 76 in 359, they will be 238 in 359, or 63.2 per cent.

The only general conclusion which can be drawn from a consideration of the causes of insanity, is, that they are more or less obviously of an exhausting or depressing character; a conclusion which shews indirectly, what is now generally allowed, that insanity is a disease of depression, exhaustion, and irritation.

CHAPTER X.

TABLE IX.

DURATION OF DISEASE, BEFORE ADMISSION,

From 1846 to 1855 inclusive.

Duration of Attack prior to Admission.	Admitted.			Discharged.								
				Cured.			Uncured.			Died.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Not ascer- tained ..	23	46	69									
Under												
1 month	461	620	1081	316	429	745	104	188	292	33	47	80
2 months	197	337	534	104	202	306	47	87	134	18	20	38
3 "	128	215	343	61	108	169	47	64	111	10	16	26
4 "	79	137	216	37	71	108	22	45	67	6	5	11
5 "	36	75	111	9	31	40	18	34	52	1	1	2
6 "	38	73	111	14	21	35	16	54	70	..	3	3
7 "	32	52	84	11	10	21	8	16	24	2	1	3
8 "	24	44	68	7	12	19	8	23	31	2	2	4
9 "	22	26	48	10	9	19	9	13	22	2	1	3
10 "	13	22	35	3	9	12	6	9	15	1	2	3
11 "	13	16	29	1	3	4	5	4	9	..	..	..
12 "	..	..	..	1	..	1	7	5	12	1	..	1
	1066	1663	2729	574	905	1479	297	542	839	76	98	174

According to the experience of the York Retreat, the probability of recovery in cases brought under care within three months of the first attack, has been found to be as 4 to 1, and excluding cases complicated with serious bodily disorders, as 9 to 1; whilst in cases not admitted until more than twelve months after the attack, the probability of recovery is less than 1 in 4. It is extremely desirable to have a table in which the duration of the disease before admission is set forth, for, without this knowledge, it is impossible to form any correct idea as to the results of treatment. The precise form of the table is of secondary importance, and that which is adopted in Bethlem Hospital answers the purpose sufficiently well. At the same time it would have been better to have adopted, so far as the rules of the Institution would permit, the table in use in the York Retreat, and in many other Asylums, by which comparison is facilitated. This table divides the cases into four classes. The first class consists of cases of the first attack of not more than three months duration; the second class, of cases of the first attack of more than three but not more than twelve months duration; the third class, of cases not of the first attack and of not more than twelve months duration; the fourth class, of cases whether of the first attack or not, and of more than twelve months duration when admitted; the last class would not be applicable to Bethlem Hospital. The following

table, which is from Dr. Thurnam's work, (p. 56.,) exhibits the average proportion of recoveries, and the mean annual mortality, in cases of recent and longer duration, when admitted into the Retreat between 1796 and 1844.

Duration of Disorder when admitted.	Proportion of recoveries per cent. of the Admissions.			Mean annual Mortality per cent. of the Residents.		
	M.	F.	Mean	M.	F.	Mean.
<i>First Class.</i> First attack, and within three months }	79.24	77.19	78.18	8.05	6.76	7.3
<i>Second Class.</i> First attack, above three, within twelve months	46.15	43.75	45.	5.14	4.06	4.37
<i>Third Class.</i> Not first attack, and within twelve months	55.55	65.03	60.95	6.78	5.1	5.82
<i>Fourth Class.</i> First attack, or not first attack, and more than twelve months	14.65	23.38	19.16	5.24	3.98	4.57
Average	43.46	50.26	47.07	5.65	4.35	5.51

The information contained in this paper is very interesting and important. In the first, second, and fourth classes, the chances of recovery are almost directly proportionate to the short duration of the malady before commencing treatment, and this is as we might expect. In the third class, where the patients are not attacked for the first time, and the attack is within twelve months from its commencement, the recoveries are more numerous than

in the preceding, and apparently more favourable class; and how is this? Is it that many of these cases had very recently relapsed, and that the fact of one or more attacks on other cases was of less importance than the delay which had been allowed to elapse before the commencement of the treatment? This is the only conjecture we can offer. In the deaths there is not the same progressive series; the per centage is higher in the first class than in the three other classes. It is also higher in the third class than in the second and fourth; the numbers indeed appear to show that the chances of death are considerably greater in the earlier stages of the malady, for the increased number in the third class can only be accounted for on the supposition that it is swollen, in consequence of the recent cases which find their way into this class with the rest.

In the decennium of Bethlem Hospital, the general lesson is the same, and we are able in some degree to corroborate what has just been said respecting Dr. Thurnam's tables. Thus for some time the per centage of recoveries diminishes progressively as the time before commencing treatment increases; 6.7 under one month, 57.3 under two months, 49.2 under three months, 50. under four months, 36. under five months, 31.5 under six months, 25. under seven months; then the per centage increases for a little, being 27.9 under eight months, 39.5 under nine months, 34.2 under ten months;

afterwards the per centage diminishes again, being 18 under 11, and 13.7 under twelve months. The general conclusion must therefore be, that the chances of recovery diminish considerably and progressively as the time before commencing treatment increases in length, and this, whether the cases be those in which the patients are attacked for the first time or not; but it does not at all appear how we are to account for the three exceptional instances in the table. This is a difficulty which must remain unsolved for the present. There is a difficulty also with the deaths; up to the fifth month, the chances of death progressively diminish, the per centage being 7.4, 7.1, 7.2, 5., 1.8; from the sixth month upwards the per centage progressively increases, the numbers being 2.7, 3.5, 5.8., 6.8., 8.5. We learn therefore that insanity is more likely to be fatal in the earlier stages of the attack. This is evident; but are we to learn in addition to this, that the disease is also fatal in direct proportion to the delay which has taken place before commencing treatment? If we are, then we may understand that the per centage of deaths should rise higher and higher where a delay of six months, or more, has taken place. The tables show that such is the case.

CHAPTER XI.

TABLE X.

NUMBER OF PREVIOUS ATTACKS,

From 1846 to 1855, inclusive.

Admitted.				Discharged.								
				Cured.			Uncured.			Died.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
First attack..	688	1109	1797	327	542	869	205	395	600	55	72	127
Several.....	360	518	878	230	339	569	89	131	220	21	26	47
Not ascertained	18	36	54	17	24	41	3	16	19			
	1066	1663	2729	574	905	1479	297	542	839	76	98	174

The information which may be drawn from this table is very curious. It might be supposed that the per centage of recoveries would be higher, and that of the deaths lower, in cases of a first attack, than in cases of several attacks; but this is not the fact: on the contrary, the per centage of recoveries after a first attack is 48.3, and that after several attacks, 64.8; the per centage of deaths after a first attack, 7, and that after several attacks, 5.3. It would appear therefore that a large number of first attacks terminated unsatisfactorily, and that the

chances of recovery were not inconsiderable in cases that had once recovered.

From this table also, it is possible that we may form some conjecture as to the liability to relapse, for this liability may be said to be represented in some measure by the proportion of those attacked for the first time, with those who have been attacked more than once, that is, 1797 to 878; a proportion which would shew that 48.8 in every hundred will relapse. It is, no doubt, very difficult to arrive at any correct conclusion upon this point, and hence the diversity of opinion that prevails. Esquirol for example considers that about 10 per cent. of the recoveries relapse; Pinel and Desportes fix a higher number, 17 per cent.; Mr. Farr thinks 30 per cent. not too high; and Dr. Thurnam calculates that at the York Retreat, the readmissions were 23 per cent. of the admissions, and 50 per cent of the recoveries.

It is only by following through life a large number of cases after recovery from the first attack, that the real liability to recurrence can be satisfactorily determined; and this is a kind of evidence which is very difficult to obtain.

The only trustworthy evidence which we possess indeed, is that which is furnished by the patients belonging to the York Retreat, and on this peculiar reliance may be placed; because we may assume that all the recurrent cases were brought back to the Retreat; and because the peculiar constitution of

the Society of Friends is such as to make it easy to preserve a correct history of every single patient. This evidence then, may be found in the following table, in which Dr. Thurnam shews the history of 244 persons, who died at or after discharge from the York Retreat, between 1796 and 1840, distinguishing the number of those who died during and after recovery from the first, from those who died during or after recovery from any subsequent attack of mental disorder.

Cases followed through life.	Died insane during the first attack.	Recovered from the first attack.				
		Total.	Recovery permanent, died sane.	Had subsequent attacks.		
				Died sane.	Died insane.	Total.
Males 113	55	58	21	6	31	37
Females 131	58	73	24	14	35	49
Total 244	113	131	45	20	66	86

“With these facts before us,” says Dr. Thurnam, “we may readily ascertain the proportion of second attacks, by dividing the total number of those who experienced such, whether one or more in number, by the number who recovered from the first attack, according to the rule of proportion, thus:—131 : 86 :: 100 : 65.6. The proportion was as high as 65.6 per cent.; in other words, a relapse or recurrent attack occurred in two of every three cases in which there had been recovery from the first attack * * * Of 224 persons attacked with insanity under all

circumstances as to sex, age, and form of disorder, and as to proper care during the early stage of the disorder, 131, or 53 per cent., recovered from the first attack; during which the rest died. And in following the 131 through life, it appears that there was only one-third of these, viz. 45, or 18.4 per cent. of the whole where recovery was permanent. The remainder experienced one or more subsequent attacks, the majority dying in a state of insanity; so that of the whole number rather more than one-fourth only, 65 ($45 + 20$), or 26.6 per. cent. were in a state of mental health at the time of death; in round numbers, then, of ten persons attacked by insanity, five recover, and five die sooner or later during the attack; of the five who recover, not more than two remain well during the rest of their lives, the other three sustain subsequent attacks, during which at least two of them die. But although the picture is thus an unfavorable one, it is very far from justifying the popular prejudice, that insanity is virtually an incurable disease; and the view which it presents is much modified by the long intervals which often occur between the attacks, during which intervals of mental health, (in many cases of from ten to twenty years duration,) an individual has lived in all the enjoyments of social life." (Thurnam, *op. cit.*, p. 122.)

CHAPTER XII.

TABLE XI.

TIME OF ATTACK.

From 1846 to 1855, inclusive.

Admitted.				Discharged.*								
				Cured.			Uncured.			Died.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
January	78	123	201	26	40	66				9	12	21
February....	81	120	201	40	62	102				5	7	12
March	103	139	242	52	73	125				7	6	13
April	90	136	226	37	62	99				5	10	15
May..... ..	99	164	263	38	78	116				9	5	14
June	112	161	273	51	84	135				7	5	12
July	103	148	251	35	67	102				9	12	21
August	90	133	223	43	80	123				4	9	13
September ..	87	137	224	58	93	151				5	5	10
October	86	144	230	65	68	133				4	6	10
November ..	68	140	208	75	98	173				6	9	15
December ..	69	118	187	54	100	154				6	12	18
	1066	1663	2729	574	905	1479			1076	76	98	174

* The Tables hitherto in use afford no means of obtaining information on this subject respecting "Patients Discharged Uncured."

Insanity is greatly influenced by season, and this fact has been known from remote antiquity. It was Esquirol, however, who first gave the fact a definite form; he gave a report of the admissions into the Salpêtrière, from which we learn that these were more numerous during the months of May, June, July, and August; and that the proportion decreases from September to December; and diminishes still more in February and March. The admissions during nine years, (1806—1814) were, (Esquirol, *op. cit.*, p. 32,)

January	162
February	173
March	187
April	196
May	243
June	251
July	265
August	239
September	206
October	188
November. . . .	198
December. . . .	191
Total	<u>2499</u>

M. Esquirol also shews that the recoveries were more numerous in spring and autumn than in the other seasons of the year.

The mortality also in the same place, and during

the same period, was found to be greater in Autumn and winter, than in spring and summer; and thus spring was found to be doubly favorable, seeing that there were more recoveries and fewer deaths at this season: 790 deaths occurred at the Salpêtrière between 1804 and 1814 and these were distributed in the following manner,

March, April, May	175
June, July, August	174
September, October, November . .	234
December, January, February . .	207

The different forms of insanity were all affected in the same manner; and the common impression was found to be incorrect, that more melancholy patients were admitted during the cold and dreary seasons of the year than at other times.

The experience of India is also to the same effect: thus we learn from Dr. Wise that the greatest number of patients were brought into the large Dacca Asylum between the months of April and November, that is in the hottest period of the year; that the largest number of recoveries occur during the cold months, and that the largest number of deaths are during the most unhealthy season of the year, which is from July to January. When the hot weather occurs suddenly, the number of admissions is increased, and cold has always a contrary effect. (Psychol. Journal, July 1853, p. 359.)

The influence of the season, moreover, is very evidently written upon the course of insanity; and as a rule, the condition of the patient in summer and winter is very different; in summer and spring the disorder is more apt to be acute than in autumn and winter. There is moreover a strong disposition to relapse at the season corresponding to the first attack. These and some other remarks, are made by Esquirol, but he does not give us the evidence upon which they are founded.

The experience of Bethlem Hospital during the last ten years is in harmony with that of the Salpêtrière, as reported by Esquirol, in the matter of admissions; but it differs in some degree in the matter of recoveries and deaths. The admissions ~~were~~ more numerous in the six summer than in the six winter months, and especially in the months of May, June, and July. The recoveries are almost equal in the six winter and the six summer months, the highest numbers being in October, November, and December. The deaths, also, are almost equal in the six winter and six summer months, (89 and 85), the slight preponderance being in the winter months. The highest numbers are in January and July; the lowest in September and October; but the differences are not such as to lead us to conclude that season has so marked an influence upon the deaths as upon the admissions and recoveries.

The subject of periodicity is connected with the

influence of seasons. The changes connected with season are, indeed, periodical. They respond to the movements of the sun in his annual orbit ; and hence we are naturally led to ask whether there are changes in insanity responding to the diurnal rotation of the earth, and to the movement of the moon. The term *lunacy* would certainly connect insanity in a very intimate manner with the moon ; and in ancient time lunar influence was thought to be important ; but, at present, the prevailing opinion is that it does not exist. M. Esquirol says, "I have been unable to verify this influence, though I have been at some pains to assure myself of it. It is true that the insane are more agitated at the full of the moon, as they are also at early dawn. But is it not the light of the moon that excites them, as that of the day, in the morning ?" (p. 32.) Much has been written on both sides of the subject, and much more will have to be written before we can arrive at any definite conclusion. Dr. Allen, of the York Asylum, for example, observed the times of death in 30 patients, and found that the deaths were more numerous at the new and full moon than at the quadratures ; but Dr. Thurnam, on investigating the subject in the York Retreat, arrived at an opposite conclusion. This was also Dr. Thurnam's conclusion on examining the deaths in the State Lunatic Asylum at Worcester, in the United States of America. The question, indeed,

may be considered as in abeyance; and hence it is very desirable to obtain further evidence, by constructing tables which shall represent the daily, and perhaps hourly, changes in the symptoms of the insane. Much trouble would be involved in such construction; but the result, there is every reason to believe, would be more than compensatory, for many great and practical truths are dependent upon the solution of the problem of periodicity.

CHAPTER XIII.

TABLE XII.

STATE OF THE GENERAL HEALTH,

From 1846 to 1855, inclusive.

Admitted.*				Discharged.								
				Cured.			Uncured.			Died.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Good	..	..	..	469	681	1150	246	421	667	38	57	95
Bad	..	..	..	105	224	329	51	121	172	38	41	79
				574	905	1479	297	542	839	76	98	174

The state of the general health in the insane varies greatly; but it is doubtful whether it can be ever spoken of as good. Almost invariably there are signs of dyspepsia; and these symptoms are often very marked, indeed so common and considerable are they, that Pinel was disposed to refer to them as the primary trouble in insanity. Some attacks of mania are accompanied by more or less fever, and by symptoms indicative of an

* The Tables hitherto in use afford no means of obtaining information on this subject, respecting "Patients Admitted."

inflammatory condition of the brain; but, as a rule, the condition of the brain is the very opposite to feverishness and inflammation. In the depressed forms of insanity the circulation is very languid and feeble; and the hands and feet, as well as the skin generally, are remarkably cold and clammy. Often, moreover, there is suppression of some usual discharge.

A large proportion of the insane are obviously in *bad* bodily health. In the Bethlem table the proportion is 30.8 per cent. on admission; but this we believe to be no fair representation of the real case, for persons were classified as being in good health, whose health was not indisputably bad. It is evidently of considerable importance, however, to have correct information upon this point, for the condition of the health has much to do with the issue of the case. The chances of recovery, as one might expect, are less where the condition of the health is bad, though not remarkably so, the proportion being 57.7 to 60 per cent.; but the chances of death are much greater, the per centage of deaths being only 4.7 where the health was good, and 13.6 where it was bad.

CHAPTER XIV.

FORM OF THE INSANITY.

The Tables of Bethlem Hospital do not shew the different forms of the disorders ; but there are three tables, 12, 13, and 14, from which certain indirect inferences may be drawn, though none of any real value. The classification of insanity is unquestionably a matter of great difficulty ; and often all attempts at classification must be thwarted by the protean manner in which the several cases change and interblend with each other ; but any attempt is better than none. It is possible, indeed, as a rule, to arrange all the cases which are admitted under the heads of *mania*, *melancholia*, or *dementia*, all which states are sufficiently distinct to be understood ; and we cannot but think that it would have been better to have followed this rough arrangement, as a provisional measure, rather than no classification at all. At any rate we think that some such table should be formed at once, for future use, for it is scarcely possible to arrive at any correct conception of the varieties of disorder at

present admitted, and of their results, from the tables at present in use, even if they were complete.

As it is, indeed, we are only able to form a few detached deductions from the Tables of Bethlem Hospital on the subject now under consideration. And, first, with respect to the behaviour.

TABLE XIII.

BEHAVIOUR.

From 1846 to 1855, inclusive.

	Admitted.			Discharged.								
				Cured.			Uncured.			Died.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Violent or } Dangerous }	586	854	1440	300	411	711	144	286	430	35	52	87
Restless	..	..	..	73	200	273	39	96	135	14	24	38
Mischievous	..	..	..	54	61	115	30	38	68	1	3	4
Noisy and } Excited }	..	..	..	25	56	81	19	28	47	9	7	16
Inert	..	..	..	46	57	103	24	28	52	10	8	18
Tranquil ..	..	..	..	70	106	176	37	64	101	4	3	7
Obstinate ..	..	..	..	2	9	11	1	1	2	2	..	2
Taciturn ..	..	..	..	3	5	8	..	..	..	..	..	..
No Indica- tion of being vio- lent or excited.. }	480	809	1289	1	..	1	3	1	4	1	1	2
	1066	1663	2729	574	905	1479	297	542	839	76	98	174

This table is not complete, except in the part which records the number of those reported to be violent and dangerous: of which patients it appears that 49.3 per cent. recovered, and 6.7 per cent. died. We may also learn that the proportion of violent and dangerous patients to those who were not violent or excited, was 1440 to 1289.

TABLE XIV.

STATE OF THE IDEAS,

From 1846 to 1855, inclusive.

Admitted.*				Discharged.								
				Cured.			Uncured.			Died.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Depressed ..	..	..	..	230	427	657	125	256	381	35	56	91
Exalted	..	..	..	123	120	243	62	81	143	14	5	19
Incoherent ..	..	..	..	99	217	316	52	104	156	16	30	46
Confused....	..	..	..	109	112	221	58	99	157	11	7	18
Not remark- able }	..	..	..	13	29	42	..	2	2	..	..	..
				574	905	1479	297	542	839	76	98	174

The above table, which gives the state of the ideas, is also incomplete, and we can form no deduction from it, for want of the numbers admitted.

* The Tables hitherto in use afford no means of obtaining information on this subject respecting "Patients Admitted."

TABLE XV.

SUICIDAL TENDENCIES,

From 1846 to 1855, inclusive.

Admitted.				Discharged.*								
				Cured.			Uncured.			Died.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Have meditated or attempted Suicide	335	629	964									
Intentions not manifested, or unknown	731	1034	1765									
	1066	1663	2729									

This table enables us to form a conjecture as to the number of melancholic patients, for it gives the number of those who have attempted or meditated suicide, just as the number of those who were violent and dangerous enable us to form a conjecture as to the numbers of maniacal patients. This is, of course, only a conjectural mode of considering the matter; but such as it is, it shews that the desponding patients are less numerous than the violent or excited, in the proportion of 964 to 1440.

Be this as it may, however, this table is of great value in supplying information on a point where

* The Tables hitherto in use afford no means of obtaining information on this subject respecting "Patients Discharged."

information is much wanted, namely:—as to the comparative frequency of a suicidal disposition in the insane. In Esquirol's time, out of 1898 women admitted, during six years, into the Salpêtrière, 198, or a little more than one-tenth had made attempts to commit suicide. Dr. Thurnam calculates that about one-seventh of the whole number admitted into the York Retreat had exhibited suicidal tendencies. These proportions, however, fall far below the numbers in the preceding table, which show, that 335 against 731, or 45.8 per cent. among the 1066 men, and 629 against 1034, or 60.8 per cent. among the 1663 women, have meditated or attempted suicide.

It is not easy to find a reason for the magnitude of these numbers. At first it would seem to countenance the idea, long since exploded by Dr. Burrows, that the inhabitants of Great Britain are particularly disposed to suicide. But, assuredly, there is no evidence to shew that suicide is more frequent in this country than elsewhere. On the contrary, the statistics of Dr. Caspar, in 1825, (and there is no reason to suppose that the figures are different in the present day,) go to shew the number of suicides to be 1 in every 10 inhabitants at Copenhagen, 1 in 41 at Paris, 1 in 50 at Hamburgh, 1 in 80 at Berlin, and 1 in 250 in *London*. (Esquirol, *op. cit.*, p. 316.) The number of suicides among men and women varies in different places. Thus at Berlin,

5 men commit suicide to 1 woman ; and in Paris 3 men to 1 woman. (Esquirol, p. 316.) In our own tables, on the contrary, we find the numbers altered : 60.8 per cent. among the women, and 45.8 per cent. among the men, having meditated or attempted suicide. Perhaps, however, it would be different if these suicidal patients in Bethlem had carried their design into effect ; and that then the preponderance in numbers might have been on the side of the men, they having the firmer purpose of the two. It is an established fact, moreover, that suicides are more numerous in the spring and summer than in the autumn and winter.

CHAPTER XV.

THE TREATMENT OF INSANITY.

The treatment of insanity varies according as the case to be treated is acute or chronic; and we will speak of the treatment therefore according to this division. We think it better to do this, than to consider the subject according to the means used; for in practice it is hardly possible to draw the line between the means which are called *therapeutical* and those which are called *moral*.

I. In acute cases, properly directed therapeutical means are of the greatest importance, and this fortunately is no longer a contested point. The days are past when the care of the physician is ~~is~~ thought to be less important than the care of the matron or steward, and when patients were shut up for years without any proper medical care. This is no exaggerated statement. In proof we have the evidence of Dr. Weir, who visited the lunatic naval officers and seamen confined in Haslar House, in 1814—15, and his evidence is fully borne out by other observers, that "some of them (the patients) have been there for fourteen years, to whom a single grain of medicine has never been administered for

the cure of their insanity.” (Report of the Commissioners of Lunacy, 1847, p. 851.)

The primary question for consideration is “Do the symptoms require the use of antiphlogistic treatment?” At one time no other measures were thought of. In this very hospital, forty years since, “the system of treatment consisted of bleeding, purging, and vomiting, in the spring months. A certain day was appointed in which the patients were bled, another in which they were purged, another in which they were vomited. They were bled again in May and June, the precise time depending upon the weather.” “All this had been the practice for many years, and no better practice, it was stated, was then known.” (Rep. of Comm. of Lunacy, 1847, p. 85.)

Many very different opinions have been entertained with respect to the propriety of antiphlogistic measures; the difference depending more or less upon the theories of disease prevailing at the time, and upon the habits of the people themselves. There is no doubt, that formerly it was too much the custom to refer all diseases to inflammation, and to suppose that inflammation invariably required lowering measures. Inflammation of the brain was supposed to be the constant cause of insanity, and great names may be cited in favor of these opinions, and of the treatment founded upon them. At the same time it is not less true that men of the greatest name,

since Pinel and Esquirol, have been disposed to take a different view of the importance of inflammation, and to ascribe the phenomena of insanity to an irritated, rather than to an inflamed condition of the brain : and these are the prevailing opinions at the present day.

Inflammation of the brain undoubtedly plays a very important part, either directly or indirectly, in the phenomena of insanity. But what is inflammation? It may be either sthenic or asthenic, and which is it in the case under consideration? If we argue from the causes of insanity, all of which are more or less exhausting or depressing, we should certainly argue that any inflammatory condition in insanity was asthenic rather than sthenic in its nature ; and this view is not contradicted by the results of a treatment which now for the most part is the reverse of antiphlogistic. Again, it is very possible that the character of the inflammation may have greatly changed since the time when antiphlogistic measures were more prevalent than they are at present, as the habits of the people are much more temperate and abstemious than they were in those times.

Be all this as it may, there can be no doubt that experience has decided against the expediency of general bleeding in insanity. Pinel and Esquirol both agree in discountenancing altogether the use of the lancet ; and, arguing from their own experi-

ence, they say, that bleeding not only does no good, but that it tends to accelerate the advent of dementia, frequently the sad issue of insanity. Now if there could be any cases which would require general bleeding, they would certainly be the cases admitted into Bethlem Hospital, for these are recent; but we have no hesitation in saying, that we have seen no more reason for bleeding in Bethlem than we saw in the more chronic cases admitted into the Colney Hatch Asylum.

These remarks do not apply to local bleeding, as leeching or cupping the head; but even these moderate measures are not often necessary. Shaving the head, and the continued application of cold to the scalp, either by ice or in some other way, as a general rule, will most frequently answer the purposes required.

It is, no doubt, difficult to arrive at a positive conclusion respecting the necessity of abstracting blood in cases of mania; but among other facts bearing upon the subject, there is one, at least, which ought to be borne in mind; and this is the experience of the Gloucester Asylum, when the Institution was under the superintendence of Dr. Hitch and Dr. Shute. At that time we learn, from Dr. Prichard, (*op. cit.*, p. 261) that the use of the lancet, leeches, cupping glasses, blisters, drastic purgatives, and the practice of shaving the head, were totally proscribed; and yet the experience of

the Asylum afforded "a very large proportion of recoveries, and *no cases* of sudden apoplexy or hemiplegia." This, we consider, a very important fact.

But if blood is not to be extracted, how are we to combat those symptoms of inflammation, often very violent, with which we have to deal? Are we to apply cold to the head, and to give purgatives, or nauseants, or opium; or are we to leave the disease to its natural course, so far as pharmaceutical measures are concerned, and merely prevent the patient from doing harm to himself or others.

It is of great importance to cut the hair short, or to shave the head, in the first instance; and afterwards to keep the part cool by the application of ice, or in some other way. The removal of the hair will often, of itself, produce a marked tranquillizing effect. The application of ice is preferable, in our opinion, to the cold water douche as a means of cooling the head; for the ice being inclosed in a bladder or oil skin bag, the rest of the body is not chilled by the overflow of cold water. Often, indeed, the temperature of the body is below par; and it is desirable to employ means to raise its temperature, as by the warm bath, at the same time that ice is applied to the head; and in these cases the application of cold, by the douche, is altogether to be reprobated. It is certain, also, that the application of the douche, or shower-bath,

is very liable to be followed by reaction and renewed excitement.

Purgatives, no doubt, are powerful means of depressing the system ; and they have been favorite remedies in the treatment of insanity from remote antiquity. Hellebore was once, indeed, the remedy, "*par excellence*," for madness. There is no doubt indeed that purgatives, used with discretion, are of great value, and that they answer nearly all the purposes for which blood-letting was resorted to, without impoverishing the system to the same extent ; but it is not less true, that they often act injuriously when, as frequently happens, the mucous membrane of the alimentary canal is in a diseased state. Esquirol was the first to direct attention to the caution which is necessary in their use.

Digitalis was once employed, to a very considerable extent, as a means of reducing the excitement of insanity, but antimony is now found to answer more effectually the same purpose. Dr. Prichard says that one or two grains of tartarized antimony every three hours, with the addition of a small quantity of opium to prevent its speedy rejection by the stomach, will often induce a general relaxation, free perspiration, a soft pulse, and a cool skin, purgations being associated, if there is constipation. This practice is now both general and effectual. In Bethlem Hospital we commence with much smaller doses of the antimony, generally one half or a third

of a grain, and do not add the opium unless the mixture causes purging.

Opium is a very important remedy, and one which is continually required, though many are still prevented from using it freely, from fear of inflammation. Often, indeed, it is almost the only remedy (as when depletory measures have failed) to calm the excitement of the patient. It is interesting to notice, as tending to shew the present disposition to regard insanity as depending upon irritation rather than upon inflammation, that opium *may* be given in very large doses, and with undeniable benefit. This has been proved by Dr. Oliver in his practice in the Salop Asylum. (Half-Yearly Abstract of Med. Sciences XVIII. p. 276.)

Hyoscyamus may be indicated in certain idiosyncracies; but in the majority of instances there is no doubt that morphia, or opium, alone, or in combination with antimony, on the one hand, or with various stimulants, remedial or dietetic, will answer every requirement.

But are we to resort to mechanical restraint or to various mechanical contrivances, such as the muff, straight waistcoat, or gloves, &c., in order to quiet the excitement of the insane? All are willing to abandon the more severe agents for mechanical restriction, but all are not agreed upon the question of restraint in a modified form. This appears very clearly in the answers to the circulars which were

addressed by the Commissioners of Lunacy to the Superintendents and Medical Proprietors of the principal Lunatic Asylums, public and private, in England and Wales, requesting information upon the necessity or non-necessity of seclusion and instrumental restraint in the treatment of insanity. Among the answers to these circulars there were seven which advocated the qualified use of mechanical restraint; twenty-eight which were for its total abolition; thirteen in which the writers did not use restraint, but who gave no opinion on the abstract question; four which advocated the use of restraint in surgical cases; and two which gave a qualified opinion on the subject of non-restraint. For my own part, I think that temporary seclusion in the bed-room, or if the patient be dangerous, in the padded-room, will *usually* be found sufficient; if not, the administration of sedatives or depressants in the manner I have described, will generally be found effectual. I know it may be asked, whether more harm may not result from the medicine than from the restraint; and whether, considering the general want of power in the insane, we can afford to sacrifice any to medicine: but this is avoiding the whole question, for it is assumed that the medicines are given with ordinary care, and in conformity with established rules. If the medicines are given, it is presumed they would be given whether restraint is used or not.

The past experience of Bethlem Hospital, in the matter of restraint, is a subject of considerable interest.

TABLE XVI.
NUMBER UNDER RESTRAINT.

Year.	Number of Patients.	Weekly average of Patients under restraint.
1846	395	$1\frac{1}{3}$ or .06 per cent.
1847	392	$\frac{1}{4}$ or .05 per cent.
1848	399	$\frac{73}{368}$ or .05 per cent.
1849	406	$\frac{63}{368}$ or .04 per cent.
1850	391	$\frac{37}{365}$ or .025 per cent.

No restraint has been employed since 1850.

Since 1850 restraint has been entirely changed for seclusion; and before this time the use of it had been gradually diminished. It only appears in the five first years contained in the table.

II. In chronic cases the use of medicines is less imperative than in acute cases, though, occasionally very necessary. It is important, indeed, to correct the several physical errors connected with insanity, and restore the general health of the body, for it often happens that the mind regains its standard when this is done.

One great feature in the treatment of insanity is to sever the patient from the associations of home ; and, therefore, it is desirable to prevent the too early visits of relatives and acquaintances. This is an important rule, and all authorities are agreed upon it. M. Pinel, in his *Treatise on Insanity*, has pronounced seclusion to be the foundation of all rational treatment of mental diseases. Dr. Heberden says, "that if insane persons are taken away from their friends and servants at the beginning of the attack, and placed under the care of strangers, in a short time they recover without any remedies." (*De Insania comm.*, cap. 53.) Dr. Burrows says, "I have known the sight of the handwriting, so also of a garment, ornament, book, or any trifle of a beloved, or respected, or detested object, destroy in a moment the most marked proofs of amendment ; and the same effect will, sometimes, be produced from merely mentioning persons or things with which there was a morbid association of ideas." (*Dr. Burrows on Insanity*, p. 700.) Again, "Willis, who acquired so great celebrity by having assisted towards the happy termination of the first attack of madness experienced by George III., unfurnished the King's apartment, dismissed his courtiers and domestics, and had him attended by strange servants. Willis asserts, moreover, that insane persons from the Continent, who came to seek his advice, recovered

more frequently than his countrymen." (Prichard, *op. cit.*, p. 281.) There are, of course, exceptions to this general rule, and these can only be detected by the tact of the physician in charge; however there is no question but that removal from home and its associations is a most important element in the treatment of the insane; and that the unnecessary and injudicious visits of friends will go very far to prevent the successful termination of many cases.

Another important point is to associate the insane in a discriminating manner. As Dr. Prichard pointed out, it is very desirable to let melancholy patients have among them a number of those who are eccentric, for these latter may help to dispel the gloom which overshadows their minds.

Active exercise is a great incentive to mental restoration. At a certain period of convalescence, long walks beyond the precincts of the Asylum, under proper surveillance, are of the highest utility, as has been abundantly proved in the experience of Bethlem and elsewhere. Amusements, such as cricket, bowls, or skittles, are also of great use; and so are all the amusements which can be commanded within-doors. But occupation is even of greater importance than amusement; indeed systematic employment, in various forms, is now a duly recognized essential to successful treatment in all properly conducted Asylums. Pinel recommended that an asylum should have a farm connected with

it in which patients could labour; and great credit is due to the late Sir William Ellis for having called attention to this principle, in this country, by giving appropriate work to the patients successively under his care in Wakefield and Hanwell. Esquirol mentions a fact from Bourgoise's Travels in Spain which speaks volumes on this subject, and requires no comment:—it is, “that the rich in the Hospital for the Insane at Saragossa are not restored in the same ratio as the poor, *because* they are not obliged to labour.”

TABLE XVIII.
NUMBERS ATTENDING CHAPEL,
From 1847 to 1855 inclusive.

Year.	Number of Patients.	In attendance on Chapel.	Per Centage.
1847	392	147	37.5
1848	399	138	34.58
1849	406	138	33.9
1850	391	147	37.59
1851	388	133	34.28
1852	374	132	35.56
1853	343	141	41.1
1854	311	159	51.1
1855	334	170	51.5

Attendance on Divine Service is not recorded for the year 1846, during
which time the Chapel was under repair.

The beneficial influence of proper religious instruction is, in all probability, very great; and certainly the insane are much more capable of receiving such instruction than was once supposed to be the case.

The experience of all concerned in the treatment of insanity agrees in this point; and, probably, the opinion will yet be more distinctly recognized. The table which gives the numbers attending Chapel in Bethlem Hospital, exhibits a considerable annual increase during the last ten years.

TABLE XIX.
DIETARY TABLE.

BREAKFAST.

Every Day .. Males.... Tea, with 7 oz. of Bread and Butter.
Females.. ,, 6 ditto.

DINNER.

<i>Sunday</i>	Males .	{ 6 oz. Boiled Beef free from bone }	4oz. Bread, $\frac{3}{4}$ lb. Vegetables, 1 pt. Beer
	Females.. 5	,, ,, 4	,, $\frac{1}{2}$,, $\frac{1}{2}$,,
<i>Monday</i>	Males.... 6	,, Roast Mutton, 4	,, $\frac{3}{4}$,, 1 ,,
	Females.. 5	,, ,, 4	,, $\frac{1}{2}$,, $\frac{1}{2}$,,
<i>Tuesday</i>	Males.... 6	,, Boiled Mutton, 4	,, $\frac{3}{4}$,, 1 ,,
	Females.. 5	,, ,, 4	,, $\frac{1}{2}$,, $\frac{1}{2}$,,
<i>Wednesday</i> ..	Males.... 6	,, Roast Beef, 4	,, $\frac{3}{4}$,, 1 ,,
	Females.. 5	,, ,, 4	,, $\frac{1}{2}$,, $\frac{1}{2}$,,
<i>Thursday</i>	Same as Monday.		
<i>Friday</i>	Same as Tuesday.		
<i>Saturday</i>	Males.... 16 oz.	Meat Pie. 4 oz. Bread, 1 oz. Cheese, 1 pt. Beer	
	Females.. 14	,, ,, 4 ,, $\frac{1}{2}$,,	

SUPPER.

*Sunday, Monday,
Tuesday, Thursday,
and Friday* } Males.... Same as Breakfast.

Wednesday & Saturday Males.... 7 oz. Bread, 2 oz. Cheese, 1 pt. Beer.

Every day Females.. Same as breakfast.

Patients in employment in the Grounds, Workshop, or Laundry, to be allowed 4 oz. of Bread, 1 oz. of Cheese, or $\frac{1}{2}$ oz. of Butter, and $\frac{1}{2}$ a pint of Beer for Luncheon, and $\frac{1}{2}$ a pint of Beer in the afternoon.

Every patient to be allowed $1\frac{3}{4}$ oz. of Tea, 8 oz. of Sugar, 8 oz. of Butter, and $1\frac{1}{2}$ pints Milk, weekly.

On Christmas Day, the Dinner to be Roast Beef and Plum Pudding.

On New Year's Day, a Mince Pie to be added to the usual fare.

On Good Friday, a Bun.

On Easter and Whit Monday, 6 oz. of Roast Veal to be allowed instead of the usual meat for the day.

The Dinners to be further varied by the occasional substitution of Pork and Bacon, when Peas and Beans are in season ; and also by the occasional substitution of Fish, and Fruit Pies, when Fish and Fruit are plentiful and good.

The Sick to be dieted at the discretion of the Resident Physician.

The Attendants to have at all times the means of obtaining *Gruel* for such Patients as may require it.

The above to be considered maximum allowances, and all quantities unconsumed are to be taken in diminution of the next supply from the Stores of the Hospital.

Experience has shewn the necessity of providing a liberal diet for the insane. Dr. Thurnam has very carefully investigated this point ; and with a desire to arrive at some general conclusion as to the influence of diet upon recovery or death, he examined the statistics of several County Lunatic Asylums in England. He refers only to the past ; and it must be understood that correction has long been made in the majority of cases where correction was then needed ; and the result of the increased liberality fully confirms the accuracy of Dr. Thurnam's conclusions. His table is the following :—
(Thurnam, *op. cit.*, p. 96.)

	Diet.					Results.	
	Solids.			Liquids.		Prop. of Reco- veries percent. of the Admis- sions.	Mean Annual Mortal- ity per cent. Resi- dent.
	Cooked Meat and Cheese.	Bread, Pud- ding, Flour, &c.	Total Solids, except Vege- tables.	Por- ridge, Milk, Soup, Broth, &c.	Beer.		
	ounces.	ounces.	ounces.	pints.	pints.		
Nottingham } 1812-40..	46	202	248	15	14	43.09	7.34
Stafford, } 1818-40..	46	192	238	7	14	43.08	13.53
Gloucester, } 1823-32..	46	144	190	9	14	44.94	7.19
Average of the three }	46	179	225	10	14	43.7	9.35
Lancaster, } 1816-40..	24 $\frac{3}{4}$	113 $\frac{1}{2}$	138 $\frac{1}{2}$	7	3 $\frac{1}{2}$	40.17	18.01
York (West Riding), } 1818-41..	18	116	134	25	..	44.18	16.16
Suffolk, } 1829-41..	16 $\frac{1}{2}$	152	168 $\frac{1}{2}$	12	5 $\frac{1}{2}$	40.53	12.32
Middlesex, } 1831-39..	18	122	140	18	3 $\frac{1}{2}$	22.12	11.69
Average of the four .. }	19 $\frac{1}{4}$	125 $\frac{3}{4}$	145	15 $\frac{1}{2}$	4 $\frac{1}{8}$	36.75	14.54
Middlesex, } 1839-43..	35 $\frac{1}{2}$	126	161 $\frac{1}{2}$	9	7	28.75	8.56

These seven Asylums, Dr. Thurnam proceeds to say, (*op. cit.*, p. 95,) may be fairly divided into two groups: in one of which the diet is, or *was* at the time to which the table refers, considerably above, and in the other considerably below, the average diet of the county asylums as a class. In

the first group, as regards solid food, the diet was 50 per cent. better than that in the second. The difference in the relative amount of solid animal food, considered separately, was still greater, and amounted to 130 per cent.; the weekly allowance of meat and cheese being, on an average, 46 ounces in the first, and only $19\frac{1}{2}$ ounces in the second group. In the first group, also, a larger quantity of beer, (2 pints daily,) was allowed than in the second group, (not more than half-a-pint in two cases, and three-quarters of a pint in one.)

“That in institutions in every way of the same character,” says Dr. Thurnam, (p. 96,) “there should be so large a difference in the quantity and description of the food is, of itself, sufficiently surprising, and would, without any reference to results, appear to call for enquiry and equalization upon some ascertained principles, as regards the requirement of the insane in this respect. But should it be found, as from the preceding table appears highly probable, that the diet of the insane does, in truth, exert a material influence upon the results of treatment, and upon the proportion of recoveries and mortality, the necessity for some such enquiry into, and equalization of the diet in different Asylums and Hospitals for the insane becomes still more obvious. In the three Asylums with the more liberal diet we find that the recoveries averaged 43.7 per cent., and that the mean mortality was

9.35 per cent.; whilst in the four Institutions in which the diet was less liberal and nutritious, the recoveries only averaged 36.75 per cent., and the mean mortality was 14.54 per cent. It must not, however, be forgotten that there may be, and no doubt are, other circumstances in the condition of these Asylums, which materially influence the results of treatment, and which will thus explain many of the discrepancies in the results which the table exhibits; but, though this is the case, I cannot but conclude that the amount of the difference which does exist is, in a great measure, dependent upon the difference in the diet."

Colliquative diarrhœa and dysentery appear to have prevailed to a very considerable extent where the diet was insufficient and unnutritious; and these affections were very prevalent, and the cause of frequent deaths in many of our pauper Asylums formerly, but this has not been the case since a better diet was adopted. It is also a very interesting fact that these affections made their appearance in the Bicêtre, in 1795, after a great reduction in the diet had been made by order of the revolutionary Government.

The Diet Table of the Bethlem Hospital has always been liberal and satisfactory; and we are not able to confirm what has just been stated by our own experience.

It has been well proved that kindness and firm-

ness on the part of the physician in charge, and the attendants under his orders, are essential to the success of any treatment. Experience, indeed, has abundantly shewn that the lunatic is easily managed in this way; and that he is not to be controlled by coercion and fear. When chains were abolished at the Bicêtre, by Pinel, there was a remarkable diminution in the number of furious lunatics, and of the accidents from which they suffered. How far it is desirable to acquiesce in the delusions of a lunatic, when conversing with him, is difficult to say; certainly the delusions will not be dispelled by contradiction. The attention of the patient must be diverted in every possible way from his delusion; and tact, which cannot be described, will always recognize the necessity of this, as well as the best mode of carrying it out.

CHAPTER XVI.

CAUSES OF DEATH.

The deaths which have occurred in Bethlem Hospital, during the last ten years, are from the following causes.

TABLE XX.

CAUSES OF DEATH.

From 1846 to 1855 inclusive.

Cause of Death.	M.	F.	T.
Acute Mania.....	3	5	8
Exhaustion	18	26	44
Fever.....	1	..	1
Asthma	1	..	1
Epilepsy	2	1	3
Disease of the Heart	..	3	3
Phthisis	7	18	25
Apoplexy	8	5	13
General Paralysis.....	12	8	20
Pleurisy.....	..	5	5
Dysentery.....	3	..	3
Erysipelas	2	4	6
Dropsy	1	..	1
Diarrhœa	1	5	6
Bronchitis.....	1	1	2
Pneumonia and Disease of the Lungs	10	4	14
Inflammation of the Brain and Membranes ..	5	10	15
Strangulation or Suicide.....	1	3	4
	76	98	174

In this table there is much difference as compared with the corresponding table at the Retreat.

"*Exhaustion*," for example, is the cause of one-fourth of the whole number of deaths; and *Paralysis* is very frequently the fatal antecedent. It is desirable, however, to represent these points in detail; and in order to do so we will copy Dr. Thurnam's table, merely substituting the per centage of deaths in Bethlem Hospital for that in the Retreat. We will also follow the same arrangement, and the same numbers, for the general population; this course appearing to be preferable to that which has been adopted for some time in the reports of the Registrar-General. We merely add, that in this table we place erysipelas with fever, under the head of epidemic, endemic, and contagious diseases; we also place "exhaustion"—such a state resulting from long-continued maniacal excitement—and inflammation of the brain and its membranes, under the vague head of diseases of the brain.

On comparing the causes of death among the insane, with the causes of death among the population at large, a very remarkable difference is found to exist; and this is well seen in a table in which Dr. Thurnam has exhibited the per centage of deaths from different forms of disease in the general population of England and Wales, and in the York Retreat (*op. cit.*, p. 108): the per centage in the latter being calculated from 139 deaths occurring during a period of 42 years. The fatal diseases are arranged upon the same plan as that adopted by Mr.

Farr in 1838, under the sanction of the Registrar-General in his Annual Report, 1840, appendix p. 58.

TABLE shewing out of One Hundred Deaths, the number from each of twelve classes, and eight distinct forms of Disease, in England and Wales, and in the Retreat at York.

Causes of Death.	In England and Wales, 1838.	In the Retreat, at York. 1796-1840.
1. Epidemic, Endemic, and Contagious Diseases	20.538	8.633
2. Diseases of the Nervous System	15.016	19.424
Including Convulsions (almost entirely of Infants)	7.879	..
" Apoplexy	1.703	11.510
" Paralysis	1.505	1.438
" Epilepsy	.330	4.316
" Diseases of the Brain	.425	2.158
3. Diseases of the Respiratory Organs	27.484	24.460
Including Inflammation of the Lungs..	5.445	4.346
" Consumption	17.613	14.388
4. Diseases of the Heart, &c.	1.075	6.402
5. " Digestive Organs	5.387	14.388
6. " Kidneys, &c.	.493	.719
7. " Uterus, &c.	1,007	.719
8. " Bones, &c.	.635	..
9. " Skin, &c.	.126	..
10. Diseases of uncertain or variable seat...	13.389	13.669
11. Old Age	10.781	7.913
12. Deaths by violence	3.617	3.597
Including Suicide	.320	3 597

In this table the difference in the two columns is very remarkable. The per centage of deaths from epidemic, endemic, and contagious diseases, is 20,538 in the first column, and 8,633 in the second; but this is an apparent, rather than a real, difference, for the per centage in the first column is swelled to the extent of the difference by deaths among infants and youths; as such persons did not find their way into the Retreat. The per cen-

tage of deaths from diseases of the nervous system is more nearly the same in the two columns: that in the first being 15,016, and that in the second 19,424; but here, again, is a cause of error, for in order to institute a fair comparison between the two columns we must deduct from the first the deaths from convulsions—for these, occurring principally in infants, have no perceptible place in the deaths at the Retreat. The per centage of deaths from diseases of the nervous system, therefore, in the general population, and at the Retreat, are not 15,016 to 19,424, but 7,137 (15,016—7,879) to 19,424, a difference which gives a great preponderance to the deaths, from this cause, at the Retreat. This preponderance, moreover, appears all the more marked when the comparison is carried into the distinct forms of the diseases of the nervous system: thus, in the general population, the deaths from apoplexy are 1.703 per cent., from paralysis 1.505, from epilepsy 0.330, from disease of the brain 0.425; whereas, at the Retreat, the deaths from apoplexy are 11,510 per cent., from paralysis 1,438, from epilepsy 4,316, and from disease of the brain 2,158. As to the rest, the only differences between the two columns, which demand attention, are to be found in the deaths from diseases of the heart, and from diseases of the digestive organs, the per centage at the Retreat being much higher in both cases; viz.: 6,402 to 1,075 in disease of the heart, and 14,388

to 5,387 in diseases of the digestive organs. This difference is easily explained, so far as the diseases of the digestive organs are concerned; for disorders of these organs are so frequent in insanity as to be considered by some to be a primary cause of the mental malady: but it is incomprehensible so far as the cardiac diseases are concerned.

TABLE shewing out of One Hundred Deaths, the number from each of twelve classes, and eight distinct forms of Disease, in England and Wales, and in Bethlem Hospital.

Causes of Death.	In England and Wales, 1838.	In Bethlem Hospital, 1845-1854.
1. Epidemic, Endemic, and Contagious Diseases	20.538	4.023
2. Diseases of the Nervous System	15.016	59.195
Including Convulsions (almost entirely of Infants)	7.879	..
„ Apoplexy	1.703	7.471
„ Paralysis	1.505	11.494
„ Epilepsy	.303	1.724
„ Diseases of Brain	.425	38.505
3. Diseases of the Respiratory Organs	27.484	27.011
Including Inflammation of the Lungs..	5.445	12.064
„ Consumption.....	17.613	14.367
4. Diseases of the Heart, &c.	1.075	1.724
5. „ Digestive	5.387	5.172
6. „ Kidneys, &c.	.493	..
7. „ Uterus, &c.	1.007	..
8. „ Bones, &c.	.635	..
9. „ Skin, &c.	.126	..
10. Diseases of uncertain or variable seat....	13.389	.057
11. Old Age	10.781	..
12. Deaths by violence	3.617	2.298
Including Suicide	.320	2.298

Compared in this way, the causes of death in Bethlem Hospital are very different, both from those in the population at large, and from those in the Retreat at York. The principal difference is in the very great preponderance of deaths from diseases of the nervous system: the percentage at the Bethlem Hospital being no less than 59,195 as compared with 15,016, or rather (deducting the deaths from infantine convulsions) 7,137, a difference which can only be explained on the supposition that a more accurate diagnosis has been in use at Bethlem during the last ten years than during the whole period of the forty-two years at the Retreat. But be this as it may, the numbers shew the great preponderance of deaths from diseases of the nervous system in insanity, and especially of deaths from "exhaustion," which, no doubt, is the cause of death, *par excellence*. The percentage of deaths from diseases of the respiratory organs is very nearly that which is met with in the population at large, except in (what is not easily accounted for) an excess in deaths from inflammatory affections; and the idea that consumption is very prevalent in melancholia, and other forms of insanity is not recognized. The percentage of deaths from diseases of the heart, and digestive organs, is also very nearly that which is met with in the population at large; and there

is not that remarkable excess which was apparent, but not easily accounted for, in the statistics of the Retreat. These, then, are the principal differences in these statistics, to which indeed may be added the great number of deaths from diseases of uncertain and variable seat, the very small numbers in Bethlem only shewing that the diagnosis had been carefully made.

With regard to the disclosures after death, we may disregard all those as non-essential which are not met with in the brain, for in the present day it is not necessary to say any thing to prove that the physical signs of insanity will be met with in this organ. Formerly the brain was thought to be much less affected than it is at present. Thus Pinel found obvious disease of this organ in not more than 68 out of 261 autopsies, and Esquirol in 77 out of 277. Recent researches, however, have led to very different conclusions; perhaps, partly, because other signs besides those of inflammation are now looked for, and, partly, because the microscope is brought to help the naked eye in the enquiry.

What in reality is the essential character of the alteration of the brain in insanity it is not easy to define. Is it, as Dr. Bucknill considers, atrophy, positive or relative; the former being an actual shrinking of the brain, the latter an interstitial

change wherein the proper cerebral cell and fibres are replaced, to a greater or less extent, by the deposition of inert materials. This was the experience derived from the annual examination, for ten years, of about thirty lunatics. During the first six years the only impression upon the mind of Dr. Bucknill was that made upon the mind of Esquirol, that morbid anatomy, in this case afforded none but negative results. But he says, "I gradually became aware of this leading fact, that the brains of all persons dying insane, except those of some epileptics, presented well-marked appearances of deficient or degraded nutrition: they were all, more or less, atrophied in a far greater degree than I had ever observed to occur in the brains of persons not dying insane." (See a paper on the Pathology of Insanity in the British and Foreign Med. Chir. Review, Jan., 1855.)

We have a kind of internal conviction that this atrophy is the essential fact, and we are therefore dissatisfied with all former examinations; for if the existence of this atrophy escaped Dr. Bucknill's observation for so long, it may also have escaped the observation of others.

If we take as most recent evidence on the subject, Dr. Gauster's retrospect of 179 autopsies performed in the Vienna Lunatic Asylum in 1853, (*Jour. of Psychol. Med.*, Oct. 1855, p. 588,) we find that

the facts most frequently noticed were serous effusions into the serous cavities of the brain, and hardness of the brain. Now the presence of serum, in excess, within the skull, implies positive atrophy of the brain; and the hardened condition would seem to imply that relative atrophy in which the proper brain substance was replaced by common or degraded fibrinous deposits. And this conclusion is the more probable, because the hardened condition was most frequent in cases which were marked by depression during life.

Nor is a different conclusion to be drawn from the experience of Bethlem Hospital. Thus of 113 autopsies, the particulars of which have been collected and published by Dr. Webster, (*Jour. of Psych. Med.*, Jan. 1855, p. 147; and April, 1855, p. 282,) the epitome, which requires no comment, is as follows:--

“In 87 effusion had taken place into the ventricles; in 81 the piamater was infiltrated; in 57 turgidity of the brain and membranes was observed; in 55 the arachnoid had become thickened and opaque; in 19 the colour of the brain appeared altered from its natural hue; in 19 also, bloody points were both large and numerous upon the cut medullary surfaces; whilst in 10 blood was effused sometimes to a considerable amount within the cranium.”

Trusting that the remarks and comparisons contained in the preceding pages will not be without interest to the general reader; and that they will, at the same time, promote the introduction of some more uniform system for the preservation of the Statistics of Insanity in every establishment for the reception of the insane,

I have the honor to be,

My Lords and Gentlemen,

Your obedient Servant,

W. CHARLES HOOD.

Bethlem Hospital, London,

November, 1856.

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