

The curability of insanity : a statistical study.

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A statiscal study.

(From "American Journal of Insanity")
Oct. 1885



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The Curability of Insanity.

A STATISTICAL STUDY.

By PLINY EARLE, M. D.,
Superintendent of the State Lunatic Hospital at Northampton, Mass.

[From the *American Journal of Insanity*, for October, 1885.]

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THE CURABILITY OF INSANITY.

A STATISTICAL STUDY.*

BY PLINY EARLE, M. D.,

Superintendent of the State Lunatic Hospital at Northampton, Mass.

Notwithstanding the manifold triumphs of medicine, of surgery, and of other sciences and arts, there are inexorable limits to their achievements and their power of achievement. Nature yields in a measurable extent to the conceptions, the devices, the ministrations, and the administrations of human skill, but, as if to mock them in the end, and to demonstrate the retention of her inherent supremacy, she at length establishes a position and defies their power. These are trite truths, so trite, indeed, that the mention of them is an apparent superfluity: and yet they answer my purpose as an introduction, and are not wholly inappropriate at the beginning of a paper in which their truthfulness receives another illustration.

Nowhere are these truths more conspicuous, than in the sphere of the enterprises to overcome the disabilities of what are termed the defective classes of mankind—defective from imperfections either congenital or acquired. It is, indeed, perhaps true that, in the treatment of the blind, in the attempt to obtain a substitute for the eye and thus open an avenue of perception to the imprisoned brain, although nothing has been discovered which is, by very far, a full equivalent of the perfect natural organ, the success has equalled the expectation. But in reference to some of

* Read before the Association of Medical Superintendents of American Institutions for the Insane, on retiring from office as its President, at Saratoga, N. Y., June 16, 1885.

the other classes this is not true; and the hopes and confident anticipations awakened in the public mind, in the comparatively early periods of the modern endeavors at improvement, have been doomed to at least a partial disappointment.

Some forty years ago, when the efforts of Dr. Guggenbühl, in Switzerland, to elevate the idiot from his congenital degradation had been imitated in other parts of Europe, the world of philanthropy and the world of thought were startled by the announcement of a certain degree of success; and this, in the minds of the people, was magnified to such an extent as to give the general impression, that idiocy is so far amenable to culture that the great mass of its subjects can be raised nearly to a level with the average of the race. But, after the experience of a sufficient number of years to furnish a reliable test, it is found that, although partial imbeciles are susceptible of a degree of elevation in a ratio inverse to the degree of mental defection, and although, with the inclusion of the idiot, the advantages acquired are more than sufficient to vindicate the enterprise, yet the congenital idiot is essentially the congenital idiot still.

The history of the instruction of deaf mutes in vocal language is similar, in these respects, to that of the attempts to redeem the idiot from his infirmity. Surprising results were attained in some instances, and public opinion, taking its shape and tone from these, leaped to the conclusion that, although deafness might continue, permanent mutism was soon to become a thing of the past. Experience has not yet shown that a majority of deaf-mutes are susceptible of satisfactory instruction and achievement in this method of inter-communication.

A similar exaltation of belief and of expectation has

occurred in the specialty in which we are engaged; and, unfortunately, a similar disappointment has awaited all who had become interested in the subject, whether in the profession or among the people at large.

It is proposed, in this paper, to show, by the collocation of statistics, the actual results of treatment at a large number of institutions, both foreign and domestic, bringing our knowledge of such general results to a later date than that contained in any former statistical essay.

RECOVERIES AT BRITISH ASYLUMS.

It will be remembered that the reports of many, if not most, of the British asylums, contain a table, originally designed by Dr. Thurnam, in which the admissions, discharges, recoveries and deaths of patients are classified according to the duration of the insanity.

These classes are as follows:—

1st. First attack, and within three months, on admission.

2d. First attack, above three and within twelve months, on admission.

3d. Not first attack, and within twelve months, on admission.

4th. First attack or not, but of more than twelve months, on admission.

5th. Congenital and unknown.

This is a well conceived and useful table for its intended purpose; and, if prepared with sufficient care and discrimination, can not well fail to throw light upon the question of curability as affected by duration, or by the fact of first or subsequent attack.

Nearly two years ago I collated the statistics of this table in a series of the annual reports of twenty-three

of the British asylums, so far as relates to all cases of less duration than twelve months at the time of admission. For more than fifty years, all such cases have, in the United States, been called *recent*, in contradistinction to those of remoter origin, which have been called *chronic*; and my object in collecting the statistics was to ascertain the degree of curability to which those asylums had attained in the treatment of what we call recent cases.

Of each of twelve of the asylums these statistics, which are embodied in Table I, extend over a series of six consecutive years, the last of which was, in some instances, 1882, and in others, 1883. At three of the asylums they extend over five years; at one, over four years; and at seven, over three years. At each asylum the years are consecutive; and at no one is the last of the series later than 1878, the majority being either 1880, 1881, or 1882.

The results of these statistics may be briefly stated.

1st Class, (First Attack, less than 3 months duration) the admissions were 8,316; recoveries, 4,051; per cent of recoveries, 48.71.

2d Class, (First Attack, 3 to 12 months' duration) admissions, 2,613; recoveries, 764; per cent of recoveries, 29.24.

3d Class (Not first Attack, less than 12 months' duration) admissions, 4,768; recoveries, 2,640; per cent of recoveries, 55.37.

By uniting the first two classes, we have all cases of first attack and of less duration than one year. Of these, the admissions were 10,929; the recoveries, 4,815; and the proportion of recoveries, 44.06 per cent.

Of the third class the admissions were 4,768; the recoveries, 2,640; and the proportion of recoveries, 55.37 per cent. Here we have another illustration of the fact that recovery takes place in a less proportion of

TABLE I. CASES OF LESS THAN TWELVE MONTHS, AT TWENTY-THREE BRITISH ASYLUMS.

ASYLUMS.	Years inclusive.	CASES OF FIRST ATTACK, WITH DURATION.										NOT FIRST ATTACK.	
		Under Three Months.				Three to Twelve Months.				Total Under Twelve Months.		Not over Twelve Months.	
		Adm.	Recov'd.	Per ct. of recover's	Adm.	Recov'd.	Per ct. of recover's	Adm.	Recov'd.	Per ct. of recover's	Adm.	Recov'd.	Per ct. of recover's
Somerset and Bath.....	1877-82	499	189	37.88	166	80	48.19	665	269	40.45	320	148	46.25
Devizes.....	1877-82	289	120	41.52	109	20	18.35	398	140	35.18	198	80	40.40
Abergavenny.....	1877-82	285	141	49.47	102	24	23.53	387	165	42.64	167	101	60.48
Carmarthen.....	1877-82	108	57	52.78	50	16	32.00	158	73	46.20	79	37	46.84
Derby County.....	1877-82	397	180	45.34	112	41	36.61	509	221	43.42	225	128	56.89
Hereford.....	1878-83	121	66	54.55	62	23	37.10	183	89	48.63	108	56	51.85
South Yorkshire.....	1877-82	1,251	565	45.16	214	55	25.70	1,465	620	42.32	693	335	48.34
Prestwich.....	1877-82	1,203	671	55.78	243	63	25.93	1,446	734	50.76	541	319	58.96
Lancaster.....	1877-82	654	393	60.09	344	90	26.16	998	483	48.40	444	309	69.59
Warwick County.....	1878-83	228	124	54.39	116	31	26.72	344	155	45.06	111	63	56.76
Edinburgh Roy.....	1878-83	755	381	50.46	298	98	32.89	1,053	479	45.49	673	381	56.61
Belfast.....	1877-82	444	234	52.70	147	49	33.33	591	283	47.88	112	74	66.07
Retreat, York.....	1876-80	40	20	50.00	21	9	42.86	61	29	47.54	36	13	36.11
Gartnavel.....	1875-79	541	227	41.96	126	22	17.46	667	249	37.33	235	108	45.96
Cambridge and Ely.....	1877-81	213	85	39.90	58	9	15.51	271	94	34.69	76	40	52.63
Barning Heath.....	1877-80	553	259	46.84	183	54	29.50	736	313	42.53	302	195	64.57
City of London.....	1880-82	62	27	43.55	28	10	35.71	90	37	41.11	44	28	63.64
Berrywood.....	1878-80	181	71	39.23	58	28	48.28	239	99	41.42	102	39	38.23
Worcester.....	1879-81	169	81	47.93	73	15	20.55	242	96	39.67	113	82	72.57
Nottingham.....	1877-79	119	54	45.38	31	12	38.71	150	66	44.00	44	19	43.18
Beverly.....	1876-78	87	44	50.57	23	2	8.69	110	46	41.82	42	20	47.62
Crichton.....	1877-79	47	25	53.19	14	4	28.57	61	29	47.54	30	21	70.00
Southern Counties.....	1877-79	70	37	52.86	35	9	25.71	105	46	43.81	73	44	60.27
Totals.....		8,316	4,051	48.71	2,613	764	29.24	10,929	4,815	44.06	4,768	2,640	55.37
Mean or Average per cent...													
Aggregate													47.49

of admissions 15,697; of recoveries 7,455.

cases of first attack than in cases subsequent to the first—a fact which was demonstrated in an article on curability in the report for 1880 of the Northampton Lunatic Hospital.

By a union of the three classes, all of which contain, exclusively, cases of less than twelve months in duration, and are consequently here known as recent cases, we obtain the subjoined results.

Admissions, 15,697; recoveries, 7,455; proportion of recoveries, 47.49 per cent.

Among this series of twenty-three asylums is the Retreat at York, the statistics of recoveries at which, from 1796 to 1819, have been quoted, ever since they were published, as one of the authorities for the eminent curability of mental disorders. It may not be uninteresting to bring into juxtaposition those statistics of three-fourths of a century ago, and those of the same institution for the five years from 1876 to 1880 inclusive. This is done in the following table.

TABLE II. PER CENT OF RECOVERIES AT THE YORK RETREAT OF CASES OF LESS DURATION THAN TWELVE MONTHS.

	Per Cent of 1ST CLASS.	Per Cent of 2D CLASS.	Per Cent of 3D CLASS.	Per Cent of TOTAL.
1796—1819	85.10	55.55	61.76	68.25
1876—1880	50.00	42.86	36.11	43.30
Decrease of per cent,	35.10	12.69	25.65	24.95

The diminution of the proportion of recoveries ~~the admissions~~ is, for the 1st class, 35.10 per cent on the admissions; for the second class, 12.69 per cent; for the third class, 25.65 per cent; and for the whole, 24.95 per cent, or, in round numbers, one-fourth of the admissions.

The proportion of diminution from the actual recoveries of the first period, is, for the first class, 41.17

per cent, or a fraction more than two-fifths; for the second class, 22.84 per cent, or a fraction more than one-fifth; for the third class, 41.53 per cent, or a fraction over two-fifths; and for the whole, 36.25 per cent. In other words, for each hundred of recoveries of what we call recent cases, three-fourths of a century ago, there are but sixty-four (63.75) recoveries now.

Some months after the collection of the foregoing statistics, but before any use had been made of them, Dr. T. A. Chapman, of the Hereford Asylum, England, published a similar but much larger collection, in *The Journal of Mental Science* for July, 1884. It contains the statistics of "46 English County and Borough Asylums, and the Edinburgh and Glasgow Royal Asylums, for (in most instances) 11 years, 1872 to 1882 inclusive." Here is a collocation of the remarkable number of 93,443 cases of insanity, all of them classified as in the foregoing table. The whole number of recoveries was 35,468, or 37.95 per cent of the admissions. But as the recoveries of *recent* cases are now, alone, under consideration, we will turn our attention especially to them. The subjoined table shows the numbers, and the percentage, in each of the first three of Thurnam's classes.

Dr. Chapman's table includes, apparently, twenty-eight Asylums that are not in mine, and mine has five that are not in his. Of these five, two are in Scotland and three in England, the Retreat at York being one.

In regarding these two tables, so much alike and yet so different, almost the first impression received from them is the striking similarity of results. These are, indeed, so nearly identical as to justify one's faith in the sometime possibility of a close approximation to accuracy in this branch of vital statistics. The difference in the proportion of recoveries, as indicated

by the two, are, for the first class of cases, only one-one-hundredth (.01) of one per cent; for the second class, one and three-hundredths (1.03) per cent; for the third class, one and seventy-six-hundredths (1.76) per cent; and for the total, ninety-seven-hundredths (.97) of one per cent.

TABLE III. RECOVERIES OF CASES OF LESS DURATION THAN ONE YEAR.

CLASSES.	Admissions.	Recoveries.	Per Cent of Recoveries.
CLASS I.			
1st attack; less than 3 months' duration,.....	38,283	18,654	48.72
CLASS II.			
1st attack; 3 to 12 months' duration,	12,126	3,421	28.21
CLASS III.			
Not 1st attack; less than 12 months' duration,	19,574	10,494	53.61
Total,.....	69,983	32,569	46.52

When Dr. Woodward, in 1833, took charge of the Worcester Hospital, he had before him, as exemplars, three well known pioneers in the field of high percentages of recoveries. Dr. Burrows, in 1820, had reported 91.32 per cent as the result of the treatment of 242 cases, of which 221 recovered. He also published the results, from 1797 to 1819, at the York Retreat, where, of 47 cases of less duration than three months, the recoveries were 40, or an equivalent of 85.10 per cent.* In 1827 Dr. Todd, at the Hartford Retreat, reported that, of 23 recent cases admitted 21 had recovered, a proportion of 91.3 per cent. In 1841,

* The fact should not be overlooked that, if the word *recent* be used in its American signification, applying to all cases of less duration than one year, the proportion of recoveries at the Retreat was only 68.25 per cent, the admissions being 126, and the recoveries 86.

Dr. Woodward obtained his highest proportion of recoveries, 91.42 per cent, by the treatment of 70 cases, 64 of which recovered; and in 1842, Dr. Galt, at the Williamsburg, Virginia, Asylum, excelled all of his predecessors in the announcement that of thirteen recent cases under his care twelve had recovered, a percentage of 92.3.

Here we have five different, well-known medical authorities, each confirmatory and corroborative of the others, and all of which have, for an average of half a century, been regarded as a kind of oracular proclaimers of the possible achievement of recovery in about 90 per cent of recent cases. Yet, singularly enough, the whole of the five separate reputations were built, and the oracles established, upon the treatment of an aggregate of only 395 cases.

On the other hand we have before us, in Dr. Chapman's table, the results of treatment of a number of recent cases which lacks but seventeen to make it seventy thousand, and the recoveries are only 32,569, or 46.52 per cent. This ratio of curability is only 86 hundredths of one per cent more than half as large as that which was claimed by Dr. Burrows, and only 37 hundredths of one per cent ~~less~~ *more* than one-half as large as that of Dr. Galt. Even in the cases of first attack and of only three months' duration, of which there were 38,283, the recoveries were but 18,654, or 48.72 per cent. In the light thrown upon the subject by this unparalleled collection of recent cases, what becomes of the once exceedingly fashionable assertion that "from seventy-five to ninety per cent can be cured?"

RECOVERIES AT THIRTY-NINE (15+24) AMERICAN INSTITUTIONS.

Inasmuch as neither Thurnam's table nor its equivalent in any other form is used at the American

institutions, it is impossible to group, or analyze the results at the latter on precisely the same basis, in all respects. Nevertheless, upon looking over the American reports, I find that a large amount of matter may be brought together, illustrative of the proportion of the reported recoveries of recent cases.

In the statistics of a majority of our hospitals, although, in reference to admissions, the duration of the insanity is given, and hence a distinction between recent and chronic cases rendered possible, yet no such discrimination is made in regard to patients discharged. The subjoined table contains the results, in regard to recovery, for a series of from two to six years, of fifteen American hospitals, in the reports of which the recoveries of cases of less than twelve months' duration are numerically given. The time during which each hospital furnished these statistical results was at Elgin, six years; at Concord, Worcester, Taunton, Utica, Harrisburg, Dixmont, Dayton, and Ossawatimie, five years each; at McLean, Northampton, Danvers, and Columbia, S. C., four years each; and at Boston, and Winnebago, three years each; the period ending, in most cases, in 1883.

The aggregate of the admissions of *all cases* is 14,562; the aggregate recoveries, 3,780; and the proportion of recoveries, 25.96 per cent. The largest proportion was 35 per cent, at Dayton; and the smallest, 18.58 per cent, at Harrisburg. At five others it was less than 23 per cent, and at still five others less than 30 per cent; while at three besides Dayton, it was over 30 per cent.

The aggregate of admissions of *recent cases*, is 8,063; that of recoveries of recent cases, 3,112; and the proportion of recoveries of recent cases, 38.59 per cent. The largest proportion is 46.95 per cent, at Dayton;

and the smallest, 26.96 per cent, at Columbia, S. C. Of the thirteen others, the proportion at one was less than 30 per cent; at two, between 30 and 35 per cent; at five, between 35 and 40 per cent; and at five between 40 and 45 per cent.

TABLE IV. WHOLE NUMBER OF RECOVERIES, AND RECOVERIES OF CASES OF LESS THAN TWELVE MONTHS' DURATION, AT FIFTEEN AMERICAN INSTITUTIONS.

ASYLUMS.	Y'rs.	ADMISSIONS.		DISCHARGED RECOVERIES.				
		Under 12 mos.	Whole number.	Under 12 mos.	Per ct. of recent cases.	Whole number	Per cent of whole number.	Per ct. of all recoveries on rec't admissions
Elgin	6	488	1,017	197	40.37	246	24.19	50.41
Concord	5	334	536	148	44.31	161	30.04	48.20
Worcester	5	593	1,254	191	32.21	254	20.26	42.83
Taunton	5	824	1,619	300	36.41	369	22.79	44.78
Utica	5	1,518	2,184	661	43.54	716	32.78	47.17
Harrisburg	5	395	716	117	29.62	133	18.58	33.67
Dixmont	5	646	1,117	238	36.84	288	25.78	44.58
Dayton	5	607	977	285	46.95	342	35.00	56.34
Ossawatimie	5	398	707	165	41.46	217	30.69	54.52
McLean	4	207	308	81	39.13	89	28.90	42.99
Northampton	4	224	511	75	33.48	104	20.35	46.43
Danvers	4	962	2,078	361	37.53	458	22.04	47.61
Columbia, S. C. ..	4	408	702	110	26.96	161	22.93	39.46
Boston	3	174	275	66	37.93	80	29.09	45.98
Winnebago	3	285	561	117	41.05	162	28.88	56.84
Totals, and Mean per cent	68	8,063	14,562	3,112	38.59	3,780	25.96	46.88

Finding that, in despite of the traditional "75 to 90 per cent" of some of the fathers, not one of these hospitals discharged even 47 per cent of recoveries of recent cases, while the mean, or average of all of them was less than 39 per cent, I studied the relation between the *whole number of recoveries* and the number of *admissions of recent cases*. The whole number of recoveries is larger by 668 than the recoveries of recent cases; and the number of admissions of recent cases is 6,499 smaller than the whole number of admissions. Yet, strange as it may appear, the total of recoveries is only 46.88 per cent of the admissions of recent cases! The largest proportion, 56.84 per cent, is at Winnebago;

and the least, 33.67 per cent, at Harrisburgh. Of the remaining thirteen hospitals, the proportion is less than 40 per cent at one; between 40 and 45 per cent, at four; between 45 and 50 per cent, at five; between 50 and 55 per cent, at two; and over 55 (56.34) per cent, at one. Thus, after aiding and assisting the recoveries of recent cases by a supplementary and a complimentary gift of the certainly not despicable number of 668 cases, we have been unable to swell them even to 50 per cent of the admissions of recent cases.

We now come to the hospitals which give the duration of the disease in the cases admitted, but give no such information in respect to the cases discharged. The following table includes the statistics, for a term of from two to six years each, of twenty-four institutions of this class. Of six of them—Jacksonville, Ill., Mt. Pleasant, Iowa, Fulton, Mo., St. Joseph, Mo., Lincoln, Neb., and Jackson, La.—the term was six years; of eleven—Hartford Retreat, Ct., Middletown, Ct., Middletown, N. Y., Trenton, N. J., Danville, Pa., Williamsburg, Va., Richmond, Va., U. S. Government Hospital, Washington, D. C., Jackson, Miss., Cleveland, Ohio, and Longview, Ohio,—five years; of six—Brattleboro, Vt., Staunton, Va., Weston, W. Va., Pontiac, Mich., Madison, Wis., and St. Peter, Minn.,—four years; and at one—Augusta, Me.,—three years.

The total of admissions is 18,756; the total of recoveries, 5,933; and the proportion of all recoveries on all admissions, 31.63 per cent. The largest percentage of recoveries 48.54, was at Fulton, Mo., and the smallest, 15.83, at Danville, Pa. Of the remaining 22 institutions, the proportion was less than 23 per cent, at four; from 25 to 30 per cent, at five; from 30 to 35 per cent, at five; from 35 to 40 per cent, at three; from 40 to 45 per cent, at three; and from 45 to 46 per cent, at two.

TABLE V. RECOVERIES AT TWENTY-FOUR AMERICAN INSTITUTIONS.

ADMISSIONS.				DISCHARGES.		
HOSPITALS.	Years.	Under 12 months' duration.	Total Admissions.	Total Recoveries.	Per cent of recoveries on all Admissions	Per cent of all recoveries on admissions of less than 12 months' duration.
Jacksonville, Ill.,	6	1,000	1,605	440	27.41	44.00
Mt. Pleasant, Iowa, . .	6	852	1,548	400	25.84	46.95
Fulton, Mo.,	6	675	1,162	564	48.54	83.56
St. Joseph, Mo.,	6	435	740	257	34.73	59.08
Lincoln, Neb.,	6	414	654	237	40.83	64.49
Jackson, La.,	6	83	231	63	27.27	75.90
Hartford Retreat,	5	300	434	150	34.56	50.00
Middletown, Ct.,	5	492	1,168	241	20.63	48.98
Middletown, N. Y., . . .	5	503	775	300	38.71	59.64
Trenton, N. J.,	5	373	786	244	31.04	65.42
Danville, Pa.,	5	263	695	110	15.83	41.83
Williamsburg, Va., . . .	5	165	380	171	45.00	104.00
Richmond, Va.,	5	357	559	254	45.44	71.15
U. S. Gov't Hospital, . .	5	549	1,099	357	32.48	65.03
Jackson, Miss.,	5	235	526	228	43.35	97.02
Cleveland, O.,	5	681	1,135	414	36.48	60.79
Longview, O.,	5	470	882	325	36.85	69.15
Brattleboro, Vt.,	4	199	344	88	25.58	44.22
Stanton, Va.,	4	207	467	201	43.04	97.10
Weston, W. Va.,	4	136	328	104	31.71	76.47
Pontiac, Mich.,	4	320	707	145	20.51	45.31
Madison, Wis.,	4	307	746	163	21.85	53.09
St. Peter, Minn.,	4	486	1,168	267	22.86	54.94
Augusta, Me.,	3	358	617	180	29.17	50.28
Totals,	118	9,860	18,756	5,933	31.63	60.17

The whole number of *recent cases* admitted was 9,860; the whole number of recoveries, as before stated, 5,933; and the percentage of *all recoveries* upon the number of *recent cases* admitted, 60.17. Here, then, by setting aside and disregarding the 8,896 cases of more than 12 months' duration, we have succeeded in raising the recoveries to a point above 50 per cent.

By the union into one group, so far as they are susceptible of such union, of the contents of these two tables, we obtain the following aggregate results.

In 39 American hospitals, during a period of from 3 to 6 years each, making an aggregate of 186 years of hospital work, the number of patients admitted was

33,318; the number of patients discharged recovered, 9,713; and the proportion of recoveries, as compared with admissions, 29.15 per cent. In the factors producing this result it will be observed that all the cases of duplicate, triplicate and manifold recoveries of one and the same person, are included, and yet the recoveries do not rise to 30 per cent.

The whole number of *recent* cases admitted was 17,923; the total recoveries of both recent and chronic cases, as already mentioned, 9,713; and the proportion of *all recoveries*, as compared with the admissions of *recent cases*, 54.19 per cent. But be it not forgotten that this result is obtained by the sacrifice, or annulment, of *fifteen thousand three hundred and ninety-five (15,395) admissions*, or, in other words, by calculating the proportion of recoveries upon a little more than one-half of the number of admissions.

RECOVERIES AT TWENTY AMERICAN HOSPITALS; THIRD
TERM OF FIVE YEARS.

It will, perhaps, be remembered that my monograph on the Curability of Insanity, which was prepared in 1876, contained a list of twenty institutions for the insane, so tabulated with their statistics as to show the proportion of recoveries at each of two quinquennial periods,—the first of those periods being the second quinquennium of the existence of those hospitals, respectively, and the last period being the quinquennium terminating in either 1876, or one of the two immediately preceding years. The longest time wholly intervening between those two quinquennia was 44 years, at the McLean Asylum, Mass; the shortest, 2 years, at the Mendota Hospital, Wisconsin; and the mean or average time, eighteen and one-half years. But the true mean time, as applied to the gathering of

the statistics—that is, the time from the middle of the first quinquennium to the middle of the last—was five years longer, or twenty-three and one-half years.

The total of admissions in the first period was 14,516; the total recoveries, 6,689; and the proportion of recoveries on admissions, 46.08 per cent. The admissions of the second period were 24,383; the recoveries, 8,354; and the proportion of recoveries, 34.26 per cent, or a fall of 11.82 in that proportion. This diminution equalled one fourth, or, to be exact, 25.66 per cent, of the recoveries of the first period.

As eight years have elapsed since the close of the second period, it has appeared to me that some similar researches, at a still later date, might tend more fully to illustrate the subject of curability, and perhaps secondarily, or indirectly, the general character of the disease. Accordingly, I have collected the statistics of admissions and recoveries at the same twenty institutions during a third period of five years, that period terminating, at nineteen of them, in or with 1884, and at one where the reports are biennial, in or with 1883. At two of the institutions, both of which issue biennial reports, the duration of the period is six years. Those statistics, together with the results in each of the first two periods, are contained in Table VI.

The aggregate admissions in the course of this third period is 23,052; the aggregate recoveries, 6,896; and the proportion of recoveries, 29.91 per cent of the admissions, a result which demonstrates that the reported recoveries have continued to diminish, during the last eight years, in very nearly the same annual ratio as they had diminished between the first and the second period.

The following is a summary of the results of the whole investigation—

TABLE VI.
RECOVERIES AT TWENTY AMERICAN HOSPITALS; THIRD TERM OF FIVE YEARS.

INSTITUTIONS.	First Five Years.	Per cent of Recov's.	Second Five Years.	Per cent of Recov's.	Decrease of per cent of Recov's.	Third Five Years.	Total Admitted.	Total Recov'd.	Per cent of Recov's.	Per cent of Recoveries compared with that of Second Five Years.		Decrease of per cent of recoveries from first five years.
										Decr'se.	Incr'se.	
Augusta, Me.,	1846-50	48.55	1871-75	36.62	11.93	1880-84	1,008	296	29.36	7.26		19.19
Concord, N. H.,	1848-52	46.92	1872-76	32.97	13.95	1880-84	623	158	25.36	7.61		21.56
Brattleboro, Vt.,	1841-46	43.50	1871-76	30.43	13.07	1878-83	551	124	22.50	7.93		21.00
McLean, Mass.,	1823-27	40.69	1871-75	21.66	19.03	1880-84	421	123	29.22		7.56	11.47
Worcester, Mass.,	1839-43	48.59	1871-75	29.75	18.84	1880-84	1,319	264	20.01	9.74		28.58
Taunton, Mass.,	1859-63	43.46	1871-75	23.11	20.35	1880-84	1,318	296	22.46	.65		21.00
Butler Hospital,	1854-58	39.78	1872-76	35.57	4.21	1880-84	635	194	30.55	5.02		9.23
Hartford Retreat,	1829-33	57.40	1870-74	39.21	18.19	1880-84	453	162	35.76	3.45		21.64
Bloomington, N. Y.,	1826-30	47.55	1871-75	32.55	15.00	1880-84	626	200	31.95	.60		15.60
Utica, N. Y.,	1848-52	43.17	1871-75	32.33	10.84	1880-84	2,020	610	30.20	2.13		12.97
Flatbush, N. Y.,	1861-65	41.88	1871-75	33.11	8.77	1880-84	2,071	336	16.22	16.89		25.66
Trenton, N. J.,	1853-57	42.79	1872-76	31.32	11.47	1880-84	836	251	30.02	1.30		12.77
Pennsylvania Hospital, ..	1846-50	51.10	1871-75	42.30	8.80	1880-84	973	328	33.71	8.59		17.39
Dixmont, Pa.,	1861-65	37.78	1871-75	30.01	7.77	1880-84	968	216	22.31	7.70		15.47
Catonsville, Md.,	1839-43	51.59	1871-75	40.83	10.76	1880-84	656	269	31.86	8.97		19.73
Newburgh, O.,	1860-64	46.63	1871-75	30.03	16.60	1880-84	1,147	439	38.27		8.24	8.36
Dayton, O.,	1860-64	60.16	1870-74	45.25	14.91	1880-84	910	337	37.03	8.22		23.13
Indianapolis, Ind.,	1853-57	57.26	1871-76	52.48	4.78	1880-84	4,010	1,678	41.84	10.64		15.42
Jacksonville, Ill.,	1855-60	46.53	1869-74	31.96	14.57	1879-84	1,486	395	26.58	5.38		19.95
Mendota, Wis.,	1865-69	33.82	1871-75	25.86	7.96	1880-84	1,021	80	27.42		1.56	6.40
Totals and mean per cent,		46.08		34.26	11.82		23,052	6,896	29.91	4.35		16.17

Recoveries in the 1st period, 46.08 per cent of the admissions.

Recoveries in the 2d period, 34.26 per cent of the admissions.

Recoveries in the 3d period, 29.91 per cent of the admissions.

Decrease of recoveries from 1st to 2d periods, 11.82 per cent of the admissions.

Decrease of recoveries from 2d to 3d period, 4.35 per cent of the admissions.

Total decrease of recoveries from 1st to 3d period, 16.17 per cent of the admissions.

The decrease of recoveries from 1st to 2d period, is 25.66 per cent of the recoveries of the first period.

The decrease of recoveries from 2d to 3d period, is 12.69 per cent of the recoveries of the second period.

The total decrease from the recoveries of the first period is equal to 35.09 per cent of the recoveries of the first period.

The numbers of the insane subjected to treatment being hypothetically the same at the three periods, then, for each hundred (100) that recovered in the first period only seventy-four (74.34) recovered in the second period, and only sixty-five (64.91) recover now.

The proportion of recoveries between the last two periods, from 1879 to 1884, did not diminish at all of the twenty institutions. At three of them it increased. At the McLean Asylum this increase was 7.56 per cent of the admissions; at the Newburg, Ohio, hospital, it was 8.24 per cent; and at the Mendota, Wisconsin, hospital, 1.56 per cent. But notwithstanding this augmentation, the actual decrease from the proportion recovered in the first period, at those three institutions, is still 11.47, 8.36, and 6.40 per cent, respectively.

The decrease from the second to the third period,

and the total decrease from the first to the third period, at each of the seventeen other institutions, may be learned from the last two columns of the table. The decrease is more than one-half at the Worcester and the Flatbush hospitals; very nearly one-half at Brattleboro and Taunton; and more than one-third at Augusta, Concord, Hartford, Pennsylvania Hospital, Dixmont, Catonsville, Dayton and Jacksonville.

STATISTICS OF ONE YEAR, AT FIFTY-EIGHT AMERICAN
INSTITUTIONS.

For the purpose of ascertaining the extent to which the results of one year of the current work at American institutions would enlighten us upon the subject of curability, I have collected and herewith present, in Table VII, the statistics of fifty-eight of them, taken, in fifty-one instances, from the reports for 1884. Of seven of the hospitals the reports are biennial, and consequently contain the results for two years each. In four instances the report from which these results were taken ended in 1884; in one instance in 1883, and in two in 1882.

I am well aware of the many influences, both favorable and unfavorable, which may, and often do, modify the number of recoveries, as well as of deaths, in public institutions, and which necessarily render the results of any one year unreliable as a test or measure of the work of a series of years, at any individual hospital. But at a large number of institutions on any given year, these influences would probably very nearly balance one another, and consequently the aggregate results would fairly represent the mean or average of the same group of institutions for a much greater length of time.

TABLE VII. ONE YEAR AT FIFTY-EIGHT AMERICAN INSTITUTIONS.

Institution.	State.	Year.	Admitted.	Recovered.	Per cent of Recoveries.	Died.	Per cent of Deaths.
Augusta,	Me.	1884	203	59	29.06	101	49.75
Concord,	N. H.	1884	141	18	12.77	24	17.02
Brattleboro,	Vt.	1884	82	23	28.05	29	35.36
McLean,	Mass.	1884	113	34	30.09	17	15.04
Worcester,	Mass.	1884	252	53	21.03	57	22.62
Northampton, . . .	Mass.	1884	136	25	18.38	25	18.38
Taunton,	Mass.	1884	283	85	30.04	65	22.97
Danvers,	Mass.	1884	530	96	18.11	101	19.06
Boston, City, . . .	Mass.	1884	121	34	28.10	32	26.45
Butler,	R. I.	1884	106	46	43.40	13	12.26
Hartford Retr't	Ct.	1884	97	37	38.14	18	18.56
Middletown, . . .	Ct.	1884	271	72	26.57	80	29.52
Bloomington, . . .	N. Y.	1884	136	55	40.44	27	19.85
Flatbush,	N. Y.	1884	479	47	9.81	101	21.09
Utica,	N. Y.	1884	372+	89	23.92	56	15.05
Buffalo,	N. Y.	1884	275	80	29.09	43	15.63
Trenton,	N. J.	1884	175	52	29.71	64	36.57
Morristown, . . .	N. J.	1884	210	37	17.62	57	27.14
Penna. Hos., . . .	Pa.	1884	203	51	25.12	49	19.70
Harrisburg, . . .	Pa.	1884	128	23	17.97	36	28.12
Dixmont,	Pa.	1884	189	28	14.81	69	36.50
Danville,	Pa.	1884	201	37	18.41	29	14.42
Norristown, . . .	Pa.	1884	356	92	25.84	96	26.96
Warren,	Pa.	1884	203	36	17.73	46	22.66
Catonsville, . . .	Md.	1884	95	29	30.53	30	31.57
Mount Hope, . . .	Md.	1884	169	77	45.56	45	26.62
Washington, . . .	D. C.	1884	347	79	22.77	67	19.30
Staunton,	Va.	1884	133	55	41.35	36	27.06
Richmond,	Va.	1884	119	97	81.51	61	51.26
Weston,	W. Va.	1884	176	74	42.05	39	22.15
Raleigh,	N. C.	1884	106	26	24.53	11	10.37
Goldsboro,	N. C.	1884	81	26	32.10	14	17.28
Morganton, . . .	N. C.	1884	71	31	43.66	9	12.67
Columbia,	S. C.	1884	293	72	24.57	143	48.80
Austin,	Texas	1884	254	66	25.98	41	16.14
Little Rock, . . .	Ark's.	1884	82	42	51.22	21	25.61
Nashville,	Tenn.*	1882-84	222	67	30.18	62	27.93
Columbus,	Ohio.	1884	282	164	58.16	59	20.92
Newburgh,	Ohio.	1884	220	87	39.55	37	16.81
Dayton,	Ohio.	1884	188	60	31.91	37	19.68
Athens,	Ohio.	1884	223	96	43.05	63	28.25
Longview,	Ohio.	1884	220	56	25.45	58	26.36
Indianapolis, . . .	Ind.	1884	908	329	36.23	112	12.33
Pontiac,	Mich.	1884	192	62	32.29	29	15.10
Kalamazoo, . . .	Mich.	1884	174	17	9.77	9	5.17
Jacksonville, . .	Ill.	1884	240	56	23.33	32	13.33
Elgin,	Ill.	1884	123	38	30.89	21	17.07
Anna,	Ill.	1884	220	67	30.45	33	15.00
Kankakee,	Ill.	1884	291	48	16.49	31	10.65
Mendota,	Wis.	1884	239	58	24.27	30	12.55
Oshkosh,	Wis.*	1883-84	601	148	24.63	115	19.13
Mt. Pleasant, . .	Iowa.*	1882-83	534	120	22.47	98	18.35
Independence, . .	Iowa.	1883	233	38	16.31	34	14.59
St. Peter,	Minn.*	1883-84	595	143	24.03	82	13.78
Rochester,	Minn.*	1883-84	299	55	18.39	43	14.38
Fulton,	Mo.*	1881-82	364	175	48.08	113	31.04
St. Joseph,	Mo.*	1881-82	316	110	34.81	49	15.51
Napa,	Cal.	1884	500	130	26.00	90	18.00
Totals, and mean per cent,			14,372	4,007	27.88	2,980	20.74

* Biennial. + 15 cases "found not insane" are deducted.

The aggregate of patients admitted at these fifty-eight institutions, in the course of the time specified, is 14,372; the aggregate of recoveries, 4,007; and the proportion of recoveries, calculated upon the admissions, 27.88 per cent, or a trifle more than one-fourth. The least relative number of recoveries, 9.77 per cent, was at Kalamazoo; and the largest, 81.51 per cent at Richmond.

In the following schedule the hospitals are arranged in groups, according to the proportion of their recoveries, each group differing five per cent from the one above or below it.

Below 10 per cent,	Flatbush and Kalamazoo.
From 10 to 15 per cent,	Concord and Dixmont.
From 15 to 20 per cent,	Northampton, Danvers, Morristown, Harrisburg, Danville, Warren, Kankakee, Independence and Rochester.
From 20 to 25 per cent,	Worcester, Utica, U. S. Gov't Hospital, Raleigh, Columbia, S. C., Jacksonville, Mendota, Oshkosh, Mt. Pleasant and St. Peter.
From 25 to 30 per cent,	Augusta, Brattleboro, Boston, Middletown, Ct., Buffalo, Trenton, Penna. Hospital, Norristown, Austin, Longview and Napa.
From 30 to 35 per cent,	McLean, Taunton, Catonsville, Goldsboro, Nash- ville, Dayton, Pontiac, Elgin, Anna and St. Joseph.
From 35 to 40 per cent,	Hartford Retreat, Newburg and Indianapolis.
From 40 to 45 per cent,	Butler, Bloomingdale, Staunton, Weston, Morgan- ton, and Athens.
From 45 to 50 per cent,	Mount Hope and Fulton.
From 50 to 55 per cent,	Little Rock.
From 55 to 60 per cent,	Columbus.
Over 80 per cent,	Richmond.

If there be no mistake in the record from the Virginia Central Asylum, at Richmond, that institution, so far as my knowledge extends, has exceeded every other of its kind, not in America alone but upon the whole surface of the earth, in the proportion of its recoveries. Forty years ago, it was doing well to report the recovery of eighty per cent of *recent* cases.

At the present time, it is rare that even sixty per cent are so reported, and the average in the United States, as we have just seen, is below forty per cent. But here we are confronted with a proportion of 81.51 per cent of *recoveries of all the cases admitted!* The moral to be derived herefrom appears to be, that, if any person yet unborn be blessed with the pre-natal power of foreordination of his own physical organization, and desire to recover in case he be afflicted with insanity, he should elect to be born a negro.*

There is yet another useful moral to be derived from the case. At the Danvers Hospital, which, before it went into operation, had cost more than \$3,500, for every patient for whom its accommodations were calculated, and more than \$2,500, for each of the seven hundred patients who have been crowded into it, the per cent of recoveries was 18.11. At the Richmond Hospital, which apparently could not have cost over \$100, and probably not more than \$50, per patient, the recoveries were equal to 81.51 per cent. The moral is so conspicuously obvious, that it would be a work of supererogation to repeat it.

In Table VIII, the fifty-eight hospitals and their statistics are grouped according to the States in which they are respectively situated.

The proportion of recoveries was the smallest in New Hampshire, and that proportion increased in the other States in the following order, Pennsylvania, Iowa, New York, Michigan, Minnesota, District of Columbia, Massachusetts, New Jersey, Illinois, Wisconsin, South Carolina, Texas, California, Vermont, Maine, Connecticut, Tennessee, North Carolina, Indiana, Maryland, Ohio, Missouri, West Virginia, Rhode Island, Arkansas and Virginia.

* The Virginia Central Asylum is for colored persons.

TABLE VIII. STATE GROUPS, ONE YEAR.

STATES.	No. of Hospitals.	Admissions	Recoveries.	Per cent of Recoveries.	Died.	Per cent of Deaths.
Maine	1	203	59	29.06	101	49.75
New Hampshire....	1	141	18	12.77	24	17.02
Vermont.....	1	82	23	28.05	29	35.36
Massachusetts.....	6	1,435	327	22.79	297	20.69
Rhode Island.....	1	106	46	43.40	13	12.26
Connecticut.....	2	368	109	29.62	98	26.63
New York.....	4	1,262	271	21.47	227	17.99
New Jersey.....	2	385	89	23.12	121	31.15
Pennsylvania.....	6	1,280	267	20.80	316	24.69
Maryland.....	2	264	106	40.15	75	28.41
District of Columbia	1	347	79	22.77	67	19.31
Virginia.....	2	252	152	60.31	97	38.49
West Virginia.....	1	176	74	42.05	39	22.15
North Carolina.....	3	258	83	32.17	34	13.18
South Carolina.....	1	293	72	24.57	143	48.80
Texas.....	1	254	66	25.98	41	16.14
Arkansas.....	1	82	42	51.22	21	25.61
Ohio.....	5	1,133	463	40.86	254	22.41
Michigan.....	2	366	79	21.58	38	10.38
Indiana.....	1	908	329	36.23	112	12.33
Illinois.....	4	874	209	23.91	117	13.38
Wisconsin.....	2	840	206	24.52	145	17.26
Iowa.....	2	767	158	20.60	132	17.21
Minnesota.....	2	894	198	22.14	125	13.98
Missouri.....	2	680	285	41.91	162	23.82
California.....	1	500	130	26.00	90	18.00
Tennessee.....	1	222	67	30.18	62	27.93
Totals, and Mean per cent	58	14,372	4,007	27.88	2,980	20.74

If the statistics of recoveries be arranged in accordance with the groups popularly called the Eastern, the Middle, the Southern, and the Western States, the results are as follows;—and to them are appended the percentage of deaths, calculated, like the recoveries, upon the number of patients admitted.

In the Eastern States the total of admissions was 2,335; the total of recoveries, 582; and the proportion of recoveries, 24.92 per cent. The number of deaths was 562, and the proportion, 24.07 per cent. The number of recoveries exceeded that of deaths by only 20.

In the Middle States the number of admissions was 2,927; the number of recoveries, 627; and the propor-

tion of recoveries, 21.42 per cent. There were 664 deaths, equal to a percentage of 22.69. The deaths have a majority of 37 over the recoveries; and the proportion of both recoveries and deaths is less than in the Eastern States. It has been suggested in one of the criticisms of a psychological periodical, that the small ratio of recoveries in Massachusetts is a consequence of the published writings of the superintendent of one of the hospitals in that State. As, according to these statistics, the proportion of recoveries is less in the Middle States than in Massachusetts, the proposition now is,—*Whose published writings were the cause of it?*

In the Southern States 1,844 patients were admitted; and 632, or 34.27 per cent, recovered. The total of deaths was 496, or 26.90 per cent. The proportion of recoveries is nearly ten per cent on the admissions in excess of those of the Eastern States; and that of deaths nearly three per cent. The proportion of recoveries is considerably increased by the statistics of the Richmond Asylum. If those statistics be set aside, and the computation made upon the returns from the other Southern institutions, the results are;—Admissions 1,725; recoveries 535; per cent of recoveries, 31.21. Deaths 435; percentage of deaths on admissions, 25.21.

In the Western States the admissions were 7,266; the recoveries, 2,166; and the proportion of them 29.81 per cent. Of deaths there were 1,258, or a proportion of 17.31 per cent, which is more than five per cent of the admissions less than in either of the other sections.

Arranged in accordance with the *increasing* ratio of recoveries, that is, from lowest to highest, the sections stand as follows;—Middle, Eastern, Western, Southern;—and in accordance with the *decreasing* ratio, from highest to lowest, of deaths, as follows; Southern, Eastern, Middle, Western.

These results are derived from the work of but a single year, and hence are unreliable as an established formula. By the extension of the investigation over a sufficient series of years, something more reliable might be obtained. Then, and not now, will be the time to speculate upon the causes of the differences.

STATISTICS OF PENNSYLVANIA HOSPITALS.

The table to which attention is now requested includes statistics of the seven hospitals in Pennsylvania, during a period of five years each, with the exception of that at Warren, which is of but four years. At all of them the period ended in, or with, the year 1884.

TABLE IX. PENNSYLVANIA HOSPITALS.

		Admitted.	Recovered.	Per cent of recoveries.	Died.	Per cent of Deaths.
Frankford	1880-84	196	58	29.59	39	19.90
Penna. Hospital	" "	973	328	33.74	147	15.11
Dixmont	" "	968	216	22.31	277	28.61
Harrisburg	" "	772	121	15.97	174	22.54
Danville	" "	720	114	15.83	118	16.39
Norristown	" "	1,458	275	18.86	290	19.89
Warren	1881-84	847	92	10.86	113	13.34
Totals and Mean per cent		5,934	1,204	20.29	1,158	19.51

The whole number of cases admitted was 5,934; the total of recoveries, 1,204; and the proportion of recoveries 20.29 per cent. But Norristown and Warren are both new hospitals, and in their first years received many transfers from other institutions. Hence they are unfairly represented. We will therefore permit the statistics of only the last two years at these institutions to enter into the computation, retaining, for the others, the full period of five years. Those statistics are as follows.

		Admitted.	Recovered.	Per cent of recoveries.	Died.	Per cent of Deaths.
Norristown....	1883-1884	777	195	25.09	219	28.18
Warren	1883-1884	388	70	18.04	80	20.62
Totals and Me'n per cent.....		4,794	1,102	22.98	1,054	21.98

By a substitution of these figures for those contained in the next preceding table, it will be found that the whole number of admissions is 4,794; the number of recoveries, 1,102; and the proportion of recoveries, 22.98 per cent, or a gain of 2.69 per cent on the admissions, by the change.

At the four State Hospitals of Massachusetts, the proportion of recoveries in the three fiscal years ending in 1882, and the statistics of which form the basis of an article on curability in the Northampton, Mass. report for that year, was 22.25 per cent. This is seventy-three hundredths (.73) of one per cent less than that of the Pennsylvania hospitals, according to these statistics. But this difference is more than counter-balanced by the fact that the Massachusetts statistics relate to *persons* only, while those of Pennsylvania relate to *cases*. In the latter all duplicate, triplicate and multiply recoveries are included, while in the former they are all *rejected*.

By the first of the two tables the deaths were 1,158, and their proportion on the admissions, 19.51 per cent. By the last table they were 1,054, and their proportion, 21.98 per cent, or an increase of 2.47 per cent. This increase is a natural result, as deaths are generally comparatively few in the first two or three years of a hospital's operations.

TESTIMONY OF THE DANVERS HOSPITAL.

The experience at the newest State institution in Massachusetts is both instructive and disappointingly

interesting, in the light which it throws upon the curable, or rather the incurable, condition of a great mass of the insane of the present epoch in that State.

The Danvers Hospital was opened for the reception of patients on the 18th of May, 1878. It is, emphatically, one of those establishments upon which a flood of money has been poured, for the purpose of creating a curative institution as nearly perfect as possible under the light of existing knowledge. If abundance of pecuniary means in construction, together with what was believed to be the highest embodied ideal of architectural arrangements, could cure insanity more rapidly than a less costly and more simple structure, that hospital, most assuredly, was prepared for a demonstration of the proposition. It was evident that great efforts were made to arrive at such a demonstration, and thus prove that the curative advantages of the institution were an adequate, or—since the value of reason restored is not to be measured by dollars and cents—*more* than adequate compensation for the excess of expenditure. The usual custom of a large transfer of chronic and incurable cases from older hospitals or asylums to the new one, was here omitted, and the supply of patients was derived chiefly from current commitments. By this means the proportion of recent cases was much higher than usual from the first; and as Boston and five other large centres of population—which usually furnish a larger ratio of recent cases than the rural districts—are within a comparatively short distance from it, that proportion was raised still higher.

The fiscal year of the State institutions terminated four and one-half months after the hospital was opened. During this period 305 patients were admitted; and 26, or 8.82 per cent, discharged recovered. In the

course of the next—1878-79—fiscal year, 653 were admitted; and 115, or 17.61 per cent, discharged recovered. In 1879-80 the admissions were 581, and the discharge of recoveries 165, making the percentage of the latter 28.40. At this point the proportion of recoveries stopped upon its ascending scale, and took a retrograde direction. In 1880-81 the admissions were 497, the recoveries discharged, 124, and the percentage, 24.95; in 1881-82, admissions 512, discharged recoveries 89, percentage 17.38; in 1882-83, admissions 488, discharged recoveries 80, percentage 16.39; and in 1883-84, admissions 530, discharged recoveries 96, and the percentage of the latter 18.11.

The whole number of admissions, during the six years and four and one-half months, was 3,566; and that of discharged recoveries 695, or an equivalent of 19.49 per cent. In the first three full fiscal years, the admissions were 1,731, the discharged recoveries, 404, and the per cent of the latter 23.34; and in the last three fiscal years, admissions 1,530, discharged recoveries 265, per cent of recoveries 17.32. In the first period of three years, the deaths were 240, or 13.86 per cent of the admissions; and in the last period, 285, or 18.63 per cent of the admissions. In the first period the deaths were 240, a per cent of 59.4 on the recoveries; and in the last period, they exceeded the recoveries by 20, the deaths being to the recoveries as 57 to 53.

The new formulæ for statistics in Massachusetts give the ability still further to illustrate the character of the recoveries,—an ability rendered by the reports of no other State in the Union. The new tables were adopted in 1879, and first used in the reports for 1879-80. In the course of the five fiscal years ending September 30, 1884, 554 patients, or *cases*, were discharged recovered from the Danvers Hospital; but

115 *persons*, who had been discharged recovered a total of 121 *times*, had returned to it. Within the last three years,—which are included in the foregoing years—the discharged recoveries were 265; but, during the same time, 80 *persons*, representing 86 of those recoveries, were readmitted. So far as the community is concerned, these recoveries offset, or cancel, the same number of the discharged recoveries, and the added recoveries in the population, instead of being 265, is 265 minus 86, or 179, a diminution of about one-third, and only 11.70 per cent on the number of admissions during that period.

RE-ADMITTED RECOVERIES IN MASSACHUSETTS.

The annual report for 1881–82 of the Northampton Lunatic Hospital, contains an article on the statistics of the State Hospitals of Massachusetts during the three years which had then elapsed since the adoption of the new series of tables. I desire to call attention to some points in the statistical history of recoveries, as illustrated by the same hospitals, during the two years since that article was published. For this purpose a table is here introduced which shows, for the fiscal years 1882–83 and 1883–84:

- 1st. The number of persons admitted who had previously been discharged recovered;
- 2d. The number of times they had previously recovered;
- 3d. The ratio of recoveries to persons; and
- 4th. The number of persons discharged recovered during those two years, at each of the four hospitals aforesaid.

TABLE X. TWO YEARS AT MASSACHUSETTS HOSPITALS.

HOSPITALS.	ADMISSIONS.			DISCHARGES.
	Persons admitted who had previously been discharged recovered.	No. of times they had recovered.	Ratio of recoveries to persons.	Persons discharged recovered.
Worcester.....	43	118	2.73	109
Taunton.....	64	147	2.29	145
Northampton.....	21	39	1.85	53
Danvers.....	49	54	1.1	176
Totals.....	177	358	2.02	483

The number of persons admitted who had previously been discharged recovered, was 177; and they had been discharged recovered a total of 358 times. There were 181 more recoveries than persons. In other words, the number of recoveries was four more than twice as great as the number of persons. Each person had recovered, as a mean or average number, 2.02 times. Regarded, during the last two years, from a debt and credit point of view, those four institutions cancelled, by taking back from the general population, no less than 358 recoveries for which they had been credited. During the same time they discharged, recovered, 483 persons, which is only 125 more than the *recoveries*, (not persons) which they had taken back.

Summary. A brief résumé of the most important results of the foregoing studies, expressed in the percentages of recoveries, may be found convenient for reference.

1. *Cases of first attack ; duration less than three months.*

- a. Earle's 8,316 cases, at 23 British Asylums. Recoveries 48.71 per cent.
- b. Chapman's 38,283 cases, at 46 British Asylums. Recoveries 48.72 per cent.

2. *Cases of first attack ; duration less than twelve months.*

- a. Earle's 10,929 cases, at 23 British Asylums. Recoveries 44.06 per cent.

- b. Chapman's 50,409 cases, at 46 British Asylums. Recoveries 43.79 per cent.

3. *Not first attack; duration less than twelve months.*

- a. Earle's 4,768 cases, at 23 British Asylums. Recoveries 55.37 per cent.
- b. Chapman's 19,574 cases, at 46 British Asylums. Recoveries. 53.61 per cent.

In neither of the three foregoing classes have we any American statistics, because our institutions, in the tabulation of their cases, make no discrimination which would render such a classification possible.

4. *All cases of duration less than twelve months.*

- a. Earle's 15,697 cases, at 23 British Asylums. Recoveries 47.49 per cent.
- b. Chapman's 69,983 cases, at 46 British Asylums. Recoveries 46.52 per cent.
- c. Earle's 8,063 cases, at 15 American Institutions. Recoveries 38.59 per cent.

5. *All recoveries, calculated on all admissions.*

- a. Chapman's 93,443 cases, at 46 British Asylums. Recoveries 37.95 per cent.
- b. Earle's 33,318 cases, at 39 [15+24] American Institutions. Recoveries 29.15 per cent.
- c. Earle's 23,052 cases; 3d period at 20 American Institutions. Recoveries 29.91 per cent.
- d. Earle's 14,372 cases; in one year at 58 American Institutions. Recoveries 27.88 per cent.

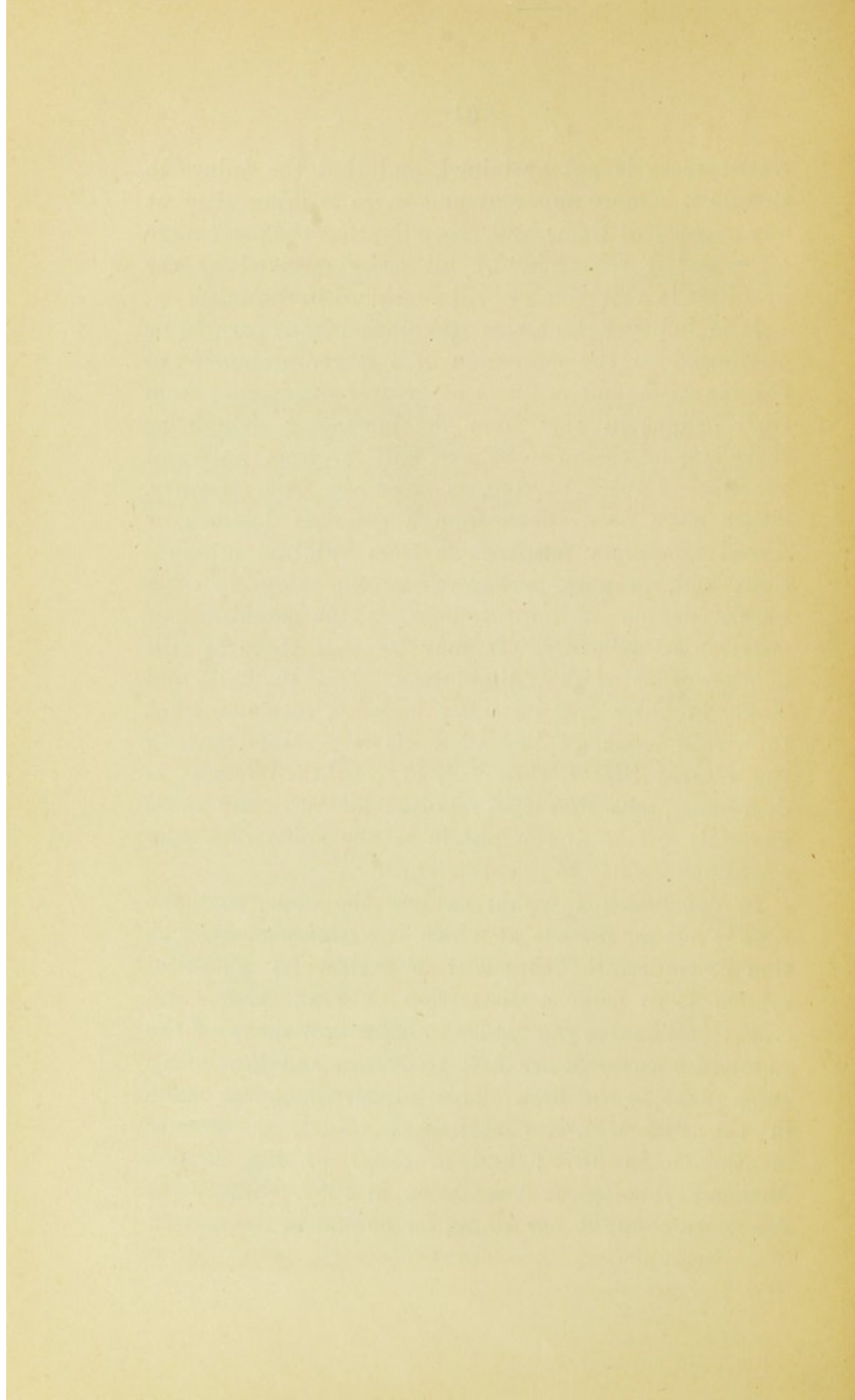
It will be perceived that, so far as these statistics are an index, the recoveries in British Asylums, both of recent cases and of all cases admitted, exceed the recoveries in the American institutions by between 8 and 9 per cent.

The most important general conclusions to be derived from the statistics included in this paper, are, first, that the old claim of curability in a very large majority of

recent cases is not sustained, and that the failure to sustain it is more apparent and more striking than at any antecedent time; and, secondly, that the percentage of reported recoveries of all cases received at the hospitals in this country still continues to diminish.

It is believed that this diminution is, in part, to be attributed to the admission of a larger proportion of chronic cases, and of cases of greater degeneracy from their origin; in part, from the increasing though, as there is good reason to believe, still far from universal practice of not reporting, *as recoveries from insanity*, either mere restorations from a drunken debauch, or forced temporary suspensions from habitual intoxication; and, in part, perhaps, from the adoption of a higher degree of improvement as the standard or criterion of recovery. It may be that there is still another cause of that diminution. Drs. Bucknill and Tuke, in their treatise upon insanity, mention what they call "cooked" statistics. It is possible that, in the United States, this class of published results is decreasing, and that the reported statistics are more generally given to the public in the spirit of a conscientious loyalty to scientific truth.

In conclusion I would express the hope, that the time is not far distant at which the American Association of Superintendents will so perfect its statistical system as to make a distinction between persons and cases; and enable the reader to learn how many of the reported recoveries are first recoveries and how many subsequent to the first. This improvement was made in the Massachusetts statistical tables, as already mentioned, in 1879; and in those of the British Medico-Psychological Association in 1883. Surely our Association ought not to lag far behind in the matter.



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