

Observations and essays on the statistics of insanity : including an inquiry into the causes influencing the results of treatment in establishments for the insane ; to which are added the statistics of the retreat, near York / [J. Thurnam].

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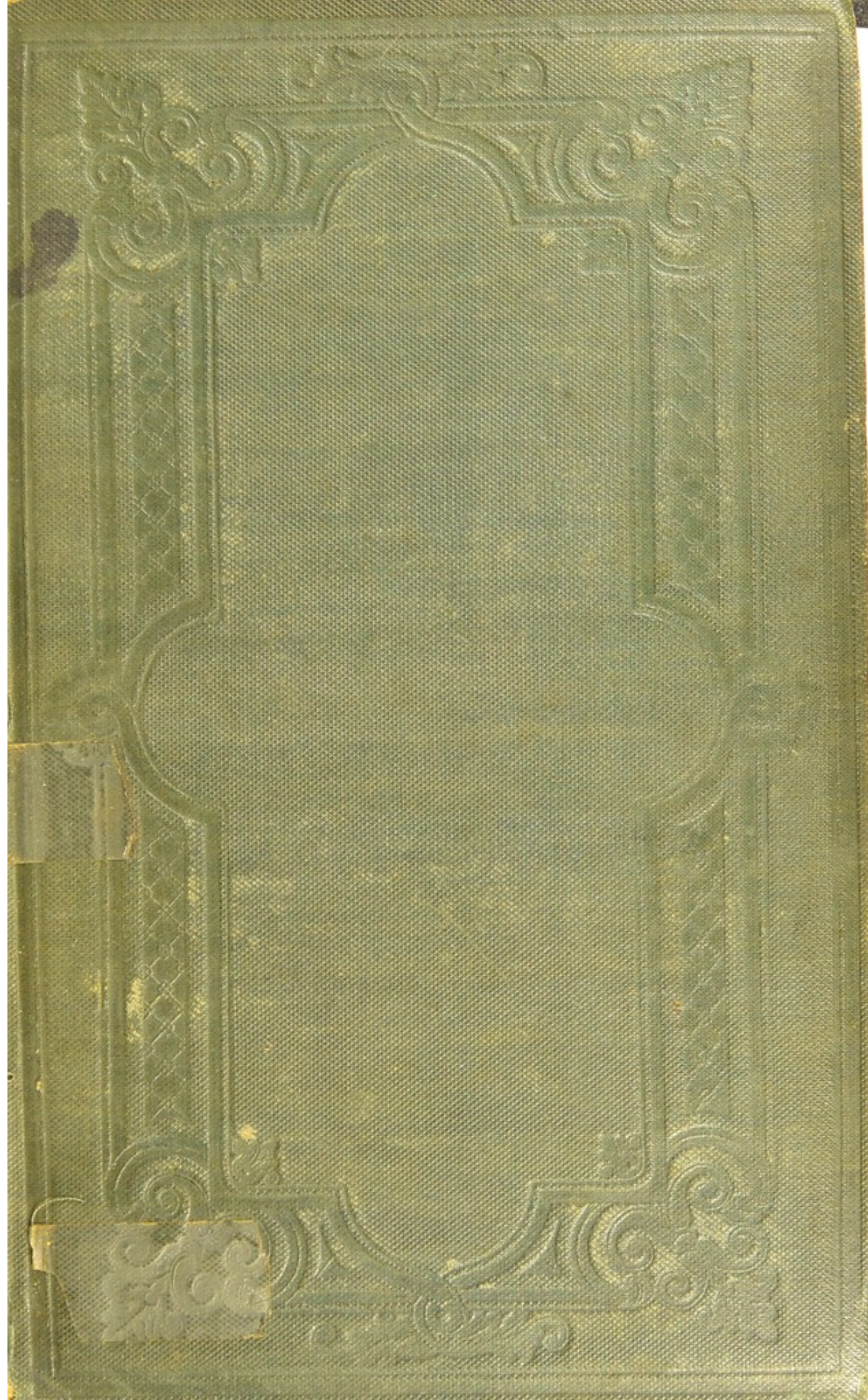
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OBSERVATIONS
AND
ESSAYS
ON THE
STATISTICS OF INSANITY;

INCLUDING AN INQUIRY INTO
THE CAUSES INFLUENCING THE RESULTS OF TREATMENT
IN
ESTABLISHMENTS FOR THE INSANE :

TO WHICH ARE ADDED
THE STATISTICS OF THE RETREAT, NEAR YORK.

BY JOHN THURNAM,
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1845.

"In all that is fluctuating, changeable in space, mean numerical values are the ultimate object—they are the expression, indeed, of physical laws; they shew us the permanent in the change and in the flight of phenomena."—HUMBOLDT. "Cosmos."

"Statistics is a science which ought to be honourable, the basis of many most important sciences; but it is not to be carried on by steam, this science any more than others are:—Conclusive facts are inseparable from inconclusive, except by a head that already understands and knows."—CARLYLE. "CHARTISM."

INTRODUCTION.

WHILST engaged, six years ago, in drawing up the Statistics of the York Retreat, I was naturally led to the consideration of the statistics of insanity in general, and to compare the results obtained in that particular establishment, with those which are exhibited in the reports of other asylums and hospitals for the insane. The following observations and essays had their origin in these considerations and comparisons.

Pinel and Haslam have both given numerical returns of the ages of the insane as observed by them; and the former has the merit of having, in the last century, introduced a form for the registration of the cases treated in the asylum of Charenton. But the first author who employed figures to any extent, in the elucidation of the history of insanity, appears to have been the excellent Esquirol. At the time, however, when Esquirol first wrote, the numerical method was in its infancy, and statistics had scarcely yet been applied to medical subjects; so that those physicians who had the merit of adding another and important instrument to our methods of enquiry, may well be excused, should it now be found that they fell into more or less serious errors. In the following pages it has been incumbent on me to point out more than one instance in which this justly celebrated physician has fallen into material error, from the adoption of faulty methods of statistical analysis.

It is to Mr. Farr, the distinguished coadjutor of the

Registrar-General, that we are indebted for one of the earliest really valuable contributions to the statistics of insanity. His pamphlet, on the "Statistics of English Lunatic Asylums," published ten years ago, is important in various respects; and in none more so than in being the first work of much more than local repute, to shew the true method of calculating the mortality of the insane,—a point on which (as evinced in many even of the more meritorious reports of asylums, and of the smaller works on insanity which issue from the press) there continues, in many places, up to the present day, to be so serious and remarkable a misconception. In the pages of the Statistical Journal, Mr. Farr has since given us a valuable paper "on the Mortality of Lunatics." To these essays it is simply an act of justice to refer, and to acknowledge the advantage which I derived from the careful study, particularly of the former, at the time it appeared.

Nor is the author the only one who has partaken of these advantages, and of those connected with the more advanced condition of the science of statistics, viewed as an instrument of enquiry. Of late years the statistical tables given in the reports of different asylums, of our own and other countries, have advanced materially both in number and value; and, though it is to be regretted that there continues to be much want of uniformity in these tables, and though many of them present defects more or less important, I have still derived much advantage from their careful examination and comparison. I cannot conclude a reference to these annual reports, without expressing my satisfaction at the very general interchange of them which exists between the medical superintendents of different asylums. We cannot, indeed, but augur favourably, to the interests both of science and humanity, from the willingness which is so generally found in the directing officers of these establishments, to associate and co-operate in the pursuit and dissemination of

knowledge connected with the right treatment and care of the insane.* The medical superintendents of asylums thus distinguished, will (to use the words of a recent able writer, in reference to the profession at large,) necessarily "rise in public estimation, standing out from the unqualified in kind and in usefulness, and must rise from their merely selfish condition to the higher standing of public servants."†

Objections are entertained, by some, to the employment of the numerical method in the study of insanity at all. Though fully impressed with the necessity for caution in the application of numbers to the elucidation of the laws governing the phenomena of mental disorders, I may own that I cannot share in objections, which would apply equally to the employment of this method, in the study of disease generally. The present is not the place for discussing at length the merits of the numerical method as applied to medicine in general; but I cannot conceal my belief that we are justified in looking for much benefit from its more general but cautious adoption by cultivators of medical science, and by practitioners of the healing art.

Dr. Luther Bell, the medical superintendent of the M'Lean asylum, Boston, U. S. A., has expressed very strong objections to the statistical method as applied to the study of mental disorders, and has discontinued his tabular reports of the results obtained in that establishment. The

* The "Association of Medical Officers of Hospitals for the Insane," formed at Gloucester in 1841, has not been unproductive of good. I ought perhaps to state that a considerable part of the first chapter of this work was read to the annual meeting of this little society, held at the Lancaster asylum in the summer of 1842.

† "Suggestions as to a Form of Register for Hospitals, &c." By Charles Cowan, M.D. "Transactions of Provincial Medical Association." 1841. Vol. ix. p. 523.

remarks of this excellent physician, in his successive annual reports, (1841—1844) are valuable, if received as enforcing the necessity for care in the deduction of inferences from figures in connexion with this subject; but they are far from convincing me of the inapplicability to it of statistics, or of the valuelessness of many of the inferences which have, and could only have, been deduced by the use of the numerical method. For as Louis, when first employing the numerical method in the elucidation of pathology and therapeutics, found all his *a priori* conclusions, without exception, reversed or disproved, so may we assert that by the application of the same method to mental disorders, many inferences, altogether opposed to previous conclusions, have been established.

There are various questions, of no trivial importance to medical and anthropological science, which those who are the most sceptical as to the utility of statistics will hardly deny, are only to be solved by recourse to numbers. Such questions are the influence of sex and age, of climate, race, and different conditions of society, in the production of insanity. Such also, considered independently of the inferences which may be drawn from them, (which will be much more decided in some cases than in others), are the proportion of recoveries, the proportion of recurrent attacks and relapses, and the rate of mortality in mental disorders. Even when the facts to which numbers are applied are in themselves of a more doubtful character,—under which head, the causes, forms, and duration of the disorder, may be mentioned,—and when the resulting statements are rather to be received as the approximative expression of the results obtained by different observers, they seem to me to be far from destitute of interest and value. Indeed, when we know the circumstances under which such facts have been collected, the character for industry, judgment and accuracy, of the

observer and the analyst, such numerical statements, received as provisional approximations, and used only as such, may serve to guide our steps, where even an imperfect light would otherwise be denied us. The greater value to the observer, as well as to the reader, of facts of whatever kind, even if more or less ambiguous, carefully registered and expressed in numbers, as compared with the same facts loosely registered in the memory, and still more loosely expressed in general terms, ever varying with the varying temperament of the observer, will hardly be denied. Taken for their real value, the statistics of insanity will not be unduly depreciated on the one hand, nor unduly exalted on the other. Though the inferences deduced from them furnish us with no absolute test of the character of different establishments, they still supply us with the only test within our reach which, however unintended, is not obviously liable to perversion and exaggeration, from the passions and predilections of those who furnish it. Meagre and partial numerical statements have, however, little value. The statistics of asylums, to be useful, should be extended and varied; and should afford us the opportunity of testing one numerical statement by another, and so enable us to avoid hasty and erroneous inferences. It is thus that statistical reports will command that confidence in their accuracy, which can alone make them really valuable.

Whilst I contend for the utility, present and prospective, of carefully reported numerical statements of the results obtained in asylums and hospitals for the insane, I freely admit that the way in which tables are frequently presented in reports, as proofs of certain conclusions, is empirical and unsound. The statistical returns form only a part of the data necessary for a right comparison of the results obtained in different establishments; and the circumstances which remain unfigured would doubtless, if obtained, in many in-

stances lead us altogether to reverse our judgment. In such cases of hasty induction, however, the error is in the logic rather than in the statistics.* A primary object of the following pages is the attempt to shew how far, and in what manner, such comparisons are warranted in the present condition of the statistics of asylums, and to advocate various methods for the improvement of these statistics. Because the information we obtain from this source, whether from inherent or accidental causes, is more or less imperfect in its character, we are not, I think, justified in neglecting numerical returns altogether. Rather, on the contrary, let us mortify that spirit of crude and over hasty generalization, which has been well stated, by a distinguished philosopher,† to be a prevailing error of the present age, and let us apply ourselves to the careful observation and registration of facts, and to the cautious deduction of inferences from them.

Those who insist most on the ambiguous character of much of the information with which the statistics of insanity present us, and on the necessity for caution in the inferences which we form from them, which I am far from controverting, must still, I think, allow that they throw much light on the economy of different establishments, which cannot fail to be of interest and utility. For example, general observation and inquiry might assure any one, cognizant of the administration of the two establishments, that the average duration of residence of patients in the York Retreat

* "We cannot be too much on our guard against conclusions drawn from statistical documents, and especially against the methods of reasoning which may be employed. The greatest sagacity is necessary to distinguish the degree of importance to be attached to each influencing element, and we have frequent proofs that even clever men have been led into absurdities by ascribing to certain causes, influences produced by other causes which they had neglected to take into consideration."—*Quetelet*. "On Man, and the Development of his Faculties," &c.

† Sir John Herschell.

is much greater than in the York Asylum ; but it is the numerical method alone which could have shewn the extent of this difference :—numbers alone could have proved that the period of residence is twice as great in the one establishment as in the other, and that for all who are admitted, whether they are discharged recovered, relieved, or unimproved, or whether they die whilst remaining under care. In this, as in many other examples which might be mentioned, it is statistics alone which can give accuracy to our knowledge, and that confidence in our inferences which nothing but the careful collection and analysis of facts can rightly confer.

Many of the annual reports circulated by the directors and officers of various asylums, which it might be thought invidious to particularize, are valuable, from the extent of the statistical information which they contain, as well as on other grounds. Statistical reports, however, for single years, in consequence of the limited results to which they refer, the want of uniformity which they generally present, and for other reasons, are, for the most part, of but imperfect character and limited value. This is not the case with the retrospective reports of asylums which have been in operation for considerable periods of years, the officers of which have kept accurate registers of the cases, and which, embracing either a very extended or the entire period of their operation, present us with well arranged tabular statements, comprising all the more important points of enquiry. Few such reports have hitherto been published. The first I am acquainted with is that of Dr. Jessen, for the hospital for the insane at Schleswig, for a period of fifteen years, from 1820 to 1835, published in Jacobi and Nasse's Journal, for 1838.* To the tables in this report I was indebted for

* "Aerztliche Erfahrungen in der Irrenanstalt bei Schleswig." Von. P. W. Jessen.

some useful hints when I was engaged in drawing up my "Statistics of the Retreat."* Another important retrospective report, by the physician and resident director of the asylum at Rouen,† has appeared during the present year. This report is particularly valuable, as well from the admirable classification it presents of the causes of mental alienation, as from the many important observations it contains on the medical treatment, moral and physical, of the insane. On the other hand, M. Parchappe falls into the material though common error, of calculating the mortality on the total, instead of on the mean, number resident during each year;—an error in which, we may trust, he will not now be followed. From a succession of retrospective reports like these, we should derive much information, important alike to the interests of science and of humanity; and we may hope that, from time to time, other contributions of this kind will appear from those invested with the charge of this important class of establishments.

After these remarks on the statistics of insanity in general, it is necessary to say a few words, by way of introduction, to the second part of the work, which is devoted to the statistics of the Retreat near York, of which institution for the insane, I have been the resident medical officer and superintendent, for upwards of seven years. The first edition of these statistics was printed, in 1841, by the directors of the Retreat, for distribution amongst the friends of the institution and others interested. In 1844, Dr. Julius,

* "The Statistics of the Retreat (near York), consisting of a Report and Tables, exhibiting the Experience of that Institution for the Insane; from its establishment in 1796, to 1840." York, J. L. Linney, 1841.

† "Notice Statistique sur L'Asile des Aliénés, de la Seine Inférieure, (1825-43). Par MM. L. Deboutteville et M. Parchappe, Directeur et Médecin en chef de cet établissement. Rouen, 184 "

of Berlin, after a visit to various English asylums in 1841, published a German translation of the work in a volume of "Contributions on the Medical Treatment of Insanity in Great Britain." I have also received, from the medical superintendents and physicians of various asylums, at home and abroad, various communications which encourage me to believe that the publication of these statistics, in an enlarged and revised form, will not be unacceptable to many readers. From the frequent reference to them in the first part, they appeared indeed to form an almost essential portion of the work, of which they now constitute the second part.

The comparatively limited character of the data on which the Statistics of the Retreat are founded, may be thought to detract somewhat from their value; and we must admit that more confident inferences would be justified by more extended data. Still,—to say nothing of the caution with which the conclusions have been drawn,—we must not forget the long period of time over which the experience of the Retreat extends, the degree of precision in the knowledge obtained respecting the individual cases, nor yet that these statistics are those of the insane of a particular community, much isolated from the rest of the world;—the general statistics of which I have thought deserved a place in an appendix to this work. The latter consideration will justify our attaching a somewhat high and peculiar value to these statistics, as those of a particular sect; and, for the purpose of more general views, will also, I think, warrant our receiving inferences drawn from a smaller number of facts than would be admissible in the case of almost any other establishment. As Dr. Chalmers has observed,* "the tabulated returns of a small territory are far more valuable than wide and general views over a larger field. A deeper insight into the economics

* Report of Dr. Chalmers' speech at the statistical section of the meeting of the British Association, at Glasgow. Athenæum. 1840.

of society may be obtained from a single parish, household, or family, than from observations which must be superficial in proportion to their extension,—which must exchange solid strength for feeble splendour.” “Those who,” as Dr. Chalmers goes on to observe, “like Solomon’s fool, have ‘their eyes on all the ends of the earth,’ may succeed in giving a visionary outline, but *accurate* observations can alone form the foundations of science.”

Before going to press, on this occasion, the opportunity has been taken of revising this part of the work, and of making such additions to it as appeared to be called for. One new table (Table 3) has been added, and four others (Tables 5, 6, 12, 38) have been remodelled; but with these exceptions, and except as regards some changes in the order in which they are placed, the tables remain essentially the same as when first printed. This is also the case with the greater part of the Statistical Report; though to this not a few considerable additions have been made, which I have not thought it needful specially to indicate.

The additions to the preliminary “Historical Sketch, and Description of the Establishment and of its Internal Economy,” which has been almost entirely re-written, are still more extensive. The historical sketch, which constitutes an almost entirely new feature, has been added, to give greater completeness to the whole. In this sketch, I have freely availed myself of materials contained in the well known “Description of the Retreat,” published by the present treasurer of the institution, in 1813. So freely indeed, have I borrowed from the work referred to, that as regards this division of my subject, my labours have, to a great extent, been restricted to those of a compiler. In bringing down the history of the establishment to the present time,* I

* For the sake of reference in the first part, and for other reasons, the second

have laid under contribution the successive annual reports, as well as the various records of the establishment to which I have had access; and have incorporated with the materials thus obtained, those other facts and particulars which have fallen under my own immediate observation.

For the purpose of a just comparison of the results obtained in different asylums, it is indispensable to be acquainted with the several points in their general character and specific appropriation, and in the rules and practice as to the admission and discharge of patients, by which they are severally distinguished. It is, hence, always desirable, before entering upon the consideration of the inferences to be drawn from the statistics of any establishment for the insane, to put the reader in possession of a brief sketch of its history, its internal and external government, and of the methods of treatment pursued. And although, in the succeeding pages, the "Historical and Descriptive Sketch" of the Retreat has extended to a greater length than I at first contemplated, or than was required to elucidate the statistical results, the subject perhaps possesses sufficient independent interest to merit publication in this place. In the pages devoted to it, I have endeavoured to present a condensed description of this particular establishment, in its several departments; and thus, in some degree, to supply the place formerly occupied by the "Description of the Retreat," which has been long out of print; but which, at the time of its publication, formed so important a contribution to the literature of the subject, and which, in this country, even marks the epoch of the spread of more enlightened views as to the treatment of insanity.*

part of the work, or the Statistics of the Retreat, has been printed off before the first, and has been separately paged. The greater portion of this part has been in type nearly two years.

* But for the publication of this work, which has the singular merit of being

The circumstances under which this work has been produced, in the intervals of daily attention to professional duties, must plead my excuse for those defects of style and composition of which no one can be more sensible than myself. If the work have any value, I am well aware that this rests on other grounds than the attractions of a faultless style. Spite of the difficulties of a statistical subject, I at least hope that I have generally succeeded in making myself perspicuous. As regards the care and labour bestowed on the collection of materials, on the numerical calculations, and on the deduction of inferences from the facts thus elaborated, I may venture to speak with greater confidence; and I trust that the length of time which some of my friends are aware the work has been in progress, will not have raised undue expectations of its character and value. It aspires to no higher title than that of contributions to our knowledge of the statistics of insanity, and of this character I trust it will not be found unworthy.

To my friend Samuel Tuke, the treasurer of the Retreat, whose services in the cause of the insane are too well known to call for any eulogium from me, I am under much obligation, for the perusal of my pages, and for various suggestions as they were passing through the press. To other friends, (some of them, at the time, patients under my care) who have kindly assisted me in the numerical calculations and in the correction of the press, I must also express my thanks.

Before concluding this introduction, I may be allowed to make a few observations on the present condition and prospects of establishments for the care and recovery of the

the production of a non-professional person, the valuable results and observations of the early superintending officers of the York Retreat, would have remained comparatively unknown.

insane. Since 1792, when Pinel found the hospitals in France for this class of patients, the "medical prisons" which he has described them, and which he did so much to ameliorate, the condition of continental asylums has made a most decided and beneficial advance. Nor has the progress of improvement been less in this country and in Anglo-Saxon America, since (also in 1792) the Tukes and Murrays of York, prevailed on the Society of Friends to call an asylum into existence, in which a more just and humane system of treatment should be pursued; and since Fowler and Jepsen, laying aside the then prevalent medical empiricism, and discarding reliance on mere brute force, demonstrated to the world the true principles of the treatment of the insane, and proved beyond a question, the power of judicious kindness in their management.

"Mightier far
Than strength of nerve, or sinew, or the sway
Of magic potent over sun and star,
Is love." *

Serious defects, however, still exist in various establishments of fair reputation, public as well as private; and we should be deceiving ourselves, and forgetting the imperfection which must attach to all human institutions, were we to assume completeness or perfection in any. From the increased interest, public and professional, which has been shewn in this subject of late years, we may, if directed into right channels, yet hope for further improvements, and for the more extended spread of those which have already been made. Legislation has, most properly, been again addressed to the subject; and, though I cannot concur in the desirableness of some of the details of Lord Ashley's measures, the general spirit and tendency of the recent acts, 8 and 9 Vict. c. 100, and 126, must command general approbation; and, as

* Wordsworth.

administered by an at once active and liberal Commission, must also, I think, lead to beneficial changes in the condition of the insane throughout the kingdom. *

To no one, it appears to me, have we, of late years, been indebted, more than to Dr. Conolly, for the patient and self-denying attention which, through good report and through ill report, he has bestowed on the treatment of insanity, in the largest asylum of the kingdom. The results of his labours, as depicted in the annual reports of the Middlesex County Asylum, in his published letters, and clinical lectures,† exhibit the physician who, more than any other, seems to me, to have realized the true idea of the medical treatment, moral and physical, of the class of disorders to which he has so zealously devoted himself. ‡

In the track of such a man it is an honour to follow; and should the present work in any degree promote further advances in the treatment of the insane, and in the economy of asylums, one object of the author will, at least, have been fully attained.

* In consequence of the recent passing of these acts, the form of medical certificate and order for admission given at page 56 of the Statistics of the Retreat, requires some alteration. A few other passages also require modification, from the same cause.

† "Lancet." 1845-6. Vol. 1.

‡ In thus referring to the Middlesex County Asylum, I shall not, I hope, be thought to undervalue the labours of the superintendent-physicians of other British asylums, and, not to mention others, in particular those of Lancaster, Lincoln, Gloucester, Wakefield, Glasgow, and Dundee.

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ERRATA.

STATISTICS OF INSANITY.

Page.	Line.	
25,	3,	for "+," read \times .
65,	27,	for "1825-40," read 1825-42.
103,	33,	for "teaze," read <i>tease</i> .
181,	14,	for "five," read <i>five and a half</i> .
,,	15,	for "seven," read <i>eight</i> .

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Page.	
17,	add to note †, <i>45th Annual Report</i> . 1841.
Line.	
77,	32, for "was," read <i>were</i> .
104,	last line of Table, for "30," read 90.

STATISTICS OF INSANITY.

CHAPTER I.

ON THE METHODS OF DEDUCING AND EXHIBITING THE RESULTS OF TREATMENT; AND ON THE CIRCUMSTANCES IN THE CHARACTER OF THE CASES ADMITTED, CAPABLE OF INFLUENCING THESE RESULTS.

It will now be generally admitted that the only means of forming a correct judgment as to the comparative success of any class of institutions, and as to their adaptation, as regards locality, construction, and management, to the objects they have in view, is to be found in a numerical comparison of the results they have afforded, or, in other words, in their respective statistics. But, though Hospitals for the Insane appear to be as well adapted to the statistical test as any other class of institutions, great care is still required in its application. For, in order to form a correct estimate of the system on which they are respectively conducted, it is essential not only that the results which they have afforded be *accurately* presented to us, but that several other precautions should be also observed. Thus, the results of treatment should be collected upon as uniform a plan as the employment of various persons in the work will permit; the periods over which the observations extend should be of sufficient length; and much collateral information should be given, in order that adequate allowance may be made for the peculiar circumstances of different establishments.

The public good appears to call for the regular publication, on an uniform plan, of the statistics of institutions, so liable to neglect and abuse as are those for the insane; and I may be permitted to express a hope that the greater attention to this subject, which has been exhibited in the annual reports of various public asylums, and which is still further manifested by the recent exertions of various able and eminent persons, amongst whom Sir Robert Ferguson,* Lieutenant Colonel Sykes,† and Mr. Farr,‡ must be particularly mentioned, will be followed by some more general system of reporting the results obtained in private, as well as in public, institutions. To ensure success and the ready co-operation of those interested, it would be essential that any such plan as this should be pursued in a liberal spirit; and that the primary object should both appear to be, and really be, that of obtaining information and eliciting truth, not that of favouring any party, or of supporting any favourite and exclusive system.§

The results of treatment which it is the principal object of statistical reports of Hospitals for the Insane to enable us to compare, are two in number—the *proportion of recoveries per cent. of the admissions*, and the *mean annual mortality per cent. resident*. With the important proviso, indeed, of *circumstances being otherwise similar*, the efficiency and success of these institutions may be regarded as in a direct ratio with the proportion of recoveries, and in an inverse one with

* "Returns from District Lunatic Asylums of Ireland, to orders of the House of Commons." 1839, 1840, 1841, & 1842.

† "Statistics of the Metropolitan Commission in Lunacy;" "Statistical Journal," July 1840; Vol. 3, p. 143.

‡ "Statistics of English Lunatic Asylums, &c." London: Sherwood and Co. Also, "Report upon the Mortality of Lunatics." "Statistical Journal," April 1841; Vol. 4, p. 17.

§ Since the above was written, an act, 5th and 6th Victoria, Chapter 87, has passed the legislature, which confers important additional powers on the Metropolitan Commissioners in Lunacy. By this measure, there can be little or no doubt that the important objects alluded to above, will, to a great extent, be attained.

the rate of mortality. The object of the following observations is that of suggesting an uniform plan of collecting and reporting the facts from which these results may be best calculated; and of pointing out those discriminating particulars of which it is requisite we should be informed, in order to a just comparison of the results obtained in different asylums.

SECT. 1.—METHODS OF DEDUCING AND EXHIBITING THE
AGGREGATE RESULTS OF TREATMENT, WITH ACCURACY
AND UNIFORMITY.

I. APPLICATION OF TERMS.

It is in the first place desirable that there should be as much uniformity as possible, in the application of the terms employed to designate the results of treatment. There can indeed be no doubt that the disparity in the proportion of recoveries reported from different institutions, is to a certain extent due to the varying degrees of latitude with which the terms *cured* and *recovered* are applied to cases upon discharge. The most correct method is, perhaps, to regard as *recovered* those cases only in which the patient is so far restored as to appear capable of performing, with propriety, the duties belonging to his social and civil position; though in some of these cases, upon a minute examination, traces of mental disorder may still be detected. In cases, likewise, where the patient is restored to the state he was in before the attack, as where a paroxysm of mania has supervened upon a condition of original mental imbecility, he may be fairly regarded as recovered, when the mania subsides, though the imbecility still remains. Where patients are removed in an advanced stage of convalescence, either by the desire of friends, or from its being thought in the particular case desirable, whether "upon trial" or otherwise, they may be properly considered as discharged *recovered*, should the convalescence be confirmed. But, when, upon discharge, cases still require the particular care of their friends, although so far benefited by treatment, that further residence in an asylum is thought un-

necessary, they should be reported only as *improved*.* We need not stop to make any remarks as to the application of the terms *unimproved* and *died*; the former of which is almost, and the latter altogether, unsusceptible of misapplication.†

II. ACCURACY OF THE REPORTED RESULTS.

It may appear almost superfluous to point out, that in order to any fair statistical comparison of the results of treatment in different hospitals for the insane, it is essential to secure the perfect *accuracy* of the reported facts, upon which the comparison is founded. But it is the more necessary to insist upon this source of fallacy, as there can be no doubt that reports, either accidentally erroneous, or purposely falsified, have in at least some instances been circulated.

Thus I have been informed, by the late excellent physician of one of our county asylums, that, on going through the registers of the institution, he had sufficient ground for concluding that errors had *accidentally* crept into the relative numbers of recoveries and deaths; from the plan having been that of simply making marks in adjoining columns of the register, under the heads "cured" and "dead," instead of entering the result in words at length. In another county asylum, of deservedly high reputation, the number of deaths for

* It is to be regretted that no distinction is made between those discharged as "cured" and those which are considered only "relieved," in the return which is very properly required to be made annually, from every private asylum, to the Clerk of the Metropolitan Commissioners, under the provisions of the act already alluded to, 5th and 6th Victoria, C. 87, S. 36, and Schedule B. I may also be permitted to observe, that it would add extremely to the value of this return if the sexes were distinguished under each head, and if the average numbers resident during the year, as derived from weekly or monthly enumerations, were likewise given. It is however satisfactory to believe that these defects will be met, and even more than met, by the independent enquiries of the Commissioners themselves.

† In some reports, under the general head of "discharged," we have such items as "removed by friends," "removed on trial," "removed to other asylums," and "escaped." It is no doubt very proper that such a record as this should be preserved, but I would submit that, for statistical purposes and for publication, what we primarily require is to be informed of the state of mental health at the time of leaving the asylum; and that the mode by which the discharge is effected, and the motives which influence the parties who procure it, possess only a secondary interest.

the entire period of operation, as given in the annual report at the end of sixteen years, was actually stated as *less by five* than it was reported to have been six years earlier; and this is an error which continues unexplained. In neither of these cases, (though they are both of a character to awaken the suspicions of those unacquainted with their highly respectable officers) is there, I believe, any reason for concluding that the error is other than accidental.

That reports of the results of treatment have been, and still may be, *purposely falsified*, is sufficiently proved by the history of the York Lunatic Asylum, previous to its reform in 1814. It was at that time ascertained, from a minute examination of the records of that institution, that whilst 221 deaths only were officially reported, 365 had actually occurred during the thirty-six years which the asylum had been established, at the commencement of the enquiry into its management in 1813. The deaths of 144 patients had been suppressed in the published reports, and by this means the apparent annual mortality, for the thirty-seven years 1777—1814, was reduced from 11. per cent., its actual rate, to 7.03 per cent.; or to a lower rate than that which has existed since the reform of the institution (1814—1840). Supposing, as there is every reason to believe was the case, that these concealed deaths were added to the recoveries, the effect must have been that of supporting the credit of the institution in a double manner. In proof of the annual reports having been designedly falsified, it is here perhaps only proper to state, that one set of books was kept by the apothecary, and another by the steward, both of which purported to be a correct account of the admissions of the patients, and of how they were disposed of; each of these being in the form of a debtor and creditor account; and thus, if the account was false in one place, it must have been false in more places than one, or else the sums total could not have agreed. The steward's record of the deaths seems to have been tolerably accurate; but, in the face of this, erroneous statements were year after year published in the York newspapers, which were only detected upon being compared with the parochial register of the burials from the asylum, in the churchyard of St. Olave's.*

* "History of the York Lunatic Asylum. By Jonathan Gray." York, 1815;

Had the annual reports of these institutions been regularly submitted, as it is very desirable they should be, to any sufficient examining and superintending body, the accidentally erroneous and purposely falsified statements which have been described must almost necessarily have been detected. Until some such plan as this is organized, we can only rely, as at the present day I confidently hope we are justified in relying, upon the good faith and integrity of the officers and governors of these public institutions.

III. METHOD OF CALCULATING THE PROPORTION OF RECOVERIES AND MORTALITY.

IN the preceding observations, I have assumed that the proper method of exhibiting the results of treatment in hospitals for the insane is, as regards the recoveries, to take the percentage calculated *on the admissions*; and, as regards the mortality, to take the mean annual per-centage of deaths calculated *on the average number resident*. But as there are other methods of exhibiting the results, which are both practised and recommended, it becomes desirable to examine a little into these several methods, in order that, if possible, we may arrive at uniformity on so fundamental a point.

Recoveries.—In a few instances, the same plan has been adopted as regards the recoveries, which there can be no doubt, is the correct one as regards the mortality, viz. that of calculating the annual per-centage upon the average number resident, or upon the mean population of the house.* In this method, *time*, or the duration of treatment, is taken into the account. During the forty-four years 1796—1840, the recoveries at the Retreat, calculated in this way, were at the annual rate of 9.845 per cent.; and thus, upon multiplying 9.845 by 4.8 years, the average length of residence in all cases admitted, we obtain 47.25, or only a trifling fraction less than 47.31, the actual average proportion of recoveries per cent. of the admissions during that period. In the

p. 57; and "Evidence taken before a Committee of the House of Commons. By Godfrey Higgins, Esq." Doncaster, 1816. pp. 7, 23.

* Reports of the Lancaster Asylum, 1841, 1842, and 1843.

same way, the annual proportion of recoveries per cent. of those resident in the York Lunatic Asylum, was 12.43 per cent., and this when multiplied by 2.52 years, the average duration of residence in that asylum, gives us almost precisely 31.34 per cent., which was the actual average proportion of recoveries per cent. of the cases treated during the 25 $\frac{2}{3}$ years, 1814—1840, in that institution. We may thus perceive that if the average duration of residence in different asylums were the same, the rates of recovery, as calculated upon these two methods, would observe a certain proportion to each other; and it would be perfectly indifferent which of the two were selected for comparison. Still, as in the treatment of the insane, the object is not merely to produce a speedy recovery, but as it should combine the fortifying of the system against a relapse, the *time* in which recovery is effected is of secondary importance; and we must consequently admit that the proper method of estimating the relative proportions of recoveries, is that of calculating their per-centage, not upon the average number resident, but either upon the number admitted or treated; or, as we shall see is maintained, upon the number discharged.

The method of calculating the per-centage of recoveries *upon the admissions*, is that which, with little exception, has been followed, in comparing the results obtained in different asylums; and in this method Mr. Farr, in his first essay on this subject, concurred.* The reports however of a few institutions, as for example, those of Glasgow,† and of Worcester, Mass. U.S.,‡ have of late presented us with the per-centage of recoveries calculated *upon the discharges*. In his recent interesting observations “On the Mortality of Lunatics,” Mr. Farr has likewise calculated the recoveries and other results, at Hanwell, Bethlem, and the Metropolitan Licensed Asylums, according to this method; which he now appears to regard as the true one. In behalf of this method, it has also been observed, by an anonymous writer, that “the object is to shew the proportion of recoveries in 100 patients

* “Statistics of English Lunatic Asylums.” Sherwood. p. 6.

† 27th, 28th, and 29th Reports, 1841, 1842, 1843.

‡ 5th Report, 1838, p. 44; and Reports *passim*.

treated for the full term in the asylum. But it is evident that the treatment of the patients now in the asylum has not terminated; some of them will recover; they figure in the admissions and do not figure in the recoveries;" and the writer goes on to observe, that in making the calculation according to this method, "the proportion of recoveries is slightly underrated."* Mr. Farr likewise, in the paper already quoted, remarks that "it is evident that the number discharged is the true divisor" (to the recoveries, deaths, &c.) "for, if the mortality remained the same, the probability is that the patients *to be discharged* would, *cæteris paribus*, be discharged cured, relieved, and died, in the same proportions as those already discharged."†

It is with considerable diffidence that I venture to object to the conclusions of so very able and distinguished a statistician as Mr. Farr. The question however is one of fundamental importance amongst the objects contemplated by this work, and it is one from the discussion of which I would not wish to shrink. In the first place I would observe, that if even, for the sake of argument, we grant that those who "remain" at any given time in an asylum, will really be discharged recovered, relieved, and dead, in the same proportions as those already discharged, and that consequently the calculation of the per-centage of recoveries upon the discharges does indicate with precision the actual results of treatment, we must at least conclude that, for the purpose of comparing the results obtained in different asylums, it will be perfectly indifferent whether the recoveries are calculated upon the admissions or upon the discharges. But at present I confess that I am unable to conclude that the cases which remain in an asylum, after any considerable period of operation (even supposing the mortality to continue the same as it had previously been), will really be discharged recovered, relieved, and dead, in the same proportions as those already discharged. The recoveries per cent. of the discharges, as the succeeding table (Table 1) will shew, are rarely less than one half; but

* "The Lancet," September 10th, 1842. Vol. 2, 1841-2, p. 814.

† "Journal of the Statistical Society," April 1841. Vol. 4, p. 19.

so far from 50 per cent. of the cases remaining in an asylum, at any given time, being of a curable character, it will be found that there are seldom more than 10, or at the most, 20, per cent. in which recovery can be considered as at all probable. At midsummer 1840, there were only about 15 per cent. of the cases remaining in the Retreat, in which there was any probable expectation of recovery;* and at the York Lunatic Asylum at the same time, the proportion was almost precisely the same. In all hospitals for the insane, in fact, with the exception of such as Bethlem and St. Luke's, where particular regulations as to the discharge of such cases are in existence, the great majority of the patients are of an incurable character. And thus, for statistical purposes, the cases "remaining" in an asylum at any given time, may to a great extent be considered as representing the proportion which have passed into the incurable state, and which will, in great measure, furnish the annual mortality of the institution. This will be the case particularly in institutions which have been in operation a considerable number of years. If indeed, as is not improbable, the proportion of cases which pass into the incurable state be, (without any corresponding difference in the annual mortality,) greater under one system of treatment, and in one asylum, than in another, it will, I think, be evident that we can only exhibit the influence thus exerted upon the proportion of recoveries, when we calculate their per-centage upon the admissions.

In order to bring the subject more clearly before the reader, I have calculated the following table, which exhibits, for various asylums, the proportions discharged recovered, improved, unimproved, and dead, calculated according to both these methods.

It must here be particularly observed, that no inferences as to the merits of different institutions should, without great caution, be formed from a mere examination of tables, such as the one before us, and as others which will follow in this chapter. What the cautions are which should be observed

* "Statistics of the Retreat." Table 44, p. 123.—Whenever the "Statistics of the Retreat" are quoted in these pages, it is the second edition, which forms the second part of this work, to which the reader is referred.

TABLE 1.—SHEWING, FOR VARIOUS ASYLUMS, THE PER-CENTAGE OF RECOVERIES, DEATHS, &c. CALCULATED UPON THE ADMISSIONS, COMPARED WITH THE PER-CENTAGE OF THE SAME, CALCULATED UPON THE DISCHARGES.

NAME OF ASYLUM AND PERIOD.	Proportions of every 100 Cases Admitted.			Proportions of every 100 Cases Discharged.		
	Recovered.	Improved.	Unimproved.	Died.	Remain.	
Cornwall,—22 years, 1820-42		60.5		19.1	20.4 = 100	
Lancaster,—26 years, 1816-42	40.3	4.8		38.7	16.2 = 100	76. 24. = 100
Hanwell,—12½ years, 1831-43	33.3	4.3		34.7	37.7 = 100	48.1 5.8 46.1 = 100
Nottingham,—29½ years, 1812-41	45.7	22.1	9.1	12.2	10.2 = 100	37.4 6.9 55.7 = 100
Stafford,—23½ years, 1818-41	43.2	14.	14.6	19.3	8.9 = 100	51. 24.5 11. 13.5 = 100
Suffolk,—13 years, 1829-41	41.1	13.		25.9	20. = 100	47.4 15.4 16. 21.2 = 100
Wakefield,—23½ years, 1818-41	44.2	11.1		32.1	12.6 = 100	51.4 16.3 32.3 = 100
Bethlem "Curables,"—13 yrs. 1827-39.	52.4	40.		5.	2.6 = 100	50.6 12.6 36.8 = 100
York Lunatic Asylum,—1st period, 37 years 1777-1814	80.9			15.2	3.9 = 100	53.8 41.1 5.1 = 100
" 2nd period, 25½ yrs 1814-40	31.3	17.2	21.1	18.5	11.9 = 100	84.2 19.5 24. 15.8 = 100
York Retreat,—46 years, 1796-1842 ..	46.9	10.8	5.2	23.1	14. = 100	35.5 24. 21. = 100
Lincoln,—21½ years, 1820-42	39.3	31.5		18.5	10.7 = 100	12.5 6.1 26.8 = 100
Glasgow,—28 years, 1814-41	46.1	24.3	12.	11.2	6.4 = 100	44. 10.2 25.1 20.7 = 100
Dundee,—23 years, 1820-43	44.6	22.1		14.7	18.6 = 100	49.3 25.9 12.8 12. = 100
Belfast,—13 years, 1829-42	50.4	9.7		19.8	20.1 = 100	54.8 27.1 18.1 = 100
Worcester, Mass.,—8 years, 1833-40 ..	42.3	14.6	15.9	7.5	19.7 = 100	63. 12.2 24.8 = 100
						52.7 18.1 19.8 9.4 = 100

in a comparison of this kind, it is the object of the following section to point out. In a subsequent chapter a few general observations may be made on the results obtained in different asylums.

Many interesting considerations arise upon an examination of this table; but I shall restrict myself to observing that the per-centages of recoveries calculated on the admissions, do not observe any definite proportion with the per-centages of recoveries calculated on the discharges. Let us take for example the Lunatic Asylum, and the Retreat, York. At the Asylum, the recoveries calculated on the admissions are 31.3 per cent., on the discharges 35.5 per cent. At the Retreat, the aggregate recoveries, calculated on the admissions, are 46.9 per cent.; and consequently, if they observed the same proportion as at the Asylum, they would, when calculated on the discharges, be at the rate of 53.2 per cent.: ($31.3 : 35.5 :: 46.9 : 53.2$). But the recoveries at the Retreat, calculated on the discharges, are really 54.6 per cent.; and we may therefore conclude that, to this small extent at least, a less proportion pass into the incurable state, to "remain" and after an uncertain period die, at the Retreat than at the Asylum. That we are warranted in this conclusion will, I think, be evident, when we further remember that the rate of mortality is much higher, and the average duration of residence much less, at the Asylum than at the Retreat. If then the per-centages of recoveries, as calculated according to these two methods, do not observe any definite proportion with each other, it cannot be even indifferent which of the two methods is selected for the comparison of the results obtained in different asylums.

In order to ascertain the *precise proportion* of recoveries under a given system of treatment, or in any particular asylum, the numbers "admitted" must be the same as those "discharged," when the treatment is completed. Such an observation however could only be afforded by an institution which, ceasing to receive any fresh patients, continued in operation until the recovery or removal by death or otherwise, of its last inmate,—a method of observation which we need not waste time by further alluding to. It is sufficient that we should be aware that the true per-centage of recoveries is one

which, in different institutions in different degrees, is intermediate to that calculated on the admissions and that calculated on the discharges. Whilst therefore I fully admit that the plan of calculating the recoveries upon the admissions fails in exhibiting, with precise accuracy, the results of treatment in any hospital for the insane; I yet believe it affords a much nearer approximation to the truth, when considerable periods are concerned, than that calculated on the discharges; and that it is therefore very decidedly to be preferred to the latter method of calculating the recoveries.

There is another point connected with these two methods of calculating the proportion of recoveries, which is worth pointing out in this place. We shall hereafter see (Table 4) that the proportion of recoveries, calculated on the admissions, is at the lowest rate during the *early* periods of the history of an hospital for the insane, and that for the most part they go on progressively increasing for a long series of years after its establishment. The rule is however reversed, when the method of calculating the recoveries on the discharges is adopted. The following table establishes, I think, this point very satisfactorily; and whilst it presents us with a gradual increase in the proportion of recoveries, calculated on the admissions, with the lapse of every successive five years, for the Asylums of Lancaster, Glasgow, and Hanwell, and the Retreat; it exhibits an almost equally marked quinquennial decrease in their proportion calculated on the discharges. How fallacious then must inferences, as to the results of treatment in any asylum be, which are founded on the proportion of recoveries calculated on the discharges, during such short periods as five, ten, or even a greater number of years! But with calculations and inferences of this description we are too often presented.

TABLE 2.—SHEWING FOR THE ASYLUMS OF LANCASTER, GLASGOW, AND HANWELL, AND THE RETREAT YORK, THE PER-CENTAGE OF RECOVERIES, &c.
CALCULATED ON THE ADMISSIONS, AS WELL AS ON THE DISCHARGES, FOR PERIODS INCREASING BY QUINQUENNIAL SERIES OF YEARS.

NAME OF ASYLUM AND PERIOD.	Proportions of every 100 Cases Admitted.				Proportions of every 100 Cases Discharged.				
	Recovered.	Improved.	Unimproved.	Died.	Remain.	Recovered.	Improved.	Unimproved.	Died.
Lancaster Asylum.									
5 years.....	28.8	4.5		21.4	45.3 = 100	52.7	8.3		39. = 100
10 years.....	36.6	6.4		28.8	28.2 = 100	51.	8.9		40.1 = 100
15 years.....	39.2	6.3		32.8	21.7 = 100	50.1	8.		41.9 = 100
20 years.....	38.5	5.5		39.	17. = 100	46.4	6.6		47. = 100
25 years.....	39.8	4.8		38.6	16.8 = 100	47.9	5.7		46.4 = 100
26 years.....	40.3	4.8		38.7	16.2 = 100	48.1	5.8		46.1 = 100
Glasgow Asylum									
5 years.....	39.	22.	8.3	4.4	26.3 = 100	53.	29.8	11.2	6. = 100
10 years.....	40.2	22.	15.	8.8	14. = 100	46.7	25.6	17.4	10.3 = 100
15 years.....	41.1	23.4	15.4	10.	10.1 = 100	45.7	26.	17.2	11.1 = 100
20 years.....	42.7	24.1	13.4	11.4	8.3 = 100	46.6	27.	14.6	11.8 = 100
25 years.....	43.8	24.7	13.	11.4	7.1 = 100	47.2	26.6	14.	12.2 = 100
28 years.....	46.1	24.3	12.	11.2	6.4 = 100	49.3	25.9	12.8	12. = 100
The Retreat, York									
5 years.....	26.1	4.3	.	11.6	58. = 100	62.1	10.3	.	27.6 = 100
10 years.....	33.9	5.9	.	14.4	45.8 = 100	62.5	10.9	.	26.6 = 100
15 years.....	42.5	7.8	1.2	15.	33.5 = 100	64.	11.7	1.8	22.5 = 100
20 years.....	46.	8.4	1.8	15.9	27.9 = 100	63.8	11.6	2.5	22.1 = 100
25 years.....	46.8	8.4	2.1	18.9	23.8 = 100	61.5	11.1	2.7	24.7 = 100
30 years.....	46.2	8.5	3.5	18.9	22.9 = 100	60.	11.	4.5	24.5 = 100
35 years.....	46.	9.3	4.4	20.5	19.8 = 100	57.4	11.6	5.4	25.6 = 100
40 years.....	46.5	9.8	5.2	21.3	17.2 = 100	56.2	11.9	6.1	25.8 = 100
45 years.....	47.8	10.6	4.9	22.6	14.1 = 100	55.6	12.4	5.7	26.3 = 100
Hanwell Asylum.									
5½ years.....	19.3	3.	.	29.5	48.2 = 100	37.3	5.8	.	56.9 = 100
10½ years.....	22.2	3.8	.	33.	41. = 100	37.7	6.5	.	55.8 = 100
12½ years.....	23.3	4.3	.	34.7	37.7 = 100	37.4	6.9	.	55.7 = 100

Mortality.—The uncertain and erroneous views which have hitherto so generally prevailed, as to the comparative mortality of the insane, are in great measure to be attributed to the calculation having generally been made according to an erroneous method. No safe inferences whatever can be drawn from a comparison of the per-centage of deaths in different institutions, when calculated, as in the two foregoing tables, on the admissions and on the discharges. Were, indeed, the average period of residence in different institutions the same, and did every case, or even a similar proportion of cases, remain under care until terminating in recovery or in death, such a comparison would hold good; though, even in that case, the proportion of deaths so calculated could not be compared with the mortality of the general population, nor with that of other communities. The method of calculating the proportion of deaths upon the admissions, is, however, that which has hitherto been generally followed in the reports of asylums, as well as by Drs. Burrows and Esquirol, and other authors well known by their writings on insanity.* In this way most erroneous inferences as to the comparative success of different institutions, as respects their mortality, have been put into circulation. In acute diseases, indeed, and such as have a limited and tolerably uniform duration, the mortality is properly calculated upon this method, and without reference to their duration. But in a disorder which has so variable, and frequently so extended, a duration as insanity, *time*, or the duration of treatment, cannot be left out of consideration without giving rise to the most fallacious deductions. As is now well known, the mortality of any class of people is only correctly expressed by the proportion of deaths out of a given

* *Burrows*, "Commentaries on Insanity." 1828. p. 552, 559. *Esquirol*, "Des Maladies Mentales." 1838. Tom. 1. p. 101, 103, 108. Tom. 2. p. 695, &c. *Brown*, "What Asylums were, are, and ought to be." 1837. p. 75. *Crowther*, "On the Management of Mad-houses." 1838. p. 121, 133, &c. *Pliny Earle*, "Visit to Thirteen Asylums in Europe, with Copious Statistics." 2nd Edition. Philadelphia, 1841. p. 133. Reports of Asylum at Worcester, Mass. 5th, 1838, p. 4; and 8th, 1841, p. 31-32. Reports of Asylum at Glasgow. 27th, 1841, p. 4, 22; 28th, 1842, p. 30, 31; and 29th, 1843, p. 45. Reports of Dundee Asylum. 10th, 1830, p. 25; 19th, 1839, p. 32; 20th, 1840, p. 24, 25; 22nd, 1842, p. 18, 19. Reports of Belfast Asylum. 10th, 11th, and 12th, 1842, p. 18.

population, or number living for a given time: and, for the sake of mutual comparison, this is best exhibited by giving the average annual number of deaths to every hundred of the population living one year. We are indebted to Mr. Farr for bringing this method prominently forward, in reference to the mortality of the insane;* though it may be observed, that as long since as 1815, during the controversy connected with the York Lunatic Asylum, the fallacy of any other method of calculating the mortality was plainly shewn by the late Jonathan Gray. "Nothing can be more fallacious," observes this author, "than to institute an inquiry into the mortality in an institution, by comparing the number of deaths with that of admissions. Supposing Mrs. Barber's hotel, (York) instead of being remarkable for comfortable accommodations, were as uncleanly and unwholesome as a lunatic hotel, and should send out 33 funerals in a year, a very plausible annual statement might nevertheless be drawn up as follows:

In the hotel at the beginning of the year.....	30	Quitted the hotel, relieved and refreshed	10,917
Received into the hotel during the year.....	10,950	Died only	32
		Remaining in the hotel	30
	<hr/> 10,980		<hr/> 10,980

The inquiry must always be, what is the average number of persons in family."†

It must still be observed that the only *strictly* accurate and unequivocal test of the sanitary state of any population, as exhibited by its mortality, is obtained by *a comparison of the deaths at each age*, (decennial, or at least quinquennial periods of life will be precise enough) *with the average number living at the same ages*. For, not to allude to causes of disease bearing unequally in different districts on different ages, the proportions living at the several ages in different communities and districts will vary very greatly, in consequence of the different rate of increase by birth, and of the

* "Statistics of English Lunatic Asylums." Sherwood. p. 12.

† "History of the York Lunatic Asylum." p. 56.

varying amount of emigration and immigration: for which reasons, the ratio of the total deaths to the total population will only afford an imperfect standard of comparison. And, though this objection to the use of the aggregate mean annual mortality at all ages, as a standard of comparison, is wholly insignificant as compared with that founded on the proportion of deaths to admissions, we must still admit that the objection is in some measure applicable to the comparison of the mortality of hospitals for the insane; as there can be no doubt that there may be sufficient difference in the mean numbers living at different ages in these institutions, to influence to a certain extent their respective rates of mortality. And thus, in the only instance in which I have attempted anything like a strict comparison of the mortality of two institutions, I have taken care to reduce the varying mortality at different ages to a common standard.* Still, as regards this class of institutions in general, it is probable that the difference in the numbers living at different ages will rarely be so great as to render the inferences, from a comparison of the mean annual mortality at all ages, erroneous in any very material degree.†

The following comparison of the average annual mortality of various asylums, with the proportion of deaths to every hundred admitted, is introduced to shew what erroneous conclusions, as to the mere facts, exclusive of any inferences to be drawn from them, would be formed from the latter method

* "Statistics of the Retreat," p. 104.

† In his recent very valuable "Report on the Sanitary Condition of the Labouring Population of Great Britain," Mr. Chadwick has contended that "the actual mortality is most accurately measured by the years of vitality which have been enjoyed, i.e. by the average age of death;" or, in other words, that "the chief test of the pressure of the causes of mortality is the duration of life in years." ("Supplementary Report on the Practice of Interments." 1843. Appendix 11, p. 243. See also "Quarterly Journal of the Statistical Society of London," April 1844.) But, should it even be admitted that this method, so highly recommended by its simplicity, is adapted to the circumstances of the general population, we still cannot, I think, receive it as an *accurate test* of the mortality of hospitals for the insane; in consequence of the age on admission, as well as the rules and practice as to the discharge of patients varying so greatly in different establishments.

of calculation. The periods of observation are the same with those given in Table 1.

TABLE 3.—SHEWING, FOR VARIOUS ASYLUMS, THE MEAN ANNUAL MORTALITY PER CENT. RESIDENT; COMPARED WITH THE PROPORTION OF DEATHS PER CENT. OF THE ADMISSIONS.

NAME OF ASYLUM.	Mean Annual Mortality per cent. Resident.	Proportion of Deaths per cent. of the Admissions.
Cornwall	7.07	20.4
Lancaster	17.36	38.7
Middlesex	10.75	34.7
Nottingham	7.45	12.2
Stafford	12.69	19.3
Suffolk	12.19	25.9
York, West Riding	16.09	32.1
Bethlem "Curables"	10.5	5.
York Lunatic Asylum, 37 years 1777—1814	11.	15.2
" " 25 $\frac{2}{3}$ years 1814—1840	7.35	18.5
York Retreat	4.78	23.1
Lincoln	13.67	18.5
Metropolitan Licensed Asylums, 1834—39..	15.54	27.9
" " Paupers, separately....	20.68	32.2
" " Not Paupers, separately	10.94	22.7
Glasgow	8.63	11.2
Belfast	11.51	19.8
Worcester, Mass.....	6.94	7.5

As the rate of mortality, when calculated according to the correct method, constitutes our most important statistical means for estimating the success of our treatment, and the character of hospitals for the insane, I may be permitted, in concluding this part of my subject, to express a hope that, for the future, this will be given correctly; or that, at least, the necessary data for thus calculating it will always be furnished.

IV. AVERAGE POPULATION, OR MEAN NUMBERS RESIDENT.

IN only a very small proportion of the reports which have hitherto given the aggregate results for extended periods, have the mean numbers resident, or average population, been stated. This is a circumstance which detracts very materially from the value of these reports, for in the absence of

such statement, and independent of its value for other purposes, it is impossible, as we have just seen, to deduce the annual rate of mortality, which, as the least ambiguous, may no doubt be regarded as the most important item in the experience of hospitals for the insane. The average number resident each year may be calculated with precise accuracy, from a daily or weekly register of the patients in the house, such as, for one purpose or another, is kept in many of the large asylums. But when the average duration of treatment is so extended as it is in hospitals for the insane, a calculation of the average number resident will approximate very closely to accuracy, when derived from monthly or even quarterly enumerations. This at least has been the case at the Retreat, where the average population for forty-four years, when deduced from even annual enumerations, (i. e. from the numbers remaining in the house at the end of each year) only differed by a slight excess (about 2 per cent.) from that obtained by the method which ensures precise accuracy.* When the average number resident was calculated from a quarterly register, which had been kept from the origin the institution, the agreement was almost exact. Where no register of the number of patients at intervals not exceeding a month or a quarter of a year has been regularly kept, the only method of ascertaining the average number is the laborious one of extracting from the register of patients and adding together the exact duration of time passed in the house during the entire period, by each person admitted; and then dividing the total by the number of years of which such period consists. This is a method which is almost disheartening, from the labour it involves, but which has the advantage of ensuring precise accuracy when the data are correct.†

* At the York Lunatic Asylum, during the twenty one years, 1820-41, the average number resident was *precisely* the same whether calculated from the number in the house at the end of each year, or from a monthly register kept regularly during that period.

† "Statistics of the Retreat." p. 66.

V. PERIODS OVER WHICH THE OBSERVATIONS SHOULD EXTEND.

MORE or less complete reports of the experience of each year are printed and circulated by most of the public asylums of this country. But, as it is almost superfluous to observe, no inferences can be safely drawn from results obtained during periods not exceeding a year in duration. And although *the indiscriminating comparison of the aggregate results is nearly always very fallacious*, yet it is particularly so when these apply to short periods, and especially when such periods are the *first* in the history of the institutions to which they refer. Upon the first opening of a county asylum, a large number of old and incurable cases have hitherto generally been removed from private asylums and poor-houses, which cannot but give a very unfavourable aspect to the results. Indeed, upon a particular investigation of the statistics of a large number of hospitals for the insane, both in our own and other countries, I find that the proportion of *recoveries*, in nearly every instance, has gone on increasing materially for a considerable period, often amounting to 30 or even 40 years, after their first establishment. The reason of this is evidently found, as has already been hinted, partly in the large proportion of old cases often admitted upon the first opening of the institution; and partly, though in a less degree, in the circumstance of the recovery, in a certain number of cases, requiring a rather considerable period for its completion. On the other hand, the *mortality* is generally more favourable during the early history of an asylum; and during the first twenty or even thirty years of its operations, as the proportion of recent cases admitted increases, and as the old cases die off, it usually continues to undergo a material increase, which often amounts to 50 or 100 per cent. upon the mortality of the first five years. From the following tables we may, I think, conclude that a period of from 20 to 30, or in the case of a small institution, a still greater number of years must elapse before we are authorized in concluding that the experience of an hospital for the insane at all fairly represents the average results of treatment which either have been, or will be, obtained in it.

TABLE 4.—SHEWING THE AVERAGE PROPORTION OF RECOVERIES IN SEVERAL HOSPITALS FOR THE INSANE, FOR PERIODS SUCCESSIVELY INCREASING BY TERMS OF FIVE YEARS FROM THE DATE OF THEIR ESTABLISHMENT.

NAME OF ASYLUM.	Proportion of Recoveries per cent. of the Admissions at the end of								
	5 years.	10 years.	15 years.	20 years.	25 years.	30 years.	35 years.	40 years.	45 years.
Gloucester	33.58 $4\frac{1}{2}$ yrs	44.94 $9\frac{1}{2}$ yrs	?	55.08 $18\frac{1}{2}$ yrs					
Lancaster	28.8	36.63	39.19	38.56	39.88				
Middlesex	19.29 $5\frac{1}{3}$ yrs	22.25 $10\frac{1}{3}$ yrs	23.29 $12\frac{1}{3}$ yrs						
Nottingham	33.2 $5\frac{1}{3}$ yrs	34.77 $10\frac{1}{3}$ yrs	38.46 $15\frac{1}{3}$ yrs	41.87 $20\frac{1}{3}$ yrs	42.44 $25\frac{1}{3}$ yrs	45.73 $29\frac{1}{3}$ yrs			
Suffolk	32.5	38.26	40.9						
York, West Riding ..	35.66	44.43	44.64	43.56	43.63				
Lincoln	35.53 5 yrs	43.23 $10\frac{3}{4}$ yrs	39.48 $15\frac{3}{4}$ yrs	39.7 $20\frac{3}{4}$ yrs					
Retreat, York	26.08	33.9	42.51	46.01	46.85	46.27	45.96	46.5	47.78
York Asylum, 1814-40	31.14 $5\frac{2}{3}$ yrs	34.4 $10\frac{2}{3}$ yrs	33.37 $15\frac{2}{3}$ yrs	34.4 $20\frac{2}{3}$ yrs	33.88 $25\frac{2}{3}$ yrs				
Dundee	36.41	42.85	42.95	44.21	44.61 23 yrs				
Glasgow	39.01	40.17	41.1	42.72	43.8	46.16 28 yrs			
Armagh	42.5 $5\frac{1}{2}$ yrs	44.22 $10\frac{3}{4}$ yrs	45.02 $15\frac{3}{4}$ yrs						
Belfast	43.01	48.22	52.97						
Limerick	44.36	48.6	53.98						
Londonderry	40.56	45.21	47.41 13 yrs						
Retreat, Dublin	22.22	36.	27.22	30.76	30.13	30.52			
Hartford, Connecticut	52.55	55.57	55.94	56.29 19 yrs					
M'Lean Asylum, Boston, Mass.	23.07	32.24	35.66	41.93	44.95				
New York, Bloomingdale	40. $5\frac{1}{2}$ yrs	43.48 $10\frac{1}{2}$ yrs	43.9 $15\frac{1}{2}$ yrs	46.18 $20\frac{1}{2}$ yrs					
Worcester, Mass.	39.52	43.41							
Schleswig	22.97	27.07	29.51						
Siegburg	21.11	28.88	30.73						

From the history of the Retreat, it appears that in that institution a period of twenty years was required, before the proportion of recoveries approached to that belonging to the entire period of its operation; whilst, as regards the mortality, thirty-five years elapsed before it attained to and continued at its present standard. It is however to be observed that the mortality, during the first five years from the establishment of the Retreat, was more unfavourable than it has ever been for any more extended period, and amounted to 5.71 per cent. After this period, during the following fifteen years, it underwent a gradual decrease, so that the mean mortality for the first twenty years amounted only to 3.71 per cent. It then gradually increased; and, at the expiration of thirty-five years, stood at 4.7 per cent., the rate which, at the end of forty-seven years, it still maintained. When we remember the small number of patients in the Retreat during the earlier period of its existence, its experience, as regards the mortality, cannot on the whole be regarded as opposed to the general rule which has been laid down, but must be looked upon as an accidental result, connected with the small population of the establishment in which it occurred. The Asylum at Nottingham is indeed the only institution I am acquainted with, the experience of which extends over a period of any considerable length, in which not only the mortality has been actually higher during the first five years, but has continued, with little exception, to decrease with each subsequent quinquennial period, from 1812 to 1841.

It is evident that the general rule *of the proportion of recoveries and the mean mortality, both increasing with the age of an hospital for the insane*, is likely to be modified by any material change, whether for the better or the worse, in the management of such institution; and in this way it is probable that some of the deviations from this rule, which may be noticed in the table as regards the mortality, are to be explained; though they are equally, or even more, likely to have been occasioned by a variation in the kind of cases admitted.

In order to arrive at any correct inference as to the results obtained in different establishments, it is, then, absolutely

TABLE 5.—SHEWING THE MEAN ANNUAL MORTALITY IN SEVERAL HOSPITALS FOR THE INSANE, FOR PERIODS, SUCCESSIVELY INCREASING BY TERMS OF FIVE YEARS FROM THE DATE OF THEIR ESTABLISHMENT.

NAME OF ASYLUM.	Mean Annual Mortality at the end of								
	5 years.	10 years.	15 years.	20 years.	25 years.	30 years.	35 years.	40 years.	45 years.
Gloucester.....	9.76	7.19	?	?					
	$4\frac{1}{2}$ yrs	$9\frac{1}{2}$ yrs							
Lancaster	13.91	14.69	15.5	18.25	17.72				
Middlesex	13.84	11.48	10.75						
	$5\frac{1}{3}$ yrs	$10\frac{1}{3}$ yrs	$12\frac{1}{3}$ yrs						
Nottingham	9.15	8.42	7.08	7.37	7.7	7.45			
	$5\frac{1}{3}$ yrs	$10\frac{1}{3}$ yrs	$15\frac{1}{3}$ yrs	$20\frac{1}{3}$ yrs	$25\frac{1}{3}$ yrs	$29\frac{1}{3}$ yrs			
Suffolk	15.03	13.01	12.12						
York, West Riding ..	12.	15.34	16.7	16.57	15.73				
Lincoln	15.38	13.65	14.86	13.44					
		$10\frac{3}{4}$ yrs	$15\frac{3}{4}$ yrs	$20\frac{3}{4}$ yrs					
Retreat, York	5.71	4.52	3.81	3.71	4.21	4.31	4.69	4.57	4.69
York Asylum, 1777—									
1814 ..	11.4	11.1	9.3	9.3	9.	9.3	10.34	11.	
	$4\frac{2}{3}$ yrs	$9\frac{2}{3}$ yrs	$14\frac{2}{3}$ yrs	$19\frac{2}{3}$ yrs	$24\frac{2}{3}$ yrs	$29\frac{2}{3}$ yrs	$34\frac{2}{3}$ yrs	37 yrs	
York Asylum, 1814—									
1840	7.66	7.23	7.08	7.18	7.35				
	$5\frac{2}{3}$ yrs	$10\frac{2}{3}$ yrs	$15\frac{2}{3}$ yrs	$20\frac{2}{3}$ yrs	$25\frac{2}{3}$ yrs				
Dundee	5.45	5.14	5.71	5.84	5.74				
					23 yrs				
Glasgow	4.11	7.43	7.92	8.31	8.59	8.63			
						28 yrs			
Armagh	7.87	10.43	9.94						
	$5\frac{1}{2}$ yrs	$10\frac{3}{4}$ yrs	$15\frac{3}{4}$ yrs						
Belfast	10.73	11.48	10.8						
Limerick	5.93	6.98	7.16						
Londonderry	12.21	12.36	12.38						
			13 yrs						
Retreat, Dublin	2.	2.85	4.16	5.46	5.75	5.5			
M'Lean Asylum, Bos-									
ton, Mass.....	9.19	9.56	11.22	11.41					
New York, Blooming-									
dale	6.33	9.1	9.72	10.32					
	$5\frac{1}{2}$ yrs	$10\frac{1}{2}$ yrs	$15\frac{1}{2}$ yrs	$20\frac{1}{2}$ yrs					
Worcester, Mass.	5.83	6.44							
Schleswig	5.23	4.3	4.71						
Siegburg	6.63	7.74	7.4						

essential that the annual reports should exhibit a recapitulation of the experience of former years, and that for periods of considerable length. When an asylum has been in operation for less than half a century, unless it be of very great extent, the aggregate results for the entire period may be properly given. But after the lapse of a period of this length, in which the circumstances of institutions, and even of communities, often materially change, it would probably be better to commence anew, and to exhibit the results obtained during the period which subsequently elapses, distinct from those obtained during the first fifty years. When, as in the case of the York Asylum, the history of an hospital for the insane is marked by any decided change in its constitution or economy, the division of the results of its experience into periods should be made to correspond with such epoch in its history. In cases of this description the number remaining in the house, at the expiration of the first period, should be separately given, and those admitted subsequently added.

It is satisfactory to observe that several institutions have already adopted the plan of giving the results of their experience, for the entire periods of their operation. It will indeed on all hands be admitted as highly desirable, that the reports of different hospitals for the insane should be drawn up on an uniform plan, and thus be susceptible of comparison with each other. And although, for a variety of reasons, it may not be practicable to arrive at perfect uniformity as regards all the details which it may be thought desirable to give, in a tabular form, in the reports of different asylums; yet as regards the aggregate results of treatment, it surely would not be too much for *every asylum publishing a report, however brief*, to consent to give annually at least *all* the information required by the two following tables. In order to facilitate comparison, it is also extremely desirable that tabular forms should be adopted, similar to the following, which for some years past have been in regular use both at the Middlesex Lunatic Asylum and at the Retreat.

From the second of these tables, B, the proportion of recoveries during the forty-eight years, may be readily ascertained, and is found to be 47.07 per cent. of the admissions.

TABLE A.—SHEWING THE ADMISSIONS, READMISSIONS, DISCHARGES, AND DEATHS (AT THE RETREAT, YORK,) FOR THE YEAR 1843—44.

	Male.	Fem.	Total
Remaining in the Institution, Midsummer 1843	43	51	94
	Male.	Fem.	Total
Admitted for the first time during the year	11	14	25
Re-admitted during the year	3	2	5
	14	16	30
Total under care during the year	57	67	124
Discharged			
Recovered,	9	6	15
Improved,	3	1	4
Unimproved,	1	1	2
Died,	4	5	9
Total discharged and died during the year	17	13	30
Remaining in the Institution Midsummer 1844	40	54	94
	Male.	Fem.	Total
Average numbers resident during the year	45.42	52.42	97.84

TABLE B.—SHEWING THE ADMISSIONS, RE-ADMISSIONS, DISCHARGES, AND DEATHS, FOR THE FORTY-EIGHT YEARS, 1796—1844.

	Male.	Fem.	Total.
Persons admitted during the forty-seven years	255	275	530
Re-admissions " " " "	74	97	171
Total of cases admitted	329	372	701
	Male.	Fem.	Total.
Discharged			
Recovered,	143	187	330
Improved,	49	26	75
Unimproved,	17	22	39
Died,	80	83	163
Total discharged and died during the forty-eight years	289	318	607
Remaining Midsummer 1844	40	54	94
	Male.	Fem.	Total.
Average numbers resident during the forty-eight years	29.46	39.73	69.19

(701 : 330 :: 100 : 47.07). From the same table the mean annual rate of mortality for the same period may also be calculated, and will be found to be 4.9 per cent. ($69.19 + 48 : 163 :: 100 : 4.9$).

In a comparatively small institution like the Retreat, the proportion of recoveries and the mortality, during any single year, will not usually present us with results of interest or importance. And during this particular year, as is explained in the 48th Report, it so happens that whilst the recoveries were rather above, the mortality greatly exceeded, the usual standard. Even in the case of large asylums, like those at Hanwell, Lancaster and Wakefield, though the case is somewhat different, the results of the experience of single years cannot, without much allowance, be fairly compared with each other.

SECT. 2.—CIRCUMSTANCES IN THE CHARACTER OF THE CASES ADMITTED, INFLUENCING THE RESULTS OF TREATMENT; AND THE METHODS OF EXHIBITING THE PROPORTION OF RECOVERIES AND MORTALITY SO AS TO DISTINGUISH SUCH MODIFYING CIRCUMSTANCES.

HAVING concluded our examination of those important sources of error connected even with the terms used to designate the results of treatment, and with the very methods of calculating the numerical value of such results; we shall now find that there remain other, and perhaps even greater, sources of difficulty in the way of any strict comparison of these results, which are connected with the varying characters of the cases themselves, which in different institutions are brought under treatment. There can, indeed, be no doubt that the considerable discrepancy which is so often to be observed in the aggregate results of treatment in different asylums, as frequently, or perhaps still more often, depends upon a difference in the previous circumstances and character of the cases admitted, than upon any difference there may be in the various influences and methods of treatment to which they have been subjected, in the institutions themselves; and thus, in order to any fair comparison of the recoveries and mortality, we re-

quire considerable information as to these several particulars. This is more especially the case when any judgment, as to the management of the institutions brought before us, is to be founded upon such comparison.

The more important of the circumstances capable of modifying the result, are the sex; the age; the rank and mode of life; the form of the mental disorder; its complication with other diseases; its duration upon admission; in fact, all those individual circumstances and previous hygienic conditions which affect the prognosis in each case, or which, in other words, may influence the probability of recovery, of incurability, or death.

M. Gavarret, a recent and able writer on the Principles of Medical Statistics,* divides the causes which may combine to bring about recovery or death, in any given form of disease, into five distinct groups, as follows:

1. *Individual conditions*.—Age, sex, temperament, constitution, previous diseases, and state of health at the time of the invasion of the disease in question.

2. *Hygienic conditions antecedent to the invasion of the disease*.—Profession, social position, mode of life, ventilation, state of dwelling, kind of nourishment, moral influences.

3. *Hygienic conditions during the treatment*.—Healthiness of the place in which the patient is treated, moral influences which act upon him during the course of his disease, and the exactness with which the orders of the medical attendant are followed.

4. *The disease itself*.—Nature of the disease, extent and degree of the organic lesions, and of the influence which they exert on the economy; period which elapses between the attack of the disease and the commencement of the treatment; and the several complications which may arise in the course of the disease.

5. *Treatment employed*.—This head includes not merely the remedy made use of, but the dose administered, and the various auxiliary remedies used to meet occasional symptoms.

* Gavarret, "Principes généraux de Statistique Médicale," &c. Paris, 1840. See an excellent review of this work, in the "British and Foreign Medical Review." Vol. 12, p. 1.

These groups appear to embrace all the more important causes capable of influencing the results of treatment in disease generally; but the arrangement of the groups is evidently defective. *The disease itself* should obviously precede *hygienic conditions during the treatment*, which are but a part, though a most important one, of *the treatment itself*; and, as such, should not be dissociated from it. The three first groups would then together form a class comprising all those circumstances in the character of any case of disease affecting the result of treatment, irrespective of the methods of cure themselves; and of course also irrespective of any merit or demerit on the part of the practitioner, or of those immediately concerned in the care of the patient. It is our present object to consider the influence of the more important of these conditions, as modifying the results of treatment in insanity. In the following chapter I propose to consider the influence of those remaining conditions, which evidently form a distinct class, more or less under the controul of the practitioner, and which consist of the *treatment, and the hygienic conditions under which it is pursued*.

From the several elements which enter into the *individual conditions* of the cases treated, I shall select for particular observation in this place, only the sex and age; for although the temperament, constitution, previous diseases, and state of health at the time of the attack of mental disorder, may all seriously modify the probability of the termination of the disorder in recovery or death, many of these circumstances cannot be ascertained without great difficulty, and we can hardly at present hope to make them bear upon statistical enquiries.

I. SEX.

THAT the probability of recovery is greater in women than in men, though the reverse of the opinion entertained by Dr. Burrows, may now be regarded as established;* and it is fully supported by a recent enquiry of my own, into the statistics of different asylums of this and other countries. With

* Prichard, "Treatise on Insanity." 1835, p. 135. Burrows, "Commentaries on Insanity," 1828, p. 569.

two exceptions, hereafter to be adverted to, in every institution the statistics of which I have examined, in which the experience has extended over more than a very short period of years, the proportion of recoveries in women has exceeded, often to a great extent, that in men. Thus, in the asylum at Glasgow, taking the entire period of its operation, the recoveries in women, as the annexed table will shew, have exceeded those in men by 4 per cent.; at Belfast by 5, at Lancaster by 7, at Armagh by 10, at Woodbridge by 12, at Worcester, U.S. by 19, at Siegburg by 19, at the Bethlem Hospital, amongst the selected "curable" patients, by 20, at the Retreat, York, by 20, at Schleswig by 22, at Charenton by 23, and at the York Lunatic Asylum by 28 per cent.* At the Senavra hospital at Milan, (1802-27) it appears from the report of Dr. G. Burrows, that the proportion of recoveries was almost as large amongst men as amongst women; those of the latter only exceeding the former by 2 per cent. This circumstance is probably connected with peculiarities in the habits and manners of the peasantry of Lombardy, which are perhaps more unfavourable to the female sex than in many other countries; but it may also partly depend upon the cases admitted into the Senavra, being almost all complicated with the dreadful endemic of the country—the pellagra.

I am only acquainted with two asylums in which, during any considerable period, the recoveries amongst men have actually exceed those amongst women. The trifling excess at Hanwell, of 5 per cent. in favour of the male sex, is probably only a passing irregularity, to be corrected by the results of a more extended experience. Such an explanation however will hardly apply to the remarkably unusual results obtained at the Bloomingdale Asylum, New York, where taking a period of more than twenty years, the recoveries amongst men have exceeded those amongst women by 28 per cent. The only other American asylum, the experience of which I am able to cite on this subject, is that for the state of Massachusetts, at Worcester; and here, we have seen

* The periods to which these observations apply is shewn in the succeeding Table, 6.

TABLE 6.—SHEWING THE PROPORTION OF RECOVERIES AND THE MEAN MORTALITY IN THE TWO SEXES, IN DIFFERENT HOSPITALS FOR THE INSANE.

NAME OF ASYLUM AND PERIOD.	Proportion of Recoveries per cent. of the Admissions.		Mean Annual Mortality per cent. Resident.	
	Males.	Females.	Males.	Females.
Lancaster, 26 yrs. 1816-42	39.03	41.96	19.15	12.27
			16 years 1816-32.	
Middlesex, 10½ yrs. 1831-41.....	22.9	21.62	15.13	8.77
Suffolk, 13 yrs. 1829-42	37.87	42.4	14.64	9.99
Bethlem "Curables," 13 yrs. 1827-39.	46.66	56.29	14.07	8.23
St. Luke's "Curables and Incurables," 83 yrs. 1751-1834...	.	.	13.9	7.06
Asylum, York, 25½ yrs. 1814-40	30.08	38.65	9.49	4.91
Retreat, York, (Society of Friends only) 46 yrs. 1796-1842..	44.77	53.89	5.25	3.91
Metropolitan Licensed Asylums, 6 yrs. 1834-39, Paupers	.	.	26.83	16.44
" " " Not Paupers..	.	.	13.19	8.45
Glasgow, 28 yrs. 1814-42	45.39	47.1	10.35	6.6
Dundee, 23 yrs. 1820-43	44.02	45.29	6.43	4.9
Armagh, 16½ yrs. 1825-41.....	43.14	47.52	.	.
Belfast, 15 yrs. 1829-44	51.65	54.35	10.2	11.43
New York, Bloomingdale, 20½ yrs. 1821-42	50.11	38.85	.	.
Worcester, U. S., 8 yrs. 1833-40	38.77	46.33	7.3	6.45
Charenton, 8 yrs. 1825-33.....	30.43	37.5	24.81?	6.95?
Schleswig, 15 yrs. 1820-35	26.9	33.03	4.85	4.43
Siegburg, 9 yrs. 1825-33	25.99	30.97	7.98	6.19
Milan, Senavra, 25 yrs. 1802-27	57.91	59.15	23.89	27.12

that, as in European asylums, the results exhibit a decided preponderance of recoveries on the side of the women. It does not therefore appear probable that this very decided exception to the influence of sex in recovery from insanity, is connected with any generally prevailing peculiarity in the United States, in the condition of the two sexes. In Delirium Tremens, which is nearly confined to the male sex, recovery is much more frequent than in true insanity. This is a disorder which, in this country, is generally treated either at the patient's home, or in general hospitals, and not in asylums. A different practice however prevails in some parts of the United States; and the large proportion of recoveries amongst men, at the Bloomingdale Asylum, may perhaps depend upon the number of cases of Delirium Tremens which have been admitted into that asylum; and I understand indeed that such has been stated to be the fact.

A still greater difference in the rate of mortality of the two sexes is nearly always to be noted. As is well known, there is an excess in the general mortality of this country on the side of males; but this does not exceed 5 or 6 per cent. The relative difference is enormously greater in the insane, in nearly every institution, the statistics of which I have had an opportunity of examining on this point. Thus at the York Lunatic Asylum, and at St. Luke's Hospital, the mortality amongst men has been nearly double that amongst women; there having been an excess on the side of the men, of 93 per cent. in the former, and of 96 per cent. in the latter institution. As may be ascertained from the preceding table, the excess of mortality on the side of males amounted to 72 per cent. at Hanwell; to 71 per cent. amongst the "curable" patients at Bethlem; to 63 per cent. in the Metropolitan Licensed Asylums for paupers, and to 57 per cent. in those for private patients; to 57 per cent. at Glasgow; to 56 per cent. at Lancaster; to 46 per cent. at Woodbridge; to 34 per cent. at the Retreat, York;* to 29 per cent. at Siegburg,

* In communities in which the habits and circumstances of the men are less distinguished from those of the women, by great exposure to the weather and intemperance, than is the case in the general population, we should expect that the difference in the mortality of the insane, in the two sexes, would also be

near Bonn; to 13 per cent. at Worcester, U.S.; and to 9 per cent. at Schleswig, Holstein.*

The only British institution I am acquainted with, in which the mortality of the women has exceeded that of the men is the asylum at Belfast, in which it appears from Dr. Stewart's reports, that in the fifteen years from the opening of the establishment to the present time, 1844, the mortality of females has exceeded that of males by 12 per cent. For the twelve years, however, ending 1841, the mortality was at precisely the same rate in the two sexes; and it is hardly to be doubted but that a longer experience will yet exhibit a preponderance of deaths on the side of the men. At the Senavra, Milan, however, it appears that, taking a period of 25 years, the mortality amongst females exceeded that amongst males by 13 per cent.; which there can be but little doubt is due to the circumstances which have been adverted to, when speaking of the recoveries in that institution.

From this enquiry, then, it is obvious that in institutions receiving a decided preponderance of men, the aggregate results, both as respects the recoveries and the mortality, will, *cæteris paribus*, be less favourable than in such as have an excess of women. For example, the relative proportions of the sexes in two institutions seated in the same locality, and having many features in common,—the York Retreat and York Asylum—are mutually reversed, the number of women admitted into the former exceeding that of the men by 20 per cent.; and the men exceeding the women in the latter by 26 per cent.; and thus part (though by no means a considerable part) of that disparity in the aggregate results of treatment, which is to be observed in the statistics of these two institutions, is at once explained by this circumstance. When there is a still greater difference in the relative

less; and the experience of the insane of the Society of Friends, at the Retreat, as compared with all other British asylums, so far as it goes, confirms the accuracy of such a conclusion.

* At Charenton, 1826-33, the mortality in men appears to have been nearly quadruple that in women, or to have presented an excess of 256 per cent.; a difference so great as to warrant some doubt as to the accuracy of the data furnished by Esquirol, upon which it has been calculated. I have therefore excluded it from the text.

proportions of the two sexes admitted, as, for instance, is the case in the Licensed Metropolitan Asylums for private patients, in which there is an excess of males to the amount of 38 per cent., the degree in which the aggregate results must be affected by it will be more considerable.

It is thus, I think, satisfactorily shewn that the sex is a circumstance which should always be discriminated in the reports of hospitals for the insane; and that for this purpose all statistical tables, which exhibit their experience, should be furnished with triple columns, headed "Males," "Females," and "All Cases," or "Total." Should this be generally done, we shall not only, in no long time, attain our immediate object, but we shall also be able to speak confidently on the hitherto disputed question as to the respective liability of the two sexes to insanity, which I purpose hereafter to examine.

II. AGE.

It is now generally concluded that age exerts a very decided influence both upon the proportion of the recoveries, and the mortality, of the insane.*

As will appear from the following statement of the results obtained at Bethlem, at the Retreat, and at the Asylum, York, the probability of recovery is greatest in the young, and undergoes a very regular diminution as age advances.

PROPORTION OF RECOVERIES PER CENT. OF THE ADMISSIONS, AT DIFFERENT AGES.

AGE.	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	All Ages.
Retreat, York 1796—1840	55.5	53.5	50.	47.5	44.8	35.6	20.	25.	47.3
Asylum, York 1814—40..	52.8	37.6	28.8	31.4	27.5	22.4	18.2	.	33.9
Bethlem, London 1784-94	69.	41.	34.2	24.	17.5	13.	.	.	34.5

* *Haslam*, "Observations on Madness." 1809, p. 249; *Farr*, "Statistics of English Lunatic Asylums," pp. 7, 13; "Statistics of the Retreat," pp. 93, 98 Tables 23, 26; and, as regards the York Lunatic Asylum, App. I. Tables D E. Previous to the publication of the "Statistics of the Retreat," I am aware of only one observation, that of *Haslam*, as to the proportion of recoveries at different ages, and of none which exhibited the mean mortality as influenced by age.

On the other hand, the mortality of the insane increases, in proportion to the age, much more rapidly than is the case in the general population. The following statement exhibits the mean annual mortality, at different ages, of patients at the Retreat, and at the Asylum, York. It may be remarked, that these still appear to be the only tables of mortality for the insane at different ages, calculated on correct statistical principles, which have been published.*

MEAN ANNUAL MORTALITY, PER CENT. RESIDENT, AT DIFFERENT AGES.

AGE.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-97	All Ages.
Retreat, York 1796—1840	3.6	2.8	3.4	4.5	6.3	8.6	22.1	17.5	4.7
Asylum, York 1814—40..	4.8	6.8	9.4	6.4	6.9	12.1	30.	.	7.4

It is hence obviously very desirable that, in the annual reports of asylums, the age at the origin of the disorder, as well as at admission, and the mean numbers resident at the several ages, as well as the ages of those who recover and who die, should be given for decennial periods of life. With the exception, however, of such institutions as Bethlem and St. Luke's Hospitals, where cases of more than twelve months' duration are inadmissible, and where, consequently, there must be a much smaller proportion of cases in advanced life, there will probably, when extended periods are taken, be a less material difference in the proportion of cases admitted and resident, at the different ages, in different institutions of the same class, than as regards any other of the circumstances in which cases of insanity differ from each other. They may, notwithstanding, still differ to such an extent as to affect the results; and should it in fact even be otherwise, it is yet desirable that this should be established by observation, and not rest merely upon probable, though still only conjectural, evidence. I would therefore venture strongly to

* A table of the mortality at different ages, during seven years, at the Lincoln Asylum, has indeed been given by *R. G. Hill*, in his "Lecture on Lunatic Asylums, &c." 1839. (App. G.) but I feel compelled to dissent from the accuracy of the principles on which it is constructed.

recommend that tables similar to the following, which are taken from the 48th Annual Report of the Retreat, should enter into the annual report of every hospital for the insane.

TABLE C.—SHEWING THE AGES AT THE TIME OF THE FIRST ATTACK, AND UPON ADMISSION, OF THOSE ADMITTED, WITH THE MEAN NUMBERS RESIDENT AT DECENNIAL PERIODS OF LIFE, (AT THE RETREAT, YORK,) DURING THE YEAR 1843—44.

AGE.	Age at first attack			Age at admission, and re-admission.			Mean numbers resident at decennial periods of life.		
	Male	Fem.	Total	Male	Fem.	Total	Male.	Female.	Total.
From 15 to 20 years ..	4	1	5	3	.	3	3.58	1.	4.58
„ 20 „ 30 „ ..	4	5	9	3	5	8	5.59	5.83	11.42
„ 30 „ 40 „ ..	1	4	5	3	4	7	9.75	8.25	18.
„ 40 „ 50 „ ..	.	.	.	2	1	3	10.5	12.34	22.84
„ 50 „ 60 „ ..	1	2	3	2	2	4	10.75	5.25	16.
„ 60 „ 70 „ ..	1	1	2	.	2	2	3.	16.08	19.08
„ 70 „ 80 „ ..	.	1	1	1	2	3	2.25	2.67	4.92
„ 80 „ 90 „ ..	.	.	.	.	.	.	.	1.	1.
Total	11	14	25*	14	16	30	45.42	52.42	97.84

* The age at first attack of the five re-admitted cases having been given in previous years, is not repeated here.

TABLE D.—SHEWING THE AGES OF THOSE WHO HAVE BEEN DISCHARGED RECOVERED, AND OF THOSE WHO HAVE DIED DURING THE YEAR 1843—44.

AGE.	Ages of those discharged recovered.			Ages of those who have died.		
	Male.	Fem.	Total.	Male.	Fem.	Total.
From 15 to 20 years	1	.	1	.	.	.
„ 20 „ 30 „	5	.	5	.	1	1
„ 30 „ 40 „	2	2	4	.	1	1
„ 40 „ 50 „ .....	.	.	.	1	1	2
„ 50 „ 60 „	1	2	3	.	.	.
„ 60 „ 70 „ .....	.	2	2	.	1	1
„ 70 „ 80 „ .....	.	.	.	3	1	4
Total	9	6	15	4	5	9

In the tables given by Dr. Conolly, in his Annual Reports of the Hanwell Asylum, I observe that the ages are arranged according to quinquennial periods of life. This is certainly important as regards the ages under 20; but after that age, the arrangement according to decennial periods is perhaps sufficiently minute.

The next group of circumstances which claim our attention, or the "*hygienic conditions antecedent to the invasion of the disease*," are the profession, social position, mode of life, ventilation, state of dwelling, kind of nourishment, and moral influences, to which the patient has been habitually subjected. We can, however, on a large scale, scarcely ever expect to obtain precise information as to all these circumstances; and as they are all either to be more or less accurately inferred from the rank in society and previous habits, or are comprised under a consideration of the causes of the disorder, I shall confine any observations I may make upon their influence, within these two divisions.

III. RANK AND PREVIOUS HABITS.

A very material influence is doubtless exerted by the previous rank in life, and other external circumstances, of the persons to whom asylums are appropriated, upon the average results of treatment, though in particular, perhaps, upon the mean annual mortality. It is indeed generally admitted that even in the sane population of most countries, the prevalence of disease amongst the poor, and the consequent mortality, are considerably greater than is the case amongst the higher and middle classes. But in particular districts, as the manufacturing ones of Lancashire, and of the West-Riding of Yorkshire, and in the densely crowded populations of large cities, the difference in the health and mortality of the poor and of the rich, as compared with that in more open agricultural districts, it is highly probable is excessive. Not but that there are habits of life and other circumstances, of a moral as well as of a physical description, peculiar to the rich, and indeed to all ranks and classes, in the same way as there are those which are peculiar to the poor, which, in

one mode or another, are prejudicial to health and longevity. Still there can be no question, and all statistical enquiry hitherto confirms the truth of the statement, that, in consequence of the want and misery, as well as of those habits of intemperance and debauchery, which, particularly in manufacturing, mining, and city districts, are unhappily but too prevalent amongst the poor, the liability to disease of nearly every kind is greater in that class than in any other; and that, for the same reasons, a fatal result is more frequent. That the liability to, as well as the event of, an attack of insanity are as much influenced by these circumstances, as in almost any other class of disease, there can, I believe, be no question. Indeed it is not improbable that the proportional difference in the rate of mortality in different classes of society, is much increased under the operation of insanity, and that it is greater than under that of disease in general. It was indeed only to have been expected, in consequence of the previous unfavourable circumstances of so many who are admitted into those institutions, that, other things being equal, the recoveries would be less numerous, and the mortality much greater in pauper lunatic asylums, than in an establishment for any select class of patients, such as the Retreat. In this institution the proportion of recoveries (in those connected with the Society of Friends) has been at the rate of about 50. per cent., and the mean mortality only 4.7 per cent.; whilst at the Wakefield Asylum, which may be taken as a fair representative of an English County Asylum for paupers only, the recoveries have been 43.6 per cent., and the mortality 15.7 per cent. At the Lancaster Asylum the recoveries have only been 39.8 per cent. In thus contrasting the results obtained at the Retreat with those of the asylums alluded to, we must, I believe, conclude that the great disparity which is to be observed, and which, as regards the rate of mortality, is enormous, cannot be entirely attributed to the previous circumstances of the patients; and that it must, in part at least, be due to the operation of other causes, some of which may hereafter be glanced at. A similar difference, though less in degree, is to be observed in the Metropolitan Licensed Private Asylums; the mortality being nearly double, or

20.68 per cent., in such of the houses as received paupers only, whilst in those for private patients, it did not exceed 10.94 per cent., which for the class in question is still a very high rate of mortality. But even here it is hardly probable that there would have been so great a difference in the mortality of these two classes of patients, treated in asylums in the same locality, and in a few cases even in the same houses, had a corresponding amount of domestic comfort, and as nutritious a diet been afforded to the poor as to the rich.

From all that has been said, there can at least be no doubt that the class of persons for whom hospitals for the insane are designed and to whom they are appropriated, should always be stated and borne in mind in any comparison of the results which they afford. The results even of those English County Asylums which receive paupers only, as Hanwell, Lancaster,* and Wakefield, cannot, without allowing for this circumstance, be fairly compared with those of the mixed institutions of the same description which often receive a considerable proportion (one-fifth to one-third) of private patients, as is the case in the county asylums at Gloucester, Nottingham, Stafford, and Woodbridge.

IV. CAUSES OF THE DISEASE.

It is highly probable that many of the causes of insanity, which to a great extent consist in deviations from sound hygienic rules, exert a decided influence upon the probable termination of the attack. As regards particular causes, indeed, there can be no doubt that this is the case. Thus, for example, it is well known that in cases excited by intemperance, recovery occurs in a very large proportion of cases; whilst in cases connected with epilepsy and paralysis this event is very rare, and indeed scarcely ever takes place. Still, as regards most of the causes of insanity, it is yet very doubt-

* Private patients were not until very lately altogether excluded at Lancaster, but the number admitted was too small to affect the results. At the time of a visit which I had the pleasure of paying to that asylum, in the summer of 1842, there were only 14 or 15 out of 576 patients who were not paupers. During the past year, the admission of private patients has been entirely discontinued, and the few remaining in the house have been removed to other establishments.

ful to what extent they influence the result. And indeed when we recollect the difficulty there so frequently is in determining what have been the actual causes of the disorder in any particular case, and the doubts which so often apply even to detailed histories of cases of insanity, when such are obtained, we are, I think, for the present justified in omitting any more particular reference to the influence of causes on the results, from a statistical enquiry of this description.

But notwithstanding this, a careful enquiry into the causes of insanity must still be regarded as of the highest interest and importance. Many of the annual reports of the public asylums of these kingdoms, and particularly those of Scotland, present us with tables which exhibit the assigned causes in the cases admitted during the past year. But, as before observed, little comparative value can attach to tables, however accurate, presenting the results for one year only; and I can hardly avoid expressing a wish that such tables, as well as others frequently given in these reports, had a double set of columns which might shew the numbers, as well for the past year, as for the whole or for a considerable period of the institution's operation.

Thus, whilst I freely admit the doubts which often attach to the *assigned* causes of insanity, and the care which it is so desirable we should exercise in admitting or rejecting the opinions of the friends of patients on this head; I am far from regarding the *apparent* causes, when ascertained by competent medical observers, as equally deficient in interest and value. Though, however, I think we are not justified in altogether uniting in the objections which have been made to the numerical comparison of the causes of insanity,* I cannot but express a decided opinion that sufficient care has not been exercised in admitting the causes which are assigned; and likewise that in the inferences which have been attempted to be drawn as to the influence of particular causes on the results of treatment, in some reports of asylums, of the

* More particularly by Dr. Luther V. Bell, in his "Reports of the McLean Asylum for the Insane, Massachusetts General Hospital," for 1840, 1841, and 1843. Dr. Bell makes almost equally strong objections to the application of statistics in general to the illustration of insanity.

United States in particular, due care has not always been taken to avoid hasty and fallacious conclusions.

We have now to consider, in reference to our present object, *the disease itself*; and this may be properly considered under the two heads of the *form* and the *duration* of the disorder.

V. FORM OF DISORDER.

THE form of the disorder, and the nature of its complications, in the cases admitted will no doubt exert a material influence on the results of treatment in different institutions.* Hitherto, indeed, the reports of asylums have but rarely contained returns of the cases admitted, classified according to the form of disorder. This may have partly resulted from the absence of any authorized or consistent scheme of classification, and partly from the difficulty of determining to what recognised form of disorder many cases belong. The following scheme is perhaps as complete and as scientifically accurate as any which is ever likely to be adopted in classifying the cases of mental disorder admitted into asylums. In the subdivisions of mania I have followed the classification adopted by the Metropolitan Commissioners in Lunacy.†

PARTIAL INSANITY (so called).

- I. Moral Insanity.
- II. Monomania.
- III. Melancholia.

GENERAL INSANITY (so called).

IV. Mania.

- 1. Acute Mania (raving madness).
- 2. Ordinary Mania (chronic madness of a less acute form).

* Prichard, "On Insanity," pp. 128, 151; "Statistics of the Retreat," pp. 96, 100.

† "Report of the Metropolitan Commissioners in Lunacy, to the Lord Chancellor," 1844, p. 102. This valuable report has come into my hands as this sheet was going through the press.

3. Periodical or Remittent Mania (with comparatively lucid intervals).

V. Dementia (decay and obliteration of the intellectual faculties).

1. Imbecility (acquired).
2. Fatuity (confirmed dementia).

VI. Amentia.

1. Idiotcy (congenital).
2. Imbecility (congenital).

VII. Delirium Tremens (when, as in the United States, this is regarded as a form of insanity, and is treated in hospitals for the insane).

The statistics of the *forms* of mental disorders must always be less satisfactory than those which refer to such simple and easily ascertained facts as age and sex, or to such events even as recovery, incurability and death. It is often very difficult and requires much consideration to classify cases under any specific description of mental disorder; and when to this we add the changeable forms which cases often assume, and that these forms are, in many instances, frequently running into, and alternating with, each other, we shall be justified in attaching, at least for the present, only a qualified value to any tabulated reports of the results of treatment in the different forms of mental disorder. As regards our present object, however, this is of the less importance, as for statistical purposes the form of disorder may to a great extent be regarded as corresponding with its duration. Mania and melancholia in general correspond with the earlier, and dementia with the more advanced, stages of insanity. It must however be admitted that monomania and idiotcy, which seldom undergo much change with their duration, cannot be included in a comparison of this kind.

Where no particular exclusive regulations exist, the condition of *idiotcy* is one, as respects the number of cases admitted, in regard to which it is not probable that the experience of institutions in the same country, for extended periods, will differ very materially from each other. But by the rules of many institutions, cases of congenital idiotcy are expressly excluded;

and, as this is a form of mental disorder in which no recoveries occur, and which has probably a more uniform rate of mortality than any other, the proportion of such cases which is admitted should always be stated. It is not improbable that at the hospitals of Bethlem and St. Luke's, the rule by which idiots are excluded is, in practice, frequently applied to cases of dementia or fatuity, which are so often confounded with idiotcy or amentia; and, if this be the case, the selection of cases is carried still further than the rule itself necessarily implies, and the results in these institutions, as regards the proportion of recoveries, should so far be even more favourable than, from the existence of this rule, would have been expected.*

* Until recently, indeed, persons in a state of stupid fatuity, under the denomination of "Mopes," were specially excluded, and in practice probably continue to be excluded from Bethlem.

As the rules relative to the admission of patients into the two great metropolitan hospitals for the insane will be frequently alluded to in these pages, I shall here give them at length.

"Instructions for persons applying for the admission of patients into Bethlem Hospital.

All Poor Lunatics who are not disqualified by the following Regulations may be admitted into this hospital at all seasons of the year, and will be provided with everything necessary for their complete recovery, provided the same can be effected within twelve months from the time of their admission. The following cases are inadmissible:—

1. Those lunatics who are possessed of property sufficient for their decent support in a private asylum.
2. Those who have been insane for more than twelve months.
3. Those who have been discharged *uncured* from any other hospital for the reception of lunatics.
4. Female lunatics who are with child.
5. Lunatics in a state of Idiotcy, afflicted with Palsy, or with Epileptic or Convulsive fits.
6. Lunatics having the venereal disease or the itch.
7. Lunatics who are blind, or so weakened by Age, or by Disease, as to require the attendance of a nurse, or to threaten the speedy dissolution of life, or who are so lame as to require the assistance of a crutch, or a wooden leg."

The first five rules rendering patients inadmissible at *St. Luke's* are to the same purpose as those at *Bethlem*; and the succeeding ones which here follow are only slightly different.

Cases Complicated with other Diseases.—Epilepsy, Paralysis, &c.—Since the higher mortality of the insane as a class has been established, it has been supposed by some, that this is in great part, if not wholly, due to the bodily disorders with which the mental affection is complicated. But unless such complications be extraordinary and exceptional, I cannot perceive why they should be separately considered in any estimate we may be forming of the mortality of the insane. In many cases, the morbid condition of the mental functions and such complicating bodily disorders, do but form different links in one common chain of pathological phenomena directly connected with the brain. And thus, that lesion which in its earlier condition only declares itself in some form of mental derangement, may, after an uncertain course, ultimately explode in an apoplexy which snatches away its victim at a blow, or in a paralysis which is only more lingeringly not less surely fatal.* In cases even where the complicating bodily disorder is less obviously connected with the morbid condition of the mind, a careful consideration of the predisposing and exciting causes, and of the circumstances under which the mental derangement originated, justifies us in concluding that a feeble state of bodily health is not unfrequently one necessary condition for the development of insanity. Those moral causes, indeed, which would prove innocuous to a person in good bodily health, are

“6. Requiring (from Disease or debility) the separate attendance of a nurse, or the assistance of a crutch.

7. Being under the age of Twelve, or above Seventy Years.

8. Being brought not clean, not properly clothed, and not free from infectious disease.”

* For the purposes of insurance offices it may indeed be desirable that those cases in which the insanity is accompanied by, or consequent on, diseases of a fatal kind, should be distinguished in tables of mortality, from such cases as are not in their commencement obviously so connected; as the actuary may otherwise perhaps be in danger of attributing to insanity per se, a diminution of age, which is really attributable to the apoplexy or other serious disease which he has also to take cognizance of. In these complicated cases, however, the influence of insanity on the duration of life is so entirely trivial, as compared with that of the apoplexy, as virtually to be set aside, or at least absorbed by considerations connected with the latter. Altogether, I feel there are great objections to considering insanity as a condition per se, and as distinct from those lesions which really constitute its pathological conditions, and which are so closely connected with the pathological conditions or proximate causes of other cerebral affections.

often, there can be no doubt, perfectly adequate to excite insanity in one enfeebled by disease; and particularly, I think, where such disease is seated in the organs of digestion, circulation, or respiration. Still we must admit that many of the fatal diseases of the insane are altogether unconnected with the mental disorder under which they labour; and when, from any cause, these occur amongst the insane in a larger proportion than in the population at large, they should be allowed for in any comparison which we may be making of the mortality of particular asylums. This is especially the case with diseases arising from intemperance or excess, particularly those connected with dropsy; which, as I have hinted in a preceding section, must materially increase the mortality of county pauper asylums.

In some establishments, however, there are rules, as regards the admission of cases complicated with other diseases, which may materially affect the comparison of the results obtained in them with those of other asylums. Thus, when cases complicated with paralysis, epilepsy, or other convulsive fits, which are generally, but not always, incurable, and the mortality of which is very high, are not admissible, as is the case at Bethlem and St. Luke's hospitals, and at many German asylums; or where, as in the same institutions, or at least the two former, patients are discharged upon being seized with these or other diseases dangerous to life,* the results should be much more favourable than in institutions where the contrary practice prevails. For this, and for other reasons which will appear as we proceed, it is indeed obvious that no strict comparison can be made of the results obtained in the institutions which have been named, with those of the county lunatic asylums of this country.

In connexion with this subject it must in this place be observed, that there is perhaps no circumstance which can exert so decided an influence on the mortality of hospitals for the insane, as their practice in regard to the admission and discharge of patients in a dying state, or in a decidedly critical

* Of 210 patients dismissed from Bethlem, as "improper objects," (1831-36) 87 were paralytic, 59 "sick and weak," 24 epileptic, 4 apoplectic, 2 had "fits," and 28 were idiotic.

state of health. As the reports of various county asylums sufficiently shew, a more or less considerable number of patients are often sent to these establishments in so feeble and shattered a state of health as not to survive more than a few weeks or even a few days. Such patients have been kept as long as possible at home or in the poorhouse, (where they are maintained at a less cost to the parish), and have been sent to the asylum when quite hopeless, only in consequence of the increased difficulty of their management, and of the amount of care and nursing which they require. The evil, as respects the probability of recovery of such poor patients, is a serious one; and the practice, not without reason, is complained of by the medical officers of these establishments. There can be no doubt that this circumstance is one cause of the greater mortality of the county asylums, as compared with that of voluntary and endowed benevolent institutions for the insane. In these establishments the governors or committee retain a discretionary power as to the admission of patients; and this circumstance, and the necessity for a formal application being made and granted previous to admission, there can be little doubt operate in such a way as to exclude many hopeless cases, and such as are in a dying state.

On the other hand there is a strong and natural feeling, particularly amongst the poor and less educated, which even in cases of insanity frequently leads them, for themselves and nearest connexions, to prefer meeting death under the roof of their own cottages, however humble or even destitute, rather than within the walls of a public hospital. And thus in asylums, such as those of York and Lincoln, supported partly by charitable contributions, persons able only to pay a very small weekly sum with the patient, will not very unfrequently remove him on the approach of death: and this, in common with the circumstance last pointed out, will, so far as it prevails, reduce the apparent mortality of these establishments. In county lunatic asylums, in which the patient is exclusively maintained at the cost of the parish, removal on the approach of death will seldom or never occur. Still, how far, particularly as respects the mortality, the less

favourable results of many county lunatic asylums, and the more favourable results of many voluntary and endowed benevolent asylums of England, and chartered asylums of Scotland, (which in many particulars nearly correspond with each other,) are to be attributed to their respective experience in this matter, can only be judged of when we are furnished with specific information respecting it, as is the case in the reports of some asylums.*

“*Criminal Lunatics.*”—The effects of the admission of “criminal lunatics” upon the statistics of hospitals for the insane, may also be properly adverted to in this place. For although the cases of this description admitted into an asylum, will seldom be so numerous as, of themselves, materially to affect the aggregate results of treatment; yet they may be sufficiently numerous, when taken in connexion with other concurring circumstances, to explain to a certain extent the disparity in these results; and it is hence desirable that in all statistical returns, the number of the so-called criminal lunatics should be separately given. During the thirteen years 1827—39, there were 3018 admissions at Bethlem Hospital, and of these 71 were “criminals.” The proportion of recoveries out of all cases admitted was 51. (50.96) per cent., and the mean mortality 7.08 per cent. But those discharged recovered amongst the criminal cases, separately considered, only amounted to 32.39 per cent., (which for this class must be regarded as a very high proportion,)† and the mean

* The experience of the Retreat has not been materially affected by either of the circumstances alluded to in the text; for although patients are often admitted in a feeble state of health, in hardly any instance has a patient been either received into, or removed from, the institution in a dying state.

† When it is recollected that the criminal lunatics at Bethlem have many of them been acquitted of *capital crimes*, on the ground of insanity, and that they have, in consequence, been sentenced to confinement during the pleasure of the crown, it would, I think, be satisfactory to be informed what have been the measures resorted to by government, for determining that so large a proportion as one in every three are sufficiently recovered to be thrown again upon society. Such cases as that of the fanatical madman, Thom, who had been so discharged, would seem to call for such an explanation being afforded by the Secretary of State for the Home Department. The whole subject, indeed, of the custody and treatment of criminal lunatics appears to call for the serious enquiry and revision of the government. For reasons which have reference as well to

annual mortality was only 3.49 per cent. The effect, then, of the admission of "criminal lunatics" upon the statistics of hospitals for the insane, must be that of giving a less favourable aspect to the recoveries, and a more favourable one to the mortality. This variety in the results will partly depend on much the greater caution which must of necessity be observed in the discharge of criminal lunatics on apparent recovery, but it will still be very much influenced by the forms of insanity which prevail amongst this class of patients. Monomania is, there can be little doubt, the form of mental disorder under the which majority of those who are acquitted of capital and other offences on the ground of insanity, and who are really insane, labour; and it is remarkable that the proportion of recoveries, as well as the mean mortality, amongst this class of patients at Bethlem, corresponds almost to a fraction with those observed in cases of monomania at the Retreat.

criminal lunatics themselves, as to the other inmates of these institutions, the propriety of confining such cases in county asylums, or even in hospitals where, as at Bethlem, they have a separate department assigned them, seems, to say the least, very doubtful. For whilst, as regards the former, the restoration to mental and moral health should never be lost sight of in their treatment, this would still properly be of a stricter description than that adopted in general asylums. From the general character of the patients, the greater violence of their passions, and consequent greater necessity for security, the general economy of the establishment should of course approximate closer to that of a prison, than would be at all proper in ordinary hospitals for the insane. On the other hand, the association of unfortunate and innocent insane persons with "criminal lunatics," cannot but be attended with numerous evils to the former, some of which I am glad to see have been recently pointed out by Dr. Julius of Berlin, ("Beiträge zur Britischen Irrenheilkunde." Berlin 1844, p. 24), and still more recently, and as I was preparing this sheet for the press, by the Metropolitan Commissioners in Lunacy. In addition to that shock to the feelings which many patients, even of humble rank, must experience, who, on recovering from an attack of insanity, find themselves mixing with criminal lunatics, I would insist on the importance of dissociating altogether the idea of a penal establishment from every institution, having for its primary object the restoration to health of its inmates. So important do I believe it to be, that the idea even of compulsory detention should be kept as much as possible out of view, that I would suggest that the usual form of medical certificate should be so far altered, that for the phrase "a proper person to be *confined* in a house for the reception of insane persons," should be substituted "a proper person to be *submitted to medical care* in a house for the reception and cure of insane persons." On the same principle, such terms as *keeper* and *cell* should be entirely excluded from the vocabulary of these hospitals and asylums.

	Proportion of Recoveries per cent. of the Admissions.	Mean Annual Mortality per cent. Resident.
Monomania, at the Retreat *	31.25	3.46
"Criminal Lunatics," Bethlem *	32.39	3.49

There are other "criminal lunatics" who labour under original idiocy or imbecility; and in these forms of mental disorder we know that no recoveries occur, and that the mortality is comparatively very low. And further, though the effect of the admission into asylums of persons who are actually sane, upon the statistical results, is too obvious to require being pointed out, but it is only proper here to state that amongst so called criminal lunatics sane persons are occasionally to be found.

For, though many inmates of prisons, even at the present day, would be more properly under care in asylums, and although many unfortunate persons who have been undoubtedly insane, as for example Bellingham, have, notwithstanding, unhappily suffered capital punishment; it must yet be admitted that of late years the plea of insanity† has been

* "Statistics of the Retreat." Tables 25 and 28; and "Table shewing the average proportions of recoveries and the mean mortality in several of the principal hospitals for the insane," to be given further on, (Chapter 3.)

† The subject of the plea of insanity in criminal cases, to which recent melancholy circumstances have served to call so much of public attention, is only indirectly connected with my present object. I can however, on this occasion, hardly refrain from directing attention to some remarks on the subject, by a distinguished physician of octogenarian experience, the author of an extended "Treatise on Mental Derangement," published in 1790; who, after the lapse of more than half a century, has lately favoured us with a valuable "Commentary on some important questions relating to Insanity, both in a Medical and Legal point of view." The tendency of courts of justice, of medical authors, and, what is perhaps of still more importance, of a large and, on many grounds, deservedly influential section of the public mind, appears very decidedly to be that of more and more extending the operation of the plea of insanity in criminal cases; and I fear, in some instances, beyond the sound and true limits. I therefore think that the observations of Sir Alexander Crichton are particularly worthy of attention at this time. All indeed who are anxious for the public good, and who deem the safety of society and the security of life important objects,—all true patriots,—cannot but agree in fervently deprecating any "attempt," if, as Sir A. Crichton thinks, such exists, "on the part of learned doctors in law and medicine to confound vice with insanity, and consequently to condemn the right of human punishment;" a result characterized by this distinguished author "as one of the

both set up and admitted by juries in the case of persons who, if insane at all, were at least not so in the ordinary acceptation of the term, and who, if not entirely, must at

many dangerous innovations which the proud philosophy of the nineteenth century has produced." ("Commentaries on some Doctrines of a dangerous tendency in Medicine, and on the General Principles of Safe Practice." By Sir *Alexander Crichton*, M.D. 1842. Page 195.)

To a very great extent, I believe what is here alluded is really the result of a more enlarged and correct estimate of physical influences on our mental condition, and moral responsibility, at least to human authority; and that so far it should be hailed as the sign of a change in the right direction. But, however this may be, the question is one of the highest importance, both as regards the interests of society on the one hand, and the claims of humanity on the other. In the investigation of criminal cases in which the plea of insanity is urged, the greatest care is called for, that we may avoid the folly and barbarity of inflicting punishment on the unhappy victim of a disordered mind; and not less so that we be not imposed on by feigned insanity, nor admit this plea in cases in which it cannot properly be sustained. There are indeed, it will be allowed by all who have had opportunities of observing the insane, numerous cases of partial, and even of more general, mental disorder, occurring in persons who are perfectly able to distinguish right from wrong, in whom the moral sense is neither obliterated nor altogether perverted, and in whom responsibility to the laws, as regards any crime not directly connected with some specific delusion or insane impulse, must be considered as existing.

That delusion or monomania frequently, and perhaps in the majority of cases, is attended by more or less derangement of the moral feelings, I freely admit. With equal readiness I allow that it is often extremely difficult in any particular case to say that a crime, apparently in no way connected with the delusion, was not in reality either a direct or indirect result of it; and in such cases the accused ought to have the full benefit of every reasonable doubt. But whilst we admit this frequent impairment of the moral sense and feelings in the partially insane, we must not forget that there are few in whom the powers of the will, the reason, and the conscience are so far undermined, as to render them altogether incapable of self-control, and consequently irresponsible. Most of the improvements which, of late years, have taken place in the treatment of the insane, have flown from the more decided recognition of the principle of more or less power of self-control remaining in the insane; and there could hardly be anything more inconsistent with modern, and, as I believe, correct, views of moral treatment than the adoption by medical or legal authorities, or by any considerable part of the public press, of the doctrine that the plea of insanity in *all cases* of crime, in the *partially insane*, ought to be admitted in bar of punishment. There can indeed be no doubt that the fear of disgrace and of punishment operates strongly and often salutarily on many more or less partially disordered minds; and if in our courts of justice, the plea in question should come to be indiscriminately admitted in all cases of partial insanity, one strong incentive to self-restraint, one important aid in the proper treatment of mental disorders would doubtless be withdrawn, and with what amount of evil result to society I will not here presume to determine. It can never be too fully impressed on the minds of medical witnesses, in cases

least to a certain extent be regarded as accountable for their conduct.

Of late years, likewise, under the authority of the act 1 Victoria, c. 27, a considerable number of persons reputed insane, and charged with various offences, or even merely reputed dangerous, have been annually committed, by warrants of the Lord Lieutenant, to the District Lunatic Asylums of Ireland. At the Belfast Asylum during the year 1838-39 twelve, in 1840-41 thirteen, and in 1841-42 ten, persons were so committed. The majority of these had undergone no trial, and were found by Dr. Stewart, upon admission, to be "in the perfect enjoyment of their mental faculties"! A few of them had however, been guilty of murder, including parricide under aggravated circumstances, and had been acquitted on the ground of insanity. As might be expected, the effect of cases of this kind being introduced into the company of the general class of patients is described as highly unfavourable to the latter. The operation of this act appears to be similar in the other district asylums of Ireland, and is generally complained of by the medical officers of these institutions, upon apparently just grounds.* Altogether the influence on the statistical results, of the admission of "criminal lunatics," so far as it extends, must be very decidedly that of lowering the rate of mortality as well as the proportion of recoveries.

VI. DURATION OF THE DISORDER.

OF all the circumstances which affect the comparison of the recoveries and mortality of the insane, the stage or duration of the disorder is, practically speaking, the most important.

which involve this plea, that there is no definition or test of insanity that will apply to all cases, and that the interests of society and of humanity alike demand that every case should be judged by its own merits, and not by reference to any single test or standard whatever.

* Annual Reports, Belfast, 1838 to 1844; Cork, 1839; Maryborough, 1839; &c.—The effects of confining criminal lunatics in the district asylums of Ireland having lately claimed the attention of a Committee of the House of Lords, it is to be hoped that some comprehensive remedy will be soon applied to this increasing evil.

The greater probability of recovery in recent cases than in those of longer duration, is a circumstance which has been long well known. And although the proposition laid down by Celsus, as regards disease in general, "*et acutus quidam, quò vetustior est; longus autem, quò recentior, eò facilius curatur,*"* when applied to insanity, may require some modification, yet it is in the main correct; and it may be safely affirmed that, *after an uncertain period from the date of the attack*, usually perhaps, not exceeding a few months, (though often extending to a year, or even longer) the probability of ultimate recovery constantly diminishes. During the earlier stages, of an attack of insanity, statistical enquiries certainly seem to shew that there is a greater tendency to death, and a less one to recovery, than subsequently. The tendency to recovery indeed does not appear to exist until the lapse of an uncertain time from the attack, when a disposition to a favourable crisis may frequently be observed, though not often in a fully developed case before the third, sixth, or ninth month. After the lapse of twelve months, though recoveries still occur, the probability of that event, in the great majority of cases, rapidly diminishes. The probable event is no doubt materially influenced by the treatment adopted in the first stage of the disorder, and particularly by the steps which are taken as regards seclusion from the world, and separation from friends.†

I shall divide my observations on this subject under the two divisions of the Duration of the disorder on admission and the Duration of the treatment or residence.

Duration of the disorder on admission.—At the Retreat, the probability of recovery in cases brought under care within three months of the first attack, has been found to be as four to one, and, excluding cases complicated with serious bodily disorders, as nine to one; whilst in cases not admitted until more than twelve months after the attack, the probability of

* Celsus, "De Medicinâ." Lib. 2. Cap. 1.

† It is hence important that we should, if possible, be informed of the kind of care under which the older cases, in particular, have been placed prior to admission into the several institutions.

recovery is less than as one to four.* The proportion of recoveries now mentioned as having occurred at the Retreat, in *uncomplicated* cases of less than three months' duration, or that of nine out of every ten cases brought under care is the same as that which, in cases equally recent, the late Dr. Willis and Dr. Burrows † both stated as having occurred in their private practice. Though both when first made, as well as since, ‡ Dr. Willis's statement has often been called into question, it may still be regarded as not in any degree improbable; and may indeed often apply to a small number of cases. But unless a selection be made of uncomplicated cases, it may be questioned whether so large a proportion will be found to recover, when the experience is not a very limited one. Much reliance, indeed, should never be placed upon the results derived from a limited sphere of observation, whether in public or private practice; as proof of which it may be here stated that out of twenty cases admitted at the Retreat within three months of the first attack, during ten years 1798—1808, nineteen were discharged recovered.

In Bethlem and St. Luke's Hospitals, all cases of more than twelve months' duration, being considered incurable, are, we have seen, inadmissible by the rules of these institutions; which is another reason why the aggregate results of treatment in these hospitals should contrast very favourably with those of asylums having no such regulation.

As, then, the proportions admitted at different stages of the disorder, either as the effect of special rule or otherwise, will vary so much in different institutions, and will thus render the comparison of the aggregate results of treatment always very doubtful, if not likewise fallacious, it becomes highly desirable that an uniform plan should be adopted in the reports of all hospitals for the insane, for exhibiting the

* "Statistics of Insanity." Page 95.

† "Report from the Committee appointed to examine the Physicians who have attended his Majesty," &c., 1789. Part II., p. 25. Burrows, "Inquiry into certain Errors relative to Insanity," &c. 1820. p. 48.

‡ Haslam, "Observations on Madness," 2nd Edit. 1809. p. 252.

results of treatment in reference to cases of different duration when admitted. At the Retreat, the importance of this discrimination appears to have been recognized at an early period of its operation; and the cases have from time to time been distributed into classes according to the duration of the disorder when admitted, and the events of treatment have then been noted in each class. 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 of not more than twelve months' duration*; the Third class, of *Cases not of the first attack, and of not more than twelve months' duration*; and the Fourth class, of *Cases whether of the first attack or not, and of more than twelve months' duration when admitted*. This plan, or one almost identical with it, has likewise been adopted by several of the large English county asylums,* as for example that at Wakefield, and it is submitted whether, uniformity in such a matter being so important, it is not desirable that it should be generally followed; for, as has been well observed, by an excellent friend, "the object which is sought in the comparison (of the results obtained in different institutions) cannot be attained unless things similar are brought together; and for this purpose, some arrangement of the cases must be made with reference to their probable curability." †

Objections have been brought against this plan, particularly by Dr. Jacobi, on the ground of the difficulty, in many cases, of determining the exact date of the origin of the disorder. Such a difficulty does, it must be admitted, often exist; but if it be understood that the origin of the disorder should be dated from the period when self-control was first decidedly lost, and when overt acts of insanity were for the first time actually manifested; and that it should not include the time during which, from the *à posteriori* history, the existence of

* The reports of some asylums, in which this classification has to a great extent been adopted, do not discriminate the most recent cases, or those admitted within three months of the first attack; and there are other variations in the classification upon which it is very desirable that a general decision should be arrived at.

† Tuke, Introduction to Jacobi, "On the Construction and Management of Hospitals for the Insane." 1841. p. lxvi.—vii.

a latent state of mental disorder, as indicated by more or less of peculiarity, may be inferred, no great practical difficulty it is presumed will be experienced in determining the date of the disorder; provided that histories of even ordinary extent and accuracy are procured from the friends or guardians of the patients. At all events, the plan appears much less open to objection than that which has been substituted for it by Dr. Jacobi, in the arrangement of the cases admitted into the institution at Siegburg.

Dr. Jacobi divides his cases into three classes; 1st. *The incurable or unfit*; 2ndly, *The possibly curable or but little fit*; and 3rdly, *The probably curable or such as are fit* for a curative establishment or *hospital*, as distinguished from an institution for the incurable insane, a mere *asylum* or "safety-house," as such establishments are called in Germany. In the first, or supposed incurable class, Dr. Jacobi embraces congenital idiocy and cases of mental disorder originating in diseases of the brain *in early life*; imbecility and fatuity succeeding to mania of *several years' standing*, or complicated with, or succeeding to, epilepsy, apoplexy or paralysis, or following acute or chronic inflammation of the brain; as well as the same forms of mental disorder when connected with natural or premature superannuation, or with *long continued* or excessive mental excitement. His second class of doubtful or possibly curable cases, consists of "cases of *many years' standing*, to which the character of incurability was not yet decidedly affixed, though in the greater number from *the long continuance of the disease*, from its character already inclining to the most doubtful form, or from the morbid state of the system, in one or other of the most important respects, an incurable condition was with the utmost probability to be anticipated." The third class, consisting of the probably curable, or those adapted to a curative establishment, he observes "is by no means confined to those called recent cases, but also embraces the cases of such as may have already suffered from insanity for one or even two years; provided other circumstances are such as do not preclude the probability of a cure."* This classification,

* *Jacobi. op. cit.* p. 18 and 294-7. During the fifteen years from the establishment of the hospital at Siegburg ending in 1839, there have been admitte

it will be seen, is founded partly upon facts, many of them ascertained with difficulty, and partly upon the opinion which is formed from those facts. In practice, there can be no doubt that the classification of the same cases upon this plan would vary to a great extent, according to the industry, the acquirements and the judgment of the reporter. It will also be observed that, even in Dr. Jacobi's scheme, considerable reference is still made to the *duration of the disease*; and I cannot but think that a classification on this single and simple fact, admitting though we do that its verification is sometimes difficult, is decidedly preferable to the mixed and more complicated classification proposed by Dr. Jacobi. I would therefore strongly urge this subject upon the attention of those entrusted with the drawing up of the reports of asylums; and would suggest that the cases should, from year to year, be regularly distributed into tables arranged according to the four classes which have been described. The preceding (Table E) is a specimen of such a table, and exhibits the results of treatment in all the cases admitted at the Retreat, from 1796 to 1844, and which is extracted from the 48th annual report of that institution.

From the preceding table the proportion of recoveries and the mean mortality in the several classes may be readily calculated. It would be convenient if a similar table to the following, (Table F) exhibiting these, and taken from the same source, were likewise generally adopted in the reports of hospitals for the insane.

The influence of the duration of disorder upon the probability of recovery is fully proved by the experience of other establishments, as well as by that of the Retreat. Table 7 exhibits the differences in this respect in the results

of the 1st class, as above defined, 360; of the 2nd, 284; and of the 3rd, 485; making a total of 1129. Dr. Jacobi appears to have admitted the 360 of the first class against his own judgment, and in consequence of the want of sufficient room in the "Safety Houses" for the insane of the supposed incurable class, in the Rhenish Provinces of Prussia. On the separation of the supposed curable from the incurable insane, which is contemplated by this arrangement, and which has much to recommend it when judiciously carried out, see "Report of the Metropolitan Commissioners in Lunacy." 1844. pp. 6, 84, 205: also, *Tuke*, Introduction to *Jacobi*, loc. cit. p. xi.

reported, in cases admitted at different stages of disorder, into different institutions.

TABLE F.—SHEWING THE AVERAGE PROPORTION OF RECOVERIES AND THE MEAN ANNUAL MORTALITY, IN CASES OF RECENT AND LONGER DURATION WHEN ADMITTED AT THE RETREAT, 1796—1844.—DEDUCED FROM TABLE E.

DURATION OF DISORDER WHEN ADMITTED.	Proportion of Recoveries per cent. of the Admissions.			Mean Annual Mortality per cent. Resident.		
	Male.	Fem.	Mean.	Male.	Fem.	Mean.
FIRST CLASS.—First attack, and within 3 months.....	79.24	77.19	78.18	8.05	6.76	7.3
SECOND CLASS.—First attack, above 3, within 12 months	46.15	43.75	45.	5.14	4.06	4.37
THIRD CLASS.—Not first attack, and within 12 months	55.55	65.03	60.95	6.78	5.1	5.82
FOURTH CLASS.—First or not first attack, and more than 12 months ..	14.65	23.38	19.16	5.24	3.98	4.57
Average.....	43.46	50.26	47.07	5.65	4.35	4.9
AVERAGE, EXCLUSIVE OF THOSE UNCONNECTED WITH THE SOCIETY OF FRIENDS	45.14	53.06	49.34	5.56	4.29	4.83

Some of the results exhibited in the following table are so far opposed to the general law of recovery in cases of insanity brought under treatment at different periods, as to warrant the conclusion of there being some inaccuracies in the data upon which they have been calculated.

TABLE 7.—SHEWING THE PROPORTION OF RECOVERIES PER CENT. OF THE ADMISSIONS, IN CASES OF RECENT AND LONGER DURATION WHEN ADMITTED, IN DIFFERENT INSTITUTIONS.

NAME OF ASYLUM.	PROPORTION OF RECOVERIES PER CENT. OF THE ADMISSIONS.			
	CLASS I. First Attack, and within three months.	CLASS II. First Attack, above three, but within, twelve months.	CLASS III. Not first attack, and within twelve months.	CLASS IV. First or not first attack, and more than twelve months.
Maidstone, 1833—36*.....	51.85	19.23	60.71	4.84
Wakefield, 1818—40†.....	52.18	57.39	53.17	11.5
Lincoln, 1820—39‡.....	67.4	26.78	49.78	9.62
Retreat, York, 1796—1843§.	78.64	44.21	61.66	18.88
Dundee, 1820—30||.....	60.2	41.77	61.42	21.73

* Report, 1837. † 22nd Report, 1841. ‡ Hill, "On Lunatic Asylums," 1839, Table 32.
§ 47th Report, Table 4. || 10th Report, 1830.

When the cases are distributed into two classes only, the *first* including all those not exceeding, and the *second* all those of more than, twelve months' duration upon admission, (whether of the first attack or not) the difference in the results becomes more uniform and obvious. This plan likewise enables us to add to the list the results obtained in three or four other institutions.*

TABLE 8.—SHEWING THE PROPORTION OF RECOVERIES PER CENT. OF THE ADMISSIONS IN CASES OF LESS AND MORE THAN TWELVE MONTHS' DURATION WHEN ADMITTED, IN DIFFERENT INSTITUTIONS.

NAME OF ASYLUM.	PROPORTION OF RECOVERIES PER CENT. OF THE ADMISSIONS.		
	CLASS I., II., & III. Of less than twelve months' duration.	CLASS IV. Of twelve months' duration and upwards.	All Cases.
Maidstone	49.26	4.84	20.68
Wakefield	53.74	11.5	44.18
Lincoln	50.95	9.62	40.1
Retreat, York	61.87	18.88	{ 46.94
Dundee, 1820—40	59.06	13.71	{ 49.24*
Worcester, U.S. 1833—40†	82.78	14.4	42.36
Frankford, U.S. 1817—38†	58.23	25.2	42.3
New York, Bloomingdale, 19 yrs. 1822—41 §	74.85	11.57	45.11
Schleswig 1820—35	66.84	10.37	47.19
Bethlem 1827—39 || .....	52.38	12.5	29.51
St. Luke's 1751—1834 || .....	39.71	.	50.96

* "Society of Friends" only. † 8th Report, 1841.

‡ For the Society of Friends. *Evans' "Account of the Asylum near Frankford,"* &c. 1839.

§ Report, 1842. || Recovered within one year of admission.

It is almost unnecessary for me here to repeat that the results of different establishments, as brought together in this and other tables, do not alone authorize any decided inferences as to the relative success of the treatment pursued. As regards the difference in the results obtained in the British and American hospitals, it is important to be aware of the different and much larger proportion of cases arising from drunkenness,—mania a potu, delirium tremens,—usually treated in the latter. The character of the results obtained at the Friends' Asylum at Frankford, as compared with the other Transatlantic hospitals in the table, seem to indicate the greater prevalence of this cause in the latter.

The duration of the disorder exerts a material influence upon the mortality, as well as upon the proportion of recoveries: this influence is, however, of an opposite character, the

* Recovery is not only more frequent, but is effected in a period which is shorter in proportion as the attack is more recent. ("Statistics of the Retreat." p. 95. Table 19.) Economy and humanity are thus equally regarded by the guardians of the poor placing the insane of their several districts under care in hospitals adapted to their recovery at an early stage of the disorder.

mortality being greater in the recent, and less in the chronic cases. Thus during 48 years at the Retreat, the mean annual mortality has been 7.3 per cent. in the recent cases on admission, of Class I.; and only 4.57 per cent. in the old cases of Class IV.; the mortality in the one case exceeding that in the other by 60 per cent.

Duration of the treatment or residence.—A difference in the duration of the treatment or residence of patients in different hospitals for the insane, is necessarily connected with great differences in the results of treatment; inasmuch as this affects the relative proportion of cases in the earlier, as compared with those in the more advanced, stages of mental disorders, which are under care in any particular institution. The average duration of residence of patients in an asylum may thus influence the results of treatment, in the same way, and for the same reasons, as the duration of disorder on admission; and hence this circumstance should not be disregarded in any comparison of the results obtained in different institutions. It need scarcely be observed that it is the interest of our patients, and of the public, that the duration of treatment and of consequent residence in an asylum, in cases of insanity where recovery occurs, should be as short as is compatible with perfect restoration, and with strengthening the mental and bodily system against a relapse; whilst in incurable insanity, (though to determine which cases are such is not always practicable) it is not less our duty to avert death and to protract the duration of residence and of treatment as long as possible; and there can be no doubt that these apparently contradictory effects do really result from a judicious plan of treatment.

There are not, and cannot be, two opinions as to its being the duty of those entrusted with the care of the insane, to use every possible means to promote their recovery; but, as has been observed by an anonymous but eloquent writer, it was asked by Plato, as it is sometimes asked even at the present day, "what has society to gain by the protracted existence of lunatics? What, in England, too, whose population according to some philosophers, is increasing so much faster than subsistence? Much. It is a law of nature that every man should be liable to innumerable diseases,—secure from

none. No one can look forward with certainty to a constantly serene course. The heart that beats well to-night may fail on the morrow; the subtle brain, playing in all its might, and throwing off thick-coming thoughts, may in a day be cast into irreparable disorder. You stand secure, calm, believing steadfastly in your fate; but know you all the secret cells of madness? Have you good security against exposure to its causes? Your passions, may they not be overstretched, your enthusiasm exalted? The extraordinary circumstances in which you are placed, can they not lead to distraction? And cannot that fortune,—the riches, friends, household stuff of happiness, on which you count in all your calculations,—desert you in the hour of trial? Oh! there are many ways to madness.

“What, then, sustains the provident citizen under the diseases which hang like threatening clouds over his life, and the lives of his dearest friends? Is it not the consciousness that if disease should come, every means will be employed calculated to restore the body to health,—that if the affliction prove lasting, it will be out-lived by tenderness, and that at last the head will be let fall gently upon the breast of the parent earth?”*

To these considerations, so eloquently stated, it may be added that the impossibility of, in many instances, determining when any particular case passes from the curable into the incurable stage, and the not unfrequent occurrence of recovery after the expiration of several years, should make us hesitate in withdrawing any of those attentions, which whilst they hold out the best hope of restoration to the curable, are likewise the most calculated to ensure the bodily health, and comfort of the incurable insane.

Did the average duration of treatment depend entirely upon the internal economy, and methods of cure, medical and moral, which are pursued in different establishments, the consideration of the influence which is exerted by this circumstance upon the results of treatment, would not belong to this place, but would properly merge itself in that of the internal economy, and methods of treatment themselves.

* “Lancet.” 1838-9. Vol. 1, p. 201.

This, however, is not the case; and, though no doubt often much influenced by the treatment pursued, the average duration of residence may be affected very materially by circumstances altogether independent of the general economy of different institutions, and of the curative methods which are pursued in them;—the consideration of which belongs to the next chapter. In the first place, there may be regulations limiting the duration of treatment, as at Bethlem and St. Luke's hospitals, where patients are considered incurable, and are discharged, at the end of one year's residence. In the whole number, therefore, of "curable" cases admitted into these institutions, we find that the average duration of residence is little more than half a year (.57) at Bethlem, and two-thirds of a year (.68) at St. Luke's. The duration of residence may likewise be short, independently of any rule enforcing removal after the lapse of a given period. Thus at the York Lunatic Asylum, (and the same circumstance probably operates in other institutions of the same class), a large number of cases, from pecuniary or other motives, are removed in an unrecovered state within the first year of residence, either by their friends or by the guardians of the poor; and are placed, either in private houses for the insane, in the West-Riding Pauper Asylum, in the poor's-house, or, as in some cases, are confided to the care of their friends. The average duration of residence of all cases admitted into this asylum is two and a half (2.52) years. Now as a large proportion of cases of insanity recover after the first, and even after the second, year of treatment, it must be obvious that the operation of such a rule as that which exists at Bethlem and St. Luke's, and of such a practice as that which prevails at the York Lunatic Asylum, must not only be that of *diminishing the number of recoveries* reported from such establishments; but, what is of more consequence, that it will likewise be that of lessening the probability of ultimate recovery, in cases thus prematurely discharged, and consequently exposed to various causes of excitement.* It also

* These observations will only apply to cases removed from well-conducted establishments, in other respects adapted to the necessities of the patients so removed from them.

appears probable that a short average duration of residence, will also, *cæteris paribus*, have an *unfavourable effect on the mortality*, by keeping up in the institution a relatively large proportion of cases in the recent stages of the disorder.

We have an example of an institution with a remarkably long average duration of residence, in the Retreat; where, for all cases admitted, it amounts to nearly five (4.8) years. So extended a period of treatment in this instance is to be attributed to several concurring causes. In the first place, this institution possesses a large share of the confidence of the community to which it is particularly devoted; and from the regulations as to the payments on behalf of the patients, and from the peculiar economy of the Society of Friends, it is believed that pecuniary considerations never hasten discharge, nor occasion a removal to any other establishment. Great caution is likewise exercised in removing patients before the apparent convalescence has been tested by a sufficient continuance; and recovered patients often remain until some suitable home can be provided for them. There is likewise no limitation as to the length of time incurable cases remain in the house; and the result is that very few are discharged during the continuance of the disorder, and that those who do not recover generally remain in the institution during the remainder of their lives. The somewhat large proportion of recoveries and the very low rate of mortality of the Retreat, are in all probability in part referrible to this long average duration of residence. One-third (34 per cent.) of the entire recoveries occurred after the first year of residence; and nearly one-sixth, or 15.3 per cent., after the second year. The influence of a prolonged period of residence on the mortality will perhaps be still more decided. This circumstance will evidently occasion a reduction in the mortality, by keeping up in the institution not only a large proportion of cases in the chronic stages of mental disorder, but also many who can scarcely be pronounced insane, who are in a state of comparative mental and bodily health, and in whom the mortality cannot be expected to be much higher than in the general population of the country. This will especially be the case, when the prolonged duration of residence is chiefly

occasioned by caution in discharging patients as recovered, in the early stages of convalescence.

The remarks I am about to make will to a certain extent illustrate the effects, upon the proportion of recoveries, of any considerable difference in the average duration of treatment. The proportion of recoveries in the "curable cases" admitted at Bethlem, have, of late, (1827-39) amounted to 52.38 per cent. At the Retreat, of cases in the first three classes, which correspond, as regards the duration of the disorder on admission, with the "curable cases" at Bethlem, but which, as they embraced cases complicated with paralysis and epilepsy, and others which would likewise be inadmissible at that metropolitan hospital, may be regarded as so far less favourable to recovery, the proportion of recoveries amounted to 61.87 per cent. But, had such a rule as that which exists at Bethlem, been in operation at the Retreat, the results would have been far less favourable to that institution. For if, from the total of 249 recoveries occurring in the 398 cases of the three classes alluded to, we deduct the 76 whose discharge took place more than one year after admission, we shall find that the recoveries thus reduced, only amount to 43.46 per cent.* A large proportion, however, and one nearly or quite equal to that at Bethlem, was, there can be little doubt, actually fit for discharge at the end of the first year of residence; and the comparison is only introduced here to shew the unfavourable influence which this rule must have on the results obtained at the Hospital of Bethlem.

At the York Lunatic Asylum again, the proportion of recoveries, during the $25\frac{2}{3}$ years, 1814-40, only amounted to 33.88 per cent.; whilst at the Retreat, in cases connected with the Society of Friends, they amounted to 50.18 per cent.: in other words, one of every two cases admitted was discharged recovered at the Retreat, but only one of every three cases at the Asylum. Such a difference in the results of treatment in these two institutions might justly surprise us, did we not find that so large a proportion of cases is removed prematurely from the Asylum during the first year, and even during the first three months of residence, and,

* "Statistics of the Retreat." Tables 19, 21.

consequently, before a sufficient average time for recovery has been afforded. And it is hence interesting to find, upon a comparison of the cases *discharged recovered within a year of admission*, at the two institutions, that there is no greater difference in the respective proportions than might have been anticipated: the proportion of cases of all kinds discharged recovered within such a period, amounting to 30.89 per cent. at the Retreat, and to 28.14 per cent. at the Asylum.* We should, I think, have scarcely expected that the results at the Asylum, as thus shewn, would have approximated so closely to those at the Retreat, when we remember that many of those who, from economical or whatever motives, have been removed to other institutions from three to six months after admission at the Asylum, would doubtless have recovered, had they remained even one year in that institution. This is instructive, I think, as shewing the caution with which comparisons in figures are often to be taken.

Before dismissing this subject, I may take the opportunity of making a few remarks on the method of calculating the average duration of residence.

Method of calculating the average duration of residence.—The average duration of residence in asylums and hospitals for the insane may be readily deduced from the reports of these institutions, when the number of admissions and the average number resident are given for any considerable period. These necessary data are contained in the second table which I have ventured to recommend should be given in all reports of asylums.† From this table, which exhibits the aggregate results of treatment at the Retreat, during 48 years, we ascertain by a very simple process that for all cases, curable and incurable, which have been admitted into that institution, the mean term of residence has been 4.7 years.

Average Number Resident.		Years of Operation.		Number Admitted.		Average Duration of Residence.
69.19	×	48	÷	701	=	4.7 years.

* "Statistics of the Retreat." Table 18, and Appendix I., Table B.

† Supra, p. 24, Table B.

By the first step of this process, or by multiplying the average number in the house by the number of years the institution has been in operation, we obtain the years of human life which have been spent in the institution, or, as for the sake of brevity, I have been in the habit of denominating it, the *subjective time*. This subjective time, or "years of residence," as it is termed by Mr. Farr,* is an important element in statistical enquiries of various kinds, and particularly in deducing the mortality of any establishment or community. This step of the process indeed is the same as that employed for deducing the rate of mortality from the data contained in the table referred to.† In this instance, the subjective time is found to be 3321.12 years, and upon dividing this by 701, the number admitted during the 48 years, we obtain 4.7 years, as the average duration of residence in this institution. ‡

The following table, (Table 9) which exhibits the average duration of residence in a large number of asylums, has been calculated from data which, for the most part, will be found in a succeeding table.

We may here observe that little dependance can be placed upon the average duration of residence in hospitals for the insane, obtained in this general way, for a limited number of years only, and indeed for any period much less than twenty years. At the Retreat, at least, as a succeeding table (Table 10) will shew, this period elapsed before the average duration of residence, for all cases admitted, at all approximated to the present standard. And though in some of the larger asylums quoted below, the progressive increase in the average duration of residence, with the lapse of time, has not been so

* "Statistics of English Lunatic Asylums," p. 10; and "On the Mortality of Lunatics," "Statistical Journal," vol 4, p. 20.

† Supra, page 25.

‡ I have not entered into the question whether the years of residence should be divided by the number discharged or by the number admitted,—whether, in the instance given in the text, the 3321.12 should be divided by 701 or by 607,—as I conceive the observations already made, (pp. 7—12), on the method of calculating the proportion of recoveries are, if admitted, necessarily conclusive on this question also.

TABLE 9.—SHEWING THE AVERAGE DURATION OF RESIDENCE IN VARIOUS HOSPITALS FOR THE INSANE.

NAME OF ASYLUM AND PERIOD.	Average Duration of Residence in Years.
Cornwall, 22 years, 1820—42.	2.7
Gloucester, $9\frac{1}{2}$ years, 1823—32.	1.54
Kent, 5 years, 1833—38.	1.89
Lancaster, 27 years, 1816—43.	2.23
Middlesex, $12\frac{1}{3}$ years, 1831—43.	3.22
Nottingham, $29\frac{1}{3}$ years, 1812—41.	1.62
Stafford, $23\frac{1}{4}$ years, 1818—41.	1.42
Suffolk, 13 years, 1829—41.	2.11
York, West Riding, 25 years, 1818—43.	2.04
Bethlem, 13 years, 1827—39, "curable" patients. ....	.57
St. Lukes, 83 years, 1751—1834, "curable" patients. ....	.68
" " " " "curable and incurable."	1.02
Asylum, York, $27\frac{2}{3}$ years, 1814—42.	2.62
Retreat, York, 48 years, 1796—1844.	4.7
Lincoln, $21\frac{2}{3}$ years, 1820—42.	1.35
Metropolitan, Licensed Asylums, 6 years, 1833—39.	1.41
" " Paupers, separately.	1.28
" " Not Paupers, separately.	1.56
Aberdeen, 12 years, 1830—42.	2.4
Glasgow, 28 years, 1814—42.	1.29
Perth, 11 years, 1827—38.	2.56
Montrose, 16 years, 1824—40.	2.98
Dundee, 33 years, 1820—43.	2.56
Armagh, $16\frac{3}{4}$ years, 1825—40.	1.46
Ballinasloe, $8\frac{1}{4}$ years, 1833—42.	1.72
Belfast, 15 years, 1829—44.	1.78
Carlow, 10 years, 1832—42.	2.49
Clonmell, $7\frac{1}{4}$ years, 1835—42.	1.58
Cork, 9 years, 1833—42.	1.73
Limerick, 15 years, 1827—42.	2.21
Londonderry, 13 years, 1829—42.	1.8
Maryborough, $9\frac{1}{2}$ years, 1832—42.	2.41
Richmond, Dublin, $11\frac{1}{4}$ years, 1830—42.	2.25
Waterford, 7 years, 1835—42.	1.9
Retreat (Friends) Dublin, 30 years, 1812—42.	4.4
New York, Bloomingdale, $20\frac{1}{2}$ years, 1821—41. ....	.89
Frankford, U.S. $21\frac{1}{2}$ years, 1817—38.	1.5
Worcester, U S. 10 years, 1833—43.	1.13
Charenton, 8 years, 1826—33.	1.78
Schleswig, 15 years, 1820—35.	3.9
Siegburg, 15 years, 1825—40.	1.92
Milan, Senavra, 25 years, 1802—27.	1.67

decided, it has yet been sufficiently so, particularly at Hanwell, to establish the probability of such a general rule as has been adverted to.

TABLE 10.—SHEWING THE AVERAGE DURATION OF RESIDENCE IN ALL CASES ADMITTED AT FIVE HOSPITALS FOR THE INSANE, AT PERIODS SUCCESSIVELY INCREASING BY TERMS OF FIVE YEARS FROM THE DATE OF THEIR ESTABLISHMENT.

NAME OF ASYLUM.	5 yrs.	10 yrs.	15 yrs.	20 yrs.	25 yrs.	30 yrs.	35 yrs.	40 yrs.	45 yrs.
Lancaster	1.53	1.96	2.11	2.13	2.17	2.23 27 yrs.	.	.	.
Middlesex	2.12	2.87	3.22 12½ yrs.	.	.	.	.	.	.
York, W. R. . . .	1.36	1.69	1.8	1.89	2.04	.	.	.	.
Retreat, York.	2.03	3.18	3.92	4.28	4.47	4.37	4.36	4.67	4.82
Glasgow	1.06	1.18	1.25	1.29	1.32	.	.	.	.

It is thus seen that, at the Retreat, at the end of five years, the average duration of residence was considerably less than one half, and at the end of ten years, less than two-thirds its amount at the present time, after the lapse of more than forty-five years from its establishment. Even at the end of twenty years, it was less than what it is at present by more than half-a-year; with little exception, during the last twenty-five years, having progressively advanced from $4\frac{1}{4}$ (4.28) to nearly 5 (4.82) years.

The average period of treatment and of consequent residence in an asylum, as shewn by the experience of the Retreat, as well as by that of the York Lunatic Asylum, varies very greatly in curable and incurable cases, and according to the result of treatment. As might a priori be expected, the average duration of residence is by much the lowest in the cases discharged recovered; higher in those which leave improved; higher still in those which die; and highest of all in the cases remaining in the institution at any given time, after a considerable period of operation.* But these particu-

* "Statistics of the Retreat." p. 89, Tables 18 & 19; and Appendix I., Table B.

lars of the duration of residence, which are nevertheless full of interest and importance, cannot be ascertained by any summary and comparatively simple process, such as will apply to the cases as a whole, as above described; and they can only be calculated from such data as those in the tables last referred to, which are formed from a separate enumeration of the duration of residence in every case admitted.

Quarterly Censuses and other methods for ascertaining the mean number resident under different circumstances of sex, age, form, and duration of disorder.—The principal circumstances, then, which modify the prognosis in insanity, and which consequently affect the comparison of the results obtained in different institutions, are seen from the foregoing enquiry to be the sex, the age, the civil condition, and previous habits of the patient, the form of the disorder and its stage or duration. If we except the previous habits and mode of life, of which for the most part, we can only speak in general terms, all of these are easily exhibited in a numerical form; and *the proportion of recoveries per cent. of the admissions* is readily enough calculated, when we are presented with the number admitted and the number discharged recovered, under these several circumstances. But, in order to ascertain the precise influence of these particulars on *the mean annual mortality*, we require to be informed, 1st. of the average population, or mean number resident, and 2nd. of the number dying under each of these circumstances. In order to effect this, as proposed to me by Mr. Farr, “quarterly,” (or, to be more accurate, monthly,) “censuses,” of the inmates of every asylum, of the two sexes, at decennial ages, at definite stages, and, if thought necessary, in different forms of the disorder, should be taken regularly; and an abstract, or average for the year, of such censuses, presented with each annual report.*

In the annual average of censuses of this description, we

* Since the above was written, I observe that in the “59th, 64th, and 68th Reports of the Visiting Justices of the Hanwell Lunatic Asylum,” Dr. Conolly has given three tables (Tables 24, 25, and 26) which exhibit the results of *annual* censuses or enumerations of the above description. It cannot however be doubted that the mean results of four quarterly, or, as proposed above, of twelve monthly, censuses, would have been much more valuable.

should be presented with the mean number, or average population for the year under each of these several circumstances. The importance of a statement of the mean aggregate population of asylums always entering into the reports of these institutions, has already been insisted on;* and without such a statement, indeed, these reports are comparatively valueless. Similar statements of the mean population of the two sexes, at different ages, and in different stages of the disorder, are equally essential to that more discriminating comparison of the results of treatment, which it is my present object to recommend; and we may hope that such returns will not be lost sight of by those who are charged with the drawing up of these reports.

As regards the method of ascertaining the mean population of an hospital for the insane for any single year, under these several heads, I have found that a readier method than that by distinct censuses, or enumerations of individuals, is to extract from the monthly register of the institution, and to add together, the number of months spent in the house by each patient during the year. This being done for each period of life, and for the several classes according to the duration of disorder upon admission, the sexes at the same time being distinguished, we obtain the "subjective time," in months, for the year before us; and by dividing the total by 12, the average population or mean number resident during the year is deduced. When the register kept in the institution is a weekly one, the same plan may be adopted, the totals, in that case, being divided by 52, instead of by 12.† In the specimen tables which have been given in this chapter, it will be seen that the average number resident, as thus calculated, has in all instances been given either for the current year, or for the

* *Supra*, p. 17.

† In the case of a *daily* register, however, there can be no necessity to make the calculation on the numbers in the house daily. The result will be sufficiently, if not absolutely, accurate, if the numbers in the house on one day in each week or in each month be added together, and the total be then divided by 52, or by 12, as the case may be. In large asylums having a particular day for the admission and discharge of patients, it will be as well to select that day of each week which is most remote from such admission and discharge day.

entire period of the institution's operation.* In Table E. the latter plan has been adopted, the "subjective time" for each class, during the year 1843-4, having been added to that for the preceding forty-seven years, and then divided by 48, which gives the average for the entire period. When, as in Table C, the mean numbers resident at each age are given for a single year only, these may still, by means of a series of annual reports, containing similar tables, be ascertained for more extended periods.

SECT. 3.—GENERAL OBSERVATIONS ON THE COLLECTION
AND REGISTRATION OF THE STATISTICS OF HOSPITALS
FOR THE INSANE.

WE may conclude this chapter with a few remarks on the means of collecting and registering the statistics of hospitals for the insane in general. It is scarcely necessary to point out the importance of a well-digested method of registration, in the collection of results of whatever description, in a numerical form. By means of such a register, every important topic of observation and enquiry is constantly kept under the eyes of those engaged in the work, and attention is thus almost necessarily directed to them. I am happy, in this place, to be able to state that one of the first objects to which the attention of the "Association of Medical Officers of Hospitals for the Insane,"† was directed, was that of the best form of register to introduce into the several asylums with which the members are connected. At the first annual meeting of the association, held at the Nottingham Asylum, a committee of four members was appointed to prepare such a form; which was submitted to, and approved by, the second annual meeting, held at Lancaster during the summer of 1842. Annexed is the form of this register, and I think that much good

* Tables A, B, C, and E, *supra*, pp. 24, 34, and 54.

† This association was formed at a preliminary meeting of the medical officers of hospitals for the insane, held at Gloucester, in July 1841. The secretary is Dr. Hitch, Resident-Physician of the asylum near that city; from whom the rules of the association, with any further information, may be obtained.

may be expected ultimately to result from its introduction into a large number of asylums of this country.

The rather extensive series of tables, comprised by the "Statistics of the Retreat," were, to a great extent, calculated from a register, which though far from complete, still possesses great value from the fact of every case, which has been admitted into the institution for nearly half a century, having been registered in it. This register, which is now superseded by that of the association, contains only sixteen columns; and of these two are devoted to the rate of payment, and to the name of the person under whose authority the patient has been received into the institution.* It will be seen that the register of the association contains twenty-eight columns, all devoted to the physical and moral history of the cases. It may indeed be presumed that, when accurately kept, this register will exhibit, in a summary way, a history of every case admitted, as complete as can advantageously be shewn at one view in any tabular form.

Difficulties, it must be admitted, are often experienced in obtaining all the information which is demanded by such a form of register. It is therefore important that every facility should be offered to the friends and medical attendants of patients, for furnishing as complete and accurate histories as may be in their power. This is best effected by means of a printed set of queries to be addressed to the friends of each patient upon the application for admission being granted. The queries attached to the form of medical certificate required by

* The following is the order of the subjects embraced by this register. 1. Date of Admission. 2. Name and Residence. 3. Married or Single. 4. Occupation. 5. Terms of Admission. 6. By whom sent. 7. Age. 8. Temperament. 9. Duration of Disease. 10. State of Mind. 11. Apparent Cause. 12. When discharged. 13. How removed. 14. In what State. 15. Cause of Death. 16. Page of Treatment Book.

This register was introduced into use at the Retreat, on the representation of the present Treasurer, soon after the publication of his "Description" of that institution, in 1813. The same form was also introduced at the York Asylum, on the re-organization of that asylum, in 1814. It will be seen that this register very nearly corresponds with that formerly in use at the Asylum of Charenton, described by *Pinel*, "*Traité sur la Manie*" AN IX. p. 259; *Davis*, Translation, 1806, p. 248. This Charenton register is the earliest, possessing any scientific merit, with which I am acquainted.

"RECOMMENDATIONS FOR FILLING UP THE REGISTER OF CASES,
 AGREED TO AT THE
 ANNUAL MEETING OF THE ASSOCIATION OF MEDICAL OFFICERS OF HOSPITALS FOR THE INSANE,
 Held at the Asylum, Lancaster, June 2nd and 3rd, 1842.

1. In order to obtain accurate information as to the various particulars of the accompanying form of Register, not falling under actual observation, it is desirable that the several institutions should be provided with a set of *Quæritæ* under similar heads with those of the register, which in every case should be furnished to, and filled up by, the Friends or Guardians of the Patient, at the time of admission.

2. In filling up the Register, it is particularly recommended that the "duration of disorder on admission" should be ascertained as accurately as possible, and that the cases should be distributed into four classes in reference to such duration. Thus discriminated, the facts observed in different Asylums, when exhibited in annual reports or otherwise, will be fairly susceptible of comparison with each other. The following are the classes recommended.

CLASS I. Cases of the first attack, of not more than three months' duration.

CLASS II. Cases of the first attack, of more than three, but of not more than twelve months' duration.

CLASS III. Cases not of the first attack, and of not more than twelve months' duration.

CLASS IV. Cases whether of the first attack or not, of more than twelve months' duration.

3. As regards the "form of mental disorder," it will be desirable, as much as may be, to refer every case to one of the following primary forms:

1. MANIA.
2. MELANCHOLIA.
3. MONOMANIA.
4. MORAL INSANITY.
5. DEMENTIA, under the two heads of Imbecility and Fatuity.
6. CONGENITAL IDIOTCY.

4. It is also recommended, that in filling up the column of the "result," one of the following terms should always be employed: 1. 'Recovered,' or 'Cured'; 2. 'Relieved,' or 'Improved'; 3. 'Unimproved'; and 4. 'Died'; and that any other particulars in reference to discharge, as, e.g., by 'escape,' or by the 'desire of friends,' should in no case supersede this essential information.

5. It need scarcely be observed, that upon every re-admission of a patient, the case should be again entered in the register; though it will be desirable, that every such re-admitted case should be distinguished, as in the accompanying form, by an asterisk, or in some other way, so that the re-admissions may be readily identified.

In order to ensure as much uniformity in the manner of keeping the register as is attainable, a few cases are given as specimens."

No.	Name and Residence.	Class in reference to payment.	Sex.	Age.	Single or Married.	No. of Children.	Occupation.	Degree of Education.	Profession of Religion.	Habit of Life.	Temperament.	Original Disposition and Intellect.	Duration of Disorder on Admission.			
													Age at first attack.	Number of previous attacks and their duration.	Duration of present attack.	Class in reference to Duration.
1	A. B., of M.	Class I.	M.	23	Single.	-	Clerk in a Bank.	Fair general Education.	Church of England.	Temperate and regular.	Choleric.	Disposition wayward. — Intellect good.	23	None.	2 Weeks.	Class I.
2	C. D., of N. First Admission. See No. 10.	Pauper.	F.	38	Married.	5	Laundress.	Reads and writes.	Wesleyan Methodist.	Temperate and regular.	Mixed; sanguine and nervous.	Disposition irritable. — Intellect fair.	27	Two. — 1st of 6 Mos. 2nd of 12 Mos.	15 Months.	Class IV.
3	E. F., of O.	Class 2.	M.	35	Single.	-	Shoemaker.	Reads.	Roman Catholic.	Intemperate.	Phlegmatic.	Good Disposition. — Weak Intellect.	39	One. — Of 12 Months.	6 Weeks.	Class III.
4	G. H., of P.	Pauper.	M.	55	Married.	3	Farm Servant.	Neither reads nor writes.	Church of England.	Dissipated.	Sanguine.	Disposition generous. — Intellect feeble.	34	None.	5 Months.	Class II.
*10	C. D., of N. Second Admission.	Pauper.	F.	41	Married.	6	See No. 2.	See No. 2.	See No. 2.	See No. 2.	See No. 2.	See No. 2.	27	Three. — See No. 2.	1 Month.	Class III.

Apparent or Alleged Causes.		Form of Mental Disorder.	Particular Propensities and Hallucinations.	Accompanying Bodily Disorder.	Changes in the Form of Disorder before Discharge.	Date of Admission.	Date of Discharge.	Result.	Cause of Death as ascertained by P. M. Examination.	Observations.	
Hereditary.	Other.										
Mother was once Insane.	None ascertained.	Disappointed Love.	Mania.	Homicidal. Hears Voices, &c.	None obvious.	Gradually subsided.	Jan. 1, 1835.	June 14, 1835.	Recovered.	—	Remains well, and has married. 1842.
Not.	—	Puerperal Fever.	Religious Melancholia.	Suicidal.	Great general Debility.	None.	Jan. 4, 1835.	March 10, 1837.	Recovered.	—	Morphia very useful in this case.
Paternal Grandfather died in an Asylum.	Intemperance.	Injury of Head.	Mania.	Very destructive.	Dyspepsia.	Mania passed into Melancholia.	Jan. 15, 1835.	Dec. 20, 1841.	Died. Aet. 41.	Softening of the Brain.	—
Not known; but had a Sister Insane.	Epilepsy.	Fever.	Imbecility.	—	Epilepsy.	Became fatuous and paralytic.	Feb. 1, 1835.	April 4, 1842.	Died. Aet. 42.	Apoplexy; Second Attack.	—
See No. 2.	Anxiety.	Puerperal.	Religious Melancholia.	—	Mammary Abscess.	Melancholia passed into Monomania of Suspicion.	Nov. 10, 1838.	Feb. 14, 1840.	Improved; Delusions remain.	—	Died, August, 1842, of Puerperal Fever, with Delusions, after her 7th Labour.

"N.B. Sheets of this Register, in numbers sufficient to form Books of any size, (which should become the property of the respective Institutions,) may be had, at cost price, on application to Dr. HITCH, of the Asylum, GLOUCESTER, Secretary to the Association."

act of parliament, and addressed to the person applying for the admission of a patient into the Retreat, may be seen in the "Statistics of the Retreat," which form the second part of this work.*

These queries are twenty-eight in number: they occupy the two sides of half a sheet of large folio post paper, and have suitable intervening spaces allotted for the answers. Appended to the document is a circular note, which reminds the friends and medical attendants of the patient that the successful treatment of the insane frequently depends on a full knowledge of their respective cases. The form might be varied with the character of the establishment, and the class of patients to which it is appropriated. Some of the queries, particularly under the head of "history prior to mental disorder," are perhaps susceptible of some abridgment; and others may require some modification, in order to adapt them to any other institution than that for which they were first intended. The necessity for some such means of obtaining as full histories as may be, of the cases admitted into asylums is, I think, very evident; and I have, indeed, found a document more or less of this description, in nearly every asylum I have visited. Many of the forms in use are, however, exceedingly brief, not to say defective; and it is very desirable that they should undergo a general revision, and be made to embrace all the facts required by any complete form of register, of which we may hope one will, before long, be introduced into at least every public hospital for the insane in these kingdoms.

* "Historical and Descriptive Sketch of the Retreat." Page 57.

CHAPTER II.

ON THE INFLUENCE EXERTED ON THE STATISTICAL RESULTS BY THE SEVERAL PARTICULARS OF TREATMENT IN HOSPITALS FOR THE INSANE.

WE have in the preceding chapter considered those various circumstances in the character and prior condition of the cases brought under treatment, which may more or less materially influence the proportion of recoveries and the mortality in hospitals for the insane; and we have seen that these results may vary materially from the average standard, without reflecting any discredit either on the immediate managers and officers, or on the directors and visitors of these institutions. Still there can be no doubt, and it would be a libel on these institutions to assert otherwise, that the management and treatment, or the various influences, moral and physical, to which the insane are subjected in hospitals appropriated to their reception, do exert a material influence on the results which are obtained. And although we shall never be able to ascertain the exact numerical value which, for good or for evil, is to be attached to the observance, neglect, or perversion of the various particulars of such treatment in any given institution; we may yet be able to form some general notions on these points which may approximate to truth, and which may furnish us with useful hints in forming our conclusions. To enter, even in a cursory manner, into a special consideration and description of these various influences and particulars of treatment, would involve us in a treatise on the construction of asylums, and on the medical treatment and management, moral and physical, of the insane. But, in grounding an estimate of the character of any particular institution upon its statistical results, it is still highly important that we should be aware of, and bear in mind what those conditions

are which may principally modify the character of such results. I shall therefore in this place point out what the more important of these conditions appear to be, and shall afterwards make a few remarks on each of them.

The particulars of the treatment of the insane may be conveniently divided into two groups or sections. The first embraces all those hygienic conditions which, by withdrawing the patient from the operation of noxious influences, may be regarded as exerting chiefly a *negative*, though still highly beneficial, influence; whilst the second includes all the more special measures of treatment, and embraces the right use of those various agents which we have more or less ground for supposing exert a direct or *positive* influence in promoting recovery, and in averting a fatal termination. In the first of these groups we may comprise the consideration of the locality and construction of the hospital; the means which it affords for exercise, occupation and amusement; its internal economy and government, and the number of the attendants; the ventilation, warming, and cleanliness of the buildings; the clothing and personal cleanliness, and, lastly, the diet, of the patients. The particular medical treatment, physical and moral, will form the subject of the second group.

In the first and second sections of this chapter I shall endeavour to illustrate the amount of influence which these several circumstances are calculated to exert on the results of treatment, i. e. the proportions of recoveries and the mean annual mortality in hospitals for the insane; and, in a third and concluding section, I shall adduce such facts, from the history of the York Lunatic Asylum, as will, I think, justify many of our conclusions, and serve to place the whole subject in a clearer point of view.

SECT. 1.—GENERAL HYGIENIC CONDITIONS DURING THE TREATMENT.

I. HEALTHINESS OF THE LOCALITY IN WHICH THE ASYLUM IS SITUATED, AS INFLUENCED BY CLIMATE, ELEVATION, SOIL, DRAINAGE, &c.

THE locality of an hospital or asylum for the insane, embracing, as it does, considerations of climate, air, elevation and drainage, is a highly important hygienic condition, and one which may no doubt materially influence both the probability of recovery and the rate of mortality in any institution. The principal requisites in the site of an asylum have been concisely stated by the Metropolitan Commissioners, in their recent report, as follows, "An Asylum should be placed upon elevated ground, and should command cheerful prospects. The soil should be dry, and there should be a plentiful supply of water, and means of proper drainage. The want of water, in places where large numbers are collected, of whom many are invalids, and many extremely dirty, is obviously a serious calamity. The buildings should be surrounded with land sufficient to afford out-door employment for the male, and exercise for all the patients, and to protect them from being overlooked or disturbed by strangers." *

I shall here only further briefly remark, that it is not improbable that the more favourable results obtained at the Retreat, particularly as regards the mean annual mortality, as compared with those obtained at the York Lunatic Asylum since its reform, may to a slight extent be attributed to the advantages which the former institution enjoys in respect to its locality, as compared with the latter. Thus the Retreat is considerably elevated, and commands an extensive and diversified prospect; and its site, which is on a dry, gravelly soil, requiring little artificial drainage, affords excellent air and water. The Asylum on the contrary, though not to be

* "Report," &c. 1844, p. 14.—For more extended observations on the circumstances which should guide us in the selection of a locality for an asylum, the reader is referred to *Jacobi*, "On the Construction and Management of Hospitals for the Insane;" *Tuke's* edition. 1841. pp. 26-9.

considered in an unhealthy situation, is raised but a few feet above the level of the river Foss, and is situated in a flat district which was until recently only imperfectly drained.

II. GENERAL ADAPTATION AND APPROPRIATE CONSTRUCTION OF THE BUILDINGS.

THE general adaptation, as regards the construction and arrangement of the buildings constituting an hospital for the insane, so as to ensure the proper protection and classification of the patients, must exert a very material influence upon the success of the treatment pursued within its walls. Indeed, there can be no doubt that the character of the physical, as well as of the moral, treatment is intimately connected with that of the construction of the hospitals in which the insane are treated. Classification, so important an instrument in psychical treatment, cannot but be imperfectly carried out in a building, in the original construction of which the principles on which this should be based have been overlooked. A great defect in many asylums, receiving patients of two distinct ranks in society, is connected with the want of adequate means of classification for patients of the higher class; when, as is generally the case, these form a decided minority. It may be a question whether, as a general rule, these mixed hospitals for the insane are desirable: but, though the defect alluded to may, to a great extent, be inherent in the system, it is at least capable of being much better guarded against, than has been done in several asylums which I have had the opportunity of inspecting.

As regards hospitals and asylums of large size, the H form appears to be that best adapted to secure the complete separation of the sexes, proper classification, and ready inspection by the superintending officers. But for smaller establishments, intended for from 80 to 150 patients, that combination of the linear form with the radiating, which prevails in the Irish district asylums, and which may be called the K form, I would submit is capable of meeting all these demands; and, at the same time, possesses the merit, not to be undervalued, of presenting us with a more ornamental and cheerful-looking structure.

I shall conclude this part of my subject with the remark, that we have every reason for supposing that, other things equal, the average proportion of recoveries as well as the mean mortality, though perhaps the former in particular, will be more favourable in a well, than in an ill, constructed edifice. It will, however, in all probability be long before we shall be able to cite with any degree of confidence, the experience of two institutions, sufficiently similar in all other circumstances and points of practice, to establish this position. Omitting then any further consideration of this subject, which has been so well treated in the works quoted below,* and errors in which, when once committed, are so little remediable, we may proceed to that of others with which the medical practitioner, if not more essentially, is at least more habitually, concerned.

III. MEANS FOR EXERCISE, OCCUPATION, AND AMUSEMENT.

EMPLOYMENT in the open air, particularly of an agricultural description, is doubtless that best adapted to the insane as a class; and this appears to be now generally admitted, all our best and more recent institutions being surrounded by such an extent of land as will afford sufficient occupation in the open air to their respective inmates. Thus the Irish district asylums are usually furnished with farms of twenty acres and upwards, and the same is the case with the more recent English county asylums. Large and spacious airing courts †

* The reader is here referred to the very important treatise of *Dr. Jacobi*, before quoted, which is expressly devoted to this important topic. Reference, likewise, must not be omitted to the valuable and early essays of *Stark*, "On the Construction of Public Hospitals for the Cure of Mental Derangement;" Glasgow, 1810, pp. 40; and *Tuke*, "On the Construction and Economy of Pauper Lunatic Asylums;" York, 1815, pp. 55. I have the satisfaction of stating that the author of the last named work is about to prepare for the press a new edition, which, at the present time, cannot fail to be peculiarly acceptable. The recent report of the Metropolitan Commissioners in Lunacy contains some valuable remarks on this subject.

† The confined airing courts of small size, surrounded by high and bare walls, which have often so prison-like an aspect, will I doubt not be less often met with

and gardens are also generally provided; and the latter, particularly for the women, and for patients of the higher class of both sexes, who are less readily induced to engage in regular occupation of any kind, are of the highest importance. There can indeed be no question that regular employment and exercise which have so material an influence in the preservation of health, on mankind generally, are likewise most important agents in the proper management and treatment of the insane. Very great credit is therefore due to the late Sir William Ellis, in introducing the systematic employment of the patients into the asylums successively under his charge, at Wakefield (1818-30) and Hanwell. The results, indeed, of his exertions in this respect no doubt mark an important era in the treatment of the insane in the large public asylums of this country, the majority of which have since adopted the same plan. In many of the Scotch asylums, and in some of the Irish district asylums, as seen by myself in 1839, the extent to which labour is carried is truly surprising. The medical and other officers of nearly all these institutions, as well as those of many of the large county asylums of England, which I had the opportunity of visiting in the summer of 1841, speak in the highest terms of the effects of employment upon the condition of the patients. Accurate observation, indeed, appears to justify the conclusion that under these means, not only is the state of the bodily health often materially improved, but that at the same time the mental disorder is in many cases ameliorated, and a recovery in this way ultimately effected.

And hence in comparing the results of treatment in different institutions, with the view of tracing, in a general way, the variety in such results, whether favourable or unfavourable, to their respective causes, it is always important to be informed of the quantity of land attached to each institution, and of the way in which it is occupied, as well of the proportion of patients who are actually more or less employed. And I feel very little doubt that if we could make a compari-

as the wants of the insane, and the amount of liberty with which they may be safely trusted come, as they are doing, to be better appreciated. Such enclosed courts are only required for a comparatively small proportion of the inmates of asylums.

son of the proportion of recoveries and of the mean mortality in any two institutions, in which, except as regards attention to exercise and occupation in the open air, the circumstances were in all respects similar, we should find that the beneficial influence of these means would be directly established by the statistical test.

IV. INTERNAL ECONOMY AND GOVERNMENT:—NUMBER OF ATTENDANTS.

THE actual condition of an hospital or asylum for the insane, in nearly every particular which may influence the probability of recovery, or the prevalence of other diseases, must, to a great extent, be affected by the character and administration of its internal economy, and by the relations which the several officers charged with its immediate government hold to each other. Under a good system, well administered, we shall, to a greater or less extent, have order and discipline, and the interests of the patients will be at least a primary consideration; but under a faulty system, (as was strikingly exemplified at the York asylum), and even under a good system ill administered, we shall have the reverse of all these.

That the internal government of hospitals for the insane should be entrusted to one or more physicians; that the medical and moral treatment, which are really inseparable, should never be attempted to be separated; and that, in reference to everything which concerns the patients, the directing physician, or other medical officer, should be invested with a power superior to all other, there can scarcely be two opinions. I must, indeed, confess that to me it appears that the plan which, as at Siegburg, and in some of our best British asylums, places these establishments under the controul of one efficient and properly qualified resident directing physician, to whom all the other officers are in a general and fitting subordination, is that most likely to secure to the patients and to the establishment those advantages to be desired for them; at least when such directing head, to professional skill and acquirements, adds a candid mind and liberal feelings.* There may be cases (as when the size of

* *Jacobi*, Op. Cit. Part 1. Chap. XIV.; and Part 2. Chap. IX. to XIX. passim:

the establishment precludes there being more than one resident medical officer), in which the plan of having a visiting physician in addition to the resident medical superintendent, may be the best practicable; but in that case the office of the latter, as regards the patients, should be *consulting* and not *directing*. Under such circumstances, indeed, the check and stimulus afforded by some such an arrangement, may often be called for; and in such a case the visiting, as well as the resident, physician may be properly expected to make official reports, to the committee of directors, of anything in the economy of the institution which seems to them to call for alteration.

That the plan of government here advocated is the one most calculated to secure energetic action and unity of plan, appears, in the very nature of things, at least probable; and it is also, I think, established (as far as such questions can be) by observation and experience. Which, it may be asked, are the establishments, which, as a general rule, have contributed most extensively to our knowledge of insanity and its treatment, those chiefly under the direction of resident, or of visiting physicians? And, again, we may ask, without unity of plan and that energy of action which an undivided responsibility will be generally found to secure, what is it probable will be the character of the moral treatment; or, indeed, can any moral treatment worthy of the name exist? And what unity of plan can there be, when, instead of a single resident directing head, availing himself of the observations and assistance of his younger or less experienced colleagues, we have a resident physician or other medical officer, whose responsibility is more or less lessened as soon as a visiting medical officer enters the house; and who to a like

—in connexion with this subject, I may refer to some brief remarks by *Dr. Julius*, in his recent "Contributions on the Medical Treatment of the Insane in Great Britain," (Beiträge zur Britischen Irrenheilkunde,) &c. 1844. p. 139.—Though I have come to a somewhat different conclusion on the question discussed in the text, to what has been arrived at by one whose claims to consideration in all questions referring to the economy and management of asylums, require no advocacy of mine, (*Tuke*, Introduction to *Jacobi*, Op. Cit. p. xiv.), I do not the less wish the remarks of that author to receive all the attention they so justly merit.

extent is at least liable, however inadvertently, to have his authority and influence with the patients depreciated and diminished? It is perhaps hardly possible, except by living in an hospital for the insane, for any one to be made aware of the disturbing effect which the visits of a non-resident medical officer, even when acting in friendly concert with the resident physician, may produce on the patients. A word, a look, or a gesture, on the part of the one, is often sufficient to encourage hopes or excite fears, or, it may be, to revive delusions or propensities, to effect the suppression of which, may have been the labour of weeks on the part of the other.

It is also proper that the domestic economy should, as at Siegburg, be in such subordination to the directing physician as to be at least liable to his inspection and control; as, otherwise, an *imperium in imperio*, altogether fatal to the primary objects of such an establishment, may readily grow up within its walls. Whatever system of government is adopted, its details should be so framed as to promote friendly relations and common interests amongst the officers; but, though unless these be secured, a perfect system will be liable to failure, we must not suppose that efficient officers and a good administration can ever correct those evils which are inherent in an originally faulty system.

I will not further pursue the subject of internal government than to remark that, whatever plan be adopted, it is at least desirable that every hospital and asylum should be frequently visited by judicious persons from amongst the governors, appointed to that office by the committee of management, or other board charged with the administration of the affairs of the institution.* When we consider the peculiar circumstances of this class of institutions, we shall likewise, I think, fully agree in the desirableness of their being, in

* The well-being of these establishments is no doubt closely connected with the form and character of their *external government*, and with the relations which this holds to the *internal government*, and *medical management*. It is of primary importance that the one should be in harmony with the other. On this subject, see *Jacobi and Tuke*, Op. Cit. pp. 203, 288—291; Introduction, pp. vii—x; also *Wigan*, "A New View of Insanity." 1844. "On the Management of Lunatic Asylums." pp. 448—459.

addition, regularly visited and reported on by government officers or commissioners. *

The proposed plan of erecting asylums for the *care* of the decidedly incurable and comparatively harmless, in addition to hospitals for the *cure* and care of other classes of the insane, appears to me to be worthy of every encouragement. The most desirable plan would seem to be that of making such asylums appendages to the hospitals, and of placing their internal government in subordination to the directing physicians of the latter. An assistant physician or other medical officer should however be appointed as the resident head. Such asylums should, when possible, be within a quarter or half a mile of the hospitals with which they are connected. Their construction will properly be more simple, the officers and servants less numerous, and their general economy altogether less costly than that of their sister establishments, the hospitals. The formation of such divided but inter-dependent establishments, or that of hospitals and asylums united with each other under a common external, and united internal, government, will, whenever carried out, constitute an important era in the public provision for the insane poor of these kingdoms; and will, I believe, be found, not only more economical than are county asylums as at present conducted, but, by affording greater facilities for the admission of recent cases into the hospitals, also to result in a larger proportion of recoveries and a diminished mortality.

Number of Attendants.—When we recollect the dependent condition to which insanity reduces so many of its victims, and indeed to a greater or less extent all of them, the number and efficiency of their immediate care-takers, must be regarded as having a very important connexion with their actual condition; both as regards the probability of recovery, and the prevalence of bodily disease, and consequent mortality. Indeed, this is a circumstance which must operate, favourably or unfavourably, upon the condition of the insane in a great variety of ways. Thus, several of the condi-

* See the work already so frequently quoted. *Tuke*, Introduction to *Jacobi*. Op. Cit. p. vii.

tions hereafter to be alluded to, and in particular the ventilation and cleanliness of the apartments; attention to clothing and personal cleanliness, as well as the degree to which the means for exercise, occupation and amusement are resorted to and applied; and the care and accuracy with which the more strictly medical directions are carried out, must always, to a greater or less extent, be in proportion to the number of really efficient and trustworthy attendants.

As the following remarks will shew, the proportion of attendants to patients in different asylums is extremely various. In thirteen English county asylums, in the year 1835, the proportion did not, on an average, exceed one to seventeen.* In some of these institutions, however, the average at that time was, and in some still remains to be, much less. Thus in the asylum for the West-Riding of Yorkshire, at Wakefield, the proportion is only one attendant to twenty-two patients. At Hanwell, in the year 1835, there was only one attendant to twenty-six patients; but since the appointment of Dr. Conolly, as superintending physician, the proportion has been increased to one to every eighteen patients. The proportion of attendants in the English county asylums appears to be generally below the desirable standard.

In eight of the ten well-organized district asylums of Ireland, which are exclusively for paupers, and correspond to the English county asylums, there is a proportion of one attendant, including "deputies" and "assistants," to nine patients; or, taking responsible attendants only, one to thirteen patients. In the large asylum at Cork, which supplies the place of a district asylum to that city and county, the proportion of attendants of every description is not greater than one to eighteen, being the same as the average of the English county asylums. †

* *Farr*. "Statistics of English Asylums" p. 18. The thirteen asylums referred to are those of Bedfordshire, Cheshire, Cornwall, Dorset, Gloucestershire, Kent, Lancashire, Norfolk, Nottinghamshire, Staffordshire, Suffolk, the West Riding of Yorkshire, and Pembrokeshire.

† Returns to the House of Commons, relative to the District Lunatic Asylums in Ireland; (Sir Robert Ferguson.) 1839 and 1840: also MS. notes, by the author, of a visit, in 1839, to several of these institutions. The eight asylums are those

I have not the means of stating what is the usual proportion of attendants in the public hospitals for the insane of this kingdom, supported wholly or in part by charitable contributions; but at the York Lunatic Asylum, which is of this class, there are seven male and five female attendants to about eighty men and sixty women of the general class; being in the proportion of one attendant to eleven or twelve patients.* At the Lincoln Asylum, which is of the same description, but in which no personal restraint of the patients is now resorted to, the proportion is one attendant to nine patients of all classes; but the proportion was the same in 1836, before any such change had been made in the management of the patients. In the five excellent Scotch asylums of Montrose, Aberdeen, Glasgow, Dundee, and Perth, which nearly correspond to this class of English asylums, the proportion, including attendants on all classes of patients, appears to average one to ten. At the hospital for the insane at Siegburg, we learn from Dr. Jacobi, that the proportion of attendants to patients of the general class is not less than one to seven or eight.† At the Retreat the proportion is even larger, and amounts, on an average, to one attendant to every six or seven patients of the general class.‡

The proportion of attendants which exists at Siegburg and at the Retreat is a highly respectable one; and whilst, if we except such institutions as are strictly for paupers, we may question whether the proportion should ever be materially less, I believe it will, excepting for patients of a decidedly more opulent class, seldom require to be greater; provided the attendants actually perform their duties, and are under the supervision of efficient superior officers.

In pauper *hospitals* for the insane, in which the patients are frequently able to render considerable assistance to the of Armagh, Belfast, Carlow, Limerick, Londonderry, Maryborough, Richmond (Dublin) and Waterford. There is no return of the number of attendants in the asylums at Clonmel and Ballinasloe (Connaught).

* There is likewise one attendant on four male, and two on twelve female, patients of the upper class.

† *Jacobi*. Op. Cit. pp. 238 and 287. See also some remarks, in his introduction, by the English editor of this work. p. xx.

‡ "Statistics of the Retreat." pp. 26—27.

attendants, the proportion of the latter will not perhaps on an average, require to be more than one to twelve or fifteen; and in *asylums* for this class, the proportion need not be half even this. In other institutions, the highest class of patients, on account of their previous habits, will often require a separate and distinct attendant to each case. This should perhaps always be the case in the early stages and more severe forms of the disorder; but in the more advanced stages and more chronic and harmless forms of insanity, a limited number of this class, not exceeding five or six, may be properly enough associated together under the care of two or three attendants.

V. VENTILATION, LIGHTING, WARMTH AND CLEANLINESS OF THE APARTMENTS OCCUPIED BY THE INSANE, AS MODIFIED BY THE POPULATION OR NUMBERS TREATED IN THE INSTITUTION.

THE ventilation, lighting, appropriate temperature, and cleanliness of the dwellings of mankind, whether in a state of health or disease, are among the most important of those circumstances which are favourable to health and longevity; and the neglect of which is most frequently connected with the prevalence of disease, and with a high rate of mortality. This, as has been intimated, is true even of the sane and healthy; and there cannot be a doubt that it is even still more so of the insane, who, as a class, are persons whose constitutions are more or less enfeebled, and hence peculiarly obnoxious to various morbid influences. And, though, when we consider the habits and condition of a large proportion of the insane, we can scarcely even hope for this, it is yet obvious that, if it were possible, it would be to be desired that the cleanliness, ventilation and proper temperature of an hospital for the insane should be even more sedulously provided for and attended to, than are the same circumstances in the private dwellings of the respectable classes. And it is satisfactory to observe that, notwithstanding the unfavourable condition, for the attainment of these objects, of insane persons, they may yet in practice be most efficiently provided for; as is sufficiently proved by the experience of

many of the large county and district lunatic asylums of England and Ireland, with the extreme cleanliness and purity of many of which, particularly those of the sister isle, I was particularly impressed during the course of two visits which I paid them a few years ago.

This would not be the place to enter into any detail of the methods for carrying out these important points in the management of asylums. But that the neglect of them, at least when combined with that of other important items of management, may lead to very disastrous results, and particularly to a high rate of mortality, appears sufficiently evident from a comparison of the experience of the York Lunatic Asylum previous to, and since, its reform and reorganization in 1814; and which, in illustration of our present subject, I consider of sufficient importance to receive special consideration further on. I will, however, briefly observe that it is most essential to the comfort and health of the inmates of asylums, that proper provision should be made for warming and ventilating the galleries as well as the day rooms, so that the patients may breathe a pure atmosphere, of a moderate and even temperature. It is equally important that the interior of the building should be light and cheerful, and to effect this, during the long winter evenings, there are no means so effectual as gas lights in the larger rooms and corridors. "The importance of warmth, ventilation and dryness in these institutions," the Commissioners observe, "will be understood by the fact, that at Stafford, as was stated to us in 1842, 'an improved system of warming and ventilation had been recently introduced with success, since which no cases of dysentery, formerly prevalent, had occurred;' and at the Dorsetshire Asylum, in 1843, we were informed, that 'from the floors having been damp, the patients were formerly subject to dysentery, but they had been taken up and relaid, and not one of the patients admitted since the alteration had suffered from dysentery.'"

Intimately connected with the question of the cleanliness and effective ventilation of hospitals for the insane, is that of their population, or the number which should be treated in

* "Report," &c. p. 16; see also p. 119.

one asylum. It has been maintained by Dr. Jacobi, on the ground of the difficulties connected with the proper and efficient superintendence by a single medical director of a greater number, that "the maximum number of patients to be admitted into one and the same establishment, ought never to exceed two hundred."* There are however other, and equally important, reasons why a preference should be given to establishments of moderate size. There can indeed be little if any doubt that in hospitals for such large numbers as 400, 600, and even 1,000 insane persons, the maintenance of an effective ventilation must be far more difficult; and that the atmosphere, loaded with animal effluvia, will be far less favourable to health and conducive to recovery, than in smaller establishments, in which a corresponding degree only of care and attention to cleanliness is exercised. For this reason I should expect, in particular, that the mortality of a large asylum would, other things being equal, be greater than that of a smaller one.

That the foregoing is a correct conclusion, at least as regards the sane, is I think strongly supported, if not actually proved by the experience of 110 union workhouses in England, in which the mortality for the year 1839 amounted to the high rate of 20.7 per cent. of the population; and in the ten metropolitan workhouses, taken separately, to the very high rate of 29. per cent. The mean mortality for England and Wales, of persons of all ages, in that year, amounted to 2.18 per cent.; and in 1837, the mortality of the metropolitan parish of St. Giles, the population of which approximate very much in habits and social condition to those of the inhabitants of workhouses, did not exceed 3.1 per cent. In comparing the mortality of workhouses with that of the general population, a very large allowance should of course be made for the youthful and advanced ages, at which the mortality is always considerable, of a great majority, and also for the invalid and disabled condition of many of the inmates of those establishments. But after allowing for these circumstances, statistical enquiries at least appear to justify the surmise that the mortality of this class of persons

* *Jacobi. Op. Cit. p. 23.*

would have been much less, had they been living as distinct families instead of being congregated in large numbers under the same roof. As, indeed, has been well pointed out, it is a fact which cannot be too frequently repeated, that where other circumstances, and particularly where the diet is the same, sickness and mortality are much less amongst a hundred families living in a hundred detached houses than in the same number collected under the roof of one establishment.*

To return, however, to the experience of asylums. Though, from there being so many concurrent causes in operation in these institutions, we are not justified in attributing the higher mortality of the following asylums solely to their greater average population; it is still highly probable that it is in part owing to this circumstance that the mean mortality of those county lunatic asylums which have the largest population, as Wakefield with a population of 400, Lancaster with one of 600, and Hanwell with one of nearly 1,000, is much above the average of asylums of the same class, which have been similar periods in operation, but which receive a smaller number of patients.†

But the crowded state of a moderate sized establishment no doubt produces an even more unfavourable effect on the health of its inmates than does the congregation of a very large number of persons in what would seem to be a sufficiently extensive building. This is an evil to which licensed private asylums are particularly exposed, and which requires the vigilant attention of the visiting magistrates and physicians. Nor are the hospitals and asylums supported wholly or in part by charitable contributions, altogether exempt from the same evil; and it was no doubt one of the most material of the various abuses which prevailed in the York Lunatic Asylum, when the mortality of that establishment was so considerable, previous to the investigation and reform of 1814.

* *Lancet*, May 1st, 1841; p. 195.

† See Chapter 3, Table 12. It should be observed, that in the three institutions alluded to, the patients are of a class perhaps somewhat less favourable to recovery than is the case in other asylums of the same description. The diet, likewise, has until of late years been less abundant and nutritious in these three establishments.

When we consider the liberal character of its diet, as shewn at a succeeding page, and that it receives a certain number of patients who are not paupers, we must regard the mean mortality of the Stafford County Asylum, amounting, as it does, to nearly 14, (13.5, 1818-44), per cent., as more unfavourable than we should have anticipated. From what I observed, during a visit in 1841, I am inclined to query whether this may not be in part due to the then crowded state of that institution. The ventilation appeared to me to be defective; as it could hardly fail to be, when the exercising galleries, which flank the sleeping rooms of the patients, were every evening divided by folding partitions and fitted up with beds, so as to afford sleeping accommodation for nearly double the number of that for which each gallery so divided was originally intended.*

VI. CLOTHING AND PERSONAL CLEANLINESS ; BATHS, &c.

THE importance of a due attention to clothing and personal cleanliness in the preservation of health, does not require to be insisted upon. A vigilant superintendence is, however, generally necessary in order to ensure adequate attention being paid to these points, by attendants on the insane. We shall hereafter see that much of the high rate of mortality which prevailed in the York Lunatic Asylum before 1814, must be attributed to the neglect of personal cleanliness and clothing. From the frequently feeble circulation, and from the imperfect manner in which the functions of the skin are performed by those in the advanced and chronic stages of insanity, it can hardly be doubted that, as a class, they require a warmer clothing and covering for the night than others. Warm stockings, good shoes, and flannel next the skin are particularly important; and, for the same reasons, regular morning

* My visit to this asylum was made in the Summer of 1841, and some time previous to the appointment of the present surgeon and superintendent, Mr. Wilkes; from whom I am happy to learn that various improvements have been since made in the internal arrangements of these corridors, though the folding partitions and beds in the galleries still remain. The Commissioners in Lunacy, I observe, speak rather approvingly of the arrangement, and state that the "partitions when closed at night, allowed of perfect ventilation."

ablutions, the frequent use of the warm bath, and other means of personal cleanliness, should be strictly enforced.

The insane are not unfrequently unable or unwilling to express their feelings, even when the sensations themselves, as is often the case, are not actually blunted and enfeebled; and hence the greater vigilance on the part of their attendants, in all these particulars, becomes requisite. With such views regarding the importance of clothing and of warmth, one cannot but regret witnessing, as in some large public hospitals for the insane I have occasionally witnessed, patients altogether unprovided with shoes and stockings, and in other respects but imperfectly clad. In order to meet the necessities of the insane as regards cleanliness, it is essential that a liberal supply of water, and the means for warm and cold bathing, should be provided in every hospital and asylum for their treatment and care. In the best constructed of our more recent county asylums I have observed with pleasure that there is a bath-room in every gallery; and in many it is a standing rule that every patient shall have a bath once a week.

The mouth is observed in insane persons to be very often foul and offensive, the gums spongy or even ulcerated, and the teeth carious, loose, or covered with tartar. Such a state of the mouth must necessarily have a very unfavourable influence on the functions of the stomach. In some cases it may, perhaps, be sufficient to have acted as the exciting cause of the mental disorder; and in a still greater number it will at least be adequate to keep up, and even add to, the symptoms. But whether this be granted or not, it will at least be admitted as desirable that, wherever practicable, insane patients should be induced to wash the mouth with cold water every morning, and, where in accordance with previous habits, to use a tooth-brush. In some cases I have indeed thought, and sometimes acted upon the suggestion, that more might be done towards effecting a recovery by a judicious resort to the art of the dentist, than by the use of any direct pharmaceutical means.

VII. DIET.

Perhaps no part of the regimen or general plan of treatment to which the insane are submitted is more important than the quantity and quality of their daily food; and I shall take this opportunity of making a few general remarks on the subject. It appears to be now generally allowed that the insane as a class, though not indeed without exception, require a liberal and nutritious, though simple, diet. The mere change indeed, on admission into a pauper asylum, from a scanty to a liberal diet, has in many cases appeared to effect a recovery without the employment of any more special means. I believe there can be no question that in institutions where the diet is liberal, the general health will be promoted, and that consequently in such institutions, other things being equal, the recoveries will be more numerous, and the morality lower than where the reverse obtains. To this question I shall again return.

But in the arrangement of dietaries for asylums and hospitals for the insane, the previous habits of the patients should not be forgotten; and whilst, on the one hand, the error of a too scanty diet should be avoided, that of a too stimulating and highly animalized one should be equally so on the other. As a general rule, the diet for all classes of the insane should be approximated to that of the respectable middle classes of this country; that of the insane pauper being somewhat more liberal and nutritious than he usually, or at least frequently, meets with in his own cottage; whilst that of the wealthy insane person should be simpler and plainer than that of which he generally partakes at his own table. The diet however will properly vary to a considerable extent, in different hospitals; and in an institution like the Retreat, devoted to persons chiefly from the middle classes of society, it may properly contain a larger quantity of solid animal food than is allowed in any pauper asylum.* It is still, however, probable that the dietaries of many of the English county asylums for paupers contain less than the desirable quantity of animal food.

* "Statistics of the Retreat." pp. 31-4. The present dietary of the York Lunatic Asylum will be described further on.

Watery broths and soups containing large quantities of pease or other flatulent vegetables, are, I think, seldom adapted to the wants of the insane; and their too liberal use in asylums, in connexion with an otherwise scanty diet, has been found to be connected with the prevalence of dysentery and diarrhœa;* but good nutritious soups, thickened with barley, rice and other farinaceous articles, form at once an unexceptionable and economical article of diet; which may suitably form a part, and in pauper institutions the principal part, of the dinner once or twice a week. Rice cooked in different ways, plain puddings of farinaceous substances, or of eggs and milk, stewed fruits and *well-cooked* vegetables, particularly potatoes, are all well suited for the diet of the insane. I believe it also to be very desirable that the diet should be as varied as practicable; but, from the great liability of the insane to dyspeptic and other disorders of the digestive organs, from which indeed it is probable that the majority more or less suffer, it should always be bland and unirritating, and should exclude all highly seasoned dishes, salt-meats, and pastry, unless particularly good. Cheese I should also proscribe entirely, unless indeed where it has long formed a part of the diet of the patient, and where it obviously does not disagree. A moderate quantity of beer or other malt-liquor, or of wine, according to the habits and rank of the patient, may, in cases obviously unaccompanied by inflammatory action, or active congestion of important organs, and generally speaking in confirmed insanity, be properly allowed. Good coffee, and tea not too strong, and black rather than green, are in this country the appropriate beverages at the morning and evening meals, of insane persons of the middle and upper classes, if not even now of paupers also. In a moral point of view, indeed, it is important that as few changes should be made in the habits of the insane, in re-

* *Pinel's* remarks on the great increase in the mortality from colliquative diarrhœa and dysentery, which succeeded to a great reduction of the diet at the Bicêtre, under the direction of the revolutionary government in 1795, (l'an 4), are worthy of particular observation. "*Traité sur la Manie.*" An 9, p. 217; *Davis' Translation.* p. 209. The disappearance of the same diseases on the adoption of a more generous diet has, in several instances, been observed in the pauper asylums of our own country.

spect to diet as well as to other particulars, as are compatible with the proper treatment of the disorders under which they labour. *

Though such a diet as has been described appears to be that which is adapted to the insane in general, much care on the part of the medical attendant is required in its modification in individual cases, particularly when the patient is attacked by other diseases.

Although, as has been observed, it would seldom be either necessary or desirable to allow insane paupers so large a supply of solid animal food as is done to the inmates of an institution like the Retreat, where it constitutes the basis of the dinner daily, yet in such cases the quantity of bread, of puddings, and other farinaceous articles must be proportionably increased. That the previous habits do actually to a great extent modify the necessities of the insane as regards diet, appears sufficiently proved by the experience of the eleven Irish district asylums. The diet in five of these institutions, visited by myself, I found to be very similar; and I believe it does not materially differ in the others.† The quantity of animal food is very trifling. Soup, generally made from beef-head, is furnished twice or three times, and, in some instances only, a few slices of meat once or twice, a week; but, according to the custom of the Irish peasantry, the general allowance for dinner on at least four days of the seven consists of three and a half pounds of potatoes‡ and a pint of skim-

* For some excellent remarks on the diet of the insane, the reader may consult *Jacobi*, "On the Construction and Management of Hospitals for the Insane." p. 183.

† It is the same at Belfast and Clonmel, (see Reports, 1841 and 1842); and also at Armagh, as I have been informed in a communication with which I have been favoured by Dr. Kidd.

‡ Three and a half pounds of potatoes appear a large quantity to be taken at single meal, but are perhaps not too much for an able-bodied labouring man. The question may arise, is this the weight of the cooked, or of the uncooked, vegetable? Potatoes, however, do not gain or lose materially in weight on boiling; though there appears, under some circumstances, to be a slight increase, and under others, a slight decrease, in weight. Probably from containing much vegetable acid, this admirable vegetable, as Dr. William Baly has shewn, ("London Medical Gazette," 1843. Vol. 11. N. S. p. 699,) seems to possess some specific anti-scorbutic properties, and it ought to form a not inconsiderable part of

med milk or butter-milk for each individual. The breakfast consists of a quart of "stirabout;" a kind of porridge, made by boiling six or eight ounces of oatmeal or "cutlins" with water, and adding a pint of new milk. Five or six ounces of wheaten bread, and milk or butter-milk, are provided for supper. As the average proportion of recoveries and the mean mortality in these institutions are, on the whole, highly favourable, (see Chapter 3. Table 12) we may conclude that this description of diet is at least not directly unfavourable to the health of the insane; but it is nevertheless probable that, in institutions, the general economy of which is, in so many respects, excellent, these results would have been still more favourable, had the diet been more varied, and had it contained a larger proportion of animal food.* At St. Patrick's hospital, Dublin, founded by Dean Swift for the insane poor, but which receives a certain proportion (about one fourth) of patients of the middle class, who pay a moderate annual rate, I found the diet to be of a much more liberal description than in the Irish district asylums. The "boarders" have meat daily; and on five days in the week, the "free patients," or those on the foundation, have $\frac{3}{4}$ lb. beef or mutton, ("about $\frac{1}{2}$ lb. dressed,") with vegetables, 2lb. potatoes, 1 pint soup, and for the most part, an allowance of beer. On the two other days, (fast days),

the diet of all pauper lunatic asylums, workhouses and prisons. On the other hand it must be observed, that in the potatoe we have no exception to the established principle of variety in diet; and when this vegetable forms the basis of the usual diet, it often actually disagrees. An intelligent authoress observes "potatoes are perhaps as wholesome a vegetable as any in the world, when they are good in their kind; but it is a mistake to suppose it is healthful to live on them entirely. The Irish have a great deal of disease among them. Different forms of stomach complaint are very prevalent; and, what is remarkable, it is by no means unusual to meet with persons whose constitutions never can bear potatoes, though they and their parents had been used to them from youth. They linger on in ill health, which is immediately removed on changing their diet. This I observed during many years personal experience." ("Woman's Rights and Duties." Parker; 1840. Vol. 2. p. 17.)

* Still we must not forget that, in case of recovery from insanity, the patient has to return to his old habits; and, as regards the ordinary diet of asylums, that which is good in quality and sufficient in quantity, and not materially different in kind from that to which the patients have been accustomed, would appear to be more desirable than one very materially different, even though more nutritious.

TABLE 11.—SHEWING THE PARTICULARS OF THE DIET, COMPARED WITH THE RESULTS OF TREATMENT, IN SEVEN COUNTY ASYLUMS.

COUNTY ASYLUM.	DIET.*				RESULTS.*	
	SOLIDS.		LIQUIDS.		Proportion of Recoveries per cent. of the Admissions.	Mean Annual Mortality per cent. Resident.
	Cooked Meat and Cheese.	Bread, Pudding, Flour, &c.	Total Solids except Vegetables.†	Pottage, Milk, Soup, Broth, &c.	Beer.	
	Ounces.	Ounces.	Ounces.	Pints.	Pints.	
Nottingham, 1812—40.....	46	202	248	15	14	7.34
Stafford, 1818—40	46	192	238	7	14	13.53
Gloucester, 1823—32	46	144	190	9	14	7.19
AVERAGE OF THE THREE ASYLUMS	46	179	225	10	14	9.35
Lancaster, 1816—40.....	24 $\frac{3}{4}$	113 $\frac{1}{2}$	138 $\frac{1}{4}$	7	3 $\frac{1}{2}$	18.01
York, West Riding, 1818—41	18	116	134	25	?	16.16
Suffolk, 1829—41.....	16 $\frac{1}{2}$	152	168 $\frac{1}{2}$	12	5 $\frac{1}{2}$	12.32
Middlesex, 1831—39.....	18	122	140	18	3 $\frac{1}{2}$	11.69
AVERAGE OF THE FOUR ASYLUMS	19 $\frac{1}{4}$	125 $\frac{3}{4}$	145	15 $\frac{1}{2}$	4 $\frac{1}{8}$	14.54
Middlesex, (from Midsummer 1839), 1839—43	35 $\frac{1}{2}$	126	161 $\frac{1}{2}$	9	7	8.56

* The diet in this table is taken from the parliamentary return 1835, as given by *Farr*, op. cit. p. 17.

+ The weekly quantity of vegetables, which is not included in the above, varied much in the different institutions; at Nottingham and Hanwell from 2 to 3 lbs, and at Lancaster 12 lbs, of Potatoes were allowed.

they have three pounds of potatoes, with a quart of soup, or a pint of milk, or an ounce of butter. The breakfast, as well as evening meal, consists of tea, (1 pint), bread (6 oz.) and butter (1 oz.); unless porridge ("stirabout") and milk are desired for breakfast; and with the exception of some of the poorer patients who, instead of tea, have eight oz. bread and a pint of milk for supper.* I regret having been unable to procure any statistics of the recoveries and deaths at this hospital; as it would have been highly interesting to have compared them with the results obtained in the district asylums of the same country.†

There has, until of late, been a considerable, and in many instances a very great variety, both as to kind and quantity, in the dietaries of English county asylums; and with the view of coming to some general conclusions as to the influence of diet on the proportion of recoveries and the mortality, (though these must not be formed without much caution), I have constructed the annexed table, which exhibits the particulars of the diet and of the above-mentioned results of treatment in seven of these institutions.

The seven asylums 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. The first group includes the three establishments for the counties of Nottingham, Stafford, and Gloucester; the second, those of Lancaster, ‡ the West-Riding of York, Suffolk and Middlesex. The difference in the amount of the diet

* The average annual cost per head for diet at St. Patrick's hospital is £11. 7s. 3d.; for that at the Richmond Asylum, Dublin, where meat is allowed three days in the week, £6. 19s. 10½d.; and for that at the Belfast Asylum, where no meat, but soup or milk only, is allowed, £5. 9s. 6d. "Report of Inspectors General on Lunatic Asylums in Ireland." 1844. pp. 13, 18.

† Since the above was written, the Statistical Tables of the Metropolitan Commissioners in Lunacy have given us the means of calculating the proportion of recoveries and mortality, for the last five years, at St. Patrick's Hospital. See Chapter III.

‡ The diet at the Lancaster asylum, as well as that at Hanwell, has, since the period to which this comparison refers, been materially improved; and this may also be the case in some other of the seven asylums referred to.

in the two groups, is, as will be seen, very considerable. Exclusive of vegetables, the solid food, consisting of meat and cheese,* and of puddings, bread and other farinaceous articles, amounted, on an average, to 225 ounces in the first, and to only $150\frac{1}{2}$ ounces per week in the second group. 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. Of course the quantity of soup, porridge, milk, and other fluids was greater in the four asylums in which the solid food was at the minimum, than in the other three; these amounting, on an average, to $15\frac{1}{2}$ pints in the one, and to not more than 10 pints per week in the other, group. Still this greater amount of fluids could by no means compensate for so great a difference in the quantity of solid food, and especially in that of meat. In the first group, also, the quantity of beer allowed was much greater than in the second; the quantity being two pints daily in the one, and, for the most part, not more than half a pint in the other.

That in institutions in every way of the same character, 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 requirements 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,—upon the proportion of the recoveries and the 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

* In the table, the meat and cheese are given in ounces without distinction; the quantity of the cheese not always being separately specified: it appears to have varied from 7 to 14 ounces per week.

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 as high as 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 difference which does exist, is in great measure dependant upon the difference in the diet.

Having considered the more important of those particulars in the general care of the insane, of which the hygienic conditions under which they are placed, during that more particular medical treatment, which may be followed, consist; we may now proceed to make a few remarks on the medical treatment itself.

SECT. 2.—THE MEDICAL TREATMENT.

It may here, in the first place, be remarked that many of the particulars in the general care of the insane which have already been considered, requiring, as they do, to be so variously modified, in conformity with the medical treatment, and according to the character and progress of the case, might, with almost equal propriety, have been arranged in this section, as in the preceding one. Food, clothing, air and exercise, properly modified and regulated, do no doubt frequently constitute important curative agents; and such as, in many cases of insanity, so far as medical knowledge at present extends, are of more value than any special pharmaceutical means. But as attention to these particulars is requisite to our species under all circumstances, and as suitable pro-

* Thus the three asylums in which the diet is more liberal all receive a limited proportion of patients of the upper class; whilst, with the exception of Suffolk, those of the other group are almost exclusively devoted to pauper patients. This would tend to give a somewhat more favourable aspect to the results in the three first institutions, but could not altogether explain the actual difference.

vision for them is almost as much called for in an institution for the incurable, as in one for the curable insane, it was doubtless more suitable to include them under the former, than under the present section. No precise line can, indeed, be drawn between the general hygienic conditions, and the more strictly medical means; and, with this remark, we may proceed to make a few cursory observations on the medical treatment, pharmaceutic and moral, and on the degree in which this may be supposed to modify the aggregate results obtained in different asylums and hospitals for the insane.

I. PHYSICAL AND PHARMACEUTIC TREATMENT.

THOUGH there can be no doubt that our knowledge of the medical treatment of insanity has very materially advanced of late years; it must still be confessed that we have yet much to learn on the subject, and that there are cases of insanity which appear to be altogether beyond the influence of physical and pharmaceutic measures. It is, however, equally certain that there are various remedial measures which exert a very decided influence on the progress and ultimate result of treatment in particular cases of insanity. It can never be a matter of indifference whether bleeding be, or be not, resorted to in any given case; nor yet whether we place the patient on a lowering and antiphlogistic, or on a supporting and tonic, plan of treatment. But though this be the case, and though in particular instances we may be able to speak with confidence as to the benefit to be derived from the use of remedies, it is still remarkable that on a large scale, and in a general sense, the exact value of special therapeutic measures, is perhaps less understood, than is that of any other of the conditions under which insane persons may be placed. This is perhaps connected with the very nature of the question; for, as the treatment requires to be modified, in so many material points, according to the character of the disorder and the constitution of the patient, it is probable that we may long remain in this state of ignorance. Insanity is not an individual and separate disease, but embraces a large variety of morbid conditions, which are characterized by symptoms, physical and psychical, almost as various as those of all other

diseases in the nosology put together. Were insanity an uniform and individual disease, we could then, as with inflammation of the lungs, or with small-pox, hope to test the efficiency of particular plans of treatment by the numerical method. We may however conclude that the value of different remedies in mental disorders is hardly to be ascertained in this way. Most of the different and even opposite plans of treatment, as well as the various particular remedies which have, at different times, been recommended in insanity, appear to be suited to particular cases, and to certain conditions of the system, during the presence of disordered psychical conditions. It is hence the duty of the medical practitioner to discriminate these cases and conditions; and then to apply the corresponding and appropriate remedies; and it would be contrary to all our notions of medical ethics, or of science, to place any considerable number of cases, taken indiscriminately, under any uniform plan of treatment, in order to arrive at the kind of knowledge we have alluded to.

Though I would not be understood as advocating such a system to the exclusion of other means, or as applied indiscriminately to all cases, it is still worth pointing out in what the plan of medical treatment consists, in one of our best conducted English county asylums, that at Gloucester, in which a larger proportion of recoveries appears to be reported than in any other institution of the same class. The plan of treatment is here principally or exclusively supporting; "the use of the lancet, leeches, cupping-glasses, blisters, drastic purgatives, the practice of shaving the head are totally proscribed."* And as I was informed, during a late visit to that institution, by Drs. Shute and Hitch, the happiest effects have been witnessed from the administration, according to circumstances, of a generous diet, wine, malt-liquor, alcohol, and the diffusible stimuli, ether and ammonia; which it is the custom to give in quantities directly proportioned to the excitement.

The general plan of medical treatment at the Retreat, where the results obtained have likewise been highly favourable, and remarkably so as respects the mortality, is, as will be

* *Prichard*, "Treatise on Insanity." pp. 261. 276.

seen,* of a somewhat more eclectic, and perhaps discriminative description than that at Gloucester; and whilst it also embraces supporting and tonic measures, is far from altogether or in every case rejecting moderate local depletion and other antiphlogistic means. †

It is satisfactory to believe that, although a *laissez faire* system still too much prevails in some asylums, the existing medical treatment in the majority of the public institutions of this kingdom, is much more discriminating and judicious than it was formerly; and that the routine methods of bleeding and administering purgatives and emetics at stated periods, is now nearly if not quite obsolete. ‡ And though perhaps we cannot produce any facts which actually prove that pharmaceutical treatment considered separately, has in any particular institution influenced the results on any large scale; yet we cannot on that account doubt that the proportion of recoveries will be greater, and, in particular, that the mean mortality will be less in an hospital for the insane, in which attention is paid to a discriminating and judicious medical

* "Statistics of the Retreat." p. 34.

† At an early period of his connexion with the Retreat, (1796—1801), Dr. Fowler came to a decided opinion as to the inefficacy of, and injury occasioned by, the large, and even by the moderate abstraction of blood in cases of insanity.

‡ It may be worth while in this place to give the statements of the then medical officers of Bethlem, as to the medical treatment at that hospital, in the early part of the present century. "They (the patients) are ordered to be bled about the latter end of May, or the beginning of May, according to the weather; and after they have been bled they take vomits once a week for a certain number of weeks, after that we purge the patients; that has been the practice invariably for years, long before my time; it was handed down to me by my father, and I do not know any better practice." The other witness stated, "In the spring of the year they are bled; not generally, but with much discrimination, they are ordinarily twice bled if they should require it: they have about half a dozen emetics, and they take cathartic medicines weekly, till Michaelmas. The period of physicking continues from the middle of May, regulated by the season, to the latter end of September. Two bleedings, according to discretion; half a dozen emetics, if there should be no impediment to their exhibition, and the remainder of the time till Michaelmas, a cathartic once a week. They are likewise bathed in the summer time, according to the season, and it is continued according to the season, but not indiscriminately." "Report from the Committee of the House of Commons, on Madhouses in England. Ordered to be printed, 11th July, 1815" Edited by J. B. Sharpe, Surgeon. pp. 110, 130.

treatment, than they are in another, in which the bodily disorder, so often accompanying insanity, is either over-looked, or its treatment is conducted on routine or injudicious principles.

II. MORAL TREATMENT.

It will, I believe, be generally, if not always, found that a good system of moral treatment in hospitals for the insane, is accompanied by corresponding excellencies, and a bad system by corresponding defects, in several of those points of general care and management which have been already considered; and, particularly, in the degree of attention which is paid to exercise, employment, and to the personal comfort and cleanliness of the patients. This being the case, in any comparison of the results obtained, with the methods of treatment and general economy of any hospital for the insane, it will hardly be possible, to distinguish the precise value of such general care and management from that of the moral treatment and influences themselves; which we must regard as including the results of that general demeanour and conduct, in their intercourse with the patients, on the part of the officers, attendants and servants, which prevails in such institution, and which may more or less approximate to the correct standard. But though this be the case, there can be no question that the proportion of recoveries, at all events, will, other things being equal, always be larger in an institution, the moral management of which is marked by a kind and conciliatory, but firm and discriminating, manner and conduct; than it is in one where this is either harsh and unsympathizing on the one hand, or vacillating and injudiciously indulgent on the other.

In the second part of this work,* I have considered the moral treatment of insanity rather in its subjective, than in its objective, relations; and more perhaps as a branch of ethics than as one of psychology and practical medicine;—the point of view under which I desire, in a summary way, here to regard it. I shall therefore content myself with referring to the observations I have in that place made on the demeanour

* "Statistics of the Retreat." pp. 38—45.

and conduct towards their charge, of the guardians of, and attendants on, the insane, which are so intimately connected with the great object of securing the confidence of, and thus gaining an influence over, the patient.

In the brief review which I shall here attempt, I shall consider the objects which we seek to obtain in the moral treatment of the insane as divisible under three heads.

First. To prevent injury to the patient and to others, by such means of restraint and coercion as are consistent with humanity, and as are least likely to excite unavailing and exhausting efforts to escape from them. These are physical means intended to produce a psychical effect, and are as follows :

1. What is here pre-supposed—the separation of the patient from his family and immediate connexions, and his removal to an hospital for the recovery of the insane. There are cases in which the first part of this, or the separation of the patient from his family and friends, is all that is called for, but such cases are, doubtless, exceptional.

2. Such further interference with the conduct and remaining liberty of the patient, as, in order to secure the objects alluded to, the circumstances of the case call for. This has hitherto been usually accomplished in one of the following ways.

a. Coercion ; e. g. as when, in a furious and dangerous paroxysm of mania, the attendants secure the patient and remove him to some other department of the hospital, or apply means of personal restraint ; as when a patient, who will not rise in the morning, is dressed by the attendants ; as when, to a patient who persists in refusing food, this is administered in a compulsory manner ; or as when a bath or other remedy is forcibly administered.

b. Seclusion ; more or less prolonged, from the society of his fellow-patients ; effected by the isolation of the patient, either in his bed-room or in some apartment specially adapted for this purpose. I may here briefly observe that when resorted to for limited periods, and in cases adapted to it, seclusion constitutes a valuable means of treatment, both as regards its physical and its moral effect. But when employed

in improper cases, or for too extended periods, there is hardly any plan of treatment which can be regarded as more open to objection. Protracted solitary confinement, as the experience of the prisons of America, India and our own country proves, is of itself, directly or indirectly, a cause of insanity; and we need not bestow further time in endeavouring to establish the injurious effects of the same cause on those who are already insane.

c. *Mechanical personal restraint*; as when the patient is deprived of the free use of his limbs, by the application of the strait waistcoat, or by that of straps, muffs, or locks to his hands or feet; or, further, as was long thought necessary and not inhumane, when he was altogether deprived of the power of locomotion by means of a "restraint-chair," in which he was locked, often in a manner which I will not further describe; or as when, night after night, he was strapped down to the bedstead by his hands, feet and waist; or lastly, as when, like a wild brute animal, he was chained or tied to a post or a tree, or to a ring fixed in the wall or the floor.* All

* Wherever the provision for the insane poor by the legislature and the executive magistracy is defective, the coercion and restraint to which the poor victim of a disordered mind is subjected are almost necessarily brutal and excessive; and such as must lead, as it has ever led, to a frightful rate of mortality. In English counties, unprovided with pauper asylums, such cases as are alluded to in the following extract from a letter by the late *Sir George O. Paull*, to *Earl Spencer*, are, on enquiry, to be found even at the present day. In this letter, laid before the Committee on Madhouses in 1807, (Report, p. 17), *Sir G. Paull* states, "I believe that there is not a parish of any considerable extent, in which there may not be found some unfortunate lunatic who, if his ill-treatment has made him phrenetic, is chained in the garret or cellar of a workhouse, fastened to the leg of a table, tied to a post in an out-house, or perhaps shut up in an uninhabited room; or, if his lunacy be inoffensive, is left to ramble, half naked and half starved, through the streets and highways, teased by the scoff and jest of all that is vulgar, ignorant and unfeeling." *Dr. Hitch* has shewn that, in North Wales, such cases must be still fearfully common. (Letter to *Times* paper: also *Medical Gazette*, 1842. N. S. Vol. 11, p. 62.)

The state of the insane poor also, in many parts of Scotland, is still, in many cases, miserable in the extreme. Many are chained, or locked up in outhouses, and kept, it is said, as no thief would keep his dog. Many, particularly in the west of Scotland, and not paupers merely, are sent to the isle of Arran, where they are boarded with small farmers and crofters. *Dr. Hutcheson*, who visited Arran, at the request of the Poor Law Commissioners, gives a miserable report of the condition of these unfortunates. He states, that they are subjected to every description of neglect and ill-usage, and often beaten and brutally pun-

these measures, coercion, seclusion, and mechanical restraint, require great care in their application to particular cases; and are open to great abuse, particularly if left, as they never should be, to the discretion of attendants and servants. They should never supersede the application of purely moral motives; but should only be resorted to as a last resource, when these either fail, or are, from the nature of the case, out of the question.

I shall not here enter into, or pretend to determine, more definitely than I have elsewhere attempted, the merits of the *quæstio vexata*, "restraint or non-restraint?" That the insane may, in all cases, be governed by purely moral means, I suppose all will regard as an untenable position, but still I believe we may conclude that there is no circumstance which more decidedly marks a faulty system, and none which is likely to be attended with more unfavourable results

ished; that they are wretchedly fed, their diet being generally the refuse of the potatoe crop, and buttermilk; that they are ill-clad, and miserably lodged.

Even since the erection of district asylums throughout Ireland, we have it on the authority of an assistant poor-law commissioner, *Denis Phelan, Esq.*, that cases are still to be met with analogous to those described, before a Select Committee of the House of Commons in 1817, as at that time quite common. "There is nothing," it was stated by a member of the House of Commons, before that committee, "so shocking as madness in the cabin of the Irish peasant, where the man is out labouring in the fields for his bread, and the care of the woman of the house is scarcely sufficient for the attendance on the children. When a strong young man or woman gets the complaint, the only way they have to manage is by making a hole in the floor of the cabin not high enough for the person to stand up in, with a crib over it to prevent his getting up; the hole is about five feet deep, and they give this wretched being his food there, and there he generally dies. Of all human calamity I know of none equal to this in the country parts of Ireland which I am acquainted with." "Report from the Select Committee of the House of Lords on the State of the Lunatic Poor in Ireland" 1843. p. 69.

Such facts as these shew strongly the necessity of further, and more satisfactory, provision being made for the insane poor of these kingdoms than has yet been done. I cite them here, however, more particularly with the view of shewing that it is when the poor lunatic is most completely unprotected and abandoned to neglect, that the evils of excessive coercion, seclusion, and restraint attain their maximum. Against many of these evils, the worst conducted asylum that can at this day by possibility be conceived, will still afford great protection; but in asylums, as out of them, we shall find that the evils we have been considering are generally less in proportion to the general care and protection which the economy and character of the establishment afford to the patients.

than an unrestrained use of the means of personal restraint, whether these consist in long continued seclusion, or in the mechanical restraint of the body or its members, either by instrumental means, or, what is usually worse, by the physical and manual force of the attendants.*

Secondly. Our object in the moral treatment of the insane is to remove all exciting causes which may aggravate or renew morbid trains of thought, and accompanying violent or absorbing emotions. Under this head we may mention;

1. What is here pre-supposed, and has already been enumerated under the previous head,—the separation of the patient from his family and immediate connexions, and his removal to an hospital for the recovery of the insane.

2. The regulation of the intercourse, whether personal or by letter, which the patient holds with persons out of the hospital, and particularly with his family and former friends.

3. The determination of the amount of liberty of action with which the patient is trusted in every respect; and that

* On the subject of *personal restraint* see "Statistics of the Retreat," pp. 48—50, to which passage the reader is requested to refer, and to regard the following note as supplementary.

Since the sheet here referred to, of the second part of this work, was struck off, there have been two cases at the Retreat, in which wrist straps were applied for a few hours, in each instance during a paroxysm of great violence and destructiveness. In another case, that of a delicate female, a simple waist-belt, not interfering with the motions of the body or with the use of any limb, and secured on each side, by webbing, to the bedstead, was applied every night, for about a fortnight, in order to keep the patient in bed during a state of great restlessness and irritability. In another case, requiring surgical treatment, the use of the strait waistcoat was found necessary for about twelve days. These are all the cases in which the use of mechanical restraint has been directed from the 25th of January, 1843, to the time at which I am now writing, February 8th, 1845. Whilst on the one hand I cannot doubt that the course and duration of many cases has been mitigated and shortened, and the character of the disorder rendered less virulent, by the disuse of restraint, I must here state, that, occasional inconvenience in the shape of alarm, and of interruption to the quiet of other patients, and also as regards the destruction of clothing and the breakage of glass, have, on the other hand, been connected with it. On the whole, however, that greater vigilance and forbearance on the part of the attendants, which, under competent superintendence, the comparative disuse of personal restraint more or less necessarily implies, have, I feel no hesitation in saying, been attended with a decided increase of comfort and decrease of irritation in those divisions of the establishment in which instruments of restraint were formerly not unfrequently resorted to.

of the class of patients in the hospital with which he is associated.—Classification is a most important instrument in the moral treatment of the insane, and requires, as we have seen, to be provided for by an appropriately constructed building, and to be modified according to the circumstances, and adapted to the size, of different establishments.*

Thirdly and lastly. Our object, in moral treatment, is to take advantage of that law of the mind, by which different acts or feelings are virtually rendered incompatible with one another; and to place the patient as much as possible, in circumstances which tend to divert his attention from those thoughts, of which the delusions or morbid feelings are a constituent part; and to fix it on other objects, on which the mind can still act in a natural and healthy manner.†

Under this head I include;

1. What is here pre-supposed, and has been already enumerated under the two previous heads,—the separation of the patient from his family and immediate connexions, and his removal to an hospital for the recovery of the insane.

2. The regulation of the daily pursuits of the patient, whether in the shape of exercise, occupation, or amusement, but particularly that of the books he reads, the letters he writes and receives, and the persons he converses with.—This, to be effectual and satisfactory, supposes that the confidence of the patient has been secured by the medical director; who, in his attempts to secure these objects, will find great need of prudence and of judgment, and will have carefully to avoid all needless interference and all useless opposition. The employment of the patient is that department of moral treatment, which, if we regard as the most important of all, we shall, perhaps, not over-estimate. It is an instrument powerful alike for promoting the restoration of the curable, and the comfort and good order of the incurable. In the best con-

* For remarks on classification, the reader is referred to the "Report of the Commissioners," &c. 1844. p. 121; the "Statistics of the Retreat. p. 20; and in particular to *Jacobi*, Op. Cit. pp. 52—62, and *Tuke*, Introduction, pp. 22—27.

† In this three-fold division of the objects of the moral treatment of insanity, I have partly followed *Dr. Alison*, in his "Outlines of Pathology and Practice of Medicine." 1844. Part 2. p. 735.

ducted establishments, we must still fear that many remain unoccupied from day to day, who under better directed, and more persevering, efforts might yet be induced to employ themselves. Whilst in carrying out exercise and occupation, more perhaps rests with the immediate attendants than with any one else, all who come in contact with the patients, from the principal officers down to the scullery-maid in the kitchen and the day-labourer on the farm, may contribute efforts of greater or less value in promoting it.

The means of mental cultivation and of innocent and healthy recreation occupy no unimportant part in the moral treatment of insanity. The cultivation of the mind should, as in some of our best pauper asylums, be provided for by the establishment of schools for such as have had their early education neglected, in which properly qualified teachers may instruct the patients, in reading, writing, and arithmetic; and in drawing and singing.* Every hospital and asylum should contain suitably selected libraries of books and periodicals. Means of recreation, adapted to the capacity and suited to the taste of all, should be provided; and every effort should be used, by presenting various objects of interest to the mind, to call into exercise its remaining powers; and to prevent that monotony of feeling, to which the insane, as a class, are so peculiarly liable.

Under this head, also, we must include the application of religious worship and instruction in the moral treatment of insanity. There can, now, be no doubt that a large proportion of the inmates of an hospital for the insane are capable of deriving instruction and advantage from that form of religious worship to which they have been accustomed, when this is modified so as, in the main, to suit their peculiar circumstances. It hence becomes an obvious duty to provide the means of public worship in every establishment for the insane. In the public ministrations of the chaplain of an asylum, which on any one occasion should rarely occupy so

* *Dr. Conolly's* interesting account of his recent visit to the Parisian asylums of the Bicêtre and Salpêtrière, contains a most interesting and graphic description of the schools recently established for the patients, in those establishments, "British and Foreign Medical Review." January 1845. Vol. 19. p. 281.

long a period as an hour, it will be necessary for him to remember that he has a congregation which in great measure consists of the excitable and hysterical on the one hand, and of the melancholic and desponding on the other; and that in both classes there are probably those who are the subjects of hallucinations of a religious character. Under such circumstances, the first endeavour of a judicious clergyman will, at the least, be to do no harm; and in his short discourses, he will hence avoid much that would be suited to the circumstances of a more sane congregation. Avoiding argumentative and doctrinal topics, his addresses, without being altogether one-sided, will be characterized by their simplicity, and by the inculcation of that calm and hopeful faith which are so appropriate to the circumstances of his auditory. In his more private ministrations, in individual cases, the chaplain should always act with the knowledge and concurrence of the superintending physician; to whom he has it in his power to render essential service. Even as regards those portions of the sacred volume which are read to the insane, there is room for judgment in the selection. From retaliation and revenge being permitted by its moral code, and from the typical and poetical character of many of its books, many parts of the Old Testament are peculiarly open to misapplication by the insane; and we have it on the highest testimony that many of the Epistles contain "things hard to be understood," which are liable to be wrested by the "unlearned and unstable." On the whole, the narrative parts of the New Testament,—which in combination with more didactic lessons, present us with pictures of the highest excellence,—with well selected portions of the Psalms, appear to be those which, for public reading, are most suited to the condition of a large majority of the insane.

3. More direct efforts, by intercourse and conversation on the part of the director, or on that of a clerical, or other confidential coadjutor, to remove sources of disquietude, to present fresh motives of action, and to direct the thoughts of the patient from himself and his disorder,—so often aggravated by being talked about,—into other channels and to other objects, and thus permit the power of self-restraint the opportunity of

developing itself.*—This is the highest and most delicate part of moral treatment, calling for all the prudence, skill, and tact of which the director is master; and it may be safely said that there are some cases in which there is no opportunity for

* The psychiatric practitioner is frequently rewarded by finding moral motives, judiciously applied, produce a most happy and salutary effect on the minds of the insane; but it is rare for him to meet with so decided and wondrously happy a result as that which occurred to Dr. Miguel, in a case, the details of which, abridged slightly from Dr. P. Earle's translation, I am tempted to introduce in this place.

In the spring of 1837, Dr. Miguel was called to a young man of a distinguished family in Paris, of a mild and amiable disposition, who had been suddenly attacked with mania of a most peculiar and violent character, the symptoms of which Dr. Miguel most graphically describes. Dr. Miguel found him upon his bed, where it was with the utmost difficulty that four robust men could hold him. He recognized no one, not even his friends or relatives. His face was highly flushed, his eyes wild, haggard, and rolling in their orbits. His delirium was characterized by a fixed and false idea. His mind appeared to be wholly absorbed with the idea of a man—an enemy—whose death he desired, even at the sacrifice of his own life. He imagined that he saw before him the corpse of his enemy, and demanded his blood to drink. On water being given him, believing it to be blood, he swallowed a tumbler full with avidity. He now bade his friends farewell, expressing a determination to end his torments by self-destruction. He should die happy since he was revenged on the man who haunted his vision. But immediately he reproached himself for his atrocity, and expressed his shame and condemnation for the infamous act he had committed. After nausea and slight vomiting, (probably from the disgust of drinking what he supposed to be blood,) he obtained a few minutes repose. Suddenly, however, his features contracted, his eyes opened with a hideous aspect, and with maniacal force he seized the hands of one of his attendants, whom his distempered imagination converted into a taunting, bullying enemy. He wished to disembowel him, and ravingly talked of a deadly duel. In the imaginary contest, he believed himself to have received a large and mortal wound in the chest, into which, as he supposed, he thrust his finger and enlarged the gory gash, that he might die the more quickly. Again he bade his friends adieu, and sank, oppressed, upon his bed. No voice was listened to or recognized.

Such was his condition during four anxious hours. Notwithstanding the various remedies which were employed—sinapisms to the feet, ice to the head, and numerous leeches to either side of the neck,—his furious transports recommenced with additional violence. Struck with the peculiar character of the delirium, Dr. Miguel suspected that it must have originated in some violent moral influence. But upon this subject no one could give him information. He thought of jealousy as the cause, and, in order to verify his suspicion, he placed his mouth to his ear and said loudly, though not sufficiently so for others to hear, "*She prefers you: I am assured of it.*" "Who told you so? Who are you to talk to me in this manner?" he instantly cried, with an expression of astonishment and fury. Dr. Miguel's conviction was, from this moment, established. He now learned that on the preceding day the patient had been melancholy, had

its being tried:—cases in which the confidence of the patient is not to be gained; and, in which the best concerted efforts to secure it are productive of more injury than advantage.*

no inclination for dinner, and in the night had written a letter of ten pages. The *commissionaire* who had carried it to the person addressed, who proved to be a young lady, was fortunately found. Accompanied by the brother of the patient, Dr. Miguel immediately went to the lady's residence, and entreated her, by every thing she held most dear, to ascertain if her presence in the chamber of the sick man would not produce a favourable effect. The lady benevolently overlooked those objections which she might have advanced against a compliance with this request. She went to the house of the young man, who, when she entered his room, was as furious as ever. "Why! Sir," said she, "what means all this?" At the sound of that voice a sudden change came over the features of the patient; a cloud, as it were, fell from his eyes; his pupils, which had been large, contracted, and a smile softened the rigid outlines of his lips. He extended a hand on the side from which he heard the voice, and said, "Oh! is it you!" and as soon as he felt the hand of the lady placed within his own, he covered his eyes with the opposite hand and began to weep. Dr. Miguel directed every one to leave the room, and went out himself. He was absent but a few moments, and on his return, the patient extended his hand and asked the forgiveness of his kind physician. His reason had returned! His respiration was regular, and happiness beamed in his eyes. He could give no account of the false impressions under which he had laboured. In reply to Dr. Miguel's questions, he said, "All that I can remember is, that my head became instantaneously relieved, the blood rushed towards my heart, and for a moment it was difficult to breathe. This oppression passed away with the few tears which I shed, and now I feel perfectly well." He went out as usual on the following morning, and in the evening rode into the country. After his return to Paris, Dr. Miguel met him frequently; and he invariably expressed his gratitude for the almost miraculous manner in which he was restored.

* In connexion with cases of this description, it may become a question whether the feeling of *fear*—of all others the most liable to be abused and perverted—should ever be resorted to as a motive in the moral treatment of insanity. I believe the cases to which this lower, though no doubt widely operating, motive is really applicable, are rare in the extreme. Much will depend on the temperament and peculiar moral constitution of our patient, which will often be unknown to us; whence in the use of so doubtful a remedy we should hardly fail to be running a great risk. Still, that there are cases in which fear is capable of rousing the mind from torpor, and of collecting it from the distraction of mania, I feel no doubt; and the following case, which came under my observation at the Westminster Hospital, in 1837, is, I think, in point.

A boy, aged 14, had been an inmate of the hospital for two months, on account of a simple fracture of the thigh, and was considered nearly fit to be discharged, when, after some trivial vexation respecting some improper food which had been disallowed him, and after a slight fall from his crutch, by which however he does not appear to have been hurt, he was, the same day, attacked with mania of a noisy

There are cases of insanity in which the feelings and judgment are so completely distorted, and others in which one class of perceptions and feelings are so acute, and so little influenced by counteracting feelings, and by the restraints of society,—cases in which the patient sees vividly the mote in the brother's eye, but is thoroughly blind to the beam, it may be, in his own,—as to render the most friendly words and actions the subject of malignant interpretation and suspicion. In cases of this description, how necessary must it be to secure the hearty co-operation and united action of all who surround the patient! But after all that is possible has been done, cases will remain in which direct efforts such as we have referred to are almost precluded, and in which a prudent reserve and a neutral line of conduct and demeanour, scarcely at all times within the command of all, are perhaps the only proper and safe course.

I shall not in this place enter further into the details of moral treatment; to which, however, it was needful even though thus briefly to allude, in any consideration of those particulars in the management and treatment of the insane, which are capable of more or less affecting the results obtained in different asylums and hospitals for their treatment and reception.

but pleasurable character. At the end of ten days, the various ordinary remedies having been tried without effect, the rules of the hospital not permitting his continuing longer, he was discharged. He remained three days at home, but his delirium continuing, he was removed to the workhouse at Lambeth. Only nine days after leaving the hospital, I was surprised by receiving a visit from him, still walking with crutches, but as regards the mania completely recovered. He remembered his admission into the workhouse, but had little or no recollection of what had occurred previously. At the workhouse, he had been placed in the "mad-ward," and, it would seem, was impressed with fear on seeing the iron bedsteads furnished with leg-locks, on one of which he was confined. During the first night, he was still further roused, by a man in the same ward attempting suicide by cutting his throat. The next morning he arose completely well, and had continued so nearly a week when he paid me this visit. It is probable there was some tendency to a natural crisis at the time; but had he been a boy of more timid feelings, and of a less vigorous temperament, the same circumstances would probably have produced a very different effect. In the course of a few months, I heard that this poor fellow had experienced a recurrence of insanity, which I attributed to his having had no proper moral care on his recovery in the workhouse, before he returned to his usual pursuit as a coach-carver.

years of the superintendence of the first physician, Dr. Hunter; and that, during the six years which followed, under the superintendence of his successor, it rose to nearly 15. (14.8) per cent. It was during this period, no doubt, that the evils which had prevailed in the institution, produced their maximum effect; and part of these effects was exhibited in a fearful increase in the mortality.

Dr. Best explained this high rate of mortality by the circumstances, first of "a long continued and destructive epidemic (apparently dysentery) having prevailed in the asylum during that year," (1813-14—the last of the period under review), and further, "that the patients, during a considerable part of the time, were crowded together in an unprecedented degree, and subjected to various unfavourable circumstances by the destruction of their ordinary accommodations by fire."* The fact however is, that although the mortality during that year was greater than in any preceding one, and amounted to 19.07 per cent.; that of the previous five years, during which no such extenuating circumstances, such as they were, (epidemic dysentery in an asylum being always a suspicious circumstance), could be pleaded, was still extremely high for an asylum of this or of almost any description, and amounted to 13.43 per cent. The fire took place on the 28th December, 1814, whilst the investigations were pending. It destroyed the detached wing of the asylum at that time said to contain about eighty patients; but, except its being the immediate occasion of four patients coming to a miserable death, it is not probable that it had any material influence on the mortality of the house.

As the history of the York Lunatic Asylum, in reference to this inquiry, is a most important one, and as it exemplifies, and places in a strong light, many of the observations which have been made in the preceding sections of this chapter, I shall in this place introduce a sketch of the condition of the institution, as it was proved to have existed previous to the reform of 1814. This is a plan to which I am the

* "Minutes of Evidence before a Committee of the House of Commons," (in 1815.) By *G. Higgins, Esq.* Doncaster, 1816. p. 25: or *J. B. Sharpe.* Op. Cit. p. 33.

more inclined, from the pamphlets on the subject, historical and controversial, which were published at the time, as well as the more detailed "*History of the Asylum*," by the late Jonathan Gray, being now out of print, and only very rarely to be met with.* By arranging the defects and abuses under the several heads of management and treatment which have passed under our consideration, it will be observed that, though not at all exclusively belonging to these divisions, they were yet more particularly connected with the neglect of the ventilation, warmth and cleanliness of the apartments; of the clothing and personal cleanliness of the patients themselves; and of the medical and moral treatment.

SECT. 1. *General Hygienic conditions during the treatment.*—Omitting, as unconnected with our present object, any reference, in this place, to I. *The Locality*, and II. *The Construction*, of the asylum, we may proceed to the consideration of

III. *Means for Exercise, Occupation, and Amusement.*—As regards the provision for these objects, we find that there were no day rooms with contiguous airing courts, and that there were but two courts for all classes of the patients, except the opulent, who took their exercise in the garden. All the rest of the men, amounting in all to more than 100, were turned into one court; and the women, amounting to about 70, into the other. In neither of these courts was there any provision for shelter against the rain or heat. In this way "you might see," observes one of the governors, "more than a hundred poor creatures shut up together, unattended, and uninspected by any one; the lowest paupers and persons of respectable habits, the melancholic and the maniac, the calm and the restless, the convalescent and the incurable. It is needless, and it would be painful, to enumerate the evils and the dangers resulting from this system of indiscriminate association.

* These publications extend altogether to nearly 700 8vo. pages; so that it is presumed a condensed account of a principal part of their contents, will not be considered without its value. In the following pages I generally, and on important occasions always, adhere to the very words of the writers from whom I quote.

The danger of patients injuring each other, was also very great, from their being shut up in considerable numbers in their day rooms, without any attendant or inspector.* In support of this statement it must be here stated that it was discovered that several patients had been killed by their companions; though the number of these, from their being merely entered "died" in the register, could never be ascertained.

IV. *Internal Economy and Government: Number of Attendants.*—Under this head, we may, in the first place, briefly notice the general want of order and discipline which were ascertained to prevail in the house; the imperfect and faulty distribution of the powers of the different officers resident and non-resident; and the partial manner in which the authority of the officers was recognised by, and enforced upon, the servants and attendants; all of which were so plainly elicited in the Report of the Committee of Inquiry.†

As regards the number of the attendants, it appears that there were only four male, and three female attendants to about 200 patients, 122 men and 77 women. This was precisely the number of attendants which had been recommended, previous to the opening of the asylum in 1777, by the first physician of the establishment, and by three other physicians of York, as a proper number, "upon the supposition that 54 patients will constantly be in the house."‡ This would give us the very respectable proportion of one attendant to eight patients; though, considering that a larger proportion is required in order to ensure equal comfort and attention in a small, as compared with a larger, asylum, it would not be greater than is really requisite, if all be done that is practicable toward effecting the recovery, and maintaining the comfort of the patients. The proportion of at-

* *Gray. Op. Cit. p. 54.* "Vindication of Mr. Higgins from the Charges of Corrector: &c. By a New Governor." (*S. W. Nicoll.*) York, 1814. Note, p. 39. This important note was contributed to the author of this pamphlet, by the author of the "Description of the Retreat."

† "Report of the Committee," &c. pp. 46, 47, 50, and 51; and *Gray. Op. Cit. passim.*

‡ *Gray. Op. Cit. p. 11.*

tendants at the Retreat at the present time is about one to seven or eight patients of the general class.*

The seven attendants on the 199 patients in 1814, gives us, at first sight even a proportion of but one attendant to 28 or 29 patients. But when it is stated that one of the attendants made and baked all the bread consumed in the house; that the women assisted regularly in the wash-house; that both men and women were employed in other domestic duties; house business may be considered as having occupied the time of at least one of them. It will likewise not be unfair to conclude that two of the attendants, one male and one female, would be chiefly employed in attending the patients of the higher class, generally about seventeen in number. This would leave 182 patients to the care of four attendants; which gives us a proportion only of one to 45. As was observed at the time, "of these 182 patients, there would, in all probability, be from ten to twelve of each sex, who would require extraordinary attendance, from their foul and offensive habits..... It is impossible to show, making every allowance for the assistance frequently derived from patients, that this class could be properly attended to, without an absolute abandonment of the rest; nor could these receive more than a very small share of the attendance they required, if the worst class were as much neglected as possible. At present" (about three months subsequent to the reorganization of the establishment,) "with only 100 patients, of whom a very small number are of the opulent class, four male, and three female attendants, find themselves fully employed in doing justice to their charge, without any interference of domestic services."†

V. *Ventilation, Warmth and Cleanliness of the Apartments.*—At the time of this inquiry into the state of the asylum, it was found to be excessively crowded; the original main building, which was designed for 54 inmates only, contained 160; and additional patients continued to be received. During the last six years of the superintendence of Dr. Hun-

* "Statistics of the Retreat." p. 26.

† "Vindication of Mr. Higgins," &c. Note, p. 37.

ter,—1803-9,—though the crowding must then at times have been excessive, (as in the year 1808, during which there was an average population of 188), the average number was only 153. But during the six succeeding years of the superintendence of Dr. Best, the average number rose to 175, without there being any increase in the extent of the accommodation. Under these circumstances, large numbers were huddled together in small apartments during the day, some slept three in a bed; and the air, in consequence, became extremely offensive and unhealthy. From the statement of another observer, we learn that there was an utter neglect of ventilation and of cleanliness, which rendered many parts of the establishment alike disgusting and unwholesome. It was almost impossible to conceive any place in a more damp and offensive state than one part of the building, called the “low grates.” The light, in several of these rooms on the ground floor, was obstructed by the erection of pig-styes, and other disagreeable offices; and the little air which was admitted, passed immediately over these places. The upper galleries suffered, in some degree, from the same causes as the lower one. Their elevation prevented them from being damp; they were, however, with some exception in favour of that part occupied by the opulent, as gloomy as ingenuity could devise to make them; and as defective as possible in ventilation.*

VI. *Clothing, Personal Cleanliness, &c.*—It appears that many of the patients were altogether unprovided with shoes and stockings; and that the rugs and blankets which formed their bed-covering, were too short to cover the feet. Added to this, there was “gross neglect of cleanliness and of attention to the person;” as was shewn by the vermin and filth with which it was proved the patients were, in several instances, covered, on being removed from the institution, and upon being visited by their friends. That this neglect of cleanliness and of attention to the person was not casual and accidental, but that it prevailed habitually, appears evident from several facts which came to light even during the

* *Gray. Op. Cit.* pp. 24, 54, 56. “Vindication of Mr. Higgins,” &c. Note, p. 39.

course of the investigation ; when it is probable that there was greater care exercised in these particulars than there had been previously. One of the governors visiting the asylum (six months after the commencement of the investigation) in April, 1814, between ten and eleven o'clock, a.m., "found a male patient, without any clothes whatever, standing in a wash-house on a wet, stone floor, apparently in the last stage of decay; he was indeed a mere skeleton ; his thighs were nearly covered with excrement in a dry state, and those parts which were not so, appeared excoriated, as did also some parts of his waist. An attendant, who was called, said that the patient was not accustomed to leave his bed, that he was a perfect child, and could do nothing for himself; that his attendant was busy killing pigs, and could not therefore attend to him. The bed which he was said to have left was in the most filthy state, and corresponded with that of his body. He was spoken of by all (indeed it was impossible to see him and consider him otherwise,) as a dying man. The further history of this poor creature proved, however, the fallacy of appearances. He was removed to another part of the asylum where he was better attended, and, in a few months, was so much recovered, as to be removed to his parish in an inoffensive, though imbecile state of mind."

In the course of the investigation by a committee of the governors, it was stated by one of the "keepers," that "when patients are very violent, and the strait-waistcoat makes their arms swell, it is taken off, and they are put in the cells. They stay there two or three days, or as much as a week, if very violent. They have blankets and straw; they are sometimes put in without a shirt on. When patients are confined, the cells are cleaned out three or four times a week." An admission such as this sufficiently establishes the great neglect of personal cleanliness and of clothing which must have prevailed, though yet probably not to the extent which was actually the case. Thus it was stated, by a gentleman who had left the asylum recovered, that when he was a patient he was shut up, for a week or more at a time, in a dark cell naked, sometimes with another patient and sometimes by himself; that he was obliged to attend to the calls of nature

in a corner of the room ; that the straw was not changed for a considerable number of days ; and that once when he was there, when the "keeper" brought him his meat, he promised him five shillings when he went out, if he would get him a shirt ; and that when he left the institution, he gave the man five shillings according to his promise. On the 24th of March, 1814, during the progress of the same inquiry, four secret cells were discovered by the late Godfrey Higgins, Esq., a magistrate of the West Riding of Yorkshire, who, by his strenuous exertions, was mainly instrumental in effecting the reform of the asylum. These cells had been concealed from the two committees appointed to examine the state of the house ; they were of about eight feet square ; and in a state of filth disgusting beyond description. They were covered with straw which was perfectly soaked with urine and excrement, and which must have been in use a very considerable time ; there was some bedding laid upon the straw in one cell, in the others only loose straw ; the walls and air holes, of which there was one in each cell, were in a condition which I will not attempt to describe. These four cells were occupied at night by thirteen most miserable looking women ; who, during the day, were crowded into a room measuring twelve feet, by seven feet ten inches. In one of the cells there was a chain with handcuffs affixed, fastened to a new board in the floor.*

VII. *Diet.*—The diet at the asylum previous to the reform we are alluding to, excepting for the highest class of patients, was coarse, and if not also insufficient, at least not liberal. "The upper classes had tea twice a day ; the lower classes no tea, but gruel or milk and oatmeal for breakfast. The better patients, about forty, dined at one table ; the paupers at another ; and there were about twelve gentlemen and ladies whose diet was the same as that of the apothecary and matron. The paupers and middle class of patients had both three meagre days, and the paupers had

* *Gray. Op. Cit.* pp. 89, 65, 60. Appendix. pp. 21, 41. "Report of the Committee of Inquiry," &c. p. 51. "Minutes of Evidence before a Committee of the House of Commons" (in 1815.) pp. 2, 12 : or *J. B. Sharpe. Op. Cit.* pp. 12, 23. "Vindication of Mr. Higgins," &c. Note, p. 38.

roast meat only on Sundays. On Saturdays the middle class had principally cold meat, and the lowest class had offal in hash. The housekeeper separated the coarsest parts for the lowest patients." * What the supper consisted of does not appear; nor yet what the dinner was on the meagre days: it was probably soup.

After the reform in 1814, the diet was materially improved, though perhaps less so, as regards the pauper patients, than was desirable. I have been favoured by the late resident medical officer, Mr. Ellis, with the following particulars of the diet at the present time, and it may be observed that it has not been materially altered since the reform of 1814. The patients of the upper and middle class, several of the former of whom take their meals with the officers of the establishment, have the usual meals of tea or coffee for breakfast and in the evening. At dinner a liberal table, with roast or boiled joints, &c. puddings and vegetables, daily, and generally a pint of beer, is provided much in the same way as at the Retreat, the patients partaking of the food before them without any specific restriction as to quantity. They have likewise a supper of bread and cheese. The diet of the paupers is as follows: the breakfast consists of milk and oatmeal or bread; the dinner, of roast meat once, of boiled meat once, of meat-pie once, and of hash or stew once a week. The meat is not served out accurately by weight, but is divided according to the appetite of the patients, and probably averages five ounces on each of these four days. Twice a week, the dinner consists of rice pudding and broth, and once a week of broth only; but bread, vegetables and half a pint of beer are allowed daily. The evening meal consists of tea or milk and bread; and those who go out to work have a luncheon of bread, cheese, and beer.

* *Gray. Op. Cit.* p. 46; and "Report of the Committee." &c. pp. 50, 52. *Mr. Higgins* says the bread was bad, but the occasion to which he alludes may have been a casual one. "Minutes of Evidence," &c. p. 12; or "Report from the Committee of the House of Commons, on Mad-houses in England; together with Minutes of Evidence." Edited by *J. B. Sharpe*, Surgeon. Baldwin: 1815. p. 22.

SECT. 2.—*The Medical Treatment.* I. *Physical and Pharmaceutical Treatment.*—As might be expected from the preceding details, the medical treatment was of a very unsatisfactory character, and was not merely routine and empirical, but also secret. The first physician, indeed, had his “secret insane powders, green and grey,”* which were sold as nostrums for insanity throughout a great part of Yorkshire and the North of England. It would appear that one of these powders was a drastic purgative, and the other a powerful emetic, consisting, as I am informed by a chemist of this city, who was in the habit of dispensing Dr. Hunter’s prescriptions, of the sulphate of copper. In a letter, the tone of which we need not stop to characterize, bearing date December 11th, 1804, and addressed to the apothecary of the asylum, we find him desiring that officer, “to take notice that he had accepted Dr. Best as his pupil” at the Lunatic Asylum. “To Dr. Best,” the letter proceeds, “I mean to communicate all the knowledge I have gained from the experience of twenty-five years. And further, to assist his studies in this obscure branch of medicine, I mean freely to disclose to him the manner of preparing the different medicines so successfully made use of at the asylum, and of which the composition is unknown to every person but myself. You will therefore take notice that you keep nothing secret from him,” &c.† Dr. Best succeeded Dr. Hunter,‡ as physician to the asylum, upon his death in 1809.

II. *Moral Treatment.*—That the moral treatment could have been in any degree satisfactory, when the general management of the patients and of the establishment was so de-

* Higgins. “Minutes of Evidence,” &c. Op. Cit. “Letter to the Committee of the House of Commons.” pp. 48, 54.

† Gray. Op. Cit. p. 23; and Appendix. p. 3.—The suppression of 144 deaths in the annual reports of the asylum, published in the papers of the day, and the addition of that number to the recoveries, which must be considered as of itself, at least, throwing strong suspicions on the character of the moral and medical treatment of the establishment, has already been alluded to, *supra*, p. 5.

‡ Dr. Hunter was the editor or author of Evelyn’s “Sylva,” York, 1776 and 1800; of “Georgical Essays,” 6 vols; and of “Men and Manners, or Concentrated Wisdom.” 4th Ed. 1809.

fective, would have been contrary to all experience, and to every a priori conclusion. Numerous facts indeed are stated, which shew that the *moral* care which was exercised over the patients, (though in one sense of the word such it cannot be called), was of the most imperfect and erroneous, and often of the most harsh and reprehensible description. That general want of order and of discipline in the house, which we have already referred to, must, almost of necessity, have been productive of such a result.

We have already seen the injurious extent to which seclusion, and personal restraint by the strait waistcoat, were carried in the institution, and that a chain with handcuffs affixed, which it was proved had been put down within six months, was found fastened to a new board in the floor of one of the filthy cells discovered by Mr. Higgins. A set of remarkably heavy irons, which are still preserved at the asylum, were also discovered a few days afterwards in a closet; so that notwithstanding that chains had been directed by the physician, some time previously, to be disused,* it would appear doubtful whether such direction had been complied with. It likewise cannot be concealed that there is great reason for concluding that corporal chastisement and personal cruelty were not uncommonly practised by the keepers; and that, until a short period at least before the reform of the establishment, flogging and cudgelling were systematically resorted to, with the view of reducing violent and excited patients to obedience and submission. This indeed was denied at the time, but though it does not appear ever to have been established before the Committee of Inquiry, several cases which were brought forward leave but little doubt that these cruel practices of the middle ages, during which other methods of managing maniacal cases were unknown, were continued in the asylum with the concurrence of its officers, almost up to the time of its reform.

In justice to the memory of the physician, in whom was

* *Higgins*. "Minutes of Evidence," &c. p. 25; or *Sharpe*. Op. Cit. p. 33; *Gray*. Op. Cit. pp. 61, 62. The irons referred to, which were intended to confine the person in a painful position, were stated to have been "the irons of Turpin, the highwayman."

vested the entire management, it must, however, be stated, that, on January 28th, 1813,* or eight months prior to the commencement of those discussions which terminated in the reorganization of the establishment, he was the means of introducing a law into the asylum, "that if any keeper or servant shall strike or otherwise ill-treat any patient in the asylum, such keeper or servant shall be dismissed from his situation."† It is highly probable that, after the date of this regulation, any instances of personal cruelty or punishment which may have occurred, were neither known to, nor authorized by, the officers; but the very circumstance of such a rule being made at this time, when taken in connexion with the other evidence on the subject, seems to warrant our concluding that a system, which at least tolerated such practices, had up to that time been in operation.

It was in all probability the example of the neighbouring institution, the Retreat, and the growing attention to the subject of insanity on the part of the public, which in great measure, at this period, led to the official prohibition both of chains and of the whip. This prohibition however appears virtually to have had but little influence in producing a better system; it having been accompanied by no increase of general care and vigilance, by no better distribution of the functions of the officers, and by no fresh infusion of that spirit of kindness and firmness, without which judicious moral management cannot exist; and the absence of which must necessarily be attended by evils, which, if not so obvious, are perhaps not less important than those connected with chains and stripes.

There were many other evils connected with the moral management of the patients, which arose out of the absence of an efficient control over the attendants and domestic servants; and which in great measure resulted from the faulty arrangements as to the duties of the officers. The chief

* "The Description of the Retreat," by Samuel Tuke, was published early in May of this year.

† *Higgins*. "Minutes of Evidence," &c. pp. 5, 20, 22, 47; or *Sharpe*. *Op. Cit.* pp. 16, 29, 31; and "Report of the Committee of Inquiry," &c. p. 40.

power as regards the management of the house by any resident officer, if he can be so termed, was vested in the steward, who was 82 years of age, and resided at the entrance-lodge, at the distance of nearly a quarter of a mile from the asylum. The apothecary, who was resident, did not consider himself possessed of the authority to prevent the servants going out when they pleased; and the matron exercised, in her department, a very partial and contested power. Well might the Committee of Inquiry report the "almost total want of subordination and vigilance, which they found to prevail amongst the servants in the absence of a watchful and confidential head!"* When cases, like those to which I am about to refer, do occur, they do not always imply a culpable negligence in the managers of any establishment; and, under other circumstances, it might not have been needful to have alluded to the fact, which under such a system will not perhaps surprize us, that two female patients were discharged cured, the one in 1797, the other in 1802, who had become pregnant whilst in the asylum. In the first case, the mother was a young woman of exceedingly good character, both before and after this unhappy circumstance; and it was notorious that the "head keeper" was father of the child, and that he paid £30. to the parish of Louth for its maintenance. Some time afterwards, this attendant resigned his place, when a piece of plate was voted to him by the governors, who appear to have been kept in ignorance of this circumstance, as a mark of "approbation of his conduct during a service of twenty-six years." In the other instance, the father of the child was a patient. A third case is also alluded to.†

Financial Condition.—Payments of the Patients and Remuneration of the Physician.—The rule under which the physician was remunerated, "by receiving from the friends of patients of a better condition, the reasonable emoluments of his profession," was passed by the governors, in 1785. In

* Gray. Op. Cit. p. 52. "Report of Committee of Inquiry." p. 10. "Vindication of Mr. Higgins," &c. Note, p. 36.

† Gray. Op. Cit. p. 53; Higgins. "Minutes of Evidence," &c. p. 4; or J. B. Sharpe. Op. Cit. p. 14.

1787, at the request of the physician, and after a protest on his part against the other plan of remuneration, in which he pointed out its liability to abuse, a salary of £200. was voted him instead of fees. In 1788 the governors determined not to renew the salary, and he was "requested to receive such moderate and reasonable fees from the class of *affluent patients* as he was accustomed to receive heretofore." We might have hoped, after the protest which we have seen had been made against this plan, that no great evil would have arisen from it; but in no long time, and during the administration of the same physician, a system of appropriation gradually established itself, not sanctioned even by this highly objectionable rule,* by which the funds of the establishment and the resources of the patients equally suffered. The patients were admitted, not by a committee, but by the physician only, who also fixed the rates of admission. According to a rule passed in 1785, at the same time with that providing for the remuneration of the physician as above described, the patients were directed to be classed according to their respective circumstances as follows: Class 1. Eight shillings (including paupers). Class 2. Ten shillings. Class 3. Twelve shillings. Class 4. Fourteen shillings. Class 5. Sixteen shillings. Class 6. Eighteen shillings. Class 7. Twenty shillings, and upwards. The Committee of Inquiry in 1814, reported "a wide departure from this rule," viz. "that none of the classes of patients of 16s. 18s. and 20s. and upwards have for several years found admission into the asylum." The committee further reported, that at the time of the inquiry the patients were divisible into six classes according to the rate of payment, as follows: 1st. Private patients of the physician, whose weekly payments he received, and for each of whom he paid 14s. per week to the steward; (in number 16.) 2nd. Patients paying to the steward 15s. of which the physician received 4s. per week. (16). 3rd. Patients paying to the steward 12s., of which the physician received 2s. per week.

* This plan was, shortly after, strongly objected to by a small minority of the governors, amongst whom was *Mason*, the poet, and precentor of York Cathedral. See his "Animadversions on the present Government of the York Lunatic Asylum." York. 1788.

(13.) 4th. Patients paying to the steward 10s., of which the physician received 1s. per week. (17). 5th. Parish paupers, of whom there were 80, and other poor patients, of whom there were 28, paying to the steward 9s. per week. (108). 6th. "Indigent Lunatics" not receiving parochial relief, but having assistance towards making up 9s. per week, in four different degrees, from the interest of "Lupton's reduction fund," and paying to the steward from 4s. to 8s. per week. (29, making a total of 199 patients.) Every patient of the first four classes also paid one guinea to the physician on admission. In consequence of the steward of the asylum having, at the close of the inquiry, when called upon to give them up to his successor, deliberately burnt and destroyed the books belonging to the institution, which were capable of establishing the extent of the emoluments thus received, their exact amount was never ascertained. Two independent observers however, the late G. Higgins and S. W. Nicoll, Esqrs. agree in the conclusion that they did not amount to less than £1,400. per annum. The late Jonathan Gray estimated them only at £1,020. per annum.* The same objectionable system of remuneration appeared to prevail throughout the establishment. The housekeeper received a fee on the admission of superior patients, and declared, that she thought herself justified, no doubt by long usage, in charging to the institution what profit she pleased on the articles she was entrusted to purchase. The attendants acknowledged that they received £100. per annum as perquisites from the superior classes of patients; and that they took the clothes of the patients, when *they* considered them to have been worn a sufficient time. The gardener also stated that he derived a considerable income from the sale of vegetables, and from fees received on the burial of patients.†

External Government and Visitation.—There was originally

* Higgins. "Minutes of Evidence," &c. App. p. 5; and "Letter to Earl Fitzwilliam, respecting the Investigation at the York Lunatic Asylum." Doncaster. 1814. p. 21. Gray. Op. Cit. pp. 51, 89. "Report of Committee of Inquiry," &c. pp. 7, 9, 33, 48.

† "Vindication of Mr. Higgins," &c. Note, p. 36.

an annual meeting of governors, with unlimited power over the concerns of the asylum; and half-yearly, and subsequently quarterly meetings, for ordinary purposes. Afterwards a committee of seven was appointed, as were also visitors. The committees and visitors gradually fell into disuse; and from 1795 to the period of the new system of management, became obsolete.

Not many years after the asylum was well established, a difference of opinion arose amongst the governors, respecting the advantages to be allowed to pauper patients, whose claims were especially advocated by the small minority already alluded to, consisting of Mr. Mason, Dr. Burgh and one or two other governors. Whilst the dispute continued, the different courts were well attended; but at last the personal friends of Dr. Hunter having obtained a most decided preponderance in the institution, all opposition to their views was withdrawn, a state of general inactivity succeeded, and the meetings of the governors became little more than matters of form. They were thus described, and, as at the time was allowed, fairly, in a pamphlet already frequently quoted from. "At the quarterly meetings, four or five governors, with difficulty collected, summed up the items of a tradesman's bill, contracted with the butcher for the ensuing three months, ordered a wall to be pulled down or a door to be blocked up, wished each other a good morning, and retired. At the annual meetings little more occurred; whether the institution was in debt or in credit, how many patients had been admitted and how many discharged, were the usual limits of inquiry." "I do not charge," continues the writer, "this conduct to hardness or apathy on the part of the governors. They did nothing, because they believed there was nothing to be done."* At the annual meeting, some persons of the highest rank, and many country gentlemen, usually attended; with these were mingled several most respectable individuals from the vicinity; and the state of the asylum was constantly praised, because it was honestly believed to deserve praising. Not long after the publication of the "Description of the

* "Vindication of Mr. Higgins," &c. pp. 7, 8.

Retreat," the then physician of the asylum, in September 1813, thought proper to make a severe attack upon the author of that work, as having, by his representations respecting the Retreat, cast "highly indecorous and injurious insinuations against other establishments;" "the intended application of which," he said, "no one could misunderstand; and which were as strikingly illiberal as they were grossly unfounded." A long controversy, in the newspapers, and in other shapes, took place, which excited much interest; but which would probably have had no further effect, had not a case of alleged misconduct and neglect, brought forward by Mr. Higgins, attracted an unusual body of governors to the quarterly court in the winter of the same year. Twenty-seven gentlemen were present, forming, apparently, a meeting entitled to the highest confidence and credit. "Mr. Higgins's statement was read; after which the accused servants were called in and sworn. They denied, upon oath, the truth of the charges. No other evidence was called for, nor was any minute committed to writing of what had been sworn by the servants. The following resolution was passed: 'The governors having taken into their consideration the statement published in the York and other newspapers, respecting the treatment of William Vicars, lately a patient in this asylum, and having examined, upon oath, such witnesses as were competent to afford information on the same, are unanimously of opinion, that during the time that the said William Vicars remained in the asylum, he was treated with all possible care, attention and humanity.'*

This opinion, of gentlemen who, on any other occasion, it is said, would have been listened to with ready acquiescence, on the present produced nothing but dissatisfaction. Thirteen new governors appeared unexpectedly at the adjourned quarterly court. New cases of alleged misconduct were produced and investigated: at a subsequent adjournment a general inquiry into the rules and management of the asylum, by a committee of governors specially appointed, was instituted; and, after a severe conflict, that system, whose supporters were so

* *Gray. Op. Cit.* p. 31.

indignant at an imaginary insinuation, was generally condemned as vicious by the old governors themselves, and was completely overturned. At the annual meeting in 1814, at which eighty governors were present, measures, entirely revolutionary, were established, in many cases by unanimous votes. "Here then," observes the governor from whom I quote, himself actively engaged in this investigation, "we have a system, for years superintended by a gentleman, not only of superior medical abilities, but highly valued in private life; a system regularly approved by governors preeminently respectable, dissolved in a moment when reached by full and free inquiry."*

Such is a general view of the state of the York Lunatic Asylum, as ascertained to exist at and previous to this inquiry; the result of which was the reorganization of the asylum, and the discharge of every servant and officer engaged in the management of the patients, with the exception of the physician, whose position was in every way altered, and who, in consequence of ill health, shortly after resigned. The newly-appointed resident medical officer was made the superintendent of the house; the number of attendants was greatly increased; alterations and additions, most important in their nature and extent, were made in the house and airing courts; and committees and visitors were brought into a state of active superintendence.

In judging of the state of the York Asylum, as exhibited in the preceding history, we must not forget what was the prevailing condition of even public establishments of this class at the commencement of the present century. At this period the condition of the insane was, all but universally, pitiable in the extreme. At the royal hospital of Bethlem, the state of things which, on public investigation, was brought to light, was in many respects immeasurably worse than that which has been described as existing at York at the same period. The peculiar value of the history of the York

* "An Enquiry into the present State of Visitation, in Asylums for the Insane." By S. W. Nicoll. London: Harvey & Darton, 1828. pp. 9—13.

Asylum consists in the condition of the establishment, at the time of the inquiry, having, in nearly every department, been ascertained and described with great minuteness.

Though, after the details which have been given, we should be far from being justified in exonerating them altogether, we must still, I think, guard against too severely judging those who were immediately concerned. The original constitution of the asylum was very defective; and great want of judgment, on the part of the first governors, was shewn in conferring the responsible charge of the institution upon a non-resident physician; as well as in forcing upon that officer, the highly objectionable mode of remuneration which has been described.

We should likewise not forget, and it is only proper in this place to point out, that the governors, as a body, incurred, in common with the officers, a heavy responsibility for the evils and abuses which were detected—a responsibility which the then Earl Fitzwilliam, with great candour, publicly admitted at the annual court of governors in 1814—from their having failed to exercise any of that proper oversight of the actual state of the establishment and condition of its inmates, which, as the governing and superintending body within the asylum, naturally devolved upon them. The reader may therefore at first think that, as a party to the evils which had prevailed, the governors were somewhat too severe upon the officers, who, from being the victims of a faulty and vicious system, were but too liable to become its advocates and supporters. This I believe was to some extent the position of the physician, Dr. Best, who, as we have seen, had made some, though very inadequate, efforts for reforming the institution, previous to any public inquiry. To the conduct of the first physician,—in whom all the power, as superintendent, committee, and visitor, as well as physician, had so improperly been vested, and who, at last, used this power for his own private advantage, with little reference to the pecuniary prosperity of the establishment, or to the advantages which on its foundation it was calculated it would bestow on the insane poor,—more severe censure must, I think, apply.

Still, as regards the position of the governors at the time of this inquiry, it must be remarked, that many of the

old governors," to the end of a protracted inquiry of twelve months duration, defended the asylum and its officers; and had it not been that a considerable number, upwards of forty, gentlemen of York and its neighbourhood qualified as governors during the investigation, it is not probable that any efficient reform would have been carried. Under these circumstances that strictly even-handed justice, (as regards the offices in the asylum to be declared vacant) which was advocated by the present Earl Fitzwilliam, at the annual court, by which these changes were effected, was perhaps hardly practicable; and, in the attainment of a great good, under circumstances of difficulty, some lesser evils may have been less closely scanned than they otherwise would and ought to have been. Not a little of what was effected, must be attributed to the impartial conduct of the present venerable Archbishop of York, who was an acting member of the Committee of Inquiry, and who filled the chair at the successive meetings* of the governors, and whose efforts had the object of uniting the governors in a cordial co-operation for an improvement in the system of the charity. The support which was also given at the annual court of 1814, to the measures of reform which were then carried, by the late Earl Fitzwilliam, as well as by the present Earl, then Lord Milton, was likewise highly creditable to those distinguished noblemen.†

The whole history is one which should possess extreme interest to all persons connected with the care and management of asylums and hospitals for the insane; and I feel that in introducing this sketch of it here, I am keeping before our view, an example which is pregnant both with instruction and warning, and that, in addition to my more immediate object, I am at the same time contributing my mite to the real interests of the insane.

* The quarterly courts of the governors during the inquiry were often the scene of very angry and noisy discussions. They had been rarely attended by more than four or five governors, but during the year 1813—14, the numbers attending the successive courts were 27, 35, and 66; and at the last or annual court of 1814, there were about 80 governors present.

† See *Gray. Op. Cit.* pp. 77—87, for a detailed account of the proceedings of this annual court.

As a part of the practical lesson to be learned from the transactions here narrated, it is to be observed, that it was the quiet proceedings of the neighbouring institution, and the simple publication of its history and experience, which were practically the means of reforming the asylum.

CHAPTER III.

REMARKS ON THE RESULTS OF TREATMENT IN THE PRINCIPAL HOSPITALS FOR THE INSANE IN GREAT BRITAIN AND IRELAND, AND IN SOME OF THOSE OF THE UNITED STATES OF AMERICA AND OF CONTI- NENTAL EUROPE.

AFTER the inquiry which, in a preceding chapter, we have made into the various circumstances in the character of the cases admitted, which are capable of influencing the results of treatment in asylums and hospitals for the insane, it will not be supposed that any precise comparison can be made between the proportion of recoveries and the mean annual mortality of different establishments; or that any certain inferences, favourable or unfavourable, are usually warrantable from the merely favourable or unfavourable character of such aggregate results. These results must be marked indeed in any case, to warrant such precise and decided inferences; but after admitting this to the full, we must still allow them, when applied with due caution, to have much value, if not as clearly indicating, as at least pointing to, a probably favourable or unfavourable condition, and thus suggesting inquiry, by means of which such favourable or unfavourable condition may be confirmed or otherwise. When indeed, (as in the case of English county asylums receiving paupers only, and as in that of the Irish district asylums,) institutions of the same description, having similar rules as to the admission and discharge of patients, who are persons of similar habits and of the same rank in society, are compared with each other, for considerable and nearly equal periods, there can be no doubt that a greater degree of confidence may be placed in the inferences to be drawn from the respective proportions of recoveries, and from the mean annual mortality, though particularly from the latter. We may, at least, conclude that the publication of the rate of recovery and mor-

tality in different asylums will be useful, not only in shewing the average general results, but also in drawing attention to those peculiar circumstances in the condition of different institutions, which may, in some instances, be capable of remedy, and may sufficiently account for such great variations in the results of treatment.

The annexed table (Table 12) exhibits the proportion of recoveries and the mean annual mortality in, exclusive of private establishments, fifty-nine public asylums, of our own and other countries, and is founded on the observation of upwards of 125,700 cases. Where not otherwise stated, it has been calculated from data taken from the printed annual reports of the various establishments. I have also derived considerable assistance from private information, obtained, in several instances, directly from the medical officers of various hospitals. In particular, I must here state, that but for such information kindly furnished me by the directing medical officers of the asylums of Lancaster, Nottingham, Stafford, Wakefield, and Aberdeen, I should have been unable to have given the mean annual mortality for these establishments, for a period longer than the last five years; data for which are alone furnished by the Metropolitan Commissioners, in the statistical tables which they have recently published. From these tables I have otherwise derived much assistance, which, if obtained at an earlier period, would have saved me much laborious inquiry. With these observations, I may at once proceed to make a few remarks on some of the results exhibited in the table before us.

The following is a summary of the results obtained in the principal establishments comprised in the table.

From the opening of the several asylums.	Proportion of Recoveries per cent. of the Admissions.	Mean Annual Mortality per cent. Resident.
Nine English County Asylums, receiving paupers	36.95	13.88
Six English County Asylums, receiving paupers and (about one-third) private patients	46.87	10.46
Eight English Asylums, supported wholly or in part by charitable contributions, for pauper and private patients	40.94	8.93
Seven Scotch Asylums, receiving paupers and (about one-third) private patients	42.37	7.52
Ten Irish District Asylums, for paupers	48.33	8.7
Five American (U. S.) Asylums, for paupers and others	46.82	9.56

Recoveries.—An examination of this table will, I think, justify the conclusion that, as regards the recoveries in asylums which have been established during any considerable period,—say twenty years,—a proportion of much less than 40 per cent. of the admissions is, under ordinary circumstances, to be regarded as a low proportion, and one much exceeding 45 per cent. as a high proportion. We must not however neglect those precautions which belong to the application of any such general rule as this,—precautions which in an especial manner apply to the inferences to be drawn from the proportion of recoveries. Thus,—to take the case of two asylums which stand together in the table, or those of Exeter, (No. 21) and Lincoln, (No. 22)—if because at the one the proportion of recoveries is less than 38 per cent., whilst at the other it amounts to 52 per cent., (there being at the same time a still greater disproportion in the rate of mortality), we were at once to conclude that the asylum of Exeter was, in a corresponding degree, superior, in its economy and internal condition, to that of Lincoln, we should I believe form a conclusion, if anything, the reverse of the true one. Whether, indeed, at the Lincoln asylum, with its many features of excellence, there be not one grand and radical defect in its external management and internal economy, which more than neutralizes these numerous advantages, and which in part explains the somewhat unsatisfactory character of the results which it has afforded, would require a more critical inquiry than I can here enter into, to attempt to determine. That this is at least a strong *a priori* conclusion, will be admitted when it is stated that its superintendence and detailed management are virtually in the hands of its varying weekly board of governors, who even pass resolutions forbidding the use of particular remedies, (as, *e.g.*, antimony and opium) by the medical officers;* that the resi-

* Amongst other resolutions, some of an excellent, and more of a doubtful character, passed by the board of this asylum early in 1843, there is the following most remarkable one: "5. That the practice of 'shaving the heads of lunatics,' 'blood-letting,' the 'cold bath,' 'baths above blood heat,' the process of subduing violence by the use of 'tartarized antimony,' or of 'narcotics,' the practice of enforcing sleep by opiates, and courses of drastic medicines, are hereby interdicted, except in special cases otherwise medically requiring the same."—"State of the Lincoln Lunatic Asylum." 1843. p. 5.

TABLE 12.—SHOWING THE AVERAGE PROPORTION OF RECOVERIES AND THE MEAN ANNUAL MORTALITY IN THE PRINCIPAL HOSPITALS FOR THE INFANT, IN GREAT BRITAIN AND IRELAND, AND IN SEVERAL OF THOSE OF THE UNITED STATES OF NORTH AMERICA, AND OF THE CONTINENT OF EUROPE.

[illegible]



dent medical officer appears to have few other duties than that of carrying out the often minutely particular directions of this board; and, to crown all, that its visiting medical officers consist of three physicians, who succeed each other in the discharge of their duties in monthly rotation. May it not be concluded that what is good in an establishment thus conducted is to a great extent in spite, rather than the result, of such a system? For my present purpose, however, it is enough for me to observe that the character of the results obtained in this asylum may be, and in all probability is, principally due to other causes than those connected with its economy and management, and to combinations of those into which we have successively inquired in our first chapter.

It would be superfluous in this place to advert to various other instances in the table before us, in which, on the one hand, we shall neither be justified in connecting a high proportion of recoveries with any peculiar excellence, nor the reverse with any striking defects, in the economy and internal condition of the institutions compared. On the other hand, however, I think that in a majority of cases we may succeed in tracing a general correspondence in the results of treatment (where the accuracy of these are above suspicion) with those views of the character of the establishment, which personal observation and inquiry lead us to form.

Mortality.—Turning from the proportion of recoveries to the mean annual mortality, we come to a much less fallacious standard of comparison, and one which approaches somewhat nearer to the character of a test. But though the inferences which may be drawn from a comparison of the mortality of different establishments are doubtless more conclusive than those founded on the recoveries, they are far from usually warranting (as in the first chapter has been sufficiently shewn) any certain conclusions as to the character of the establishments compared.

The mean annual mortality of the insane in English public asylums, exclusive of Bethlem and St. Luke's, so far as can be ascertained from their first establishment to the present time, has been 11.86 per cent.; viz., that of county asylums for paupers only, 13.88 per cent.; that of county asylums re-

ceiving 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 ten Irish district asylums, during the comparatively short time they have been established, 8.7 per cent. Extended inquiry 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 more 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 a very unfavourable one; and that one which is much less than 10 per cent. is highly favourable.

Considering the frequently distressed and too often depraved condition of the pauper population of the manufacturing districts of Yorkshire and Lancashire, we need not perhaps be surprised that the mortality of the asylums of Lancaster and of the West Riding of York has materially exceeded that which has been estimated as the maximum mortality; but, after allowing for the prevalence of cholera and influenza at Lancaster, we may still fairly question whether the mortality would ever have amounted, as at the end of twenty years it did, to 18.25 per cent. in the former, and to 16.57 per cent. in the latter asylum, if a more generous diet and other improved hygienic measures, particularly at Lancaster, had been adopted in the first instance.* It is satisfactory to observe that the mortality in both these establishments has undergone a not inconsiderable decrease during the last five years—in both, during that period, only slightly exceeding 13 per cent.—a decrease which, as regards Lancaster at least, I do not, after personal observation, hesitate to connect with the improved methods of treatment adopted during that period.

* See Table 5. *Supra*, p. 22.

The mortality at the Norfolk county asylum, and at St. Peter's Hospital, Bristol, which, during the five years ending 1844, has exceeded 19 per cent. (19.08 in the former, and 19.69 in the latter) calls loudly for inquiry, as to the causes to which so high a rate of mortality is attributable. The returns furnished to the Commissioners do not, in the case of either establishment, present us with the causes of death, which might explain so fearful a mortality. During the preceding five years, at the Norfolk asylum, the mortality was nearly equally high (18.2 per cent.), but it is very remarkable that at St. Peter's Hospital, it only amounted to 6.2 per cent. At the Norfolk asylum, situated at Thorpe, three miles distant from Norwich, there is no resident medical superintendent; and there are other serious defects in connexion with the want of a proper amount of land for the exercise and employment of the patients. As these defects, and equally serious ones in the locality and arrangements of the St. Peter's Hospital, Bristol, have been ably pointed out in the recent report of the Metropolitan Commissioners, we may trust that the causes of at least a great part of this mortality will be shortly removed.

In the Metropolitan licensed private asylums it appears from the facts collected by Col. Sykes, that during the six years 1834—39, the mortality was at the extremely unfavourable rate of 20.68 per cent. amongst paupers, and at the very high one of eleven (10.94) per cent. amongst private patients. From such results, our inferences can hardly be otherwise than unfavourable to many of these establishments. In the return for these asylums, for the five years 1839—43, recently given by the Metropolitan Commissioners, the separation of private and pauper patients is not complete, but it is sufficiently so for us to perceive that amongst private patients at least the mortality has undergone a material diminution: it is now only 6.8 per cent. Amongst paupers we must conclude that the mortality remains at the same fearfully high rate; it being 18.1 per cent. in the three houses which receive paupers and one-fourth of private patients; and in one of these houses, containing about four hundred patients, of whom one-fifth are private patients, the mortality amounted

to 20.66 per cent., and was doubtless still higher amongst the paupers.* It is to be remarked that whilst the mortality during the same period of the Provincial licensed asylums for private patients, of 6.57 per cent., corresponds very closely with that of asylums for the same class in the Metropolitan district, there is an extraordinary disproportion, as regards paupers, unfavourable to the Metropolitan houses; for whilst in asylums within this district, receiving paupers and about one-fourth of private patients, the mortality, as we have seen, was 18.1 per cent., in Provincial houses of the same class, primarily for paupers, and receiving private and pauper patients in the same proportion, the mortality did not exceed 10.56 per cent.,—being an excess of more than 71 per cent. on the side of the Metropolitan houses. Amongst the remediable causes of a high rate of mortality amongst the pauper insane, I believe the most important and perhaps most prevalent, are a too scanty and innutritious diet, and insufficient fresh air and exercise. The importance of the inquiry into the causes of a high rate of mortality in asylums and hospitals for the insane, will be still more apparent when it is remembered that the circumstances by which the mortality is increased are to a great extent identical with those by which recovery is retarded.

Looking at the other side of the picture, we find, in the table before us, amongst English county asylums receiving private as well as pauper patients, an apparently favourable result, in a mean annual mortality of 7 per cent., in the Cornwall asylum, and of 8.09 per cent. in that of Nottingham. Amongst the Irish district asylums, there are some instances of a rate of mortality extremely low, for asylums receiving paupers only; but these, as, *e.g.*, that of Waterford with a mortality of 4.64 per cent., and that of Carlow with one of 5.28 per cent., have been established during too short a period to warrant any inferences founded on the mortality alone. A comparison, however, of the mortality of these establishments with that of the corresponding one of Connaught, at the end of only 10 $\frac{1}{4}$ years, of nearly thirteen

* "Separate Appendix to Report of the Metropolitan Commissioners in Lunacy." 1844. p. 98.

(12.91) per cent., still justifies a *presumption*, in the absence of further information, strongly in favour of the two former establishments.

The mortality of the Dundee asylum, receiving two-thirds paupers, which, for 24 years, has amounted to 5.78 per cent., corresponds with the very high character of that establishment; but whether, as compared with that of some of the sister establishments of the same country, circumstances do not exist, in the constitution of the Dundee asylum, which may in part explain so very low a mortality, I am here unable to determine. The mortality of the excellent asylum of Perth, of 4 per cent., at the end of fifteen years, is extraordinarily low; and the same must be observed of that of Schleswig, Denmark, where, for a similar period, it has been 4.71 per cent.; but in both these cases it is probable that with the further lapse of time the mortality will attain a somewhat higher rate. In confirmation of this, I may observe that at the Retreat, York, at the end of twenty years, the mortality only amounted to 3.71 per cent.* During the last twenty years, the mortality of the Retreat, dating from its establishment, has not materially varied from its present rate of 4.7 per cent. This, it will be seen, is by far the lowest observed rate of mortality for any public or other asylum, established during a period at all corresponding in extent.

The statistical tables recently published by the Commissioners in Lunacy furnish us with the means of calculating the mean annual mortality of the various asylums embraced within their report, during the five years ending with 1844. This enables us, as is not unimportant, to observe the unity of time in our comparison of the mortality of different establishments; and likewise, when from other sources we have ascertained the mortality of the same asylums from their establishment, to compare the mortality of the five years 1839—43, with that of the period which had preceded it. The recoveries for the same period are also given by the Commissioners; but as the comparison of these is, for many

* See Table 5. *Supra*, p. 22.

TABLE 13.—SHEWING THE MEAN ANNUAL MORTALITY IN DIFFERENT ASYLUMS, DURING THE FIVE YEARS ENDING 1844, COMPARED WITH THAT FROM THE OPENING OF THE SAME ESTABLISHMENTS.

ASYLUM AND DATE OF OPENING.	Mean Annual Mortality per Cent. Resident.	
	From opening to 1844.	Five years ending 1844.
Bedford, 1812.....	.	10.5
Dorset, 1832.....	10.9	12.2
Kent, 1833.....	11.06	10.7
Lancaster, 1816.....	16.5	13.2
Middlesex, 1831.....	10.29	9.1
Norfolk, 1814.....	.	19.1
Suffolk, 1829.....	12.12	10.8
York, West-Riding, 1818.....	15.73	13.6
Chester, 1829.....	.	11.8
Cornwall, 1820.....	7.	7.7 4 yrs.
Gloucester, 1820.....	.	10.7
Leicester, 1837.....	11.2	11.3
Nottingham, 1812.....	8.09	9.2
Stafford, 1818.....	13.5	13.7
Bethlem, "Curables.".....	10.5 1827-39	9.97
St. Luke's, ,,.....	.	9.98
Exeter, 1801.....	.	6.
Lincoln, 1820.....	14.2	15.
Liverpool, 1792.....	.	16.7
Northampton, 1838.....	14.53	14.
Oxford (Warneford), 1826.....	.	11.92
York Asylum, (1777),—1814.....	7.24	6.8
" Retreat, 1796.....	4.74	5.7
Aberdeen, (1800),—1830.....	8.16	8.88
Dumfries, 1839.....	7.7	7.7
Dundee, 1820.....	5.78	5.3
Edinburgh, 1840.....	7.93	7.93
Glasgow, 1814.....	9.33	10.21
Montrose, (1782),—1834.....	8.68	7.39
Perth, 1827.....	4.02	3.91
Armagh, 1825.....	9.63	7.26
Belfast 1829.....	10.8	9.57
Carlow, 1832.....	5.21	5.61
Clonmel, 1835.....	8.24	7.28
Connaught, 1833.....	12.91	12.87
Limerick, 1827.....	6.88	6.08
Londonderry, 1829.....	11.54	11.06
Maryborough, 1833.....	6.59	6.81
Richmond, Dublin, (1815),—1830.....	7.82	6.28
Waterford, 1835.....	4.64	5.34
Cork, 1833.....	12.04	12.14
St. Patrick's, Dublin, (1757),—1839 ..	.	5.18
Frankford, U. S., 1817.....	10.64	9.43
Worcester, " 1833.....	6.76	7.11
New York, (Bloomingdale), 1821.....	10.32	11.29
Boston, (McLean), 1818.....	11.07	10.43

general reasons already explained, open to peculiar objection, and as this is particularly the case when applying to the recoveries during a particular period of five years, calculated on the admissions during the same period, and still more so when this has again to be compared with the total recoveries, calculated on the total number admitted from the establishment of the several asylums, I have in the preceding table confined myself to such a comparison of the mortality, as that to which I have referred.

In looking through this table it is satisfactory to observe, that in addition to the asylums of Lancaster and the West Riding of York, already referred to, the mortality of other important county asylums, as, *e.g.*, those of Middlesex and Suffolk, has undergone a decided diminution during the last five years, as compared with the preceding period of their operation. It will not, be understood as implying any offensive reflection on their previous management, if I express the belief that, during the period referred to, most important hygienic improvements have been made in the economy of at least the two larger of these asylums. Great improvements of this description are gradually being made in the economy of nearly all public, and of many private asylums; and the introduction of these will, we cannot doubt, other things equal, be attended with a corresponding diminution in the rate of mortality.

I here subjoin the mean annual mortality, for successive years, in the three largest county asylums of England for the fourteen years nearly, during which the Middlesex asylum has been in operation. In large asylums, like those of Middlesex, Lancaster and the West Riding of York, the mortality for single years even is not unworthy of consideration; much more value at least attaches to it, than can by possibility attach to the mortality for single years of smaller establishments.

MEAN ANNUAL MORTALITY PER CENT. RESIDENT.

	Middlesex, beginning with 1st year. Year ending Sept. 30th.	Lancaster, beginning with 15th year. Year ending June 23d.	West-Riding, York, beginning with 13th year. Year ending Dec. 31st.
1831	9.44*	17.75	19.29
1832	23.58†	20.5	18.53
1833	16.57	48.83‡	17.21||
1834	11.57	19.81	14.16
1835	11.01	14.9	19.8
1836	10.84	18.71	18.12
1837	7.88	26.76§	19.31
1838	11.99	16.7	10.69
1839	11.53	12.8	16.3
1840	8.26	16.25	10.81
1841	9.39	12.68	15.07
1842	9.65	12.75	13.21
1843	7.01	11.5	12.86
1844	6.4	10.11	13.01

* Or 3.57 per cent. for $4\frac{1}{2}$ months, from May 18th to September 30th.

† Of 99 Deaths, 11 were from Cholera.

‡ Of 147 Deaths, 94 were from Cholera.

§ Of 110 Deaths, 46 were "from Phthisis after Influenza."

|| I am informed, by *Dr. Corsellis*, that neither Cholera nor Influenza ever prevailed epidemically among the patients at Wakefield, and that there was only one fatal case of the former in 1833.

An examination of the tables in this chapter might suggest much more extended observations on the proportion of recoveries, and on the mean mortality, in different hospitals for the insane. My present object, however, has been simply that of illustrating by some examples, the extent to which I conceive any fair inferences may be drawn from facts of this description. The whole inquiry will, I think, justify our concluding that a discriminating knowledge of the character of the cases admitted, and a detailed plan of reporting the results of treatment in different establishments, such as have been advocated in the first chapter, are, under ordinary circumstances, absolutely necessary to warrant our forming any decided conclusions as to the character and condition of any establishment for the insane, from any mere examination of its results of treatment.

ESSAYS

ON THE LIABILITY TO INSANITY.

ESSAY I.

ON THE RELATIVE LIABILITY OF THE TWO SEXES TO INSANITY.*

THE opinion which has recently obtained, that insanity is more prevalent amongst women than amongst men, has, I believe, originated in an erroneous method of statistical analysis. Esquirol, who was the first to maintain this view, was at great pains in collecting information as to the proportion of *existing* cases of insanity in the two sexes in nearly every country of the civilized world; and, having found that, taking the average of different countries, the proportion was that of 37 males to 38 females, he concluded that his inquiry refuted the opinion, that women are a little less subject to insanity than men,† which has prevailed since the times of Aretæus and Cælius Aurelianus.‡ In this view Esquirol is followed by Drs. Prichard, Copland, Brown, and Millingen; and indeed, by every recent writer on insanity.§ It is, how-

* This essay, here published in an enlarged and revised form, was read before the Statistical Section of the British Association, at the meeting at York, Sept. 28th, 1844.

† *Prichard*, "On Insanity," 1835, p. 162. *Esquirol*, "Maladies Mentales," 1838, tome i., p. 37; ii., p. 676.

‡ *Aretæus*, (A.D. 90.) "De Causis et Notis Diuturnorum Affectuum." Lib. 1. Cap. v. et vi. *Cælius Aurelianus*, (A.D. 150?) "De Morbis Chronicis." Lib. 1. Cap. v. et vi. Amstel. 1709. 4to. pp. 326, 339.

§ The same opinion appears to have been entertained by *Dr. Burrows*, who preceded Esquirol in collecting various statistical returns bearing on this question. "Commentaries," &c. 1828. p. 239.

ever, well known that in all European countries the proportion of adult females in the general population exceeds that of males. In England and Wales, according to the census of 1821, there was an excess, at all ages above fifteen or twenty years, of about 4 per cent.; and, according to the more accurate census of 1841, an excess of 4 per cent. at all ages, and one of about 8 per cent. at all ages above fifteen or twenty years. Of this general law, Esquirol was aware; but he does not appear to have known that, from twenty to fifty years of age (when, in this country at least, insanity chiefly occurs for the first time) there is a still greater excess of females; an excess which is higher from twenty to thirty years of age than it is subsequently; it being 12 per cent. from twenty to thirty, 6 per cent. from thirty to forty, and 4 per cent. from forty to fifty, years of age. Thus, assuming only a like liability of the two sexes to insanity, we should expect to find a much greater number of cases amongst women, and one corresponding to this excess of the same sex in the general population, at those ages when insanity chiefly occurs.

The only two institutions, however, that I am acquainted with in this country, in which there has been any material excess of females admitted during extended periods, are the hospitals of Bethlem and St. Luke; and in these there has been, during different and extended periods, an excess of women admitted amounting to 20, 30, and even 45 per cent. This, however, may depend on local circumstances peculiar to the metropolis; and does not, consequently, in any degree establish Dr. Haslam's opinion, that "in our own climate, women are more frequently afflicted with insanity than men;" a statement which has been recently repeated by Dr. Webster in his remarks "on the Statistics of Bethlem Hospital."* That there may be something peculiar in the circumstances of the metropolis in connection with the prevalence of insanity in the two sexes, at least as regards the poorer and more dependent classes of the community, is a view which is confirmed by there having been a slight excess of females admitted both

* *Haslam*, "Observations on Madness," 2nd edition, 1809, p. 245. *Webster* in "Medico-Chirurgical Transactions," vol. xxvi. 1843, p. 380.

at Hanwell and in the licensed metropolitan asylums for paupers; though it is to be observed that, during the last five years, the excess at Hanwell, never very great, has been gradually diminishing, and up to 1843, only amounted to 2 per cent. According to the census of 1841, there appears to be a larger proportion of women living in the metropolis from twenty to fifty years of age, as compared with the kingdom generally; but whether the difference be large enough to account for the greater number of females admitted into the metropolitan asylums and hospitals is, perhaps, doubtful. The excess per cent., at these ages, of women over men, appears to be in the proportion of 18 in the metropolis to 8 in the country; that is to say, there were, in 1841, living in England and Wales 100 men to 108 women, and in the metropolis 100 men to 118 women, at from 20 to 50 years of age. At all ages there appears to be a greater proportion of females in the metropolis than in England and Wales; there having been an excess of 13 per cent. at all ages, and of 19 per cent. at all ages above 20. Whatever may be the causes of the difference in the relative proportions of the two sexes admitted into metropolitan asylums, it does not appear to extend to the middle and upper classes of society; for in the licensed metropolitan asylums for private patients, there has been an excess on the side of males admitted (1833—40), amounting to 38 per cent.

But there is another fallacy in Esquirol's method of investigating this subject, in the circumstance of his having compared with each other the *existing*, instead of the *occurring*, cases of insanity in the two sexes. Were the progress of insanity the same in men as in women, and our object simply that of determining the relative liability of the two sexes to insanity, the comparison of the cases existing at one time, would serve as well as that of the numbers occurring during any given period. This, however, is not the case; for, as I have already shown, the mortality of insane men, on an average, exceeds that of insane women in the public asylums of this kingdom by 50 per cent.* Thus we find that there is an excess in the mortality of males above females at the Retreat

* *Supra*, p. 30.

of 34 per cent., in the metropolitan licensed asylums of 63 per cent., at Bethlem of 71 per cent., at Hanwell of 80 per cent., and at the York Asylum of 93 per cent.;—the mortality of males, in this last case, being nearly double that of females. As the mortality of males in the general population is not more than 7 or 8 per cent. higher than that of females,* it will be evident that, supposing equal numbers of the two sexes attacked, there will be a disproportionate accumulation of *existing* cases of insanity in women; and that they will necessarily be much more numerous, as compared with the *occurring* cases, than will the existing cases in the latter sex. According to the “Report of the Metropolitan Commissioners in Lunacy,” there were, in asylums of all descriptions in England and Wales, on the 1st of January, 1844—

Insane Persons.	Males.	Females.
11,272	5,521	5,751; of whom there were
7,482 paupers.	3,532	3,950†

—being an excess on the side of females, of *existing* cases of insanity, of 4 per cent. in all classes, and of nearly 12 per cent. in paupers.

It may, perhaps, be objected to the results of any inquiry into the liability of the two sexes to insanity which is founded on the proportions of males and females admitted into public and private asylums, that women are, from various causes, more likely to be detained at home than men. As regards the middle and higher classes I believe this to be the case; but, as respects the pauper insane, I do not think that such a tendency can affect the results in any material degree. Women, indeed, are sooner rendered entirely dependent, as a consequence of mental disorder, than men; and I should conclude that any greater indulgence to, and tolerance of, the eccentricities of the sex, when the subjects of insanity, is more than compensated by the frequently greater difficulty

* The mean annual mortality of England during four years, 1838—41, was 2.31 per cent. for men, and 2.13 per cent. for women. “Fifth Report of Registrar-General. p. xi.

† Report. 1844. p 184.

of effecting the removal to an asylum of the insane brother, father, or husband.

In order that the comparison of the occurring cases be a strictly accurate one, the proportions of the two sexes, at the several ages, *attacked with insanity for the first time*, should be compared with the proportions in which the two sexes, at the same ages, *exist* in the community in which such cases occur. The nearest approximation to this method which we have the means of employing is to assume that the proportions of men and women *admitted* into public institutions during extensive periods represent the relative proportion of cases which *occur* for the first time.* The following table is calculated on this principle. (See following page, Table 14.)

On an examination of this table we ascertain that, in twenty-four of the thirty-two asylums which it comprises, there has been a decided excess of men in the numbers admitted. In many British asylums the excess amounts to 25, 30, and even 40 per cent.; and in the whole number of thirty-two asylums there is an average excess on the side of the male sex of 13.7 per cent. In the nine English county asylums, contained in the table, the excess amounts to 12 per cent. Dorset and Norfolk are the only county asylums in which the proportion of women admitted has materially exceeded that of men. Whether in these asylums an unusually large provision has been made for females, and consequently a larger proportion of applications for the admission of men have been rejected, or whether in these counties any peculiar causes are actually in operation which are capable of explaining such an exception to a general law, I am at present unable to determine.

Having thus shewn that, in the principal hospitals for the insane in these kingdoms, the proportion of men admitted

* The admissions and re-admissions of male and female patients into asylums represent the relative proportion of cases *occurring* for the first time in a manner too favourable to men. For, from the mortality of insane women being so much less than that of men, and from their probably greater liability to recurrent and periodic disorders, the cases of re-admission in women, are doubtless more numerous than in men. We may thus infer that the relative liability to insanity of females, as compared with males, is even less than that which the statements in the text would themselves warrant our concluding.

TABLE 14.—SHEWING THE NUMBERS AND PROPORTIONS OF EACH SEX, OUT OF 71,800 CASES, ADMITTED INTO VARIOUS ASYLUMS.

NAME OF ASYLUM AND PERIOD.	Numbers of each Sex Admitted.		Proportions per Cent. of each Sex.		Excess per cent. of one Sex over the other.	
	Male.	Female.	Male.	Female.	Male.	Fem.
1. Bloomingdale, New York, —20½ years, 1821-42...	1,692	906	65	35	86	.
2. Siegburg,—9 years, 1825-33	404	226	64	36	78	.
3. Dumfries,—4 years, 1839-43	147	92	61.5	38.5	59	.
4. Charenton,—11 years, 1815-25*...	1,245	804	61	39	54	.
" 8 years, 1826-33 ..	932	625	60	40	49	.
5. Schleswig,—15 years, 1820-35 ..	342	224	60	40	52	.
6. Licensed Metropolitan Asylums, for private patients,—1833-40...	1,419	1,028	58	42	38	.
7. Perth,—11 years, 1827-38	190	141	57.5	42.5	34	.
8. Cornwall,—22 years, 1820-42....	407	310	57	43	31	.
9. Nottingham,—31½ years, 1812-43.	937	726	56.3	43.7	29	.
10. Armagh,—16½ years, 1825-41....	649	505	56	44	28	.
11. Clonmel,—7 years, 1835-42	206	162	56	44	27	.
12. York Asylum,—25½ years, 1814-40	768	607	56	44	26	.
13. Lancaster,—26 years, 1816-42 ..	2,042	1,599	56	44	27	.
14. Maidstone,—5 years, 1833-38....	195	158	55	45	23	.
15. Glasgow,—28 years, 1814-42	1,456	1,191	55	45	22	.
16. Richmond, Dublin,—5 yrs., 1832-39	331	277	54.5	45.5	19	.
17. Lincoln,—21½ years, 1820-42....	467	391	54.5	45.5	19	.
18. Dundee,—22 years, 1820-42	496	427	53.7	46.3	16	.
19. Gloucester,—20 years, 1823-42 ..	661	588	53	47	12	.
20. Frankford, U.S., Society of Friends, —25 years, 1817-42...	405	379	52	48	7	.
21. Worcester, U.S.,—10 yrs., 1833-42	806	751	51.8	48.2	7	.
22. Hartford, U.S.,—19 years, 1824-43	640	607	51.3	48.7	5	.
23. Wakefield,—23½ years, 1818-42 ..	1,527	1,479	51	49	3	.
24. Belfast,—13 years, 1829-42	621	622	50	50	.	.16
25. Woodbridge,—13 years, 1829-42 ..	499	500	50	50	.	.2
26. Carlow,—10 years, 1832-42	247	250	49.7	50.3	.	1.2
27. Hanwell,—11½ years, 1831-42 ..	1,189	1,219	49.3	50.7	.	3
28. Cork,—13 years, 1827-39	954	1,009	49	51	.	5
29. Licensed Metropolitan Asylums for paupers,†—6 years, 1833-40...	1,479	1,520	48	52	.	7
30. York Retreat, Society of Friends, —44 years, 1796-40...	282	333	45.8	54.2	.	18
31. Dorset,—11½ years, 1832-43	184	224	45	55	.	21
32. Bethlem, "curables,"‡ —20 years, 1823-42...	1,782	2,622	40.5	59.5	.	47
Total and Average of the above (1796—1843)...	25,601	22,502	53.2	46.8	13.7	.
	48,103					
Nine English County Asylums; 8, 9, 13, 14, 19, 23, 25, 27, & 31	7,641	6,803	53	47	12	.
33. Bethlem, all cases, —46 years, 1748-94...	4,042	4,832	45.5	54.5	.	19
34. St. Luke's, "curables," —82 years, 1752—1834...	6,037	8,786	40.7	59.3	.	45.5

For other Metropolitan Asylums, see also 6, 27, 29, and 32.

* Esquirol, "des Maladies Mentales," tome ii., pp. 663, 668.
† Haslam, "Observations on Madness," second edition, 1809, p. 245.
‡ Webster, "Medico-Chirurgical Transactions," vol. xxvi, 1843, p. 381.

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.

It is always satisfactory when those reasonable conclusions, which we have previously formed from a general consideration of the nature and tendencies of the causes which may be in operation in any class of facts, are confirmed by accurate statistical inquiry. From a just consideration of the differences in the physical and moral constitution, as well as in the generally prevailing external circumstances of the two sexes in civilized communities at the present day, it was, I think, *à priori* highly probable (after allowing for those causes of insanity which are peculiar to the sex) that men should possess a somewhat greater liability to mental disorders than women; and this was a conclusion at which, independently of any statistical inquiry, the ancient physicians had themselves arrived. And it is thus important to observe, that it was by *a faulty application to this question of the methods of statistical analysis*, by the deservedly distinguished Esquirol, that a contrary conclusion was come to by that laborious, but, in statistical questions, not always accurate, inquirer; and also that it has been chiefly on his authority, and on that of authors who, on this subject, have copied from him, that we have been in danger of admitting the erroneous doctrine that women are more liable to insanity than men.

The conclusions at which we have thus arrived are fully confirmed by the following table, which, excluding the two large metropolitan hospitals, is founded on still more extended data than the preceding one; and comprises the cases, 67,876 in number, which have been admitted, with scarcely an exception, into every asylum of Great Britain and Ireland, from the times of their respective opening to January 1st, 1844. In this table, which necessarily comprises many of the results given more in detail in the preceding one, pauper and private patients have, wherever practicable, been distinguished from

TABLE 15.—SHEWING THE NUMBERS AND PROPORTIONS OF EACH SEX OUT OF 67,876 CASES ADMITTED INTO BRITISH ASYLUMS, FROM THEIR OPENING TO JANUARY 1ST, 1844, ACCORDING TO THE "STATISTICAL TABLES PREPARED BY THE METROPOLITAN COMMISSIONERS IN LUNACY."

DESCRIPTION AND NUMBER OF ASYLUMS.	Class of Patients	Numbers of each Sex Admitted.		Proportions per cent. of each Sex.		Excess per cent. of one Sex over the other.	
		Male.	Female.	Male.	Fem.	Male.	Fem.
Scotch Asylums..... (3)	Private	852	522	62	38	63	.
English Provincial Licensed Asylums (85)	Private	4869	3718	57	43	31	.
" Metropolitan " (32)	Private	2049	1570	57	43	30.5	.
" County Asylums .. (8)	Private	819	630	56.5	43.5	30	.
" Charitable " .. (5*)	Pauper	2106	1653	56	44	27.5	.
" " " .. (7*)	Private	2391	1894	56	44	26	.
" Provincial Licensed Asylums (44)	Pauper	3375	3086	52	48	9.3	.
Irish District Asylums (10†)	Pauper	6041	5562	52	48	8.5	.
English County " (19)	Pauper	9403	8835	51.5	48.5	6.5	.
Scotch Asylums..... (3)	Pauper	1472	1387	51.5	48.5	6	.
" " (3)	Private and Pauper	692	687	50.2	49.8	.5	.
English Metropolitan Licensed Asylums..... (4)	Pauper	1975	2288	46.5	53.5	.	16.
Total and Average of the above.	Private and Pauper	36,044	31,832	53	47	13	.
		67,876					

* Exclusive of Bethlem and St. Luke's.

† Including Cork Asylum, but exclusive of Richmond, Dublin.

each other; and it will be seen that the difference in the proportions admitted of male and female patients of these two classes is very remarkable.

It is indeed highly probable that different countries,* and perhaps even the same country at different periods, as well as different communities, and different ranks and classes, in the same country, may vary very much as regards the proportion in which men suffer from insanity more than women. Thus, a comparison of the proportion of males and females

* The above table shews that, during fifteen years at the asylum at Schleswig, Denmark, the proportion of men admitted exceeded that of women by 52 per cent.; and, during nine years, at Siegburg, near Bonn, on the Rhine, by 78 per cent. According to the official return of Dr. Holst, the existing number of the insane throughout Norway, in the year 1825, was in the proportion of 1 to 508½ of the male, and 1 to 597½ of the female population.

of the two classes of private and pauper patients admitted into different classes of asylums, as shewn in the preceding table, leads to the conclusion that, in this country, a larger proportional number of men become insane in the higher than in the lower ranks of society. This may, however, admit of explanation, if, as is not improbable, women in the humbler ranks of life, who are the subjects of insanity, become sooner pauperised than men under the same circumstances. It also appears tolerably well ascertained that a larger proportion of women, relatively to the other sex, become insane in France than in England; though, as we have seen, this is less certain as regards the metropolis when compared with the rest of this country. In this respect, we have seen that the statistics of our own metropolis appear to resemble those of France, rather than those of the rest of England.

In this point of view, also, the experience of the Society of Friends is not without considerable interest. At first sight it might appear that, in this community, women are actually more liable to insanity than men; for, without any greater facility existing for the admission of females, the number of women, members of that society, who have been admitted into the York Retreat has exceeded that of 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 proportions 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 amongst the females of that community. By returns, however, from all parts of England and Wales, it appears that in the Society of Friends 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,

* The numbers in the table refer to cases of all descriptions admitted at the Retreat; but the proportions are the same when members of the Society of Friends are separately considered.

† This larger number of women in the Society of Friends may, no doubt, be chiefly attributed to the larger proportion of men who emigrate, who leave the Society, and who are disunited from it; for, on an examination of the registers

before which insanity seldom occurs, we can, I think, scarcely estimate the excess of females over males in this community at less than from 30 to 35 per cent. And thus assuming, as there is every reason for doing, that, as respects the proportions 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. The progressive accumulation of females in an hospital for the insane is well illustrated by the experience of the Retreat; where, at the end of 45 years, the women exceeded the men by 30 per cent.; and where the average number of women resident during the whole period was 35 per cent. higher than that of men. At the asylum for the Society of Friends at Frankford, Pennsylvania,* (1817—42,) the proportion of men admitted exceeded that of women by 7 per cent. But, as is the case, more or less, with nearly all newly-settled countries, instead of there being, as in England, an excess of women in the general population of Pennsylvania, the proportion of males exceeds that of females by about 4 per cent., and, at from 20 to 40 years of age, by 6 per cent. There may be, however, and there probably is, less difference in this respect in the Society of Friends in the states alluded to, or the women may even preponderate in this community.

In nearly all points of view, it may in conclusion be observed, that women have an advantage over men in reference to insanity; for not only do they appear to be less liable than men to mental derangement, but, when

of the Society, from 1800 to 1837, I find that the births registered were in the proportion of 105.7 males to 100 females; viz. 8207 boys and 7759 girls. In the whole of England and Wales, in three years, 1838—1841, the births registered were in the proportion of 104.8 boys to 100 girls.—“Fourth Report of the Registrar-General.” 1842. pp. 9, 10.

* This asylum is more particularly appropriated to the Society of Friends in the states of Pennsylvania, New Jersey, and Delaware; but patients from other states are also admitted.

the subjects of it, the probability of their recovery is on the whole greater, and that of death very considerably less. On the other hand, the probability of a relapse or of a recurrence of the disorder, after recovery from a first attack, is somewhat greater in women than in men. In all these particulars, however, the more favourable results, as regards the female sex, appear to be much less marked at the York Retreat than in nearly every other institution with which I am acquainted. This is worthy of notice, as it is probably due to the greater general regularity of life in the men of this community as compared with that of men in the community at large; or, at least, than in those parts of it which furnish inmates to the asylums compared.

ESSAY II.

ON THE RELATIVE LIABILITY TO INSANITY, AT DIFFERENT AGES.

IT is a conclusion which was arrived at by Esquirol, that "*the longer men live after attaining maturity, the more obnoxious they continually become to the causes which give rise to derangement or lesions of the understanding.*"* Dr. Prichard and Dr. Copland† appear to concur in this conclusion. I shall here endeavour to shew that this view is founded upon the same erroneous method of statistical analysis as that which led this celebrated physician to infer that women are more subject to insanity than men. As the two passages from Esquirol given in the note will shew, the conclusion in question is founded upon the comparison of a large number of *existing* cases of insanity, at the several ages, with the numbers living at corresponding ages in the general population. ‡ A different view has been maintained by the distin-

* Prichard. "Treatise on Insanity," 1835. p. 168.

† Copland. "Dictionary of Practical Medicine." Vol. 2, p. 485.

‡ "Pour déterminer quelle est l'influence de l'âge sur la production de la folie, il faut comparer le nombre d'aliénés *existant* à chaque période de la vie, avec le nombre d'individus existant à ces mêmes périodes." "Pour cela, nous avons constaté l'âge de 12,869 aliénés, observés à Bicêtre, à la Salpêtrière et à Charenton. Nous avons classé ces 12,869 individus d'après leur âge, et nous les avons rapportés à une échelle d'où il est résulté des quantités géométriques qui permettent de saisir d'un coup-d'œil le nombre et la différence des aliénés dans chaque âge, de comparer ce nombre et ces différences, et de les soumettre même à des proportions mathématiques (Voy. la planche xxvi). Cette même opération a été faite sur dix millions d'individus classés d'après leur âge, afin de constater la population propre à chaque âge de la vie....

Ainsi, quoique numériquement et d'une manière absolue, il soit vrai de dire qu'il y a plus d'aliénés de l'âge de 30 à 40 ans qu'avant et après cette époque de la vie, on se tromperait si l'on en tirait la conclusion qu'à cet

guished statistician, Quetelet, who, after analysing the facts collected by Esquirol, infers that "the age between forty and fifty, or rather the fortieth year, is the period of life most subject to insanity."* Dr. Burrows again, from statistical data, concludes that "insanity exceeds in both sexes in the most active period of life, between thirty and thirty-nine."†

A comparison of the existing cases at different ages at the York Retreat, and at the York Asylum, with the numbers living at corresponding ages in the general population of this country, shews a very similar result to that which was obtained by Esquirol; but, as this appears to me to prove nothing as to the liability to insanity at different ages, I shall refrain from introducing any such numerical comparison in this place. We may, notwithstanding, briefly advert to the numbers of existing cases at successive ages.

The mean numbers resident, or the existing cases at the different ages, at the York Retreat, from 1796 to 1840, calculated on the average of forty-four years, exhibit a gradual increase for every decennial period of life up to 40—50, when they attain their maximum. For the following ten years of life, 50—60, the numbers are nearly as high in the case of the Retreat as for the preceding decade, and are only slightly higher in the York Asylum:—they afterwards decrease, but still more gradually than they had increased, for each subsequent decade of life. As shewn in the following table, the mean numbers of existing cases at different ages at the York Asylum, during the twenty-five years, 1814—1840, were in other respects very similar to those at the Retreat.‡

âge l'homme est plus exposé à perdre la raison, puisque relativement à la population générale, il y a moins de fous âgés de 30 à 40 ans que dans les âges suivans."—*Esquirol*, "Des Maladies Mentales," 1838, Tome 1, p. 30, note; Tome 2, pp. 674—676, et la Planche xxvi.

* *Quetelet*. "Sur l'Homme, et le Développement de ses Facultés." 1836. Tome 2. p. 136; and English Edition, Chambers, 1842, p. 77, Appendix. p. 117.

† *Burrows*. "Commentaries." 1828. p. 245.

‡ The average age of patients at all times resident has been very similar in the two institutions; and was forty-nine (48.9) years at the Retreat, and forty-seven and a half (47.6) years at the Asylum. This corresponds with the greater number resident being from 40 to 60 years of age.

Supposing, in the three following cases, 100 patients constantly resident, the numbers at successive decennial periods of life would have been as follow :

	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-97	Years of Age
Retreat, York..	.	1.44	11.31	19.48	21.11	20.75	15.48	7.91	2.31	.21	=100
Asylum, York..	.	1.34	11.5	20.4	21.53	22.49	16.66	5.71	.37	.	=100
Pauper Lunatics & Idiots chargeable to Unions of England and Wales, August 1843* .....	.39	6.09	19.46	21.61	21.55	16.01	10.59	4.3	.	.	=100

We may however safely infer that no just conclusions, on the liability to insanity at different periods of life, are to be formed from any comparison of the *existing* cases with the population at corresponding ages. The very different curability and mortality of persons attacked with insanity at different ages,† would of itself render such a comparison altogether fallacious. But the numbers of existing cases at the more advanced periods of life, are not only larger in consequence of there being a larger proportion of incurable cases amongst those which have occurred for the first time at the higher ages, but are also swelled by those incurable and uncured cases which have lived on from the lower ages themselves.

We may thus conclude that in order to determine the purely statistical question of the liability to insanity at different periods of life, it is necessary to compare the *occurring* cases of insanity, or the proportions that become insane at the several ages, with the numbers living at corresponding ages in the particular country or community, the statistics of which we are examining. I should omit from the calculation,

* From this comparative view we learn, what perhaps need not surprise us, that according to the "Report of the Commissioners in Lunacy," (1844, p. 275) there was amongst the pauper lunatics and idiots chargeable to the different unions of England and Wales, in August 1843, a much larger proportion of the ages below 30, than has been the case in the two public establishments at York.

† See *supra*, p. 32.

the ages of patients at the period of second and of subsequent attacks of insanity, for several reasons which lead me to believe that to include the ages of patients at the time of such recurrent attacks in the calculation, can only lead to erroneous inferences. For when one attack of insanity has been recovered from, a recurrence of the disorder is often excited by causes apparently so slight, that we are compelled to admit that any influence which age may exert, is perfectly insignificant, when compared with that of the constitutional tendency which so often remains after recovery from a first attack.

There have been many tables published, which exhibit the *age on admission* as observed in various public institutions. The more important of these tables are by Haslam, Pinel, and Esquirol, and others given in various reports of asylums in England and the United States.

The following table shews the ages at the time of *first* admission into the York Retreat.

Of 100 cases, at <i>first</i> admission, there were at								
10—20	20—30	30—40	40—50	50—60	60—70	70—80	80—90	Years of Age.
.97	32.77	20.72	18.56	13.25	10.36	2.89	.48	=100

It is from extensive data of this kind, or rather from such tables as shew the numbers of the several ages at the time of admission and re-admission, that it has been ascertained that there are usually a larger number of admissions into asylums from 30 to 40 years of age, than at any other decennial period of life. At the York Retreat, however, by much the greater number has been admitted between the ages of 20 and 30 years; and this has likewise been the case, in common with other American Asylums, at the asylum for the Society of Friends, near Frankford, Pennsylvania.

It has been attempted to determine the liability to insanity at different ages, from tables of this description; but as an uncertain and often considerable period elapses after the attack before the patient is placed under care at all, and as, in many cases, a still longer and more uncertain period

elapses before he is sent to the particular institution which furnishes the table under consideration, it is obvious that no reliance can be placed upon such a method of calculating the liability, and that the results which it affords must be far too favourable to the earlier ages.

Though the age at admission into hospitals for the insane can never supply the want of information as to the age at the first origin of the disorder, it is still not improbable that, on an average, a somewhat similar period elapses after the attack before admission into different asylums; and, consequently, that a comparison of the proportions of the different ages on admission, may afford some inferences which, in the absence of precise information as to the ages at the time of attack, may not be without their value. In the succeeding table I have therefore collected and compared the proportions admitted, at different ages, into various public asylums and hospitals for the insane, in this and other countries.

It is much to be regretted, that so few accurate observations of the *age at the origin of the disorder*, in cases admitted into the public asylums of different countries, have yet been published.* Excepting indeed a table by Dr. Jessen, for 566 cases admitted during fifteen years into the Hospital for the Insane, at Schleswig,† and one by Dr. Woodward for the cases at the State Lunatic Hospital, Worcester, Massachusetts,‡ I am acquainted with no table of this description, previous to that given by myself,§ which applies to any extended period or to any considerable number of persons.

* Drs. Conolly and Mackinnon, in common with the physicians of several American Asylums, have set the example of reporting the ages at the origin of the disorder in the cases admitted into the asylums at Hanwell and Edinburgh. See Reports, Middlesex, 1840-44, and Edinburgh, 1840-42.

† "Zeitschrift für die Beurtheilung," &c. von M. Jacobi und F. Nasse. 1838, p. 692.

‡ "Fifth Annual Report of the Lunatic Hospital at Worcester," 1838, p. 37; and Reports *passim*. In both of these tables however the ages of one and the same patients appear to be counted again and again upon each re-admission. This, of course, has to be borne in mind in any comparison of the results as regards age, when these apply to *persons* in one instance and to *cases* in another. If instead of the age at the first attack being counted again and again, that at the subsequent attacks is taken, the method is open to the objection stated above.

§ "Statistics of the Retreat," p. 70, and Table 7.

TABLE 16.—SHEWING, OF EVERY 100 CASES, THE PROPORTION ADMITTED (AND RE-ADMITTED) AT DIFFERENT AGES, OUT OF 21,333 CASES TREATED IN TWENTY ASYLUMS.

NAME OF ASYLUM, PERIOD, AND NUMBER OF CASES.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90
1. Dorset, 1832-42, 334 cases ..	.	4.2	16.8	25.1	26.3	12.3	9.6	4.8	.9
2. Suffolk, (Woodbridge) 1829-44, 1193 cases..	.	4.1	19.3	25.4	21.3	15.	10.1	4.8	.
3. York, W.R.(Wakefield) 1818-44, 3485 cases..	.15	5.2	23.1	20.9	26.2	16.5	6.2	1.45	.2
4. Bethlem, "curable" ? 1784-94, 1664 cases*..	.	6.8	29.3	31.7	21.7	8.6	1.9	.	.
Bethlem, "curable" 1843-44, 570 cases ..	.	5.6	25.8	26.7	22.3	13.9	5.4	.3	.
5. Lincoln, 1820-38, 686 cases†	.	5.1	20.1	26.5	22.	15.9	7.6	2.8	.
6. York Asylum, 1814-40, 1272 cases..	.	4.2	21.9	28.7	23.7	13.5	6.5	1.5	.
7 York Retreat, 1796—1840, 550 cases	.	4.5	25.1	20.6	20.	14.5	12.	2.6	.7
8. Aberdeen, 1839-44, 352 cases ..	.	6.3	24.	26.5	22.2	14.5	4.5	2.	.
9. Dumfries, 1840-44, 278 cases ..	.4	3.2	25.2	26.6	27.3	9.	7.6	.7	.
10. Dundee, 1837-44, 371 cases ..	.3	6.7	19.9	25.9	27.8	10.5	8.6	.3	.
11. Glasgow, 1839-42, 636 cases ..	.	5.8	24.1	29.2	25.	10.1	4.2	1.6	.
12. Belfast, 1839-44, 572 cases ..	.	9.6	29.9	23.2	22.4	10.1	4.2	.4	.2
13. Richmond, Dublin, 1833-38, 608 cases‡ ..	.	6.1	28.	31.6	19.2	9.3	4.3	1.5	.
Average of thirteen Brit- ish Asylums, 12,575 cases	.06	5.5	23.9	25.7	23.6	13.3	6.2	1.7	.1
14. Worcester, U.S. 1833-43, 1777 cases..	.	6.5	26.3	26.5	20.4	11.5	6.4	2.	.4
15. Frankford, U.S. 1817-41, 784 cases ..	.	5.	30.6	22.7	18.9	13.	6.8	2.3	.7
16. Pennsylv. Hospl., U.S. 1841-43, 439 cases ..	.	4.3	35.1	22.8	18.	9.8	6.8	3.2	.
17. Ohio, U.S. 1839-43, 473 cases ..	.	4.	39.5	27.5	18.4	9.1	1.3	.2	.
Average of four American Asylums, 3,473 cases ..	.	5.5	30.2	25.3	19.8	11.	5.8	2.	.4
18. Charenton, 1815-25, 1962 cases§..	.	3.6	3.3	27.	23.1	14.6	6.2	2.1	.1
Charenton, 1825-33, 1557 cases§..	.	8.	24.5	26.7	22.	12.	5.9	.8	.1
19. Bicêtre (Males), 1784-94, 1201 cases||..	.	5.4	28.2	31.6	19.7	10.9	4.2	.	.
Average of two French Asylums, 4,719 cases ..	.	5.5	24.9	28.1	21.9	12.8	5.6	1.1	.1
20. Schleswig, 1820-35, 566 cases ..	.	3.9	28.	33.5	21.7	9.7	3.2	.	.
Total of twenty Asylums, 21,333 cases.....	8	1161	5389	5621	4811	2715	1264	331	33
Average .....	.04	5.4	25.3	26.3	22.6	12.7	5.9	1.6	.15

* Haslam. Op. Cit. p. 249.

† Hill. Op. Cit. Table 55.

‡ Mollan. "Dublin Medical Journal." Vol. 13, p. 374.

§ Esquirol. Op. Cit. Tome 2, pp. 663, 672. || Pinel. Op. Cit. p. 109; and Davis, p. 112.

The following table exhibits the *occurring cases*, or the proportion per cent. attacked, at successive decennial periods of life, according to the experience of such English and foreign asylums, nine in number, as afford us the opportunity of making the comparison.

TABLE 17.—SHEWING, OF EVERY 100 CASES, THE PROPORTIONS ATTACKED WITH INSANITY AT DIFFERENT AGES; OUT OF 5,122 CASES TREATED IN NINE ASYLUMS.

NAME OF ASYLUM, PERIOD AND NUMBER OF CASES.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90
1. Middlesex, 1840-44, 810 cases*..	5.06	10.	23.83	29.63	17.9	8.4	4.44	.74	.
2. Dorset, 1832-42, 334 persons.	4.49	6.89	25.45	23.05	20.66	10.48	7.49	1.2	.29
3. Edinburgh, 1840-42, 207 cases ..	1.93	6.28	37.68	27.05	17.39	7.73	1.45	.48	.
Average of three British Asylums, 1,351 cases ..	4.44	8.66	26.35	27.61	18.5	8.81	4.74	.81	.08
4. Retreat, York, 1796-1840, 415 persons (Society of Friends only.)	.96	12.77	32.53	20.	15.9	10.6	6.03	.97	.24
5. Worcester, U. S. 1833-43, 1721 cases ..	12.14		28.59	26.09	16.97	10.	4.47	1.74	.
6. Frankford, U. S. 1840-44, 157 cases .. (Society of Friends.)	24.84		28.03	21.66	14.65	7.64	1.91	1.27	.
7. Pennsylvania Hospital, 1841-43, 439 cases ..	.	11.85	44.87	18.9	27.31	5.24	1.37	.46	.
8. Ohio, U. S. 1839-43, 473 cases ..	10.36		43.97	24.52	14.17	5.5	1.48	.	.
Average of four American Asylums, 2,790 cases ..	12.51		33.73	24.44	16.42	8.35	3.33	1.22	.
9. Schleswig, Denmark, 1820-35, 566 cases ..	13.43		36.93	24.91	18.02	4.52	2.12	.	.
Total of nine Asylums 5,122 cases ..	64 | 222 373		1641	1279	876	422	194	49	2
Average	1.25 | 4.33 7.28		32.04	24.97	17.1	8.24	3.79	.96	.03

* Ages at first attack: ages of 85 others unknown.

Although as regards England and Wales, the data before us are too limited to warrant our forming any positive inferences from them, as to the *absolute liability*, yet they may perhaps be sufficient to enable us to form an approximative conclusion as to the *relative liability* to insanity at different periods of life. Future enquirers, possessing more extensive returns of the ages at the first occurrence of mental disorder,

will, there can be little doubt, arrive at more exact conclusions, and may be able to determine the absolute liability.

With this caution, I may proceed to shew the relative liability to insanity at successive ages, as deduced from the experience of the Middlesex County Asylum;—the numbers attacked at different ages, as observed at that asylum during five years, 1840-44, being compared with the numbers living at the corresponding ages in England and Wales, according to the Census of 1841.*

From these data it is easily ascertained, that the cases of insanity observed at the Middlesex Asylum have been in the following relative proportions to equal numbers living at the several ages.

RELATIVE LIABILITY TO INSANITY AT THE DIFFERENT DECENNIAL PERIODS OF LIFE, ACCORDING TO THE EXPERIENCE OF THE MIDDLESEX COUNTY ASYLUM. 5 YEARS, 1840—1844.

Supposing the existing population at the several ages those ascertained by the census of 1841.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90 Years of Age.	
	†	20.9	58.2	100.	81.2	56.7	43.9	14.9	.	=100

The table is read thus:—Supposing of equal but unknown numbers living at successive periods of life there are one hundred persons attacked with insanity from 30 to 40 years of age, there will be, according to the experience of the Middlesex County Asylum, 20.9 attacked from 10 to 20 years, and 58.2 from 20 to 30 years; &c. &c.

* Of 100 persons living at all ages in the general population of England and Wales, there were

According to	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90 Years of Age and upwards.	
Census of 1821 ..	27.72	21.19	15.83	11.76	9.31	6.63	4.6	2.26	.62	.06	=100
Census of 1841 .	25.21	20.86	17.8	12.89	9.59	6.45	4.4	2.16	.59	.05	=100

† Cases of insanity occurring before ten years of age belong, with exceptions of the rarest kind, to the class of congenital idiocy and imbecility. But in order to ascertain the liability to these forms of mental disorder, the number of congenital idiots should be compared with the number of births, and not with the existing population at the early years of life. I have, for these reasons, omitted from the tables, any comparison of the occurring cases at this period.

From this calculation, confirmed as it readily might be by other facts in the preceding table, (Table 17) there can be little or no doubt that the period of life most liable to insanity, is that of maturity, or from 20 to 50 or 60 years of age. From 30 to 40 years, the liability is usually the greatest; and it decreases with each succeeding decennial period; the decrease being gradual from 30 to 60 years, and after that much more rapid.

According to this table, the relative liability from 20 to 30 years, is very much less than that from 30 to 40; but this is probably in part connected with the condition in life of the patients admitted at the Middlesex County Asylum. We can scarcely doubt that the relative proportion occurring at this age, through England and Wales, amongst persons not paupers, is much greater than that here shewn. It must also be observed that had the ages at second and at recurrent attacks been excluded, and had those at the first occurrence of the disorder only been given, the apparent liability of the ages after thirty would no doubt have appeared more favourable, and that of the ages below thirty less so. There is however, no reason for believing that the relative proportion of occurring cases from 20 to 30 years, would, as is the case at the Retreat, be found higher than at the following, or than at any other, decennial period of life.

So far then from the liability to insanity being greater in old age than during the earlier stages of life, we find, according to these data, that it is nearly twice as great from 30 to 40, as from 50 to 60, years of age, and that it is much more than twice as great at this period as at any age subsequent to 60. When we remember the tendency on the part of families, to overstate rather than understate the age of the patient at the first occurrence of the disorder, we shall perceive that the inference as to the greater liability to insanity, during the earlier ages after manhood, rests on a still stronger foundation.

The general conclusion thus arrived at, (the correctness of which, there can scarcely be a doubt, will be confirmed by more extended observation) though opposite to that maintained by Esquirol, and after him by various authors, is never-

theless more easily reconciled with various important considerations. In the earlier and middle periods of life, 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 most exposed 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.* 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. The reverse however proves to be the fact; and we must admit that the conclusion is one which is more consistent with right views as to the beneficent character of the divine government, even as regards the laws which regulate such aberrations.

The preceding table shews that, according to the experience of several American asylums, as compared with those of Great Britain, larger relative numbers are attacked with insanity in the United States, from 20 to 30, than from 30 to 40, years of age. This is a result which is supported by the observation of physicians, connected with different hospitals for the insane in that country. The physicians, in 1841, of the Friends Asylum at Frankford, Pennsylvania, make the following remarks upon this subject. "European authors upon insanity," say they, "assert that a greater number are attacked with the

* I shall not, by these observations, be thought to deny the influence, in numerous cases, of physical decay in the production of insanity. The remarks in the text apply solely to the relative frequency of the two classes of causes; viz. of those connected with, and more or less peculiar to, the period of mature life on the one hand, and that of old age on the other.

disease between the ages of thirty and forty years, than during any other decade of life. We believe this proposition to be untrue, in regard to the United States, and that the maximum number, in this country, is between the ages of twenty and thirty years."*

The Medical Superintendent of the Ohio Asylum observes that, according to the experience of that establishment, "it appears that the largest number of persons become insane, between the ages of twenty and thirty years. This differs from European experience, but agrees with observations made in different lunatic hospitals in the United States. In France and England, according to the best authorities, the greatest number become deranged," (are admitted into asylums?) "between the ages of thirty and forty. This difference may, in a great measure, depend upon the nature of our institutions, and the premature age, at which the intellect is brought into action in this country."† Still we must observe that the inference of there being a greater liability to insanity in early life, in the United States of America, than in Great Britain and other European countries, must await a comparison of the cases occurring at the different ages, with the existing population at corresponding ages in that country. When thus established, we may enquire whether, as hinted by Dr. Awl, such earlier liability may not be connected with the character of American institutions and manners, and, in particular, with that "go-a-head" tendency, (to use an American phrase,) which, for good and for evil, though it may be feared more for evil than for good, is so apparent in the national mind of the United States.

As regards the age at the origin of the disorder in the Society of Friends, it appears that by far the largest proportion of the cases admitted at the York Retreat, amounting to one-third of the whole, have been attacked from 20 to 30 years of age, and that there has been a gradual decrease in the

* *Drs. Charles Evans and Pliny Earle. "Twenty-fourth Annual Report," &c. 1841. p. 12.*

† *Dr. W. M. Awl. "Fourth Report of the Ohio Lunatic Asylum." 1842. p. 50.*

proportions for each subsequent decennial period of life. In this respect, the experience of the Retreat agrees with that of the American Asylums, and differs, so far as we can yet judge, from that of English asylums in general, in which the following decennium is probably that in which the largest number is attacked with insanity, as it certainly is that in which the largest number is admitted, into asylums. But in order to determine, from the results obtained at the Retreat, the actual liability to insanity at the several ages, in the Society of Friends, the occurring cases, or proportions attacked at the several ages for the first time, as shewn in the preceding table, should be compared with the mean numbers living at the corresponding ages in the Society of Friends. Though no enumeration of the society, distinguishing the ages of the living, has ever been made, the numbers living at the different ages are doubtless different from those which exist in the kingdom at large; and there is no doubt a less proportion of persons under, and a considerably greater proportion of persons above, 30 years of age living in this community, than is the case in the general population of England and Wales.

Assuming, however, in this kingdom, a similar proportion of the Society of Friends to be living at the two decades of life of 20—30, and 30—40, years, as were living in the general population of the country in 1841,* (an assumption I believe not very far from the truth), we shall find that a very considerably greater relative liability to insanity is exhibited for this community, at the earlier of these two periods. We have seen that, according to the experience of the Middlesex County Asylum, the relative liability to insanity at these two periods of life may be represented by the number of 100. for 30—40, and by that of 58.2 for 20—30, years. But from similar

* From a calculated (not observed) estimate, which I have made of the numbers living in the Society of Friends, at successive decennial periods of life, I am inclined to believe that of the decade 20—30, there is only a comparatively small deficiency, and of the decade 30—40, only a slight excess, as compared with the numbers in the general population. For practical purposes, we may assume the proportions at these two decennial periods as identical in the two communities.

data for a much longer experience at the York Retreat, we find that if the liability, in the Society of Friends, be represented by 100 for 30—40 years, that for 20—30 years will be represented by 117.8, or by a number double that exhibited, for the same period of life, by the experience of the Middlesex County Asylum. I cannot suppose that there is really so great a disproportion in the liability to insanity, in the Society of Friends, at these two periods of life, as compared with that, at the same periods, in the kingdom at large; but when we further compare the ages on admission into the Retreat, with those on admission into nineteen other asylums, as shewn in a preceding table, we shall feel warranted in forming somewhat more than a presumption that, in the Society of Friends, insanity more frequently occurs in early life than is the case in the community at large. But should even a census of the Society at different ages, ever enable us to verify this conclusion more precisely, we must not forget that this greater liability to mental disorders in early life, may still be a circumstance common to the Society of Friends, and to the middle, and perhaps upper, ranks of society in general; or to those who, as regards mental cultivation and social position, have been more or less similarly circumstanced in early life.

ESSAY III.

ON THE LIABILITY TO INSANITY IN THE SOCIETY OF FRIENDS.

AN examination of the statistics of the York Retreat, almost at once suggests the question as to the liability to insanity in the Society of Friends. This is a question which, referring as it does to a select class of persons, distinguished almost in the same degree by their characteristics as a religious community, and by their manners and social condition, must be admitted to possess considerable general interest. The question of the *liability* to insanity in different countries and communities is as important in connexion with ethnological and medical enquiries, as is that of the *prevalence* of the disorder in regard to questions of political and social economy. These two questions have been too much mixed and confounded with each other, and little true progress has hitherto been made in the former of these enquiries. Great difficulty necessarily attaches to an investigation so extensive as that which refers to the *prevalence* of insanity throughout a country like England, when conducted by private individuals, however able and zealous; and the successive

* Quakerism, as an institution, unites the ideas of a church and of a state to so great an extent, that it has been disputed which of the two has been most fully realized. There can however, I think, be no doubt that the Society of Friends is more of a church than of a civil community, though since the days of the Jewish theocracy the world has perhaps seen no community, not positively separated from general society by vows of celibacy and other abstinence, the religious polity of which has so much influenced its civil condition. There are probably several European nations which are less distinguished from each other, than this society is from the rest of the English people. Coleridge has thus not inappropriately described Quakerism as an "*imperium in imperio*," and in another place, with perhaps too unqualified eulogium, as "*mundus mundulus in mundo immundo*."—*Table Talk*.

labours, between the years 1800 and 1829, of Dr. Powell, Dr. Burrows, and Sir Andrew Halliday,* however useful in directing attention to the subject, scarcely appear to have done more than prove how little private enquiries can be relied upon, when they extend over so large a field. It is, indeed, obvious that no confidence can be felt in any returns as to the prevalence of insanity in the entire kingdom, unless these be the result of a searching enquiry conducted under the authority of government.†

The prevalence of, and liability to, insanity in particular districts and communities may be investigated by private individuals, with a better prospect of the truth being arrived at. The results of such enquiries are the more valuable, as when obtained for a number of separate districts or communities, they may be compared with each other with some hope of detecting the physical and moral conditions prevailing in such districts, or distinguishing such communities, and which may be the direct or indirect causes of the greater or less prevalence of mental disorders in such cases.

But not only is the enquiry into the existing cases of insanity in any country usually attended with great difficulties in itself; but when completed in a satisfactory manner, though it may afford data valuable to the political economist, it altogether fails in enabling us to determine the actual liability to insanity in such country. To assume, as is generally done,

* In 1810, the existing number of the insane in this kingdom was estimated by Dr. Powell at one in 7,300; in 1820, by Dr. Burrows, at one in 2,000; and in 1829, by Sir Andrew Halliday, at 16,500, or one in 769.

† The recent returns made under the New Poor Law Amendment Act, 5 & 6 Vict. c. 57, which shew the number of pauper lunatics throughout the kingdom, taken together with the report of the Metropolitan Commissioners in Lunacy, which gives us the numbers of the insane of all classes under care in asylums of every description in England and Wales, constitute the most complete data we have yet possessed for ascertaining the existing number of the insane in this kingdom. We have, however, no returns of the number of certified patients who are separately under private care; nor yet any of the still greater number of the uncertified insane, who remain at home; of whom, amongst the more opulent classes, the numbers must be very considerable. The only tolerably well ascertained fact in relation to this subject, that we are yet in possession of, is that in every 1,000 persons of the population of England and Wales there is one insane *pauper*.—See "Report of Metropolitan Commissioners in Lunacy," 1844, p. 191.

that this liability is represented by the proportion which the existing cases of insanity bear to the existing population of the country in question, is to fall into the same erroneous method of statistical analysis with that which, in the two preceding essays, has been examined and called in question.

The numbers of *existing* cases of insanity in different communities are in truth no test of the relative liability of such communities to the disorder. They would only constitute such a test, provided the duration of the disorder before terminating in recovery or in death, were the same in the several communities compared. This, however, is notoriously not the case; and, as we have seen, the mortality of the insane at the present time varies from 4 to 20 per cent. in the different asylums of this country; and the period during which those who recover are counted insane,—the duration of treatment or residence—differs, as in the instance of the York Asylum and the York Retreat, in the ratio of at least one to two.* It is thus evident that in two communities having really a like liability to insanity, the existing cases may be twice as numerous in the one as in the other, simply because the period of residence in the curable, and the duration of life in the incurable, are each twice as great in the one as in the other. Thus we conclude that it is the proportion of *occurring* cases to the existing population which really constitutes the test as to the liability of any community to insanity. "There may be ten times as many lunatics in civilized, as in barbarous, countries and times; not because the tendency to insanity is greater, but because the lunatics live ten times as many months, or years. The tendency to insanity in a class is expressed by the proportion that become insane."† In a more advanced condition of statistical enquiry, we may indeed, be justified in still farther restricting the elements of the calculation, and in saying that the only accurate test of the liability to insanity in any community, is the proportion of equal numbers living, of the same sex and at different ages, who become for the first time insane.

* "Statistics of the Retreat." p. 89, Table 18; and Appendix 1. Table B.

† Farr. "Statistical Journal," 1841. Vol. 4, p. 20.

After recovery from a first attack of insanity, the tendency to a recurrence of the disorder remains in so large a proportion of cases, that it appears highly probable that in the countries and asylums in which the greatest care is taken of the insane, and in which the rate of mortality is low, the proportion of second and of recurrent attacks will be much greater than where the cases die off more rapidly. For, as under a faulty system of treatment, which allows of a large mortality and of a small proportion of recoveries, the number of recurring cases will necessarily be smaller than they would be under opposite circumstances, it is evident that the proportion of occurring cases to the population, when recurring cases are included, will only imperfectly represent the liability to insanity in two communities, which are in this respect differently circumstanced; and that it will represent this liability in a manner too favourable to that community in which the treatment is less successful and the mortality is high, and in a manner not favourable enough to that community in which the treatment is more successful and the mortality is low. And further, as we have seen that insanity prevails much more at certain ages (from 20 to 50 years in particular), and as men are somewhat more liable to the disorder than women, it is obvious that the proportions of the two sexes, but more particularly the numbers living at the different ages, should not be forgotten in forming any estimate of the liability of a given population to insanity. Though there is little probability of these distinctions being for the present observed, in any return of the occurring cases of insanity in the general population, I am unwilling to omit the reference to them in this place, as bearing on the enquiry into the liability to, and prevalence of, insanity in the separate community now under consideration.

In any comparative estimates which are made, whether of the existing, or of the occurring, cases of insanity, it is of course presumed that either a common standard of enumeration is adopted, or, if this be known to be otherwise, that such a source of error is duly allowed for. For, in the absence of a common standard, it is quite possible that all the difference ascertained in the proportions of the insane in any

two countries or communities, may really depend on the greater strictness of the enumeration, or on that greater facility which may exist for placing the slighter forms of disorder under care, in the one instance than in the other. It has been supposed that the standard of sanity is in some respects higher in the Society of Friends than in the world at large;* and from my own experience at the Retreat, and from all that I have observed in other asylums, I certainly should conclude that a larger proportion of cases of partial and slight mental disturbance is admitted into that institution than is at all common in other asylums.

We can, indeed, scarcely doubt that in a small community, such as the Society of Friends, the enumeration of the insane must be incomparable more accurate than it is in the community at large. If in the latter there were the same economy for inquiring into the wants of the poor, as exists in this society, and the same provision for every case of mental disorder which presents itself, without impediment from considerations of cost, it is quite certain that the number of ascertained cases would be very greatly increased. The inference from these considerations, as to the ascertained apparent liability to insanity in the Society of Friends, will be too obvious to require to be stated; and with these prefatory remarks we may proceed to the enquiry before us.

Assuming, then, that during the twenty years, 1820-40, the annual admissions into the York Retreat have nearly represented the number of persons attacked with insanity in the Society of Friends in England and Wales,† let us ascertain

* *Tuke*, in *Prichard*, Op. Cit. p. 201.

† I find, as might have been expected, that the numbers admitted who were attacked prior to the commencement of a period of this description closely correspond with the numbers attacked during the same period, and admitted subsequently. It will be seen how closely the one have compensated for the other, when it is stated that, during the ten years 1820-30, thirteen cases were admitted the commencement of the disorder in which dated previous to 1820; and that from 1830 to the present time, 1845, twelve cases have been admitted in which the disorder originated, during the ten years in question. The experience of the whole of this period, from 1820 to 1840, is of course less important as bearing upon this point; but, so far as this goes, it presents us with a precise balance

what proportion these bear to the population of that community. The following table shews the number of admissions of members of the society, which we may take as representing *occurring* cases; and also the average number resident in the Retreat during the 44 years from 1796—1840, divided into two periods; viz., one of 24 years from 1796 to 1820, and another of 20 years, from 1820 to 1840.

Members of the Society of Friends at the Retreat, York.	Numbers Admitted.			Average Numbers Resident.		
	Male.	Femael.	Total.	Male.	Female.	Total.
24 years, 1796—1820	103	146	249	19.77	29.08	48.84
20 years, 1820—1840	109	138	247*	29.5	41.48	70.98
44 years, 1796—1840	212	284	496	24.13	34.77	58.9

From this table it appears that of members of the society, the mean annual admissions during the twenty years from 1820 to 1840, were

Males.	Females.	Both Sexes.
5.45	6.9	12.35

and, that the mean numbers constantly resident, during the same period were

Males.	Females.	Both Sexes.
29.5	41.48	70.98

Now the number of the Society of Friends in England and Wales in the year 1830 (which may be taken as representing the mean population for the twenty years from 1820-40) may, I believe correctly, be estimated at 17,900 at all ages; of whom there is reason to believe, from a particular return as to the numbers of the sexes in 1840, and from more partial ones in 1820 and 1830, that 8,137 were males and 9,763 females; the proportion being that of 100 males to 120 females. And

of the cases admitted during, and subsequent to, the twenty years, in which the insanity respectively originated prior to, and during, the twenty years in question.

* Of the 247 there were 84 cases, or upwards of one-third, viz. 30 males and 54 females, who had been admitted more than once, and during other than the first attack of insanity.

thus, if we suppose that the experience of the Retreat embraces the whole of the cases of insanity occurring in members of the society, the occurring cases of insanity per annum would be in the proportion shewn in the first line of the following table; or, out of a population of 10,000 persons, about seven (6.9) would seem to be annually attacked with insanity. This proportion, however, requires some correction; for, on the one hand, it appears that some of the admissions, amounting to about one in three years, consisted of cases which had previously been in the house, but had not been discharged recovered, and which therefore cannot be regarded as representing fresh attacks of insanity.* These will have to be deducted. On the other hand it is probable, that there are, on an average, two or three members of the society who annually become the subjects of decided mental disorder, who either remain under private care, or are sent to other institutions, and never come to the Retreat. These cases will have to be added; and thus the occurring cases of insanity cannot be estimated at fewer than eight annually in every 10,000 of the population of this community.

Society of Friends, England and Wales, 1820-40.	Occurring Cases, per annum, to 10,000 of the Population.	Existing Cases, (mean number) to 10,000 of the Population
Actual Experience of the Retreat, York.....	6.9, or 1 in 1449	39.6, or 1 in 252
Corrected for Cases not at the Retreat	8.1, or 1 in 1234	52.5, or 1 in 190

Of the 274 cases admitted into the Retreat, during the twenty years, 1820-40, there were 163, or nearly two-thirds of the whole, viz. 79 males and 84 females, who were admitted for the first time, and whose admissions therefore represent *first attacks*. For reasons already stated, the comparative proportions of first attacks of insanity in different

* "Statistics of the Retreat." Table 40. During the forty-four years, 1796—1840, there were twenty-nine such admissions in cases of every description; and during the twenty years before us, 1820-40, there were seven such admissions in members of the Society of Friends.

communities may be presumed to represent the liability of such communities to mental disorders, more accurately than the proportions of first and recurrent attacks taken together will represent it. Restricting, then, our attention to the cases observed at the Retreat, occurring for the first time, we shall, from the data for the twenty years before us, find them to be at the rate of 8.15 per annum. This is in the proportion of 4.55 to 10,000, or as one in 2,196 of the population. Corrected on the principle already explained for cases not sent to the Retreat, the proportion will not be materially less than 5.5 to 10,000, or as one in 1,790 of the population.

Society of Friends, England and Wales, 1820—40.	Actual Experience of the Retreat, York.	Corrected for Cases not at the Retreat.
Occurring Cases per annum, (exclusive of the recurring) to 10,000 of the Population.	4.55, or 1 in 2,196	5.5, or 1 in 1,790

The distinction of males and females in a preceding table enables us to calculate the relative liability to insanity in the two sexes of this community, as observed during the above twenty years at the Retreat. Taking admissions and re-admissions together, we find that the observed annual occurring cases, to 10,000 of the population, were as follows :

Males.	Females.	Both Sexes.
6.7	7.06	6.9

This would shew an excess, in proportion to the population of the two sexes, of 5 per cent. in the women admitted, and is, at first sight, at variance with the conclusion arrived at in a preceding essay, that in this particular community, as in the world at large, men somewhat more frequently become the subjects of insanity than women. The calculation, however, really proves little more than the disturbing effect which is produced by embracing in it the recurring cases, which preponderate so much in women. For on excluding the cases of second and of recurrent attacks, we find, from the data before us, that the annual observed cases occurring for the first time are, to a population of 10,000, as follows :

Males.	Females.	Both Sexes.
4.55	4.3	4.5

This shews an excess of 13 per cent. on the side of men; or almost precisely that excess in the liability of the male sex over that of the female, which, by a different method and from somewhat different data, we have already inferred to exist in the Society of Friends.*

The *existing* cases of insanity in members of the Society of Friends, actually in the Retreat during the twenty years, were in the proportion of about 40 (39.6) to 10,000, or as one in 252, of the population. As, however, at the expiration of this period, in 1840, there were twenty-two persons living who had been discharged from the Retreat, but who still remained, or had again become, decidedly insane, of whom I find that eleven were members of the society;† and as, from extensive enquiries, it is probable there were in the society at the same period at least twelve other persons suffering from insanity, who had never been under care at the Retreat, the number of cases which we must bring into the calculation, will be raised from 71 to 94. The proportion of existing cases of insanity in this community cannot thus be less than 52.5 to 10,000, or as one in 190, of its population. Though, as we have seen, not at all determining the degree of liability to insanity in the society, this is a proportion of existing cases which at first sight appears high, and is no doubt attributable to the slighter cases brought under care, to the long average duration of residence in those who are discharged recovered or otherwise, and, especially to the low rate of mortality at the Retreat,—though, as I have elsewhere shewn, this latter is in part met by the lower mortality of the Society of Friends as a body.‡

The Society of Friends being possessed of separate institutions for their insane, both in Ireland and Pennsylvania, it may be interesting to enquire what are the proportions of

* See *supra*, p. 154.

† "Statistics of the Retreat." Table 34. ‡ *Ibid.* pp. 104-5.

occurring and *existing* cases of insanity which are exhibited by the experience of these two other sections of the same community.

At the Retreat at Bloomfield, near Dublin, (opened in 1812) during eighteen years, from 1822 to 1840, there appear to have been forty admissions of members of the society; giving an average of 2.2 per annum. The average number resident during the same period has been about twelve members of the society, out of fifteen persons. The population of the Society of Friends in Ireland, in the year 1830, may be estimated at 3,500. Assuming the mean population, for the eighteen year, at this number, the proportions will be as follow:

Society of Friends, Ireland, 1822-40.	Occurring Cases per annum, to a Population of 10,000.	Existing Cases (mean number) to a Population of 10,000.
Actual Experience of the Retreat, Dublin	6.28, or 1 in 1590.	34. or 1 in 291.

At the asylum near Frankford, U.S., during the ten years from its institution in 1817 to 1827, there were 211 admissions in persons members of, or in profession with, the Society of Friends. Of these it may be estimated that not less than 170, or 17 per annum, were members of the society.* We are informed that the actual average number of members of the society, belonging to the district in question, in the asylum, during the same period, was 31. The population of this community throughout the district to which the asylum is appropriated, and which includes the greater part of Pennsylvania, New Jersey and Delaware, was, for the

* I wish to be under, rather than above, the mark in this estimate; but although the exact number of members of the society who were admitted is not given, an examination of Dr. Evans' report renders it probable that a still greater number, and perhaps as many as 190, were really members of the society. See "Account of the Asylum near Frankford," &c. By Charles Evans, M.D. Philadelphia, May, 1839; extracted from "American Journal of Medical Sciences," p. 14, and "British and Foreign Medical Review," 1839. Vol. 8, p. 583. Compare also with annual reports, particularly the 14th, 1839, p. 2.

It is still desirable that more detailed returns of the numbers, from the several states, of members of the society and others admitted and residing during different periods, should be given in the reports of this establishment.

period before us, estimated by Dr. Evans, of Philadelphia, at 21,500. The proportions will then be as follow :

Society of Friends, Pennsylvania, New Jersey, and Delaware, 1817-27.	Occurring Cases per annum, to a Population of 10,000.	Existing Cases (mean number) to a Population of 10,000
Actual Experience of the Asylum near Frankford	7.9, or 1 in 1265	14.4 or 1 in 693

What corrections should be added for cases not brought under the care of the Irish and Pennsylvanian institutions, we have no means of estimating with any tolerable approximation to accuracy. In both instances, however, the numbers given will be necessarily below the proportions actually occurring and existing in the respective communities. It must also be remarked that these results are obtained from the experience of the first ten years of the operation of the Frankford asylum ; at which time it is probable that a less proportion of those requiring care would be admitted, than would be the case subsequently, when the character of the establishment would be more generally known, and when those prejudices against a new institution, which are so common, would in great measure be overcome. It is further probable that, for pecuniary reasons, less facilities exist for placing the insane poor of the Society of Friends under care in many parts of Pennsylvania, than is the case in Great Britain ; and, thus, that a decidedly less proportion of the actually occurring cases, are in that country sent to Frankford, than in this country, are sent to York. For all these reasons, therefore, it is probable that the occurring cases in the Pennsylvanian population, as compared with those brought into the comparison in the British establishments, are decidedly under-estimated.

From a comparison of the proportions of the occurring cases of insanity thus obtained for these three countries, provisional though to some extent they be, it would appear probable that mental disorders are somewhat more frequent in the Society of Friends in the United States, than is the case in the same community in Great Britain and Ireland. For reasons which might be quoted, some have supposed that there is a

similar disproportion, in the liability to insanity, in the general population of the two countries. But these are questions which, it must be admitted, remain altogether open to further investigation.

OCcurring CASES PER ANNUM TO 10,000 OF THE POPULATION OF THE SOCIETY OF FRIENDS.

	England and Wales.	Ireland.	Pennsylvania, &c.
Actual Experience of the three Institutions.	6.9, or 1 in 1449	6.28, or 1 in 1590	7.9, or 1 in 1265

If, instead of comparing the proportions of *occurring* cases, we compare those of the *existing* cases in these three countries, how opposite and erroneous an inference we shall arrive at, will appear upon resorting to that method. This comparison, when taken along with the preceding one of occurring cases, at once establishes the fallacious character of such a method, when resorted to as a test of the liability to insanity in any community,—proving, as it does, that the occurring cases may really be least numerous, where the existing cases are the most so.

EXISTING CASES TO 10,000 OF THE POPULATION OF THE SOCIETY OF FRIENDS.

	England and Wales.	Ireland.	Pennsylvania, &c.
Actual experience of the three Institutions.	39.6, or 1 in 252	34, or 1 in 291	14.4, or 1 in 693

This striking disproportion in the numbers of the occurring and of the existing cases, in the three sections of the same community, is fully explained by the differences which exist in the duration of residence and in the mean annual mortality of the three institutions.

	Retreat, near York, 1796—1840.	Retreat, near Dublin, 1812—40.	Asylum, near Frankford, U.S.A. 1817—38.
Average Duration of Residence in all Cases Admitted.	4.8	4.1	1.5
Mean Annual Mortality per cent. Resident.	4.7	5.64	9.45

It thus appears that the average duration of residence in the Pennsylvanian asylum amounts to but one-third, and the mean annual mortality to more than double, of that in the York Retreat; and that there is nearly as great a difference in both these respects, between these results and those obtained at the Retreat near Dublin. Any enumerations of the existing cases would consequently take in the same instances of disorder twice or thrice as often in the two British institutions, as would be the case, on the average, with patients treated in the Frankford asylum.

Returning to the consideration of the liability to insanity in the Society of Friends in Great Britain, and assuming that the cases of insanity occurring for the first time are in the proportion of five, and the occurring and recurring cases taken together in that of seven per annum, to a population of 10,000, we are naturally led to inquire whether this is a favourable, or an unfavourable, proportion, as compared with that observed in the kingdom at large. We have, however, seen that data do not exist for determining this question, and though the materials which may contribute towards our forming a conclusion in relation to it, are gradually becoming more complete and accurate, it is still very doubtful whether we shall ever be able to draw a strict comparison between the numbers of the insane in the Society of Friends and those in the kingdom at large.* Having then no means of determining upon statistical grounds, whether the liability to mental disorders in this community be greater or less than it is in the world at large, our experience of the very frequent fallacy of *a priori* conclusions on general questions of all descriptions, forbids us to hazard a positive opinion on the subject.

If we look at the opinions which have been entertained on this question, we find that Dr. Burrows believes that the pro-

* However accurate the returns from asylums of all descriptions, public and private, may, through the labours of the Commissioners in Lunacy, become, it is scarcely possible that any system of investigation will ever reveal to us the numbers of uncertified cases of mental disorder, which either remain at home or are separately boarded with private families, and of which, in a wealthy country like England, there must be so large a number.

portion of cases of insanity is decidedly greater in the Society of Friends than in the population at large; and he accounts for the supposed fact by the circumstance of their marriages being confined to the families of their own society, and therefore, as he thinks, within a very limited circle.* The opinion of Dr. Burrows appears to have obtained very general credence with writers of all descriptions in this country; and there is perhaps no question relative to mental disorders which is so frequently addressed to myself, as that suggesting a supposed greater prevalence of insanity in the Society of Friends, and demanding the explanation of such supposed fact. Several German authors, amongst whom are Dr. Jacobi,† and Dr. Julius,‡ have adopted this conclusion, which must certainly be regarded as a mere opinion; and both these authors indulge in ingenious speculations as to the causes of the supposed greater prevalence of insanity in the members of this society. Speculations, more or less crude, of a similar description are likewise not unfrequently put forward in this country.

We know enough, however, of the degree in which insanity prevails in the Society of Friends, to prevent our sharing the opinion, opposite to that of Dr. Burrows, maintained by Dr. Haslam and others, that “the decorous piety and exemplary life of the Quaker has *signally exempted* him from this most severe of human infirmities.” §

An examination of the statistics of the Retreat certainly shews that intemperance and other causes, of frequent operation in the world at large, are rarely met with as causes of insanity in this community. A similar remark applies to excitement and undue enthusiasm on religion, which still less frequently can be fairly assigned as the cause of mental disorder. To a great extent a trading population, the members

* *Burrows*. “Commentaries.” 1828. p. 29.

† *Jacobi*. “Zeitschrift für die Beurtheilung,” &c. Berlin, 1838. p. 311.

‡ *Julius*. “Beiträge zur Britischen Irrenheilkunde,” &c. Berlin, 1844, p. 42.

§ *Haslam*. “Observations,” &c. 1809. p. 265.

of this society are not exempt from the influence of anxiety and disappointment, connected with the success or failure of mercantile transactions; and a moderate proportion of the cases has been connected with causes of this description. Even such causes appear to be less frequent than we should have expected, did we not recollect that the habits and institutions of the society in great measure preclude its members from engaging in hazardous commercial speculations, and that its institutions are nearly incompatible with the existence of positive want or of physical misery. There has been a certain proportion of cases in which the immediate cause appeared to be connected with domestic grief and anxiety; but in looking through the table of exciting causes in the cases admitted into the Retreat, we find few, either as respects the character of the causes or the numbers which they embrace, which can be regarded as in any degree peculiar to the Society of Friends.

The predisposing causes of insanity are, however, really often the most important, and to them the exciting are frequently only related as the last link of a chain, or as the drop which causes the already filled vessel to overflow. It is to be regretted that the study of the predisposing causes has been too much neglected, and that few or no reports afford us the opportunity of comparing those observed at the York Retreat with those observed at other asylums. It is however possible that the predisposing causes may be relatively more efficient than the exciting, in the development of insanity in this community, than is the case in the world at large. What most impresses one in looking through the table of predisposing causes observed at the Retreat, is the considerable number of cases in which original weakness and peculiarity of mind had existed, though not to such an extent as to separate its subjects from society.* Idiocy and positive imbecility from birth appear to be of very unfrequent occurrence in the Society of Friends, as compared with the general population of this country. It is perhaps not improbable that many in this society who, by careful nursing, survive the period of infancy and are merely distin-

* "Statistics of the Retreat." p. 77, and Table 15.

guished by these slighter shades of mental weakness, would under less favourable circumstances in the lower walks of life of the world at large, have grown up as positive idiots; or that with that delicate organization which distinguishes them, and which they perhaps inherited, would, as has been suggested,* never have been reared at all.

Amongst the other circumstances in the history of insanity, which appear to be more or less peculiar to the Society of Friends, must be mentioned the larger number of cases which originate in the earlier period of life, or from 20 to 30 years of age;† and the unusually large proportion which occur in unmarried persons. What connexion these circumstances have with such liability to insanity as prevails in the society, we are not at present warranted in determining; but they could not be overlooked in any enumeration of the features more or less peculiar to the statistics of the causes of insanity in this community.

We might indulge in various remarks on data such as these, as well as in others which rest on data still more doubtful. But from all speculations of this description, we think it better to refrain, so long as we are compelled to remain in doubt as to the comparative liability to insanity in this society and in the community at large. So long as we are ignorant of this point, it would obviously be premature to offer any explanation of that liability to mental disorders, be it greater or smaller, which exists in the Society of Friends. For the same reasons I shall postpone any enquiry into those conditions and characteristics of the society, which may be regarded as either favourable or unfavourable to that healthy development and well-balanced condition of the intellect and the affections, in which the greatest security from mental derangement is found.

* *Tuke*. Introduction to *Jacobi*, p. lx.

† See *supra*, p. 166.

STATISTICS OF THE RETREAT.

PART I.

STATISTICS

OF

THE RETREAT,

NEAR YORK.

STATISTICS OF THE RETREAT.

PART I.

*HISTORICAL SKETCH; AND DESCRIPTION OF THE ESTABLISHMENT,
AND OF ITS INTERNAL ECONOMY.*

I.—HISTORICAL SKETCH.

MANY very useful undertakings have originated in circumstances apparently accidental; and we are informed that, to a great extent, this was the case in the establishment of a separate institution for the insane members of the Society of Friends, or Quakers, and those connected with them. "In the year 1791, a female," of this community, "was placed at an establishment for insane persons in the neighbourhood of York;* and her family, residing at a considerable distance, requested some of their acquaintance in that city to visit her. The visits of these friends were refused, on the ground of the patient not being in a suitable state to be seen by strangers; and, in a few weeks after her admission, death put a period to her sufferings. The circumstance was affecting, and naturally excited reflections on the situation of insane persons, and on the probable improvements which might be adopted in establishments of this nature. In particular, it was conceived that peculiar advantages would be derived to the Society of Friends, by an institution of this kind under their own care, in which a milder and more appropriate system of treatment than that usually practised, might be adopted; and where, during lucid intervals, or the state of convalescence, the patient might enjoy the society of those who were of similar habits and opinions. It was thought that the indiscriminate mixture,

* The York Lunatic Asylum.

in large public establishments, of persons of opposite religious sentiments and practices; of the profane and serious; the profligate and virtuous; was calculated to check the progress of returning reason, and to fix still deeper the melancholy and misanthropic train of ideas, which, in some descriptions of insanity, impresses the mind."* Considerations of this kind at length produced the conviction, in the mind of the late William Tuke, that a separate establishment for insane persons of this community, was highly desirable. In this conclusion he was decidedly supported by his son, Henry Tuke, and by their excellent friend Lindley Murray; and the proposition was at length submitted to a numerous meeting of the Society of Friends, from all parts of the county, held at York.

By a singular and interesting coincidence, it was in the spring of 1792, the very year in which the celebrated Pinel commenced the amelioration of the treatment of the insane in France, by the truly courageous act of unchaining nearly fifty supposed incurable and dangerous lunatics at the Bicêtre, that the establishment of the Retreat was proposed, to the meeting referred to, by the late William Tuke. The proceedings of Pinel, however, were not, until long after, known either to the directors or managers of the Retreat; and it thus appears that the reformation in the treatment of the insane had an independent origin in the two countries at the same period.

It is now matter of curious history that though the reasons for the formation of this establishment appear to us so obvious, the proposition met, for some time, with little countenance, and with much opposition. Few had considered the subject;—some thought there was in the Society a very small number of objects for such an institution, and were startled at the mention of a provision for thirty persons;—some believed that no improvement could be made in the condition of the insane, saw no advantage in a separate establishment, and were even averse to the concentration of the instances of mental disorder in the Society. Founded, as these opinions were, in ignorance of the subject, they were

* "Description of the Retreat," York; 1813, p. 22.

urged with no little force, by persons, the general correctness of whose judgment justly entitled them to attention. These objections, however, and the difficulties they gave rise to, were, by the steady exertions of the promoters of the proposed establishment, gradually overcome; and, at the successive meetings which were held on the subject, subscriptions were entered into to carry out the plan which had been agreed to.

In 1794, land on a very desirable site was purchased; and in the summer of 1796, the original building being completed, the new establishment was opened for the reception of patients, and commenced its career of usefulness and importance.

During the first year of the existence of the new establishment, no suitable person having offered, it was without any permanent resident medical officer or superintendent; the duties of these offices being for a short time performed by a benevolent individual, Timothy Maud, a retired medical practitioner, of Bradford; after whose unexpected decease, the general care of the establishment, for nearly twelve months, devolved on the original promoter of the establishment, William Tuke, who had, from the first, filled the office of treasurer. Dr. Fowler, of York, formerly of Stafford,* was appointed to the medical care of the patients, and visited the house several times a week. At last, in the summer of 1796, George and Katharine Jepson, (then Katharine Allen), were appointed to the general care of the Establishment; and the former, who was not without medical skill and experience, also acted as resident medical superintendent.

The directors of the institution were particularly happy in their selection of these two officers; and nearly twenty years afterwards we find them, in their annual report for 1815, attributing, "under the Divine blessing, the prosperity and success of the institution, in an eminent degree, to the conscientious and judicious discharge of their arduous duties, by those who had for so many years, had the immediate superintendence and management of the establishment."

* Author of "Medical Reports," "On the effects of Tobacco," 1785; "of Arsenic," 1786; and "of the cure of Rheumatism," 1795.

The early administration and management of the Retreat, must on all hands be regarded with much interest; and it cannot be doubted that its establishment constituted a most important era in the moral treatment of the insane in Great Britain. Indeed it is now generally admitted that this was the first institution in these kingdoms, the officers of which decidedly recognized the principle that it was not by fear and intimidation, but by judicious and persuasive kindness, united with firmness, that the insane were most efficiently managed and governed; and that this consequently was the plan of moral treatment most favourable to their restoration. The system of management before commonly adopted, was founded on the erroneous doctrine that fear is the great principle by which the insane are to be governed; and chains and the whip were but too generally regarded as the most suitable implements of restraint and coercion.

That the original projectors of the Retreat were deeply impressed with a sense of the existing evils in the treatment of the insane, and of the amelioration in their condition, which consequently might be effected, is evident from the first steps of their proceedings. In the construction of the building, they studiously regarded the comfort and convenience of the patients, and entirely dispensed with bars for the protection of the windows, substituting cast-iron for wooden frames: they never admitted chains or any kind of iron manacles, which were then in common use in similar establishments; they promoted intercourse with rational society in the house; and at once introduced attention to religious worship in the family, and, in the case of a large proportion of the patients, at the usual meetings of the Society in the city. In their report for the year 1797, the first after the opening of the Retreat, they speak of suitable employment for the patients as having been, to a certain extent, already introduced and with much advantage. These proceedings indicate much juster views of the capabilities of the insane, and of what was due to them, than were prevalent at the time; but these excellent persons were yet doubtless little aware how much was to be effected in the amelioration of the management of the insane, even of the worst class.

They entered however on their labour with eyes and hearts open to the claims of humanity, and to new light on the subject.

The main instrument, however, in the development of that system of treatment which the Retreat has exhibited, was doubtless the original superintendent. Rarely has it happened, that a project so enlightened has met with an agent so efficient for the carrying of it out. A distinguished individual, who had ample opportunities, from personal intercourse with this excellent man, has born strong testimony to the good sense and good feeling of George Jepson;* and, though he had not had the benefit of an extended education, he was, I have no hesitation in stating, from my own early recollections, no less than from the testimony of others, a person of no ordinary character, both as regards the original vigour of his mind, the accuracy of his judgment, and the earnestness of his devotion to the good of others. Before entering on his appointment, Jepson had visited some of the principal establishments for the insane; and, though not satisfied with the general system of management which he found existing, yet, sanctioned as it was by general adoption, he did not at first feel justified in discarding it altogether. He had, however, been scarcely six weeks in office when he became convinced that the prevailing mode of treatment by violence and intimidation, was in no case necessary; that it tended to irritate rather than to controul the diseased feelings of violent patients, and he therefore determined to abandon it altogether. The extent to which wild animals might be tamed by gentle methods forcibly struck him, and led him to query why man, bereft of reason, reduced as it were to the level of the brute, should not be influenced by the same means. Thus was he prepared to carry out that system which has since prevailed in the institution; a system which presumes the patient to be generally capable of influence, through the kindly affections of the heart, and in a considerable degree, through the medium of the understanding.

Dr. Fowler, who possessed a highly benevolent and unprejudiced mind, which rendered him peculiarly adapted to the

* "The Works of the Rev. Sydney Smith." 1839. Vol. 1, p. 313.

office he filled, entered heartily into the views of the committee and superintendent in regard to the mild system of treatment; and at the same time pursued, with much zeal, the medical treatment of the cases. He had not had much experience in cases of insanity, when he entered on his office; but he pursued a course of experiments and observations, with that perseverance and precision for which he was distinguished. He made full trial of the various means recommended by medical writers as applicable to the different forms of insanity; and, though the expectations which he successively formed, of benefit to be derived from these, were but too often disappointed, and though he was led to conclude that, in many cases, more was to be expected from a judicious system of moral treatment, tending directly to the alleviation of the mental symptoms, than from special pharmacutic means; he at the same time became strongly convinced of the importance of watching for physical indications and of close attention to the general health; and, thus directed, the benefit of medical treatment was frequently evinced in his practice at the Retreat.

After acting as physician to the institution for five years, the Retreat was deprived, by death, of the valuable services of Doctor Fowler, in 1801. Dr. Cappe was appointed his successor; but he had not filled the office more than a year, when the institution was deprived of his services by his premature death. He bequeathed various valuable works on insanity to the institution, which still remain in its collection. Dr. W. Belcombe was appointed to succeed Dr. Cappe, early in 1803.

The Retreat had not been instituted many years before it attracted much attention from benevolent and intelligent persons, both in this and other countries: and the plan of treatment pursued in it soon obtained the assent of the judicious. Amongst its early visitors were many well known physicians, and some architects; several of whom were, or have since become, distinguished by their writings on insanity, or on the construction of asylums; and their approval of the treatment pursued, could not fail to give much encouragement to the managers of the institution. So early as 1798, Dr.

De la Rive, of Geneva, who had paid much attention to the subject of insanity, and who visited the Retreat after having inspected various public and private asylums, was so much interested in its proceedings, that he addressed an account of it to the editors of "the British Library," which he afterwards published in a separate form on the Continent.* In this letter he describes the miserable condition of the insane in the places then ordinarily appropriated to their care, and contrasts this forcibly with the mode of treatment in the new establishment at York. Dr. Duncan sen., who had paid much attention to the treatment of the insane, and who visited the Retreat in 1812, observed that "without much hazard of contradiction from those acquainted with the subject, it may be asserted that the Retreat at York, is at this moment the best-regulated establishment in Europe, either for the recovery of the insane, or for their comfort, where they are in an incurable state."†

The character of the institution now attracted for it considerable notice; and applications were frequently made by those engaged in similar undertakings, for a particular account of its modes of treatment and general economy. These enquiries led, in 1813, to the publication of a description of the institution,‡ by the present treasurer, Samuel Tuke. This work obtained general attention; and the facts which it detailed, as the result of sixteen years experience, the comparatively large proportion of recoveries, and low rate of mortality, were considered as establishing the practicability and advantage of a milder system of treatment than had been generally adopted. It may also be observed, that, about this time, several persons about to engage in the superintendence of similar establishments made a temporary residence in York, and were permitted by the Committee of the Retreat daily to observe the economy of the house, and

* "Lettre adressée aux Rédacteurs de la Bibliothèque Britannique, sur un nouvel Etablissement pour la Guérison des Aliénés."

† "Account of the Lunatic Asylum at Edinburgh." page 15.

‡ "Description of the Retreat, an Institution near York, for Insane Persons of the Society of Friends. Containing an account of its Origin and Progress, the Modes of Treatment, and a Statement of Cases. By Samuel Tuke. York, 1813."

the mode of managing the patients; and in this way, and by the discussions as to the management of the York Asylum, which ensued on the publication of the work referred to, the reputation of the institution was doubtless considerably increased, and the details of its methods of treatment made more public.

As the author of the "Description of the Retreat" has stated in his preface, it was George Jepson who furnished him with his most valuable materials; and thus, the publication of this work was, at the time, the means of diffusing a knowledge of what had been effected by him in the management and moral treatment of the insane. It appears due to the memory of this worthy man, that I should take this opportunity of placing on record, a portion of his claims on our gratitude and our imitation. At a time when similar institutions were conducted on such different principles, and when many of them were the scenes of gross neglect and cruelty, his was "a government of humanity and of consummate skill, which required no aid from the arm of violence, or the exertions of brutal force."* As the same competent and disinterested observer informs us, patients were sometimes brought to the Retreat, frantic and in irons, "whom they at once release, and by mild arguments and gentle arts, reduce almost immediately to obedience and orderly behaviour." In the management of violent cases of mania, Jepson not only manifested great moral courage in frequently, or indeed uniformly on admission, withdrawing the instruments of restraint; but, in his subsequent intercourse with them, the address which he exhibited in gaining an ascendancy over the minds of patients of this class was very conspicuous. Much familiarity or freedom of intercourse, in such cases he discouraged; but, so true did he find it, that

"Soft speech
Is to distemper'd wrath, medicinal,"

and that such patients are best approached with mild and soft persuasion, that he always particularly insisted on the

* "Remarks on the Construction and Management of Lunatic Asylums,"
By W. Stark, Esq., Architect. Glasgow, 1810, page 11.

necessity of addressing them in a kind and rather subdued tone of voice.

Though Jepson was of opinion that there are a few cases of violent mania, in which personal restraint really exerts a salutary moral tendency; yet in all others, he invariably regarded it in the light of a necessary evil, and held that, abstractedly considered, it has a tendency to retard the cure, by counteracting the influence of the moral means which are brought into play. Under these views, personal restraint was disused at the Retreat, to an extent which was thought by many to involve an unwarrantable degree of danger, and which until lately would have been considered very remarkable. Jepson indeed maintained, and acted on the principle, that some risk ought to be run, rather than adopt that almost indiscriminate system of personal restraint which was at that day so common, and which he considered to be attended with certain mischief. On one occasion a man of almost Herculean size and figure and in the prime of life, was brought to the house. He had been kept chained so constantly during the attack, that his clothes were contrived to be put on and off without removing the irons. They were however taken off when he entered the Retreat, and he was ushered into the apartment where the superintendents were supping. On being invited to join them at table, he behaved with tolerable propriety; his attention appearing to be arrested by his new situation. After the meal was concluded, Jepson conducted him to his room and told him the circumstances upon which his treatment would depend, and that he sincerely hoped that his conduct would render it unnecessary to have recourse to any restraint. The patient appeared sensible of the kindness of this treatment: he promised to restrain himself; and so far succeeded in this, that, during his stay, no coercive means were ever employed towards him. The case afforded a striking example of the efficacy of mild treatment. The patient was frequently very vociferous and threatening in his language; and the attendants often thought that restraint, by the strait waistcoat, was necessary to their safety. On these occasions, Jepson would visit his apartment; and though at first this seemed to add to

his excitement, but, after sitting some time quietly beside the patient, his irritation subsided, and he would attend to the remarks and persuasions of his friendly visitor. After such conversation, the patient was generally better for several days; and in about four months he was discharged perfectly recovered.

The courage and resolution of Jepson were one day put to a severe test. He was walking in the fields with one of the patients, whose vindictive feelings were very easily excited. During their walk, some slightly annoying circumstance occurred; when the patient retiring a few paces, seized a large stone which he held up as in the act of throwing at his companion. Jepson, in no degree ruffled, looked steadfastly at him; and, in a resolute tone of voice, at the same time advancing, commanded him to lay down the stone. As he approached, the hand of the patient gradually sunk from its threatening attitude, and he quietly dropped the stone to the ground. He then submitted to be led to his own room.

Jepson used to illustrate, by another accident which occurred to the same patient, his opinion that a state of furious mania is very often excited by the mode of management; an opinion in which he will be supported by all accurate observers of the insane. This individual one day climbed up against a window over-looking the court where he was taking exercise, and was amusing himself by contemplating the interior of the room. An attendant, who had not been long in office, ran hastily towards him; and, without preamble, drew him to the ground. The patient was highly incensed: a scuffle immediately ensued, in which he succeeded in throwing the attendant to the ground; and, had not the loud cries of the latter brought others to the spot, it is probable that he would have paid for his rash conduct, with his life. The furious state which had been excited in the patient was not of long continuance; but, after this occurrence, he was observed to be more vindictive and violent.

In his intercourse with the patients, Jepson's knowledge of human nature, and the benevolence of his character, were alike shewn by the tone of his conversation with them. This

was equally remote from a childish and from a domineering manner; and, careful not to offend unnecessarily their lesser feelings, he aimed at treating them as much in the manner of rational persons, as the state of their minds would allow. He shewed them that he was desirous of obtaining their esteem; and he would introduce such topics of conversation as he knew most interested them, and which afforded them an opportunity of displaying their knowledge. Were one of the patients an agriculturist, he would ask him questions relative to his pursuits, and would frequently consult him upon any occasion in which his knowledge might be useful. He was highly impressed with a conviction of the value of employment and of regular occupation in the treatment of the insane; and several interesting cases might be narrated, which evince his persevering and successful efforts in inducing patients to employ themselves. But this is unnecessary; and my object will have been effected if I have said enough to shew that, in Jepson the insane had a friend whose memory has strong claims on our regard.

This sketch must not be concluded without a brief reference to the wife of this admirable man; by whom, in his exertions, he was so cordially supported. Her qualities of mind were as pre-eminently feminine as those of her husband were masculine. All the kindly feelings were peculiarly active in her: her heart was in her engagement; and the patients were her children, of whom she thought and, with a pardonable weakness, spoke continually. Her form and countenance were remarkable for dignity and sweetness;* and she possessed, in no inconsiderable degree, that happy tact or instinct which, in cases of emergency, without the labour of reason, sees at once what is the best thing possible to be done. She was thus admirably fitted to promote the comfort and true enjoyment of the patients, in ways, which it is the privilege of woman alone to

* My friend, Samuel Tuke, informs me that when the present Emperor of Russia, then the Grand Duke Nicholas, visited the Retreat in the year 1816, he several times, as this estimable woman was attending him through the women's apartments, turned round and said in a whisper, but in a manner betokening much admiration, "*quel visage!*"

develope in their full activity. Several of those who were her guests on these occasions are surviving, who can look back with pleasure to the general tea-parties of the patients, which she enlivened by her cheerfulness, and by the benevolent interest she took in promoting the happiness of all around her.

We may now pursue our sketch of the history of the institution, which appears to have continued its career of usefulness for a considerable period, without any material change in its economy.

The date of the successive additions to the building will be given in the description of the house and grounds in the next section. As bearing, however, on the question as to the desirableness of separate establishments for the convalescent or the incurable, this is the place to refer briefly to the history of an Appendage to the Retreat, of this description. In 1809, in consequence of the house being quite full, though it had already been enlarged so as to accommodate sixty persons, double the number for which it had been in the first instance designed, and several applications for admission being obliged to be refused for want of room, the necessity for some further provision being made, was brought before the general meeting of directors. It was concluded that the best plan of meeting the necessities of the case, was that of having a separate house for a few of the convalescent patients, and such as least stood in need of close confinement. The plan was agreed to at a subsequent meeting; and, in the spring of 1810, suitable premises for such an appendage, outside the eastern gate of the city, were purchased. In the summer of the following year, this separate establishment was opened; and several patients were at once removed from the Retreat, and placed under the charge of a female superintendent. There were in general four men and eight women patients at the "Appendage" until 1822, when it was given up. It would appear that "the benefits resulting from this establishment, were not found equal to the disadvantages attending it. The more pleasant situation of the larger house, and of the grounds attached to it, made it generally preferred by the patients. The removal of convalescents

from under the care of those who had watched over their progress, seldom appeared expedient; so that the Appendage became mainly occupied by the class of incurables who required the least care, and who derived no benefit or additional comfort from the separation from others. During the ten years in which the experiment of such a separate establishment was made, it was found to add materially to the average cost of the patients; and this consideration, in connexion with those already stated, led to its abandonment.”*

A separate building for seven male patients of the upper class, called the “Lodge,” a description of which will be found in the succeeding section, was erected and opened in the year 1817. By means of this arrangement the foundation was laid for a material improvement in the finances of the institution; and in the year 1818, the provision for the higher class of patients being found greater than the wants of the society required, it was agreed to extend the advantages offered by the establishment to a few patients wholly unconnected with the Society of Friends, of such a class as could afford to pay, on a liberal scale, for the distinct apartments and attendants, which this department of the Retreat affords. The character of the institution had led to frequent applications for this liberty, but the accommodations which the house afforded had hitherto hardly kept pace with the wants of the Society; and one of the primary objects of the establishment, that of avoiding the indiscriminate mixture of persons of very different opinions and habits, forbade the idea of the free admission of others into the general wards, even if there had been room. But the late arrangement for the higher class of patients, having afforded the means, when desirable, of personal separation, and there being several apartments unoccupied, it was concluded that the vacancies should be allowed to be filled up in this way, on the condition that such patients should not be admitted to the exclusion of members of the Society of Friends, or those in profession with them. From the year 1820, when the first admission of this kind took place, to 1840, there have been, on an average, ten or

* “Sketch of the Origin, Progress, and present State of the Retreat.” 1828. p. 25.

eleven patients, (10.7) of both sexes, of this class under the care of the establishment.

In the year 1820, in consequence of his very advanced age and great decay of sight, William Tuke, (to whose exertions, as we have seen, the institution had been so greatly indebted for its success,) resigned the office of treasurer, which he had held from its first establishment.* The general meeting of directors, in accepting his resignation, expressed its deep sense of his long and valuable services, and appointed his grandson, Samuel Tuke, the present treasurer, his successor.

In 1822, the advanced age of George Jepson likewise rendered it desirable that he should be released from the office of superintendent, the duties of which he had so long discharged to the great advantage of the institution. The matron also, Katharine Jepson, retired along with her husband; and, at a special general meeting in the spring of 1823, Thomas Allis and Hannah Ponsonby, the latter of whom had for many years acted as assistant to the retiring matron, were elected their successors. The high sense which was entertained of the valuable services of the retiring officers, during a quarter of a century, and almost from the commencement of the establishment, was marked by an annuity which was voted to them for their respective lives; and, in their report for 1824, we find the directors and committee stating that, under the administration of the new officers, "comfort combined with economy appears to mark the domestic management of the establishment;" and that the methods of management which had so long prevailed in the institution, were "found no less influential than under the administration of those who had so long proved their importance and efficiency."

Under the circumstances of a non-medical superintendent being appointed, the attention of the committee and directors was turned to the propriety of providing medical attention for the patients, in addition to that of the visiting physician;

* This excellent man died in the year 1822, at the venerable age of more than ninety years; retaining his mental faculties clear to the last. His worthy friend Jepson survived him, until the year 1836, when his decease occurred at the still more advanced age of ninety-three years.

and it was concluded that a surgeon should be appointed, who should visit the institution three times a week, and give such general medical assistance as might be required. My friend, Caleb Williams, was appointed to, and has since continued to fill, that office in the establishment. In 1826 the office of physician became vacant by the resignation, on account of the infirm state of his health, of Dr. William Belcombe, who had ably discharged the duties of that office since 1803; and his son, Dr. H. S. Belcombe, the present visiting physician, was appointed his successor.

After these successive changes in its officers, we are not called upon to note any particular events in the history of the establishment for a considerable period. The number of patients admitted each year, as compared with those discharged, went on gradually increasing, so that various additions to the buildings were from time to time called for; and, at the general meeting in 1833, there were 107 patients in the house, a larger number than had previously, or has since, been under care at one time, and in the accommodation of whom rather undesirable crowding had arisen. The attention of the directors was, in consequence, directed to making such additions to the buildings, and such changes in the appropriation of its several parts as should provide for the greater comfort and improved classification of the inmates; and, in 1837, an additional story was added to each of the original wings. At the same time various other alterations were made, so that the institution can now afford ample accommodation for from one hundred to one hundred and five patients.

About this time, likewise, the arrangements best adapted to improve the medical and moral care of this increased number of patients, occupied much of the attention of the committee and directors; and it was ultimately determined to appoint a resident surgeon, who should be entrusted with these objects, and who should be entirely devoted to the interests of the establishment. In the summer of 1838, the present resident medical officer entered on the duties of that office; and it is extremely satisfactory to him to find the committee, in their Report for 1842, stating that "experience has confirmed them in the judgment as to the desirableness of

having a resident medical officer, charged with the immediate care of the patients and their attendants, and unencumbered with the domestic and financial affairs of the establishment;" and that, "they have obtained, through the zeal and efficiency of their present medical officer, the objects which they had chiefly in view in his appointment."

In the year 1841, a further change in the establishment took place, by the offices of superintendent and matron becoming vacant, on the resignation of Thomas Allis and Hannah Ponsonby; who, for more than eighteen years, had filled those situations in the establishment. The vacant offices were supplied by the appointment of my esteemed friends, John and Maria Candler, of Chelmsford. The opportunity afforded by these changes was taken by the committee and directors to re-consider the general economy of the institution, and to revise the rules as to the provinces and duties of the respective officers. To these, however, it is unnecessary in this place to refer further; as an abstract of the present "rules of government" is given in a subsequent section.

Such is a brief view of the history of the Retreat, brought down to the present time; and I feel that I cannot do better than conclude this sketch in the words of the 43rd annual Report (1839). "Our establishment," say the committee, "has now been in operation forty-three years, and we congratulate its friends on the greatly increased interest which, during that time, has arisen in regard to the subject of insanity, and the treatment of those who are afflicted with it. If in any degree the Retreat has been an instrument in stimulating this interest, and in promoting, by its example, a system of treatment at once more humane and more wise than had been generally prevalent, we feel that we have occasion to be stimulated in return, by the progress of other establishments earnestly engaged in further improvements; and we hope not to be found backward in adopting the suggestions arising from the experience of others, and in pursuing, with a zeal worthy of the cause, the still further advancement of the medical and moral treatment of insanity."

II.—DESCRIPTION OF THE HOUSE AND GROUNDS.

THE Retreat is situated on a rising ground about half-a-mile from the eastern gate of the City of York. It commands an extensive and diversified prospect over the rich and well-wooded vale of York, watered by the rivers Ouse and Foss. From the southern front of the establishment, the view extends over a fertile plain of well-wooded "meadow lands, of a beauty which," as a learned foreigner informs us, "they possess only in England, and surrounded by quick-set hedges, in which stand the oak, the ash, and the thorn."* From the windows of the north, or entrance, front, and towards the east, the prospect is bounded by the Hambleton Hills and by the Wolds, which are seen in some places at more than twenty miles distance. From the western end of the buildings, and particularly from the extensive terrace-walk adjoining, a fine view is obtained of the city, with its grey walls, towers, and spires, and crowned by its magnificent and time-honoured Cathedral.

The situation of the establishment, on a dry gravelly soil, covered by a rich loamy earth, is favourable to drainage; and its elevation and exposure to the east and north winds, from the severity of which, it is however considerably sheltered by the trees of its plantations, provide for the effective ventilation of the buildings. The air is pure; and, judging from the comparative immunity from disease, salubrious: the water is good and abundant.

When the house was first erected, there were only about eleven acres of land attached to it; and, of this, about one acre was occupied by the garden and plantation in front of the house; the remainder, consisting of three fields, being on its south side. As a reference to the plan of the estate will shew,† this land forms the middle third of the present property. In 1825, the purchase was made of three fields, consisting of seven and a half acres of land, which now

* Dr. Jacobi's "Notices of some Public Hospitals for the Insane in England." "Zeitschrift für die Beurtheilung und Heilung der Krankhaften Seelenzustände." Berlin, 1837. p. 311.

† See "General Plan of the Retreat and Land belonging thereto."

form the eastern portion of the estate. By this addition, the committee were enabled to make considerable addition to the gardens, plantations, and walks, at the south-east side of the house; and, in other respects, to add to the convenience of the establishment. By subsequent purchases, in 1839 and 1840, of more than ten acres of land on the western side of the original property, equally important improvements have been made, in the shape of separate pleasure grounds and gardens for the female patients, which are still in progress. The estate now consists of nearly twenty-nine acres of land, and is bounded, on the north and east sides, chiefly by the high-road; and, on the south and west, by a public stray or pasture. From its square compact form, and from its being protected by a ring fence, partly walled, the establishment may be considered as almost secure from any external intrusion or annoyance. The farm affords ample support for the cows which supply the family entirely with milk and cream, and sometimes with butter; and the potatoes and other vegetables, and a great part of the fruit consumed in the house, are also the produce of its fields and gardens.

The entrance to the house is by iron gates at the north-east angle of the grounds, where a neat porter's lodge has also been erected. The house, which is surrounded by pleasure grounds, is of plain brick, covered with blue slates; and, when opened, in the summer of 1796, was designed for the accommodation of thirty patients only. It then simply consisted of a central building of three stories, with two wings of two stories each; and, excepting in the small size of the panes of glass in the windows, its general character and appearance did not differ from that of a plain country mansion. By successive additions, however, the house has been so much added to, as to afford ample accommodation for more than a hundred patients and their attendants; and it must be admitted that, by these additions, which are very considerable, the original character of a private residence has been quite lost; and that the aspect which, from its extent and plainness combined, it now assumes, is not so pleasing as could be desired. But although, from the

circumstances under which it has been erected, the Retreat cannot be regarded as a model, in an architectural point of view, for institutions of a similar description; yet there are, perhaps, few which afford to the inmates so great an amount of internal accommodation.

The establishment, it will be perceived, now consists of an aggregate of buildings adjoining to, and communicating with, each other; but it will also be observed that, for the most part, these have not been added without a due regard to symmetry of arrangement. Thus, from the angles of each of the original wings, two additional wings have been carried out opposite to each other, and so as to leave an area of from twenty to thirty feet width between. The greater part of the south-east wing was added in the year 1799; the south-west wing in 1803; the north-east wing in 1824; and the north-west wing in 1826. All these buildings are of two stories each; but, in 1837, an additional third story was added to the original east and west wings.

As regards the appropriation of the different parts of the establishment, it must be stated that the ground floor of the central building contains four rooms, which supply the committee-room and apartments for the officers of the establishment. The rooms on the second and third floors, with some of those on the third floor of the east and west wings, are principally devoted to female patients of the higher class. These rooms are, in all respects, arranged and furnished like those of a private residence; and Dr. Jacobi, the medical director of the Hospital for the Insane at Siegburg, in the account of his visit to the Retreat, already quoted, observes that "the sitting and bed-rooms, in the parts appropriated to the wealthier inmates, have a very inviting friendly aspect, as they possess every convenience in the way of commodious and expensive furniture, and such as one is accustomed to meet with in the abodes of the wealthier English." Immediately behind the south front of the centre building, and about forty-five yards distant from it, is the distinct building for the upper class of male patients, which, as already alluded to, was erected in the year 1817, and is rather inaptly called the "Lodge." This building, which is a little

in the cottage ornée style, has a verandah fronting to the south, and commands a pleasant prospect of the village of Fulford. It has its separate raised gravel walks, flower borders, and plantations around a distinct paddock; and it contains a dining-room, two parlours, seven lodging-rooms, a room and airing court for the seclusion of a violent patient, and all needful offices. It communicates with the main building by a long covered passage, opening into which are the principal bath-rooms of the establishment. The "Lodge," like the apartments in the "centre," is fitted up and furnished in a comfortable style; and, to a great extent, it may be regarded as combining the advantages of a public, with those of a private, institution for the insane.

The apartments of the male patients of the general class occupy the first and second floors of the whole of the east and south east wings. These patients are divided into three classes, which average twelve each, according to their state of mind and general habits of life, and not at all in reference to the rate of payment. These classes may be described in general terms, as consisting of: 1st., the convalescent, and those capable of much rational enjoyment; 2ndly, the noisier and more disorderly; and 3rdly, the imbecile and fatuous. Each of these classes has its separate day-room on the ground-floor, with its airing court adjoining; and two of them have distinct exercising galleries. In addition to the general day-room, there is also, adjoining the gallery of the first class, a reading-room, where there is a collection of books for the use of the patients. Communicating with the gallery of the second class there is a workshop. This part of the establishment is also provided with an apartment for the entire seclusion of a violent patient: it is furnished with a strong chair, for the use of its temporary occupant, which is securely fastened to the floor; and there are means for more or less excluding light, without preventing the free admission of air. In this department there is a second bath-room, and a drying apparatus.

The whole of the western half of the buildings, including the west, north-west and south-west wings, with the exception

of those parts on the ground-floor, which are appropriated to domestic offices, is devoted to female patients of the general class. These patients are divided into four classes, varying in number, on an average, from ten to twelve. The day room, exercising gallery, and bed-rooms for the fourth class, consisting of the imbecile and fatuous patients, occupy the ground-floor of the south-west wing, and communicate with a distinct and spacious airing court. Adjoining this department is a gallery with sleeping rooms for a few of the most noisy patients; and here, likewise, is a room especially adapted for seclusion by day. The other three sitting-rooms, with their galleries, sleeping-rooms, and other conveniences, occupy the second floor of the west, north-west, and south-west wings respectively. The classification in these rooms is less precise than on the men's side of the house; but as much care, as may be, is taken to consult the comfort and general good of the whole, in the association of the patients with each other, those least capable of rational enjoyment being provided for in the department of the fourth class.

From the end of the gallery on the second floor of the north-west wing, a flight of steps opens on a wide terrace walk three hundred and fifty feet in length, and extending across the entire width of a garden, which is exclusively devoted to the women. Adjoining the terrace is a commodious and ornamental alcove, which faces both to the north and to the south, and which is so contrived as to afford a pleasant retreat both in hot and in colder weather. Further variety is given to the aspect of these grounds by a tumulus of some extent, as well as of antiquarian interest, called the "Lamel Hill," which is now planted with trees and shrubs, and has a walk to its summit, from which an extensive view of the city and surrounding country is obtained. In addition to these gardens, there is a second airing court for the use of some of the women, who though not of the worst class, cannot be trusted in the gardens without the constant presence of an attendant.

On the ground floor of the north-west wing are the kitchens, the laundry, and their respective offices; and that

of the original west wing is occupied by the housekeeper's room, and store-rooms, a sewing room, and the dispensary.

The north-east wing, which fronts the entrance gates, contains a house, at present unoccupied, for the family of either of the resident superintendents; a brew-house and bake-house; and an apartment which is fitted up as a place of worship for the patients. On the second floor, and communicating with the men's apartments, are three small bedrooms and two spacious and very airy apartments, which might be used as infirmaries, in case of epidemic disease at any time prevailing in the institution.

Among the defects in the construction of the buildings are their general form; the distances of the day rooms from each other; and the situation of the airing courts; which are so placed, that those for the men are, to some extent, overlooked by the windows of some of the women's apartments. By some recent arrangements however, this inconvenience has been materially diminished. Another defect in the original plan, which has been guarded against in the more recently erected parts, consists in some of the galleries being lighted only at one end; so that they are not in every instance so cheerful as could be wished. Still, on the other hand, the building is not without many advantages as regards the classification of the patients; and, in other respects, the appearance of a place of confinement is very much obviated by the absence of bolts to the doors, and of bars to the windows. The window frames, as already stated, are of cast iron, having the lower half only glazed; the air being admitted or excluded at pleasure, by a glazed wooden sash which is hung on the outer side of the upper unglazed compartment of the iron frame. The size of the panes of glass in the original building does not exceed eight inches by six and a half. It has however been found that, as regards height, at least, these are unnecessarily small; and the appearance of the more modern parts of the building has been much improved, by the use of panes of about eleven and a half inches by seven and a half.

Two of the men's bed-rooms are of spacious size, and contain three beds each; and in each gallery, both on the men's

and women's side of the house, there is at least one room with two beds ; so that any patient who may require such care, can sleep in the same room with the attendant. With these exceptions, the sleeping apartments are single-bedded. In the lowest department, for each sex, there are a few rooms with bedsteads fastened to the floor, which are furnished with bedding, and otherwise constructed, in a manner appropriate to the state of the more violent, and such as are insensible to the calls of nature. In all the other rooms for patients of the general, as well as of the more opulent, class, the bedsteads are half-testered and furnished with a little drapery, put up in such a slight manner as to preclude the possibility of any danger. As there is also a little neat furniture and carpeting in these lodging-rooms, they present in general an aspect of comfort and cheerfulness. The patient, when capable of such considerations, as in the majority of instances he no doubt is, is thus made to feel in some degree as if he were at home ; and there can be no doubt that the attention in these respects paid to the lesser feelings of the patients, has a good general effect. The bedrooms, excepting those for the upper class of patients, which have always been papered, have hitherto been coloured with light blue wash ; but since the great reduction which has taken place in the price of paper hangings, these have been, and are in course of being, substituted, and that with advantage both as to appearance and economy. The walls of the galleries and of the passages are painted of a light pearl colour, and the doors and wood work are chiefly wainscot.

The establishment has been recently lighted throughout with gas ; and it is warmed in winter by a hot water apparatus. The furnace and boiler of this apparatus are placed in the cellar at the Lodge ; and pipes communicating with the boiler are conveyed under the floors of the Lodge passage, of the centre hall, and of the galleries of the east and of the west wing. The attendant who has the care of the furnace, lights the fire in the morning whenever the mercury stands below 40° of Fahrenheit. It may be stated that the general comfort and cheerfulness of the establishment, during the winter season, have been materially increased by these measures.

III.—RULES OF GOVERNMENT: OFFICERS AND ATTENDANTS.

THE government of the institution is vested in a board of forty Directors, appointed from members of the Society of Friends resident in Yorkshire; who, with the Committee, and with such as incline to attend of the agents in the several counties, privileged subscribers, donors, and executors of benefactors to a certain amount, all of whom are ex-officio members of this board, meet four times in the year, for the transaction of the business of the institution.

At every Quarterly Meeting, the Directors receive a report of the Committee's accounts; read over all their minutes, appoint Visitors to examine the state of the institution; and give the committee such advice and assistance as they may think proper, consistently with the general rules and orders that may have been established. At the midsummer quarter a General Meeting is held, when any vacancies, by death or otherwise, in their number are filled up; and when eight fresh directors are appointed, in place of the eight who have been longest on the appointment. This meeting has the power of altering and revising the rules of the establishment; and it annually appoints two new members of the committee, in place of two who go out by rotation. It likewise has laid before it, the annual reports on the state of the institution, of the committee, and resident medical officer; which, on approval, are directed to be printed and circulated amongst the friends of the institution and others interested.

The general inspection, controul, and management of the institution, is entrusted to a Committee of eight members of the Society of Friends of York and its neighbourhood; of whom the Treasurer is ex-officio one. The committee meet once a month, or oftener if necessary; admit and discharge patients, and fix the weekly terms of payment;—receive a monthly report of the state of the patients from the resident-surgeon, and suggestions from him and from the visiting medical officers;—engage or dismiss servants;—examine and pass bills previous to payment;—audit the treasurer's and superintendent's accounts;—appoint three female visitors to

the women's side of the house, one of whom is changed every month;—and cause a clear statement of the funds of the institution to be annually prepared, and laid before the general meeting.

The Officers of the institution, the appointment of whom rests with the General Meeting, are a Treasurer, Visiting Physician, Visiting Surgeon, Resident Surgeon, or other Medical Officer, Superintendent, and Matron.

The Treasurer, whose office is an honorary one, keeps an account of all monies received and paid on account of the institution; and has, in other respects, the care of its financial concerns.

The Medical Officers visit the patients conjointly as often as is practicable: they confer upon, and determine the treatment of, each new case; and they unitedly report to the committee, in writing, when they consider any patient fit to be discharged.

The Resident Medical Officer is charged with the immediate care, moral and medical, of the patients, and with the direction of their attendants. He visits their apartments, and makes himself acquainted with the condition of the patients, at least once daily; and he observes and records the history of each case whilst under the care of the establishment.

The Superintendent is master of the family; has the primary charge of the whole of its domestic economy, and of the out-door establishment, and keeps all the accounts of the institution. He endeavours to co-operate with the Resident Medical Officer, in the moral management of the men patients; and, in the absence of that officer, acts in his stead in regard to the patients and their attendants.

The Matron is mistress of the family, and in the domestic department, has the assistance of a Housekeeper. Under the directions of the Resident Medical Officer in regard to treatment, she has the charge of the women patients, and the oversight of the nurses.*

Omitting any reference to the out-door and domestic servants, the number and description of whom, at the present

* "Rules and Regulations for the Government of the Retreat." 1841-2.

and at previous periods, may be seen in the subjoined table, a few remarks may be made on the number of actual Attendants, and on the proportion which they bear to the number of patients. At the present time, there are in the different galleries and day-rooms of the general class, four male and eight female attendants upon seventy-four patients. Of the female attendants, however, four consist of young persons who act as assistants to the responsible attendants. Including these, the proportion for both sexes, is nearly that of one attendant to every six patients. For the men, considered separately, the proportion is less, and does not exceed one to eight. But there is, it will be seen, an additional upper male attendant, who assists and superintends those who are engaged in agricultural pursuits, during the day, and who, during the evening, has the care of such as have access to the library and reading room; and thus, if he be included, the proportion of attendants on the men is nearly as large as that on the women, or as one to every six or seven cases.

During the last twenty-five or thirty years, the proportion of attendants has been considerably increased. In 1813 the proportion was not more than one to twelve, and in 1828 not more than one to ten patients. The proportion now existing is a very respectable one; and, if all that is practicable in the treatment of the insane be accomplished, it may be questioned whether in any institution, if indeed we except such as are strictly for paupers, the proportion should ever be materially less.

With respect to patients of the more opulent class, who pay for superior accommodation, there are three male attendants upon six or seven gentlemen; and two female attendants upon five or six gentlewomen, who for the most part occupy the same sitting room, so far at least, as to take their meals in common. There are likewise distinct apartments for four or five ladies, each of whom has her separate attendant; and, until very lately, one of these was provided with two attendants, of whom one acted as her companion and upper attendant, and the other as a servant.

TABLE SHEWING THE NUMBERS OF OFFICERS, ATTENDANTS, AND SERVANTS, AT FOUR DIFFERENT PERIODS SINCE THE ESTABLISHMENT OF THE INSTITUTION.

DESIGNATION OF OFFICE.	NUMBER OF PATIENTS, OFFICERS, AND SERVANTS AT EACH PERIOD.							
	1797.		1813.		1828.		1843.	
	15 patients.		65 patients; 2 being of the higher class		94 patients; 12 being of the higher class		94 patients; 17 being of the higher class	
	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.
Physician	1*	.	1*	.	1*	.	1*	.
Surgeon .....	.	.	.	.	1*	.	1*	.
Resident-Surgeon .....	.	.	.	.	.	.	1	.
Superintendent	1	.	1	.	1	.	1	.
Matron .....	.	1	.	1	.	1	.	1
Superintendent's pupil, & assistant	.	.	.	.	1	.	.	.
Matron's assistant or Housekeeper	.	.	.	1	.	1	.	1
Attendant on patients employed in labour .....	.	.	.	.	.	.	1	.
Attendants on patients of the general class	1	1	2	3	3	5	4	4
Assistants to attendants on pa- tients of the general class ....	.	.	.	.	.	.	1*	4
Attendants on patients of the higher class .....	.	.	1	1	3	3	3	2
Attendants on patients of the higher class having separate apartments .....	.	.	.	.	.	.	.	6
Housemaid, Cook, and assistants	.	2	.	3	.	5	.	5
Laundry-maids .....	.	2*	.	2	.	3	.	3
Gardener	1	.	1	.	1*	.	1*	.
Lodge-keeper, baker, &c.	.	.	1*	.	1*	.	1*	.
Farming Servant .....	.	.	1*	.	1*	.	1*	.
	4	6	8	11	13	18	16	26
Total Officers and Servants ..	10		19		31		42	
	3	4	5	11	8	18	10	26
Total residing in the house ..	7		16		26		36	

* The non-resident officers and servants are distinguished by asterisks.

Several of the convalescent patients frequently assist the attendants in their duties; and three or four of the most efficient and trustworthy attendants, have, at different times, been females who had recovered from attacks of mental disorder in the institution, and who were engaged in this capacity at their own particular request.

IV.—METHODS OF TREATMENT: PHYSICAL AND MORAL.

IN entering on the consideration of the methods of treatment pursued at the Retreat, I shall take the opportunity of making a few general observations. In the first place it may be observed, that the treatment of mental disorders, even by experienced medical practitioners, has been, and still continues to be, either too exclusively moral, or too exclusively physical, according to the theory which is entertained as to their essential seat; in other words, whether this is in the physical or psychical part of the human constitution. Since, however, the action of body upon mind, and of mind upon body are so reciprocal, there can hardly be a doubt that, in nearly all cases, the simultaneous application of both these classes of means ought to take place; though, in some instances, the psychical, and in others the physical, may be of the greater importance. But, however slight and apparently insignificant the physical signs of its existence may frequently be; and though, in the present state of our knowledge, it may often be difficult or even impossible, both during life and after death, to determine its exact seat, I still cannot but conclude that insanity is in truth a physical disease. Recent investigations, however, into the physiology and pathology of the brain and nervous system, warrant us, I think, in hoping that we may yet detect those morbid conditions of the functions and of the organization on which mental disorders depend; and until this has been done, our treatment of insanity must necessarily be through the symptoms, and, to a great extent, defective and experimental.

Entertaining these views, I nevertheless cannot but attach great importance to the use of physical means in the treatment of mental disorders; for if insanity really depend on some morbid conditions of the bodily frame, it follows, as at least highly probable, that every thing tending to the restoration or maintenance of the bodily health must be of primary importance in its treatment. And thus, though it must be admitted that cases do occur in which direct pharmaceutical means neither appear to be indicated, nor, if resorted to empirically, are of any avail, yet the attention of

the medical attendant on the insane should, in all cases, be directed to the state of the bodily health. In the first place, and in particular, he will endeavour to determine whether the mental disorder most probably depends upon some primary disturbance of the brain and nervous system; or whether it is dependant on some sympathetic derangement arising from disorder in distant organs, but particularly in those of the digestive, circulating, cutaneous, or uterine systems. When the physician succeeds in this enquiry,—when in fact he is able to make a correct diagnosis, and to apply the remedies appropriate to the disordered bodily functions, one great step towards the restoration of the patient is gained. When, at the same time, the patient is removed and protected from all external causes of excitement, and suitable moral treatment is resorted to, for the purpose of checking irregular habits and propensities, of directing and strengthening the mental processes and associations, and of giving scope for the due exercise of the healthy powers and feelings of the mind; there can be no doubt, that he is placed under the circumstances most conducive to recovery. But when the bodily disorder, however apparently trivial, is neglected, and when moral treatment is solely employed, our measures, being addressed simply to symptoms, and only to a portion of these, are incomplete, and so far faulty; and, under these circumstances, if recovery occur at all, it must be attributed to the natural tendency to this result, which exists in nearly all diseases, rather than to any appropriate combination of means, though these may have had some influence. I freely admit indeed that, being still in their infancy, the physical diagnosis and treatment of insanity are necessarily imperfect; and that there are cases, though these are fewer than was once thought, in which no symptoms of bodily disorder can be detected; and that in these, in the spirit of a sound and rational empiricism, we must rely on moral treatment alone.

It is not pretended that precisely the views of the subject which have been here taken, have, during the whole of the period in which the Retreat has been in operation, governed the ministrations of its successive medical officers; but,

upon an examination of its records of various kinds, it is at least satisfactory to find, that neither moral means to the exclusion of physical, nor physical to the exclusion of moral, (under which head, using the word *moral* in the sense of *psychical*, and not in that of *ethical*, I include every thing capable of acting either on the intellectual or affective part of our nature) have ever been exclusively relied on. Nevertheless it must be admitted that the earlier experience of the institution was, to some extent, more in favour of moral, and less in favour of physical, measures than is at present the case.

PHYSICAL TREATMENT.—Under the head of physical treatment, in addition to diet and pharmaceutic measures, we should, in an extended description, have to consider all those particulars in the circumstances by which the patient is surrounded, which are capable of acting favourably or unfavourably on his health. In this division of our subject would be embraced the consideration of the drainage and ventilation, and of the due warming, lighting, and cleanliness of the building in all its apartments; the clothing and personal cleanliness of the patients, on which too much attention can scarcely be bestowed; the hours for sleep and meals; and, though these have a moral, as well as a physical operation, the means of exercise, occupation, and amusement;—everything, in fact, which is capable of any hygienic effect. All these, which, when taken collectively, constitute a circle of means of no trivial importance in the treatment of the insane, require the vigilant care of the medical and other officers attached to hospitals for their reception, in order that their general arrangement may be such as is most completely conducive to health. In this place, we need not, upon most of these points, further observe than to state, that as respects all of them, the attendants are now provided with a set of printed “Instructions,”* to which, under ordinary circumstances, it is expected they will conform; whilst in particular cases, it of course rests with the medical officer to provide for the appropriate modification of these agents. Before passing to the consideration of moral

* “Rules for the Government of Attendants and Servants, at the Retreat near York; with Instructions as to the Management of the Patients, &c. 1842.”

treatment, we must, however, devote a few pages to some remarks on the diet and pharmaceutic treatment pursued in the institution.

DIET.—The diet of the patients has, from the first establishment of the institution, been liberal; and has always included a fair, and of late years perhaps a rather full, allowance of animal food. If it be recollected that at the time when the Retreat was established, the very erroneous notion was much more prevalent than at present, that insanity, at least when attended by much excitement, was always to be treated by a spare diet and other reducing measures; the more credit will appear due to the discernment of the early officers of the institution, who acted so decidedly in this respect upon what, speaking generally, has now been fully proved to be the correct view of this subject.

The description of food does not differ from that generally in use by the middle class of society in this country. With the exception of some of the demented and fatuous patients, chiefly of the poorer class, who have only three, the patients partake of four meals daily. Home-brewed beer, to the extent of a pint, or a pint and a half daily, is allowed to such as desire it, when it is not considered unsuitable in a medical point of view.*

It would be difficult to institute an accurate comparison between the diet at the Retreat and that of other institutions for the insane; in consequence of the peculiar domestic arrangements of the former establishment. It has always been one of the distinguishing features of the economy of the institution, to endeavour to make the patients feel, as much as possible, *at home*; and with this view the diet has never been limited by weight and measure.

The meals are served and the tables furnished much as in a private family; and the attendant takes the head of the table, carves, and helps all those whose diet has not been particularly prescribed. No material restriction is placed upon the quantity of food partaken of by each individual,

* It may be interesting information to some, that several of the patients as well as attendants have, entirely of their own accord, both signed, and adhered to, the pledge of total abstinence from fermented and alcoholic liquors.

unless for reasons connected with the health of the patient. Knives and forks are supplied at every table, precautions being taken to cut the food of the very violent, and serve it to them in their own apartments. The general hours for meals are, for breakfast, from seven to eight o'clock according to the season; dinner, for the general class, one o'clock, and for the upper class of patients, two o'clock; tea, from five to six o'clock; and supper, when allowed, at eight o'clock.

The most important feature in the diet at the Retreat, consists in the large proportion of animal food which it contains. The dinner, until recently, consisted principally of meat; although vegetables and bread always, and puddings generally, formed part of the meal. Taking the average of patients, officers, and servants for the year 1839-40, the mean weekly consumption of uncooked animal food, including bone, was not less than four and a half pounds for each individual.* This may be estimated as equivalent to at least fifty-six ounces avoirdupois of cooked meat per week, or eight ounces daily; which it must be recollected is exclusive of cheese, which, in many dietaries, is reckoned with the meat. This is a quantity of solid animal food which appears to be at least double or treble that which is generally allowed in the large county asylums of this kingdom. The average consumption by the higher class of patients, by the attendants, and the servants, was probably somewhat more, and that by the general class of patients somewhat less, than eight ounces daily. The quantity of butter, cheese, and milk consumed by the patients is likewise large.

It may perhaps be fairly questioned whether the quantity of solid animal food in the diet at the Retreat did not, in many cases, somewhat exceed the desirable amount; and

* The fresh butcher's meat, consisting of prime joints, purchased during this year, weighed 24,499lbs.; the poultry, game, and fish were estimated at not less than 1,795lbs.; and the pork killed on the premises at 2,660lbs.; making a total of 28,924lbs. The average loss of weight in the cooking appears to be about 29 per cent. for roast, and 16 per cent. for boiled, meat; and it may be estimated at from 20 to 25 per cent. for all kinds of meat. The average number of inmates of all descriptions, during the year, including occasional visitors, does not appear to have exceeded 123.

whether a larger proportion of puddings and other farinaceous articles, and of vegetables, might not have been advantageously substituted for a portion of the meat allowed at dinner. Some such a change in the provision for the table has, for some time, engaged my attention, and has also been under the consideration of the other officers and committee of the institution. It has been found difficult to carry out measures, which should ensure the consumption of less meat by the patients, in cases where no special medical rule is laid down; but, during the past year, the following general directions as to a dietary, having this object, and providing for a greater variety of vegetable and farinaceous food, have been agreed to, and placed in the hands of the superintendent and housekeeper.

“ 1.—*General House Diet.*

Breakfast.—Coffee, moderately strong, and with a plentiful proportion of milk. Tea allowed in particular cases. Bread and butter or toast.

Luncheon (for the feeble and those actively employed in the open air.)—A slice of bread, or of seed cake, with a draught of milk and water, or such other beverage as may be directed.

Dinner.—Plain roast or boiled meat daily: mutton and beef to be preferred to the younger meats; but, as there is to be as much variety as may be in the food, veal, lamb, and pork, and, for the upper class of patients, poultry and game are to be occasionally provided. Once or twice a week, according to the season, the dinner may consist principally of fish or soup (the soup being thickened with barley, rice, or oatmeal, and some vegetables); but on these days, cold meat is also to be on the table, chiefly for those who prefer it, or to whom soup or fish would be unsuitable. Cold meat, with hot vegetables and puddings, may form the dinner on the first day of the week. Of vegetables there should be an ample supply daily, particularly potatoes, and well-boiled greens, carrots, turnips, or parsnips, according to the season. When there is soup or fish, potatoes may form the only vegetable; and cabbages, brocoli, or other greens, may be

the principal ones with hot meat. There should be puddings of one of the following kinds daily: rice, whole or ground, and baked or boiled; sago or barley puddings; batter puddings; yeast or suet dumplings, eaten with gravy, sugar, or treacle; bread puddings; suet puddings containing fruits of various kinds, particularly gooseberries, currants, or apples, or rhubarb stalks, in their several seasons, or preserved fruits. No meat pies, nor highly-seasoned dishes, nor salt meats, unless boiled fat bacon, to be provided; nor salads or other raw vegetables, nor pickles, unless in small quantities. The cold meat which cannot be served up as such, may occasionally be made into hash; care being taken not to overcook it, nor to make it too rich or greasy. Half a pint of beer may be furnished with dinner, but not more, unless specially permitted.

Tea.—The same as breakfast, tea, not too strong, being substituted for coffee.

Supper.—To be in general a very light meal; consisting of a roasted potatoe or apple; a little bread and butter or bread and treacle, boiled milk and bread; or, if accustomed to it, bread and cheese, with beer or milk and water; occasionally, and in general for the upper class of patients, stewed fruit and bread, and during the season fruit pies made with a really light crust. No meat suppers unless specially permitted.

2.—*Low Diet.*

Breakfast.—Weak tea with dry toast.

Dinner.—Mutton broth; and plain rice, batter, or bread pudding; toast or barley water.

Tea.—The same as breakfast.

Supper.—Water-gruel, or boiled milk, or thin sago, or arrow-root."

PHARMACEUTIC MEANS.—Although this would not be the proper place to enter into any lengthened or particular details as to the more strictly medical or pharmaceutic means employed in the institution; yet, for the purposes of medical statistics, this sketch of its internal economy would be decidedly defective, did it contain no allusion to them.

In the first place, after what has been already stated, it is scarcely necessary to observe, that no single system of treatment is considered applicable to the various cases that come under care; but that a discriminating selection of remedies, *according to the physical indications*, is the plan which the medical officers of the institution endeavour to keep before their view, in the treatment of each case. Severe antiphlogistic or reducing measures are seldom resorted to; and, with a few exceptions, it has been found that where venesection and other means of a similar kind have been carried to a great extent before admission, the recovery has been more tedious, and in some cases, perhaps, prevented. That, however, there are cases of acute mania, bordering on phrenitis, in which general bleeding is called for, I have no doubt. In recent cases indeed, of various forms of mental disorder, when attended by symptoms of cerebral congestion, the cautious use of local bleeding either by leeches or cupping, followed sometimes by blisters to the nape; brisk mercurial purgatives, evaporating lotions to the head, and stimulating pediluvia, being at the same time employed; are very frequently attended by decided advantage. Where the physical signs of cerebral disturbance are more marked, a mild mercurial course, with or without opiates, and carried only to incipient ptyalism has, in some cases at least, been speedily followed by convalescence. In cases of mania attended by much excitement, where the general means first mentioned either appear inapplicable, or if tried, are not followed by decided relief, the tartarized antimony, in full or nauseating doses, is often employed with much advantage. Preparations of opium, and particularly Dover's powder and the salts of morphia, hyoscyamus and other sedatives are frequently resorted to, with the effect of tranquillizing the patient and producing sleep; and without being followed by those unpleasant symptoms which were formerly thought to arise from their employment. In some cases, unattended by signs of active hyperæmia or inflammatory action, the continuous use of opiates so as to keep the patient for some time steadily under their influence, has evidently paved the way to complete recovery. In these cases, the remedy

appears to act by maintaining the system in a state of repose, and by thus affording the functions of the brain time and opportunity to regain that healthy operation which they had lost.

The frequent use of the warm bath is found of great service in cases of melancholia ; and, when combined with cold affusion or evaporating lotions to the head, is sometimes thought of use in subduing the excitement of the patient in some cases of mania. The shower bath, either tepid or cold, and both as a sedative and as a tonic, is also frequently employed, and with beneficial results.

In a large proportion of cases, however, the medical treatment is necessarily limited to the removal of symptoms, in other parts of the system, which have only an indirect relation to the cerebral derangement. Under these circumstances, bitters, aperients, diaphoretics, emmenagogues, and other appropriate remedies are frequently of great service by acting upon and restoring the functions of the stomach, bowels, skin, or uterine organs. There have been some cases, from the first, and many during the progress of the disorder, in which it has been found necessary to invigorate the tone, and support the powers of the system by the use of a generous diet, quinine, chalybeates, or other tonics ; or by wine, porter, ammonia, or other stimulants or cordials ; and in which convalescence has speedily followed. There is indeed no method of treatment, nor any particular remedy, which may not be found applicable to cases of mental disorder ; the proper treatment of which necessarily implies an acquaintance with the healing art in its most extensive relations ; so that if all were to be said that might be on this subject, I should be led into a treatise on general therapeutics.

In conclusion it may be repeated, that on the whole, the experience of the present medical officers favours the conclusion that more is to be effected by the judicious use of pharmaceutical means, than was thought practicable by the earlier medical officers of the institution. At all events, the statement of Dr. Burrows, that "insanity was formerly in that asylum (the Retreat) scarcely considered to be a remedial complaint ; and, consequently, medical aid was resorted to only

when the patients were afflicted with other disorders,"* has, if ever applicable to this institution, long ceased to be so. It is, however, not improbable that the notion of a greater neglect of pharmaceutic treatment at the Retreat than ever really existed, may have arisen from the protest which was made against all nostrums for insanity; and against the empirical treatment which at that day prevailed, of bleeding and administering aperients and emetics, at stated periods, and to patients of all classes indiscriminately. Independent of such empirical practices, it may well be doubted whether, in any public institution, more discriminating medical attention prevailed than at the Retreat, during the first ten or fifteen years of its existence; the period to which Dr. Burrows refers.†

TABLE SHEWING THE PRINCIPAL PHARMACEUTIC REMEDIES USED IN THE INSTITUTION.

CLASS OF REMEDIES.	PARTICULAR REMEDIES.
DEPLETORY AND DERIVATIVE MEASURES.	Leeches behind the ear, to the temples, epigastrium, &c.; cupping to the nape; general bleeding very rarely. Evaporating lotions to the head. Blisters. Setons and issues occasionally.
SEDATIVES, &c.	Digitalis; hydrocyanic acid; tartarized antimony, in full or nauseating doses; mercurials to incipient ptyalism.
OPIATES AND OTHER NARCOTICS.	Tincture and pills of opium; Dover's powder; Battley's liquor; salts of morphia; hyoscyamus; camphor.
APERIENTS.	Senna, with sulphate of magnesia; castor oil; calomel with rhubarb, jalap, or extract of colocynth; pills of aloes and myrrh; compound decoction of aloes, &c.
DIAPHORETICS.	Acetate of ammonia and nitric ether; nitrate of potass and antimonial wine; effervescing draughts.
TONICS AND STIMULANTS.	Bitter infusions and tinctures, with or without alkaline salts; quinine; Griffith's mixture, and other chalybeates and metallic salts; porter; wine; alcohol; ammonia; ether, particularly Hoffman's anodyne; aromatic confection, &c.
BATHS, &c.	Warm, cold, shower, hip, and foot baths. Dry friction.

* "Commentaries on Insanity," 1828, p. 558.

† It must be observed that I have the authority of my respected colleagues,

MORAL TREATMENT.—To enter fully into the consideration of the moral treatment of insanity would lead us into a very lengthened enquiry, though it would be one of great interest and importance. Such an enquiry would naturally commence with an analysis of the intellectual powers, the moral feelings, and the natural instincts, as deranged and perverted rather than abolished, under the influence of the various forms and phases of mental disorder. We should then have to enquire into the means of influencing, regulating, and restraining these abnormal psychical phenomena, and so of gradually changing their character. In the commencement of the enquiry, some might suppose that such strange and unusual manifestations of mind would require some equally unusual and special agencies to be called into play for their suppression. And this principle has in fact been too generally acted upon in former ages, and in some degree even in our own day; and it perhaps affords the best apology that can be offered for the cruelties and barbarities which have been so unblushingly resorted to in the treatment of the insane. We should, however, doubtless soon conclude, that the right methods of controuling disordered mind are founded on those principles which psychological science and a right system of ethics,—in other words, which a sound philosophy no less than Christianity teaches us ought to govern our intercourse with our fellow-men, in the various relative positions in which we are placed to them; and which form the only true basis of the arts of the legislator, the magistrate, the parent, and the educator. It would be inconsistent with my present purpose to enter into a detailed examination of these principles, or of the facts and arguments on which they are founded. Nevertheless, some remarks on the subject cannot be omitted in this place.

The primary objects which the officers of the Retreat endeavour, however imperfectly, to keep before their view in the moral treatment of the insane, are those of calling into

the visiting medical officers of the institution, Dr. H. S. Belcombe, and C. Williams, for stating that the above sketch of the pharmaceutic treatment pursued at the Retreat, has been submitted to their perusal, and that it has their concurrence.

activity, as much as practicable, the remaining mental faculties; of cultivating in the patient the moral sense of right and wrong; and, as a consequence, the power of self-restraint. These objects are effected in numerous instances, by appealing to, and encouraging the natural feelings of love of approbation and self-respect; which, under different forms, and in various degrees, appear to be common to mankind under all circumstances, and which are seldom altogether obliterated even in a state of insanity; unless, indeed, in very old and confirmed cases of the disorder, chiefly of the fatuous kind. We should never forget the extent to which the patient may be influenced by moral and rational considerations and motives; and in endeavouring to effect the important objects which have been adverted to, and in order to obtain an influence over his mind, the study of the character of the patient, as well as the psychical peculiarities of the disorder he labours under, should never be disregarded. An uniformly kind manner, and considerate conduct towards the insane; a strict attention to their feelings, even when morbidly sensitive; the treating them in fine, *as much as possible, as responsible beings, and as if they were sane*, are the means which are found most successful in winning their confidence, and of thus obtaining an influence over their minds.

In the treatment of insanity in all its forms, the power of judicious kindness can hardly be over estimated; and the effects of a patient, sympathizing, and hopeful demeanour towards the depressed and melancholy appear fully to warrant the observation of a late distinguished writer, that "in the treatment of nervous cases, he is the best physician, who is the most ingenious inspirer of hope."* But though this is the case, and notwithstanding what has been said, in a preceding section, of the abuse of the passion of fear in the treatment of the insane, it cannot be denied that in cases of violent and perverse insanity particularly, the influence of this feeling is not to be altogether disregarded. The use indeed, which has been alluded to, of the feeling of *hope*, almost necessarily implies that of its opposite, *fear*; and

* Coleridge.

it is no doubt true that on the one hand the hope of acquiring, and on the other the fear of losing, those greater degrees of liberty and comfort which are granted upon the appearance of amendment, have a beneficial action and re-action, both in individual cases, and on the patients as a body.

The practice which prevails at the Retreat of avoiding all direct opposition, (except where the general good or that of the individual is obviously compromised,) to the frequently wayward views and perverse conduct of patients, and of not reasoning with them on the subject of their several hallucinations, and the substitution for these generally worse than futile practices of various indirect means in the shape of occupation and amusement of various kinds, adapted to seduce the mind from its favourite but unhappy musings, is now generally recognised as correct; and, as regards the means used, has, in some hospitals for the insane, both in Great Britain and on the Continent, been of late years carried fully as far, and in some respects perhaps farther than in this institution. On the other hand, it is found very important, especially in curable cases, to avoid even the slightest approach to deviation from truth, or to deceit, in our intercourse with the patients; for although it is not uncommon for the the insane person to be temporarily gratified and pleased by the assent of those around him to some favourite but erroneous view or hallucination, yet, upon the return of a more rational state of mind, he is generally found to feel and often to resent having, as he thinks, been treated like a child, and so far to have lost his confidence in the person who has thus conducted himself towards him.

Although great patience in listening, and prudence or even reserve in replying, to the conversation of the insane, has appeared to be the best general rule of conduct; yet an occasional serious expression of dissent from his erroneous judgments has, in some instances, been thought useful. And it may be here observed that, whilst in our intercourse with patients, we should guard closely against adopting a low standard of moral feeling; we should not the less cultivate a ready sympathy with the weaknesses of our nature, and even a commiserating allowance for the follies and vices

of mankind, most of which, and that in exaggerated and protean forms, are to be found within the walls of an hospital for the mentally diseased.

A due regard to the exercise and cultivation of the religious feelings has always been recognized at the Retreat as an important element in the treatment of the patients. On an average about a sixth of the whole number are accustomed, twice a week, to attend, accompanied by their attendants, the usual meetings of the Society of Friends in the city; whilst such as belong to other religious denominations, are, when suitable, attended to their respective places of worship. A portion of the Scriptures is also daily read after breakfast by the principal attendant to each company of patients. On the afternoon of the first day of the week, as many as are able and can be induced to attend, often amounting to more than half the whole number, are collected in the apartment especially appropriated to this object, whilst the superintendent, or one of the officers of the institution, reads several chapters of the New Testament, and a portion of the Psalms, or of some other part of the Old Testament; after which a short period of devotional silence is observed. The whole occupies somewhat more than half an hour: several attend who are disposed to more or less of irregularity of conduct, and the self-restraint which, under these circumstances, is often exercised, is no doubt frequently productive of good. And, independently of the higher moral and religious considerations connected with the subject, the general effect is, no doubt, from old associations, soothing and beneficial.

It may be remarked that, after nearly thirty years further experience, but little can be added to the following summary of the general principles of the moral treatment of the insane. "The attendant on the insane ought sedulously to endeavour to gain their confidence and esteem; to arrest their attention, and fix it on objects opposite to their illusions; to call into action, as much as possible, every remaining power and principle of the mind; and to remember that, in the wreck of the intellect, the affections not unfrequently survive."

The importance of the duties performed by attendants on the insane, in connexion with proper moral treatment,

renders their selection and superintendence a task of considerable difficulty: indeed the moral and intellectual qualities to be desired, though not always to be attained, in all who come in contact with the insane, are of no ordinary kind. In their general character they most nearly resemble those required in an instructor and guardian of youth; though they are perhaps of a still more peculiar description, and require the union of great kindness of heart and of manner, with decision of character and firmness of conduct. At all events, in the language of the poet, it may be said, with as much propriety to the one as to the other,

"Love, Hope, and Patience, these must be thy graces,
And in thine own heart let them first keep school."*

It is too often found that unless the attendant, to a great extent, both comprehends and enters into the spirit by which, as regards moral treatment, the directing officers of the institution are actuated, the efforts of the latter will be imperfectly carried out; and, in some cases, even altogether defeated. To provide, in some degree, against this difficulty, it may be here stated that, early in the year 1842, the printed "Instructions to the attendants" regarding the general management of the patients, as well as their particular duties, which have been already referred to, were, with the concurrence of the committee, drawn up by the officers of the institution; and by this means it is trusted that greater assiduity and uniformity of practice, as well as other advantages, will be secured to the patients, and to the institution. As further exhibiting the moral treatment pursued and inculcated in the establishment, I shall here introduce the following extracts from these instructions.

"The attendants must endeavour always to bear in mind the great objects of the institution in which they are placed, and the peculiar circumstances of the persons who are committed to their care; for whose welfare, security, and comfort, they must consider themselves as, in great measure, responsible.

"The duties of an attendant require him to be on his guard

* Coleridge's "Love, Hope, and Patience in Education."

against some of his strongest natural tendencies and feelings ; and, in particular, against the tendency to resent injuries, and to treat others according to their conduct towards himself. He will find it needful to cultivate the strictest habits of self-government ; and to adopt a cautious, respectful, but firm demeanour towards those who are entrusted to his care.

“ The attendants must not regard themselves as the masters of the patients ; but as the servants of an institution, founded for the relief and recovery of those who are suffering under the most trying of all diseases ; and who require to be treated with the utmost kindness, patience, and forbearance. The directions received from the Resident-Surgeon and Matron, in regard to the mode of treatment, must be strictly followed by the attendants ; and they must, in all respects, support and enforce the authority and influence of the officers with the patients.

“ However foolish, malicious, or offensive, the language or conduct of a patient may appear, the attendant, whilst giving no countenance to it, must accustom himself to regard it as the expression of a disordered mind ; and must endeavour to maintain a calm and forbearing deportment ; and to avoid every appearance of irritation or anger on the one hand, or of embarrassment or timidity on the other. He must abstain from everything approaching to favouritism ; and should endeavour to treat, with uniform kindness, those who give the most trouble, as well as those who give the least.

“ The attendants should take pains to acquire a knowledge of the characters of the patients ; to obtain their confidence by friendly treatment, and by actively promoting their comfort and real enjoyment. The requests of patients should be complied with, within reasonable bounds ; but no promises should be made, or expectations given to them, which cannot be performed. They are expressly forbidden from encouraging patients in the expression of their deranged ideas, or from in any way taking pleasure in the exposure of their weaknesses.* They are also enjoined to avoid all disrespectful or improperly familiar modes of address ; so that neither

* “ Take no pleasure in the folly of an idiot, nor in the whims or fancies of a

the feelings of the poorer or less educated, nor those of the upper, class of patients, may be needlessly offended.

“The attendants must carefully avoid all unnecessary interference with the proceedings of the patients; but when they carry on loud and incoherent conversation, or indulge in excited or violent conduct, they must endeavour, in a gentle manner, to lead them to stillness, and to divert their attention to other objects; but should they find such efforts to soothe fruitless, and should other patients be not thereby annoyed, it will be most prudent to cease from further interference, and allow the patient time to become calm.

“When an excited patient cannot be soothed or controlled by these means, and his conduct becomes disturbing or irritating to the rest, he must be removed as quietly as possible to his own bedroom; or, if needful, to a secure, and suitable secluding-room. This must be reported immediately to the Resident-Surgeon; and, on the women’s side, to the Matron. At the end of from one to two hours, or even sooner, according to circumstances, the patient must be visited; and if he appear calm and composed, he may be re-admitted to the day-room, or be allowed to take exercise in the airing court, under the immediate and particular notice of the attendant. No further restraint is ever to be resorted to, except by the direction, or with the concurrence of the Resident-Surgeon or Matron; unless in cases of extraordinary emergency, when the attendant shall immediately inform them thereof.

“The attendants are expected, as much as possible, to keep under their notice all the patients committed to their charge; and, without exciting their suspicion, narrowly to observe their conduct, and whatever regards their health. They will be expected to be able, from time to time, to answer the questions of the Resident-Surgeon; and to report to him anything which they have observed affecting the bodily or mental health of their charge.”

As these remarks may fall into the hands of persons, not

Lunatick, nor in the frenzie of a drunkard; make them the object of thy love and pity, not of thy pastime, when thou, alas! beholdest them, behold how thou art beholden to Him who suffered thee not to be like them! There is no difference between thee and them, but God’s favour.”—*Quarles; Enchiridion.*

professionally interested in the subject, but who, nevertheless, may be brought into contact with persons suffering under an attack of insanity; it is to be hoped that what has been said respecting the moral treatment of the insane may be the means of preventing some of that injudicious and even harsh conduct, which has occasionally been found to have exerted an injurious effect upon the progress of cases brought to the Retreat. The injudicious conduct which has been alluded to is, no doubt, generally the result of misapprehension, which can only be removed by further knowledge of the subject; and hence it cannot be too generally known that, in a large proportion of cases of insanity, it is the moral department of mind,—the temper and social feelings—which are the first to be affected. And thus, as has been truly stated, “a thousand occasions of painful and offensive intercourse have generally arisen between the insane person and his relations, before he has obtained the excuse which *admitted* insanity affords.”* For these, as well as for various other reasons, the visits of the near relatives of patients, should, if they take place at all, be allowed with great care until convalescence is fully established.

There are two subjects connected with the moral treatment of insanity, which, from their importance, cannot be passed over without specific notice. These are, first, the means for exercise, occupation, and amusement; and secondly, the question as to the personal restraint of the insane.

MEANS OF EXERCISE, OCCUPATION, AND AMUSEMENT.—Of all the modes by which the insane may be induced to restrain themselves, regular employment is doubtless the most generally efficacious; and those kinds of employment are to be preferred, both on a moral and physical account, which are accompanied by considerable bodily action, which are most agreeable to the patient, and most opposed to the illusions of his disease. In accordance with these views, the female patients have always been employed, as much as possible, in sewing, knitting, or domestic affairs;

* “Pathology of the Human Mind,” by T. Mayo, M.D., 1838, p. 98.

and, when convalescent, in assisting the attendants. Although a considerable number of the men have also been engaged in gardening, and in agricultural and other pursuits, and that with great advantage, yet the proportion actually employed, was always, until a recent period, much less than that of women. This arose from the circumstance of only a small proportion having been accustomed to any mechanical or agricultural pursuit; and from many being of the more opulent and educated class, who would not willingly engage in labour, and might feel offended if urged, and degraded if compelled, to do so.

The managers of several hospitals for the insane, both in Great Britain and Ireland, and on the Continent, have, within the last ten or fifteen years, particularly directed their attention to the provision of suitable occupation for the patients, and have succeeded, especially in institutions for paupers, in organizing a more general system of labour and employment than had at that time been accomplished, at least as regards the men, at the Retreat. The effects of this system, in the asylums at Wakefield and Hanwell, into both of which it was introduced by the late Sir William Ellis, in the Scotch Chartered, and in the Irish District Asylums, have been most happy both as regards the comfort and general health of the patients, as well also as in leading to a greater number of recoveries. Various mechanical and handicraft employments have been introduced; but agricultural occupations are those which have been most uniformly found beneficial, and which have justified the high opinion which had always been entertained of them, when used on a smaller scale, at the Retreat.

Encouraged by the success of these institutions, the committee and officers of the Retreat determined, about five years since, to make an effort to introduce the systematic employment of the male patients in gardening and other agricultural pursuits. For this purpose, an attendant was engaged to take the more immediate charge of those who should go out to work. The number of men who have been induced to engage in out-of-doors employment, and the quantity of work done have both fully equalled previous expectation. In the spring of the year 1839, a grass field

of more than two acres was dug out, and has since produced five very abundant crops of potatoes and other produce. During the past year, 1842-43, twenty-six of the men have been employed in agricultural and [out-of-doors pursuits; and on an average the daily number, more or less so occupied, has not been less than fifteen. When the small proportion of the patients who, prior to admission, have been accustomed to agricultural pursuits, and the consequent greater difficulty in inducing patients to engage in them, are considered, the proportion so employed, though not equal to that in several of the large pauper institutions, must still be regarded as considerable. The employment has evidently conduced to the comfort and health of those who have engaged in it; and it has appeared to promote the recovery of some. Some of the imbecile and nearly fatuous patients, who had been in that state for many years, and had never been known to employ themselves in anything, have been induced to assist very materially in these pursuits. When the weather does not permit employment in the open air, some of the men have been occupied at the lathe, and in other simple mechanical pursuits, such as the making of wooden hay-rakes, &c. It is satisfactory to observe that no accident has resulted from placing agricultural and other tools in the hands of the patients. The general effect of these methods of employment has been so satisfactory, and I am so impressed with the importance of occupation in the moral treatment of the insane, that I hope before long we shall be able to carry it out to a still greater extent.

TABLE SHEWING THE NUMBERS EMPLOYED, AND THE PRINCIPAL KINDS OF EMPLOYMENT, DURING THE YEAR 1842-43.

	Male.	Fem.	Total
Agricultural employments of the more laborious kinds.....	14	.	14
Agricultural employments of the lighter kinds	11	1	12
House-work	1	3	4
Needle-work .....	.	25	25
Needle-work occasionally .....	.	12	12
Reading, &c.	8	2	10
Drawing, Fancy-work, &c.	1	3	4
More or less employed	35	46	81
For the most part unemployed, except in taking exercise	15	16	31
Total under care during the year.....	50	62	112

A reading-room, with a select library, consisting of books of travels, natural history, biography, history, and moral and religious works, has been provided for the men, the more orderly of whom have access to it, under certain regulations as to conduct and behaviour. The books in this collection are also allowed to circulate among the women; and patients of more extensive acquirements and literary tastes have the opportunity of procuring the works of nearly all standard authors, from two excellent subscription libraries in the city. The occasional delivery of lectures, chiefly of a demonstrative kind, on scientific and other subjects, serves as a pleasing and useful means of interesting several whose attention is not readily fixed by subjects of any kind. Some of the patients derive great pleasure from being entrusted with the care of animals of different descriptions, particularly rabbits and poultry; and the peacocks and pheasants, which are kept in some of the courts, form objects of interest and attraction to many others.

Various games of skill, such as draughts, chess, and bagatelle; and the more active ones of cricket* and quoits, form favourite amusements with many of the men; whilst walks in the grounds of the institution, and into the city and country in the company of an attendant, and carriage exercise for the higher class of patients, are frequently resorted to with great apparent benefit, by those of both sexes.

PERSONAL RESTRAINT.—The subject of the coercion

* Dr. Jacobi notices a game of cricket which he witnessed during his visit to the Retreat in 1834, in the following terms. "In one of the large fields there were several patients engaged in a game of cricket; that game so justly a favourite in England, in which bodily strength and activity, united with the sharpest vigilance, are required. I stayed with my conductor (my friend T. Allis, at that time superintendent of the institution,) a long time observing the game, whilst amongst the players the greatest attention was all along visible; and, standing in the midst of them, there was a man, under middle age, who, after long continued mental derangement, was just beginning to awake to great clearness of intellect, and who exhibited wondrous dexterity, boldness, and strength, and was long before he gave up his place to another. I felt lively sorrow at the sight, knowing too well that, on account of its situation, so rich in other advantages, the means do not exist at the Siegburg institution, of carrying out this healthy exercise, so admirably adapted to promote vigour of body in the treatment of the insane."

during a refractory, violent, or otherwise dangerous state, or, in other words, the personal restraint of the insane by mechanical means, has of late attracted much attention. At the Retreat, from a very early period, it has been regarded more or less in the light of a necessary evil; and it has been one of the objects of the managers of the institution, to resort to it as seldom as possible. The Treasurer of the institution, who published his Description of the Retreat so early as 1813, when detailing the means of personal restraint then employed, observes; "with regard to the necessity of coercion, I have no hesitation in saying, that it will diminish or increase, as the moral treatment of the patient is more or less judicious." But he immediately adds, "we cannot, however, anticipate that the most enlightened and ingenious humanity will ever be able entirely to supersede the necessity for personal restraint."

In 1841, when the first edition of the "Statistics of the Retreat" was printed, I made the following observations on this subject. "Within the last two years, the officers of some institutions have attempted, and, in some instances apparently with great success, to conduct the management of even large hospitals for insane paupers, without resorting to such means of restraint. The important experiment of this description," if experiment it can be now called, "which Dr. Conolly is conducting at Hanwell, must on all hands be regarded with extreme interest; as even if it fail in establishing that personal restraint can in all cases be abolished, it has already fully shewn that it may be much more frequently dispensed with, not only with safety but with advantage to the patient, than has hitherto been generally, if at all, suspected.*

* Under this plan of management, various protective and ingenious measures, as regards clothing and furniture, and the occasional seclusion of the more violent, are substituted for direct personal restraint by the strait-waistcoat and other means of that description. But there can be no doubt that the success which has hitherto attended the introduction of this system at Hanwell, is, in great measure, to be attributed to the excellence of the general superintendence, by which "constant attention and gentleness" are, perhaps as far as practicable, secured to the patients.—See "The Fifty-fifth Report of the Visiting Justices of the County Lunatic Asylum, at Hanwell," 1840, p. 3; and also the admirable reports of the resident-physician, Dr. Conolly, given with "the Fifty-first, Fifty-fifth, Fifty-ninth, and Sixty-fourth Reports of the Visiting Justices."

“The officers of the Retreat have not hitherto thought it right, in every case, to dispense with the use of all mild and protecting means of personal restraint; believing that, independently of consideration for the safety of the attendant, they may, in some instances, be regarded as the least irritating, and therefore, the kindest method of controul. But though this is the case, they readily admit that they have derived advantage from the full consideration of the subject which the attempts at Hanwell, Lincoln, and elsewhere have induced; and that they remain open to further evidence on the subject.”

It is now more than two years since the foregoing was written, and I have now the satisfaction of adding that, in practice, personal restraint has by degrees been almost entirely abolished. Whilst we hold ourselves free to direct the use of any means which the necessities of the particular case appear to call for, I am fully convinced that, in a well-arranged and properly-governed public institution, the instances where personal restraint can at all be considered needful are in truth very few; and that they will be found, almost exclusively, to consist of old or mismanaged cases.

I have, indeed, no hesitation in stating,—what can hardly I think be doubted,—that restraint of every description, not absolutely called for, has a tendency to excite in the insane the angry and vindictive passions to which they are only too prone, and thus to prolong the continuance of the disorder in curable cases, and to aggravate its character in incurable ones. The instructions to the attendants on this subject have already been given; and during the current year there has only been a single example of the application of personal restraint, and that was of the mildest possible kind. There has been no instance of its application since the 25th of January, 1843.

The following cursory remarks on the use of social intercourse, and on the provision of sane society for insane persons, have been accidentally omitted from their proper place at a preceding page.

Social intercourse and conversation between the insane

and persons of healthy mind are, under judicious direction, an important means of moral treatment. Such intercourse, with persons of correct judgment and right feeling, is valuable to many patients, but it is peculiarly so to the convalescent. The effort which it frequently appears to excite in the patient, to fix his thoughts, and to correct his feelings by the standard of those around him, is a salutary one; though such efforts should not be induced too often, nor be too long continued.

The circumstances of the Retreat afford many facilities for the application of these means: the number of officers, attendants, and servants, in proportion to that of patients, is very considerable; and this of itself supplies much sane society for the patients. Even the workmen, mechanics, and other persons who are brought by business to the house, afford a degree of useful variety, and even of suitable society to some classes of the patients. But in addition to these sources of conversation and intercourse which the establishment itself provides, it has the benefit of visitors appointed by the Committee and by the Quarterly Meeting of Directors, with whom the patients have frequent opportunities of conversing. Those who are convalescent and who require the particular notice of the officers, and others whose state of mind renders it not unsuitable, are often invited, in smaller or larger parties, to the officers' table; which not only affords them a little variety,—itself a matter of no small importance,—but may also sometimes tend to keep up or foster kindly feelings between both parties, which to the patient cannot but be advantageous. Some of their friends and acquaintances from the city sometimes join parties of this kind; and the patients are not unfrequently invited and allowed to return these social visits. A further approximation to intercourse with the world is obtained by the frequent visits of professional and other persons, who are induced by a rational curiosity or by a benevolent interest in the treatment of the insane, to apply for permission to go over the establishment. Care is taken that the proper privacy of any of the patients is not interrupted; and it is not the practice to mention the names of those who are met with in the course of these visits.

Conversation between the visitors and some of the patients frequently occurs, and the latter are mostly pleased by the opportunity of intercourse, and gratified by any attentions which may be paid them by strangers. It must be admitted that some disadvantages have occasionally arisen from visits of this description; but these inconveniences appear to me to be trivial in the extreme, when compared with the benefits which, in various ways, such visits are calculated to confer.

Before quitting the subject of the moral treatment of insanity altogether, I shall take the opportunity of making a few observations on a subject which appears to me to be one of great importance. There are not a few patients brought under the care of asylums who, though certainly requiring some degree of restraint, are hardly proper objects of institutions for the decidedly insane. Cases of this kind I have met with in young persons, generally young men, hardly of adult age, who in consequence of some original defect of capacity or natural perversity of disposition, or from some accidentally untoward circumstances, have never been properly tutored, nor had their education satisfactorily carried out. Persons thus circumstanced, as they approach maturity, and when the passions are developed in their full vigour, become not unfrequently, by their conduct, a source of anxiety to their friends; and in some cases by single acts of violence, and in others, by a more or less continued course of wayward conduct, they excite so much apprehension as to lead to their being placed under restraint. In some cases of this kind which have come under my notice, there have been no grounds for supposing the existence of any physical or organic cause, nor could any symptom of insanity be traced. Indeed, upon being placed under care, all appearances of excitement or traces of disorder have disappeared entirely. Moral treatment; the inculcation of correct views of life, and of right principles of action; the inuring to regular habits, and the provision of suitable food for the mind; in short, a sustained system of education, is what is mainly required in such cases; though occupation, amusements, and exercise for the body, or physical educa-

tion, would form an essential auxiliary. The treatment required is hygienic and preventive rather than curative; and, I should therefore rejoice, if, by the philanthropy of the age, an "Orthophrenic Institution," worthy of the name, should ever be established. The objects of such an establishment would be persons predisposed to mental disorders, but in whom insanity, in the ordinary acceptation of the term, cannot be regarded as actually present; though, if left to themselves, moral insanity, or some other form of disorder, would almost certainly arise. For many reasons it is very undesirable that such cases should be treated in hospitals for the insane, or that they should be brought into contact with disordered mind. The case of the regicide Oxford is, I doubt not, of the kind I have been describing; and I believe that similar cases frequently come under notice in courts of justice. Did our laws admit of such a course, it would be a blessing to society if the man who, by a course of habitual drunkenness, is bringing ruin on himself and destitution on his family, could be placed under restraint in the same establishment; in which even the anti-teetotaler would rejoice if Father Mathew should establish a permanent mission.

V.—RULES AS TO THE ADMISSION OF PATIENTS.

THE rules of the institution provide for the admission of persons connected with the Society of Friends in Great Britain, of all classes in regard to wealth, on terms adapted to their several circumstances; "so as," in the words of the rules, "to afford suitable accommodation to all, and to make the means of the more affluent contribute to the support of the poor."

The poorer class of patients are admitted at eight shillings per week, or at four shillings under the recommendation of a privileged subscriber;* and, with the view of removing every

* A contribution of one hundred pounds from any meeting of the Society of Friends, a donation of twenty-five pounds from an individual, a subscription of fifty pounds for an annuity, or the payment of a bequest of not less than one hundred pounds, by any executor, entitles such meeting, donor, annuitant, or executor respectively, to the privilege of nominating one poor patient at a time,

obstacle to the placing of patients of this class under proper care, at an early period of the disease, those who are sent to the institution within six months of the attack, have, since the year 1799, been admitted either gratuitously, or at four shillings per week, for the first year, should their recovery not occur within that period. For the information of those unconnected with the Society of Friends, it must be here observed, that the internal economy of that community provides for the payment of these weekly charges, where they cannot be met by the friends of the patient, and these advances are made so freely that it may be presumed pecuniary considerations seldom, if ever, either retard admission into, or hasten discharge from, the institution. Persons in more easy circumstances pay from ten to twenty-one shillings per week, or upwards; whilst the more affluent, whether of the Society of Friends or not, are admitted at the rate of from two or two and a half to three, four, or five guineas, according to the circumstances of the patient, and the extent of accommodation afforded.

According to the original scheme of the institution, idiots were not admissible; and this distinction has been very generally observed. Though recent cases, and such as promise recovery, are always allowed the preference, no insane person is refused admission on account of the long duration of the disorder; on account of its being complicated with paralysis or epilepsy; or of its supposed incurability from any other cause. As there is no distinct establishment for incurable and imbecile patients supported by the Society of Friends, those who do not recover generally remain in the institution during the remainder of their lives. It must also be observed that, except during short periods of time, the establishment has always been able to receive all patients, connected with this community, whose admission has been applied for; and that, during any temporary interruptions, from alterations in the buildings having been in progress, or from other causes, the more recent cases have never been excluded.

on the lowest terms of admission; viz. at four shillings per week; or, if admitted within six months of the attack, gratuitously for one year.

TABLE SHEWING THE RATES OF PAYMENT ON ACCOUNT OF THE CASES ADMITTED DURING THE FORTY-FOUR YEARS, 1796—1840.

RATES OF PAYMENT.	Society of Friends and connected with it.			* Unconnected with the Society of Friends.		
	Male.	Fem.	Total	Male.	Fem.	Total
Gratuitously for a period not exceeding one year in each case	15	19	34	1	1	2
4 shillings per week	59	92	151	1	2	3
8 " "	48	76	124	1	2	3
8 to 16 shillings per week	64	69	133	1	.	1
16 to 21 " "	10	12	22	.	2	2
1 to 2 guineas "	29	23	52	1	3	4*
2 to 3 " "	11	6	17	.	5	5
3 to 4 " "	10	3	13	20	12	32
4 to 5 " "	3	.	3	5	6	11
5 guineas per week	1	.	1	2	.	2
Total.....	250	300	550	32	33	65

* Two and a half guineas per week, is the lowest usual charge for persons unconnected with the Society of Friends; and though a few have been admitted at a lower rate, who were not connected with that body by religious profession, these have been persons who, from family connexions or other circumstances, appeared to have a claim on the special consideration of the institution.

In order to procure the admission of a patient into the Retreat, the first step to be taken is to address a letter stating the case, to one of the officers of the establishment, which will be laid before the Committee. A few particulars should be given as to the nature of the attack, the circumstances of the patient, and proposed weekly payment; and whether he is in good bodily health.

When no objection arises to the admission of the patient, a form of medical certificate, and a set of queries to be answered by the friends of the patient, are transmitted; and the assent of the committee to the application is communicated in the following terms.

“The Committee of the Retreat have agreed to the admission of _____ and he may be sent as soon as convenient; previous notice being given of the time he is likely to arrive, addressed ‘To the Superintendent of the Retreat, near York.’

“It is requested that the above letter may mention particularly the state of the patient, that proper accommodation may be prepared. If the patient be in an infirm state of bodily health, or subject to fits, and if these circumstances have not been previously stated, he must not be sent off without further communication with the Committee.

“The friends of the patient are also requested to take care that the Medical Certificate is filled up according to the several instructions, and that it is signed by two medical practitioners. And, as the successful treatment of the insane frequently depends upon a full knowledge of their respective cases, the friends and medical attendants of the patient are earnestly requested to supply as much information respecting the history of the case as circumstances allow, whether coming under the annexed, or under any other, heads of inquiry. Information relative to even the more remote history of the case, would frequently be important in directing the right course of moral and medical treatment.

“The complete document may be sent with the patient, under cover and sealed, addressed ‘To the Resident-Surgeon of the Retreat, near York.’”

FORM OF THE MEDICAL CERTIFICATE, AGREEABLY TO
ACT OF PARLIAMENT;

Which requires that all the particulars here inserted, shall be attested by the signatures of two Medical Practitioners, each of them being Physician, Surgeon, or Apothecary; and that the Certificate shall bear date not more than seven days previous to the reception of the Patient.

1. Name, age, and residence of the Patient.
2. Christian and Surname, and place of abode, of the per-

son by whose authority or direction the Patient has been examined.

3. Degree of relationship, or other circumstances of connexion, between such person and the insane person.

4. Former occupation of the Patient, and the Asylum, if any, in which such Patient shall have been previously confined.

5. Whether such Patient shall have been found lunatic or of unsound mind, under a commission issued by the Lord Chancellor, or Lord Keeper, or Commissioner of the Great Seal.

I, the undersigned, having ascertained, to the best of my ability, the above particulars, hereby certify that I *separately* visited, and personally examined the above-named

on the day of 18 and that the said is of unsound mind, and a proper person to be confined in a house for the reception of Insane Persons.

Signed _____

I, the undersigned, having ascertained, to the best of my ability, the above particulars, hereby certify, that I *separately* visited, and personally examined the above-named

on the day of 18 and that the said is of unsound mind, and a proper person to be confined in a house for the reception of Insane Persons.

Signed _____

HEADS OF INQUIRY.*

Personal Circumstances.

1. What are the name and age of the patient?
2. Where was the place of birth, and where the late residence of the patient?
3. Is the patient single or married; and if married, at what

* I must here acknowledge the advantage which in several respects we derived, in drawing up these more extended heads of inquiry, from the queries in use at the Dundee Asylum.

age; the number of children, if any; and the ages which the eldest and youngest would have attained, supposing them to have survived?

4. What occupation has the patient chiefly followed, and to what was he brought up?

5. Is the patient in membership, by birthright or otherwise, or is he in any way connected, with the Society of Friends; if not, to what religious denomination does he belong?

History prior to Mental Disorder.

6. Was there anything peculiar in the mental or physical circumstances during infancy or childhood?

7. What appeared to be the disposition and character during the youth of the patient; were these marked by any remarkable strength or vigour, or by any eccentricity, or decided peculiarity; was he endowed with a greater or less share of natural understanding than is common; or was anything like precocity of intellect observable?

8. Were the understanding and the affections much cultivated in very early life: what extent and description of literary instruction did the patient receive; and was this given at home, or if not, in what kind of schools or other seminaries?

9. What were the habits of the patient, as regards temperance, industry, and regular conduct, during youth, as well as at a more advanced period?

10. Has the patient, at any time, engaged in any intellectual or other pursuit with particular earnestness; or has his conduct ever exhibited a strong bias in any direction?

11. Has any material change taken place in the pecuniary circumstances of the patient; or has he been exposed to any particular reverse or disappointment of any other kind, or to any remarkable success?

12. Was the patient ever afflicted with fits or palsy?

13. Did the patient, at any period of life, previous to the origin of the present malady, suffer from any particular bodily illness or infirmity; and, if so, of what kind?

History of the Mental Disorder.

14. At what age was the patient first attacked with symptoms of insanity?

15. What has been the duration of the present attack?

16. If this be not the first attack, how often has the malady previously occurred; of what duration, and in what forms, at each attack?

17. Were the intervals of sanity between the previous attacks, if any, complete; and what was their duration?

18. Is the disease supposed to be hereditary; or have any near relatives of the patient ever been insane?

19. What are supposed to be the causes (remote and immediate) of the first attack, and what those of the subsequent and last attacks of mental disorder?

20. Previous to any decided appearance of insanity, was there any unusual elevation or depression of spirits; or was any remarkable change in the temper, opinions, or conduct observed; or was the sleep, or the health of the patient, in any other respect, materially affected; and if so, in what way, and for how long?

21. Since the patient has appeared decidedly insane, in what way has the disorder been peculiarly manifested; is the mind of the patient affected indifferently by various subjects, or chiefly by one; and if so, what is that subject? Mention particularly any remarkable or permanent delusions which may affect the patient.

22. Has the patient shown any disposition to refuse food, or to injure himself; and if so, in what way?

23. Is the patient prone to acts of destruction or to violence of any kind; or has he made any dangerous attacks upon the life of any person?

24. What are the habits of the patient as regards cleanliness, and attention to the calls of nature?

25. Does the disorder appear to be increasing, declining, or stationary; are there any lucid intervals, or any great remissions, or exacerbations; and if so, do such changes occur at uncertain times, or at stated periods?

26. Is the patient in good bodily health? If not, describe the symptoms which have been observed, and the present state of the disorder.

27. What medical, or other, means have been used for the recovery of the patient; and with what effect?

28. Has the patient ever been under care in any public or private institution or asylum; and if so, when, how often, how long, and with what result?"

VI.—FINANCES OF THE INSTITUTION.

As one of the objects of the institution has, from the first, been charitable, and directed to the pecuniary relief of such as, from their circumstances, cannot be maintained by their friends without inconvenience, there has always, as already shewn, been a considerable proportion of patients admitted at very low rates of payment. Thus, notwithstanding the liberal payments on behalf of many of the upper class, the receipts from patients have seldom exceeded, and as a comparison of the two succeeding tables will shew, never for a period of ten consecutive years equalled, the expenditure on their behalf. During the forty-four years, about three-fourths of the entire income of the institution have been derived from the receipts on behalf of patients; and the remainder, amounting to £33,457. 0s. 5d., has arisen from annual subscriptions, donations, legacies, and annuities, almost exclusively from members of the Society of Friends.

TABLE SHEWING THE INCOME OF THE INSTITUTION FOR THE FORTY-FOUR YEARS SINCE ITS ESTABLISHMENT.

PERIODS OF TEN YEARS.	HEADS OF INCOME.				TOTAL INCOME.
	From Patients, (including interest from 1834.)	Annual subscriptions	Annuities.	Donations and Legacies.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1796-1806	8,953 1 7	466 4 .	2,025 . .	5,078 5 .	16,522 10 7
1806-1816	16,591 19 9	696 19 .	1,130 . .	6,929 19 10	25,348 18 7
1816-1826	24,318 11 3	3,901 14 6	2,380 7 .	3,682 7 7	34,283 . 4
1826-1836	41,388 4 6	1,109 3 .	1,200 . .	3,943 1 6	47,640 9 .
Four years. 1836-1840	16,773 9 5	. . .	. . .	913 19 .	17,687 8 5
Forty-four years. 1796-1840	108,025 6 6	6,174 . 6	6,735 7 .	20,547 12 11	141,482 6 11

Of the £33,457. 0s. 5d. raised by voluntary contributions, £6,174. 0s. 6d. consisted of annual subscriptions, collected, on behalf of the institution, in different parts of the kingdom. In consequence, however, of the improved state of the funds for some time previous to 1830, such subscriptions have not been requested since that time. The sum of £6,735. 7s. has at different times been raised on annuities at 5 per cent., payable during the lives of the insured. It has been ascertained that such of the annuities as have expired, or about half of the whole, have yielded a net profit to the institution of at least 60 per cent. Nearly two-thirds of the voluntary contributions, or the sum of £20,547. 12s. 11d. have arisen from donations and legacies. These, it may be stated, continue to be gladly received; and whilst the committee and directors are anxious that, as much as may be, the income of the establishment should be sufficient to meet its current expenditure, they are still sensible of the advantages arising from its being not altogether independent of the contributions of its friends; from the interest which this mode of support naturally occasions, which can hardly fail to have a salutary effect on the management of the institution.

TABLE SHEWING THE EXPENDITURE OF THE INSTITUTION FOR THE FORTY-FOUR YEARS SINCE ITS ESTABLISHMENT.

PERIODS OF TEN YEARS.	HEADS OF EXPENDITURE.				TOTAL EXPENDITURE.
	House expenses, repairs, and taxes.	Salaries and wages.	Drugs.	Interest to annuitants, and on debt up to 1834.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1796-1806	7,255 17 7	1,879 16 8	85 3 9	1,840 14 6	11,061 12 6
1806-1816	14,446 5 3	3,374 2 8	129 10 3	2,121 10 6	20,071 8 8
1816-1826	19,115 4 3	5,246 2 7	214 2 6	3,256 8 4	27,831 17 8
1826-1836	36,733 19 9 } 3,700 . . *	8,450 17 2	371 16 .	2,895 14 .	52,152 3 11
Four years. 1836-1840	11,361 . 6 } 1,930 19 4 *	4,221 5 6	147 . 6	633 10 .	18,293 15 10
Forty-four years. 1796-1840	94,543 3 8	23,172 4 7	947 13 .	10,747 17 4	129,410 18 7

* Under the head of house expenses and repairs has been included the sum of £3700, and that of £1930 19s. 4d., the cost of alterations and additions to the buildings in 1838 and 1839; and which, it was thought could not fairly be added to the value of the property.

In consequence of the great outlay in the purchase of land, and in considerable additions to the buildings, of late years, the funds of the establishment have been very considerably reduced, and its income from all sources has fallen far short of its expenditure. Indeed, as a comparison of the above table with the preceding one will shew, there has been a deficiency, taking the whole of the past fourteen years, of upwards of £5,000.

As was to have been expected from all that has been said, the following table, shewing the value of the property belonging to the institution at intervals of ten years since its establishment, exhibits a great progressive increase in such value.

TABLE SHEWING THE VALUE OF THE PROPERTY OF THE INSTITUTION AT SIX PERIODS SINCE ITS ESTABLISHMENT.

YEAR END- ING SPRING QUARTER.	DESCRIPTION OF PROPERTY.			DEBTS OWING BY THE INSTITUTION.	TOTAL VALUE OF PROPERTY.
	Land and buildings.	Furniture and linen.	Farming stock, and due from patients, &c.		
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1797	5,425 9 10½	506 12 10	38 16 .	3,301 16 11	2,669 1 10
1806	7,213 2 10	900 19 11	433 8 5	3,172 15 8	5,374 15 5
1816	9,469 . 11	1,792 . 10	1,168 14 4	1,777 13 10	10,664 14 8
1826	14,622 2 3	1,828 3 8	2,144 11 4	2,499 6 7	16,094 10 7
1836	13,510 11 9*	1,312 14 3	8,155 5 9	1,395 16 1	21,582 15 8
1840	18,231 4 3	1,279 13 .	4,600 11 11	2,085 2 5	22,026 6 9

* The diminution in the estimated value of the land and buildings for 1836, as compared with 1826, arises from the sum of £3700, already alluded to, having been deducted from their nominal amount in 1833, to meet the depreciation in value which the buildings had undergone in the course of time.

With this table I may dismiss the consideration of the finances of the institution; and at the same time conclude this historical and descriptive sketch.

STATISTICS OF THE RETREAT.

PART II.

STATISTICAL REPORT.

THE statistical tables, more than forty-five in number, appended to this report, exhibit the results obtained at the Retreat during the forty-four years of its operation, from Midsummer 1796, to Midsummer 1840. They have been compiled with considerable labour, after a very close examination and correction of the existing records; an opportunity for which has been found, from the earlier and more defective cases being, to a great extent, within the recollection of different friends and officers of the institution, whose assistance the author particularly acknowledges.

It will be observed, that in most of the tables, the cases occurring in persons belonging to, and connected with, the Society of Friends are distinguished from those not so connected; it being thought desirable to exhibit, as much as possible, the peculiar characters, if any, of the causes, forms, and terminations of mental disorders in a separate religious community, such as the Society of Friends. In some instances, likewise, it may be interesting to compare the different results obtained in the two classes of patients. The number, however, of persons of other religious persuasions who have been admitted, is too small to allow of confidence in all cases being placed in the results of such a comparison.

Independently of the peculiar interest belonging to the statistics of the Retreat for the reason now alluded to, a more general one is attached to them, from the cases being

derived from a much more definite portion of the general population than in most other institutions. There is, indeed, every reason for concluding, that of those in this community who have required care on account of insanity, a very large proportion has, during the last thirty years, been admitted, and, in case of relapse or of a subsequent attack of disorder, re-admitted, into the Retreat. And it may be also remarked, that, from the free intercourse so generally prevailing between the members of the Society of Friends throughout the kingdom, much more information, and that of a more accurate character, is generally to be collected, respecting the history of the cases admitted. And hence it appears just to conclude that, after deducting what may be peculiar to the circumstances of the society, the experience of the Retreat is well calculated for the attainment of sound conclusions relative to mental disorders; and for correcting inferences arising out of the statistics of much larger institutions, not possessed of such facilities for enquiry.

Although, from the nature of the case, the precise accuracy of every detail in these statistics cannot be asserted, yet it is believed that no important error exists in the tables, and that their essential accuracy may be relied on; and it is supposed that they contain much information upon the subject of mental disorders, which will be found both interesting and valuable.

Before entering on the consideration of the results which these statistics present, it will be desirable to remind the reader that the Society of Friends, or Quakers, chiefly consists of persons in the middle ranks of life, and for the most part engaged in trade, commerce, manufactures, and agriculture. It is indeed, important that this should be borne in mind; as it is desirable that the statistical results which this community presents should be compared, not with those afforded by the population at large, but with those of the middle classes, could these be separately obtained. There are several respects in which the vital statistics of the Society of Friends differ from those of the general population; and in none more so, perhaps, than in their greater average longevity: in what degree, however, they differ from those of the middle classes of this country is a

question which, in many cases, we have at present no means of determining.*

In this Statistical Report, with which I shall now proceed, I shall present to the reader, in a brief and concise manner, the principal results, which have been obtained; and shall take the opportunity, at the same time, of making such remarks as may serve to guard against misapprehension, and illustrate and exemplify the whole subject.

I.—GENERAL VIEW OF THE EXPERIENCE OF THE RETREAT AT DIFFERENT PERIODS SINCE ITS OPENING IN 1796.

TABLES 1 and 2 are reprinted from the annual report of the institution for 1840. They exhibit the aggregate results obtained during the year 1839-40; and also that for the entire period of forty-four years, 1796-1840, that the institution has been in operation. The average numbers resident during both these periods, which in such tables are so often omitted, are likewise given.

The number of admissions during the forty-four years was 615, of which 282 occurred in males, and 333 in females. As 146 of these *cases* were re-admitted ones (Table 36), the number of *persons* treated, was 469; viz., 223 men, and 246 women. The distinction between the number of cases admitted into any institution, and the number of persons in whom those cases occurred, is an important one, in a statistical point of view; and, in the construction of these tables, has always been kept in sight.

Out of every hundred cases, of all descriptions, admitted during the forty-four years, the proportions of patients who were discharged from the institution, under various circumstances, who died, and who remained under care, at the end of the period, were as follow:

	Males.	Females.	Mean.
Discharged,			
Recovered	42.9	51.1	47.3
Improved	14.5	7.2	10.6
Unimproved	3.9	5.4	4.7
Died	24.8	20.7	22.6
Remaining, 1840	13.9	15.6	14.8
Total.....	100.	100.	100.

* Such information relative to the Statistics of the Society of Friends as I have been able to collect, the reader will find given in Appendix II.

The reader is referred to future pages, and to the sections treating "of the recoveries, and "of the deaths," for some remarks upon these aggregate results; which are of little value for any inferences that can be founded on them, unless accompanied by a discriminating statement of the character of the cases admitted. It will be seen that, had the small proportion of cases, in persons unconnected with the Society of Friends, been omitted, the proportion of recoveries in the above statement would have been 50.18 instead of 47.31 per cent. The 22.6 per cent. of the whole number admitted, who have died, it can scarcely too often be repeated, does not express the actual mortality. This, however, may be calculated from Table 2, and will be found to have been at the mean annual rate of 4.70, or, excluding those unconnected with the Society of Friends, 4.59, per cent. resident.

Admissions, Discharges, Deaths, and Mean Numbers resident each Year and during Decennial Periods from the Opening of the Institution.—Tables 3 and 4.—In this edition I have introduced a table (3), which exhibits the results obtained each year from the opening of the institution. This table will enable the reader to trace the annual progress made by the establishment, as regards the numbers brought under its care, and also to combine and compare the results for any particular periods which he may feel interested in. It is the only table in the series which is brought down to the present time, 1843, and which consequently embraces a period of forty-seven years. It must, at first sight, be obvious that no satisfactory inferences as regards an institution no larger than the Retreat, can be deduced from the experience of merely single years; and in Table 4, I have therefore arranged the admissions, discharges, and, deaths, with the mean numbers resident for the four periods of ten years each, extending from 1796 to 1836, and for the remaining one of four years, from 1836 to 1840.

The mean numbers resident each year, and during the several decennial periods, have been calculated from a quarterly register of the numbers in the house, which has, from the first, been regularly kept.* The average annual

* During the last five years the average annual numbers resident have been

number of 67.15 persons, thus obtained for the whole period of forty-four years, differs by only a slight fraction from that deduced by adding together the duration of residence of every case admitted, and then dividing by 44, the number of years over which the cases extended. This latter tedious plan was, however, the only one that could be resorted to for determining the mean numbers resident, at the different ages (Table 7); of those connected and unconnected with the Society of Friends (Table 10); and of different durations and forms of the disorder when admitted (Tables 21 and 22).

It will be seen that the mean numbers resident progressively increased, from 37.53 during the first ten years, 1796-1806, to 95.70 in the fourth, 1826-1836. In consequence, however, of many applications for admission having been refused, on account of extensive alterations in the buildings in 1837, the average number for the four years, 1836-40, has been temporarily reduced to 89. At the present time, 1843, there are 94 patients remaining in the house.

Proportion of Recoveries, and Mean Annual Mortality at different Decennial Periods.—Tables 5 and 6.—In comparing the *proportion of recoveries per cent. of the admissions* during the several decennial periods, it is to be recollected that, excepting the first decennium 1796-1807, and the entire period 1796-1840, the numbers given do not precisely express, but are above, the true proportions of recoveries, (Table 5). This arises from the cases remaining under treatment at the beginning of each of the periods alluded to, not being taken into the account. The calculation might indeed have been made on this plan; but, had this been done, the same cases would have been counted again and again, and the proportions of recoveries would then have appeared much below the actual ones. This is a consideration which should not be forgotten, in estimating the results obtained during a series of years only, and not during the whole period of existence of any institution. No such fallacy, however, attaches to the *mean annual mortality per cent. resident*, as given for the different decennial periods.

calculated from a monthly register; which has been found to afford results as accurate as those from daily enumerations.

As regards the results obtained in the several periods of the institution's existence, it will be seen that the proportion of recoveries was greater, and the mean annual mortality considerably less, in the second decennium, 1806-1816, than in any of the others. This is a difference in the results which, at least as regards the recoveries, is, to a great extent, explained by the fact, shown in the subjoined table, of a larger proportion of recent, and a less one of very old cases having been admitted during that period. There may, however, be some consideration due to the increased experience of the officers of the institution during that period, as compared with the previous one.

TABLE SHEWING THE NUMBERS OF CASES OF SHORTER AND LONGER DURATION, ADMITTED DURING THE DECENNIAL PERIODS, 1796—1840.
—AN APPENDIX TO TABLES 12 AND 21.

PERIODS OF TEN YEARS.	ADMITTED.											
	FIRST CLASS.			SECOND CLASS.			THIRD CLASS.			FOURTH CLASS.		
	First attack, and within three months.			First attack, above three, but within twelve months.			Not first attack and within twelve months.			First attack, or not, and more than twelve months.		
	Male.	Fem.	Total	Male.	Fem.	Total	Male.	Fem.	Total	Male.	Fem.	Total
1796—1806	3	15	18	6	10	16	10	15	25	29	30	59
1806—1816	10	11	21	10	9	19	6	23	29	19	20	39
1816—1826	18	7	25	13	9	22	27	27	54	19	30	49
1826—1836	9	13	22	17	12	29	32	42	74	30	26	56
Period of four years. 1836—1840	5	5	10	2	3	5	11	18	29	6	8	14
Period of forty four years. 1796—1840	45	51	96	48	43	91	86	125	211	103	114	217

The relative proportions of each class admitted during the respective periods, as deduced from the foregoing table were as follows :—

	CLASS I.	CLASS II.	CLASS III.	CLASS IV.	TOTAL.
1796—1806	15.2	13.6	21.2	50.0	= 100.
1806—1816	19.4	17.6	26.9	36.1	= 100.
1816—1826	16.7	14.6	36.0	32.7	= 100.
1826—1836	12.1	16.0	40.9	31.0	= 100.
1836—1840	17.3	8.6	50.0	24.1	= 100.
Average.	—	—	—	—	—
1796—1840	15.6	14.8	34.3	35.3	= 100.

The largest proportion of the more recent cases, (Class I and II) were, it will be seen, admitted in the second period, 1806-1816; that of very old cases, (Class IV) in the first period, 1796-1806. The number of cases in Class IV has decreased during the successive periods, in nearly the same proportion as those in Class III, containing cases of relapse and of second or subsequent attacks, have increased.

A more correct method, at least as regards the recoveries, of shewing the varying character of the results obtained at different periods in the institution, than that of giving them for separate decennial periods, as in Table 4, is that of exhibiting the results for periods successively increasing by ten years; i. e. first for ten, then for twenty, then for thirty, then for forty, and lastly for forty-four, years; as has been done in Table 5. No fallacy whatever exists in this method; which shows, as was to have been expected from the previous statement, a very great increase in the proportion of the recoveries in the first twenty, as compared with the first ten, years; but after that, only a trifling increase. The mean mortality is also remarkably low for the first twenty years, both as compared with the more extended periods, and with the shorter one of ten years. At the end of thirty years the proportion of recoveries and the mean annual mortality would appear to have become nearly stationary; as during the subsequent fourteen years they have undergone but little alteration.

II.—OF THE CONDITION AND HISTORY OF THE CASES PREVIOUS TO ADMISSION.

It must here be observed that, in estimating the influence of the various circumstances in the previous history of the cases, and that of the probable causes of the disorder, as has been attempted in this and the following sections, the same person has, in these tables, only been enumerated once. No satisfactory results can be obtained when, as is common in tables of this kind, the same circumstance is counted again and again, upon each re-admission of the same individual.

A reference to the numbers in the various tables will also be sufficient to shew that, although not always so stated,

many of the following observations are, for reasons already given, confined to the cases occurring in persons of the Society of Friends and connected with it; it being seldom thought important to direct particular attention to the comparatively small number not of that community, which have been admitted. In several instances indeed, where no particular advantage was anticipated from such a division of the cases, the two classes have been united without distinction in the same tables; as in those of the last section, (§ 1), and in Tables 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36, 38, 39, 40, 41, 44, and 45.

Sex.—*Table 7.*—The number of cases occurring among females, has exceeded that among males by 20 per cent.; or, in other words, only 45 men have been admitted to 55 women. This is not to be accounted for by any greater facility for the admission of women; and the fact appears to be that, in the Society of Friends, there is at least a corresponding disproportion in the numbers of the two sexes; and in all probability a much greater one, when persons of adult age only are considered. The excess on the side of females, in the average numbers of the two sexes resident during the forty-four years was still greater, and amounted to 35 per cent.; there having been a mean number of 26.55 men to 35.80 women. The reason for the average proportion of females in the house, as compared with males, having been still greater than that indicated by the relative proportions of the two sexes admitted, is to be found in the much higher rate of mortality among males. (Table 26.)

It is an old opinion which, though by some called in question, is, at least, not contradicted by the experience of the Retreat, that women are somewhat less subject to insanity than men. When attacked by the disorder, we shall see that women have likewise an advantage over the other sex; for, in them, the probability of recovery is greater and that of death considerably less than in men.

Age.—*Table 7.*—The mean age at the origin of the disorder appears to have been thirty-four years; the males, on an average, being attacked two years earlier than the females. A similar difference appears in the mean age of males and

females upon admission, which, for the two sexes, was thirty-nine years. For obvious reasons, the specified age on admission, may be relied on with greater confidence than the specified age at the first attack; though, it must be stated that, much doubt respecting the latter did not apply to more than twenty cases of the whole number admitted. The average age of the cases constantly resident during the whole period, has been nearly forty-nine (48.9) years; that of the females exceeding that of the males by half a year.

As regards the origin of the disorder, by far the largest proportion, amounting to one-third of the whole, is found to be attacked between 20 and 30 years of age, and the proportions gradually decrease for each subsequent decennial period of life; thus we may readily deduce from Table 7, that

Of every hundred cases, at the origin of the disorder, there were at successive decennial periods of life as follow:

0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90 years of age.
.96	12.77	32.53	20.	15.9	10.6	6.03	.97	.24 = 100

In order to ascertain the actual liability to insanity, at different ages, the proportions attacked at each age should be compared with the mean numbers living at the same age in this particular community, should the means for doing this be found to exist.

The relative proportions at the different ages, at the time of first admission, as compared with the proportions for the same decennial periods at the origin of the disorder, will, from the following statement, be seen, to have been much less for the ages below, and greater for all the ages above 20-30: thus,

Of every hundred cases, on first admission, there were at successive decennial periods of life, as follow:

0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90 years of age.
.	.97	32.77	20.72	18.56	13.25	10.36	2.89	.48 = 100

As regards the mean numbers resident in the house, at different ages, a gradual increase is to be observed for every decennial period of life, up to 40-50 years of age, when they attain their maximum. They then decrease, but still more gradually than they had increased, for every subsequent decennial period; thus,

Supposing one hundred cases constantly resident, there would have been at successive decennial periods of life, as follow :

0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	years of age,
.	1.44	11.31	19.48	21.11	20.75	15.48	7.91	2.31	.21	= 100

Condition in reference to Marriage.—Table 8.—Of the whole number admitted, two-thirds, or 66 per cent., (64 per cent. for the men, and 68 for the women), had never been married. It is scarcely necessary to say, that this is out of all proportion to the number of unmarried persons of adult age existing in the Society of Friends.* Of those who were, or had been, married one-fifth had never had offspring.

I am indebted to my friend Samuel Tuke, for the important remark, that our conclusions as to the influence of celibacy (as, amongst other things, predisposing to insanity), as drawn from a comparison of the numbers of married and unmarried persons admitted into hospitals for the insane, must be allowed to be modified by the consideration that many of the cases occur in a class of persons, as regards mental vigour, less likely to be married than the average of the community at large. In such cases, of course we must admit that the celibacy is to be regarded as an effect, rather than a cause.

Rank or Profession.—Table 9.—With a few exceptions, there does not appear to be any marked disproportion between the numbers admitted of the different professions and ranks in life, and what may be presumed to be the numbers of the Society of Friends at large, belonging to such ranks and professions. There are, however, some grounds for concluding that the number of persons engaged in agriculture, 63, as compared with that of persons in trade, 94, is above the proportion existing in the Society at large. The relative proportion of females in the stations of housekeepers, seamstresses, shopwomen, and especially in that of domestic servants, amounting altogether to 66, or to 30 per cent. of the whole number of women admitted, is also probably above the average. But this rather large proportion may yet be chiefly, if not altogether, due to the great facilities which the rules of the Retreat and the economy of the Society afford for the admission of persons of these classes, on the one hand; and,

* See Appendix II.

on the other, to a larger proportion of patients of the more opulent classes being, as is no doubt the case, under private care.

Although it will be seen that a larger number of the cases, as compared with any other distinct class, occurred in persons who were engaged in trade or commerce; the proportion is still, perhaps, not so large as might have been expected, when it is recollected that these are the circumstances of a very decided majority of the Society. Large commercial schemes and speculations, indeed, do not appear to have been the exciting cause of insanity in any of the cases admitted into the Retreat; and the results now under consideration certainly favour the conclusion, that those engaged in trade are as little liable to insanity, as any class in the Society of Friends.

Town and Country Life.—Table 10.—Of the 415 patients, 228, or about 55 per cent., have been admitted from cities and large towns, including in this class all places having a population much exceeding 5,000; 101, or 24 per cent., were from small towns and villages; and 86, or 21 per cent., from more completely rural districts. As there can be no doubt, that a much larger proportion than 55 per cent. of the Society of Friends in England, is resident in cities and large towns; there is perhaps some reason for concluding that insanity is somewhat more prevalent in the village and rural, than in the city, population of this community. This is an inference which, though opposed to some of the more generally received opinions as to the positive causes of insanity, being often connected with the pursuit of wealth, the spread of luxury, and even with the general progress of knowledge and civilization, is still supported by the results of other researches; and should, at least, put us upon our guard against those less obvious and more negative causes of mental disorder, which may be more peculiar to a country life. It must, nevertheless, be granted that the inferences we form from these statements, should not be too positive. It may be, 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.

Profession of Religion.—Connexion with the Society of Friends.—Table 11.—Of the 469 persons admitted, there were 415 who were members of, or connected with, the Society of Friends, and 54 not so connected. Of the mean number of 67.15 constantly resident, there were, taking the average of the entire period, 4.8 not connected, thus leaving 62.35 as the average number of persons connected, with this community. Of these, however, only 58.9, or possibly even a rather less number, were actually members of the Society. With a few exceptions, those unconnected with the Society of Friends, were of the Established Church.

Duration of Disorder, and Previous Attacks.—Table 12.—Many of the circumstances in the condition and history of the cases previous to admission, already noticed, but particularly the sex and age, exert a marked influence on the ultimate result of treatment; but there is one which remains to be noticed, viz., the duration of disorder on admission, which, in this respect, is still more important. The greater probability of recovery, in the more recent cases, has always been recognized at the Retreat; and the cases have from time to time been distributed into four classes, according to the duration of disorder when admitted, and the results in each class then noted.*

The table now under consideration, exhibits the numbers, belonging to each of these four classes, at the time of first admission. The numbers, taking first admissions and subsequent ones without distinction, have been already shewn (page 68), and may also be seen in connexion with the results of treatment in a subsequent table. (Table 21).

By adding the cases in Class III, in the table before us, to those in Class IV b, we find that, of those connected with the Society of Friends, 91, or 22 per cent., and of others a still larger proportion, or 37 per cent., had suffered from more than one attack of mental disorder, when first admitted into the institution.

Much interest attaches to the history of cases of recent

* See Annual Reports, 1800, 1803, 1810, and 1820.

duration when admitted; it being in these only, that the apparent results of any system of treatment can be satisfactorily tested. It scarcely requires to be observed that the ultimate results, as regards recovery or otherwise, must necessarily be materially influenced, and perhaps, in many cases altogether determined, by the circumstances under which the patient is placed during the first three months of the disorder. If this, then, be the case, in endeavouring to determine the exact relative efficacy of the treatment pursued in different institutions, it would be desirable that the comparison of the results should be limited to cases, at least, not exceeding that duration; or which would be comprised in Class I of the arrangement here adopted. It is likewise by the study of recent cases alone, that we can ever fully ascertain the precise modifying effect on the results, produced by such circumstances as age, particular causes of insanity, and by the different forms which the disorder assumes. In addition to the observations on these circumstances, as regards the entire body of cases, I have, therefore, in a few instances thought it desirable to examine them also, as bearing upon the results in the ninety-six recent cases, or those in Class I, of the first attack, and of not more than three months duration when admitted.

III.—OF THE PROBABLE CAUSES OF THE DISORDER.

IN a very small proportion of the cases, or in 43 only, was no probable cause for the disorder either stated or ascertained (Table 13). In more than a third of the whole number, there appeared to have been two causes in operation in the same case. One of these had more frequently been of long standing, and appeared to have predisposed to the malady; whilst the other more often immediately preceded the attack, of which it was regarded as the immediate or exciting cause. The causes have, therefore, been classified under the two heads of *predisposing* (Table 15), and *exciting* causes (Table 16). Great difficulty attaches, in practice, to the determination of the causes of insanity; and with the exciting causes in particular, early symptoms of the disorder may very readily

be confounded. Hence the results which have been arrived at, though very carefully scrutinized, are only to be regarded as approximations to truth. It will be seen that the same circumstance is, in several instances, introduced into the table of predisposing, as well as into that of exciting, causes; but it need scarcely be remarked, that in no case is one and the same circumstance regarded as having operated in both ways, in the same individual. The causes are further divided, into *physical* and *moral*; the physical predominating, to a great extent, amongst the predisposing, and the moral exceeding the physical amongst the exciting, causes. Where two causes were assigned, one was generally of a physical, and the other of a psychical or moral character.

The causes of the recurrence of the disorder in cases of re-admission, were very seldom assigned; and, where they were so, frequently consisted of the same circumstance as that alleged on the first admission. For the reasons already stated, they have not been given in these tables; and they did not appear either numerous or important enough to be made the subject of separate ones. In a few instances, however, when no cause was ascertained for the first attack, that which was alleged on re-admission has been given in the tables.

Although all the alleged causes are deserving of very serious attention, bearing, as they do, upon the highest department of the healing art,—preventive medicine or hygiene,—yet, in this place, attention need only be directed to such of them as, from one circumstance or another, appear to call for particular comment. The predisposing causes have generally attracted less attention than the exciting, and, from their frequently insidious character, are often altogether overlooked; though there is every reason for believing that, of the two, they are frequently the more important, and though it is certain that they are also, in many instances, more easily guarded against.

Predisposing Causes.—Table 15.—*Physical Causes.*—In 232, of the 268 persons in whom these were ascertained, the predisposing causes were of a physical character. Of these, there were 70 in whom hereditary predisposition was the only predisposing cause known. In 72 other cases, however, in which

there were other predisposing causes assigned, the same kind of predisposition also existed; so that 142, or about one-third of the whole number of persons admitted, laboured under an hereditary predisposition to insanity (Table 14). This, though a large proportion, when compared with results obtained at the large pauper institutions, where so much less is known of the history of the cases, is by no means so as compared with other observations.* But it is, here, only proper to observe that many cases, which were not stated to be hereditary by the relatives and friends, have, in this estimate, been considered as such, in consequence of more private information, or of the fact being well known. On the other hand, cases have not been considered of an hereditary character, the history of which was only characterized by the existence of insanity in collateral blood relatives; it being obvious that cases of this description do not necessarily establish any direct hereditary transmission. There were 71 known cases of this kind, not a few of them in brothers and sisters, and had they been included, the proportion would have been raised to about one-half or 51 per cent.

There were 50 persons in whom congenital weakness of mind, in different degrees, appears to have acted as the predisposing cause of the insanity which supervened upon it. In a few of the cases the deficiency was considerable, and amounted nearly, if not quite, to imbecility, or partial idiocy; but by far the greater number only consisted of persons decidedly below mediocrity of understanding, and who were of that sensitive and fragile mental constitution which is ill calculated for coping with the difficulties of life. A still larger number might perhaps have been properly included under this head.

There was likewise 33 individuals who, though not of particularly weak mind, from early life had evinced very decided mental peculiarity; which after the development of actual insanity, could hardly be looked upon otherwise than as having constituted an original predisposition. The 8 persons who had been marked by extreme degrees of the melancholic

* Esquirol noticed hereditary predisposition in more than half, and Dr. Burrows in six-sevenths, of the cases that came under his care.

and nervous temperaments, might perhaps have been included in the same group.

In 3 persons, a predisposition to insanity was attributed to having been suckled by a parent strongly predisposed. The cases in question consisted of a brother and two sisters, who laboured under different forms of mental derangement, and who all died in the institution. It was stated that the only member of the family who did not manifest more or less symptoms of insanity, was the only one who, during his infancy, had not been nourished by his mother. As apart from the hereditary predisposition considered, there may, nevertheless, have been more of coincidence than cause in this circumstance.

Though not given in the table, it may be stated as a curious fact that three persons, consisting also of a brother and two sisters, were admitted, who were supposed by their friends to have been predisposed to insanity, from being the offspring of first cousins. The parents were respectable, well educated persons, considered more than usually intelligent, and without any known hereditary tendency to insanity. They had a family of one son and seven daughters; and it appears that, with but one or two exceptions, more or less singularity or weakness existed in such of them as did not actually become insane. The case seems worthy of notice in reference to the somewhat popular opinion of the undesirableness of such connexions. The marriage of first cousins being of unfrequent occurrence in, and forbidden by the rules of, the Society of Friends may account, if, as appears probable, the opinion alluded to be well founded, for these being the only cases of the kind that have occurred at the Retreat.

Two blind persons were admitted, in whom the loss of vision, acting in one case upon a suspicious temper, was thought to have predisposed to the disorder.

Dyspeptic and other disorders of the stomach and organs of digestion appear to have acted as predisposing causes in 18, and, more doubtfully, as exciting causes in 11, cases. The connexion, direct and indirect, which exists between various nervous affections, including mental derangement, and disorders of the digestive organs is well ascertained. This subject indeed claims the serious attention both of medical

practitioners, and of those who are either convalescent from an attack of mental disorder, or who are aware of any tendency to it. In these cases the regulation of the diet is particularly important, and such persons can hardly be too careful in avoiding, both as regards quantity and kind, whatever is found unfavourable to perfect health. Dr. Prichard has well observed, that "the most frequent cause of those disorders of the digestive organs which lay the foundations for maniacal symptoms, is excess in the use of stimulant and indigestible food. Too great indulgence of the appetite among the more opulent, and among the lower classes long continued constipation, unwholesome diet, the use of salt provisions, exposure to cold and want, or neglect of warm clothing give rise to diseases of the same description."*

Moral Causes.—The uncertainty, which must nearly always more or less attach to the assigned causes of insanity, does so with still greater force to those of a moral, than to those of a physical character; it being amongst the former, that the danger of mistaking early symptoms of the disorder for causes is more particularly found.

In 4 of the 36 cases, in which the predisposing causes were of a moral character, a neglected or perverted education, which in three instances was extremely indulgent, and in one very rigid, seems more or less decidedly to have acted as a predisposing cause; confirming the remark, "that in several instances the foundation of the disease appears to have been laid in an injudicious indulgence in early life; by which the ill-trained man has been brought into contact with the oppositions and difficulties of the world, without the habits of endurance or self government."

In 11 cases, an ill-regulated temper and disposition in various degrees, was noticed before the supposed origin of the disorder; but it is extremely doubtful whether, in some of these, the characteristics alluded to were not really indicative of an incipient or obscure form of mental disorder, such as is now generally recognised as constituting Moral Insanity in its first stage.

* Prichard's "Treatise on Insanity," 1835, p. 201.

The predisposition in 10 persons appears to have been laid in the long-continued existence of mental disquietude from various causes. Under this head, perhaps, might also have been included 1 case connected with political enthusiasm, and 9 with excitement from religious hopes, fears, and speculations. Upon the latter subject some remarks will be made when considering the same head in the table of exciting causes.

Exciting Causes.—Table 16.—*Physical Causes.*—Of 121 persons in whom the exciting cause was of a physical description, there were 16 in whom it might be traced to fevers and febrile diseases; 10 to mechanical injuries of the head; and 6 to inflammation of the brain. In 5 persons, the exciting cause consisted in apoplexy or paralysis; and in 12 persons, in epilepsy. In 1 case apoplexy, in 1 paralysis, and in 4 cases epilepsy, as shewn in the preceding table, appear to have acted as predisposing, rather than as exciting, causes. Of the 16 cases in which epilepsy had preceded the development of insanity, one only was discharged recovered; and in this case there has been a recurrence of the disorder, which, after the lapse of eight years, has only been very partially recovered from. It must be stated, that none of these cases were of recent occurrence. In one of the recent cases, also, in which the mania was complicated with, but had not been preceded by, epileptic seizures, the patient recovered from both, after a short residence at the Retreat. At the original date of this report, this patient had remained quite well for a period of fourteen years; but he has since been re-admitted with a second attack of mental disorder, without epilepsy; and, in the course of a few weeks has again been discharged recovered. Of the 5 cases which were connected with apoplexy, either as an exciting or a predisposing cause, two were discharged recovered. Both the cases connected with paralysis recovered, and the individuals have for a long period been filling useful positions in the world. In one of these cases a state of excitement, and in the other a state of incoherence, bordering on dementia, had supervened upon a palsied (hemiplegic) condition, which had existed from infancy. It is thus obvious that cases connected with epilepsy, apoplexy, and paralysis are not, in every instance, to be regarded as hopeless.

Excepting in reference to the intemperate use of alcoholic and fermented liquors, no particular remark, as to the physical exciting causes which follow in the table, though several of these are very important, appears to be called for. The number of persons connected with the Society of Friends, in whom intemperance of this kind was supposed to have operated as an exciting cause of mental disorder, was twenty-one. Of this number five were females, two of whom were also addicted to the use of opium. There were likewise seven persons in whom intemperance and free living were thought to have acted as predisposing causes. This is a somewhat larger number of cases than has previously been computed as connected with this cause, the difference being attributable to further information respecting some of the old cases, having been subsequently obtained. Of the whole number of twenty eight, it may be observed that not more than twelve were members of the society. This proportion, is still a very small one as compared with that usually observed in institutions of this kind. Although this is the case, it must, nevertheless, be remarked that in several of the cases, it is doubtful whether the intemperance which had preceded the attack of insanity can really be regarded as its cause; as in some of these instances the amount of intemperance] was so small as justly to lead to doubt in this respect, being such as, in the world generally, would hardly affect the character with respect to temperance; and, in a few others, it appeared fully as probable that it was one of the modes in which the disorder had manifested itself. Indeed this was so evidently the fact in the instances of two of the women, whose cases ought perhaps not to have been included in this table, that the mental disorder under which they laboured has been classed under the head of monomania of drunkenness. (Table 17.)

It may be worth observing, that the proportion of cases ascribed to intemperance, in persons unconnected with the Society of Friends, was considerably more than double that above ascertained; for out of the fifty-four persons of this class, and who were generally from the more opulent ranks of society, there were nine in whom this cause was assigned.

Moral Causes.—Of the 135 persons in whom the exciting cause appears to have been of a moral or psychical character, there were 112 in whom this was referred to sorrow, anxiety, and disappointment of various kinds. The most prominent of these were, anxiety respecting a livelihood, and pecuniary losses, in 31 cases; sorrow from the death of near relatives, in 18; distress from other domestic trials, in 14; and disappointment of the affections, in 22 cases. The proportion of men was greater under the first of these heads; that of women under the three others.

None of the 4 cases under the head of anxiety as to the success of business, were connected with large mercantile speculations. And, it may also be observed, that of the 7 persons in whom unhappy conjugal connexions appear to have operated as the exciting cause, three were women, who had married persons not of the Society of Friends.

Great confusion has arisen from not distinguishing cause and effect in relation to the influence of the religious feelings upon the development of mental disorders, and *vice versa*; and the history of the cases at the Retreat fully confirms the truth of Dr. Prichard's remark, that "the circumstance of the mind of a lunatic being occupied during the period of his disease with ideas and feelings connected with an invisible world, is no proof whatever that the derangement of his understanding was produced in the first instance, by impressions related to the same subject."*

Excitement connected with religious hopes, fears, and speculations were supposed to have acted as an exciting cause in the case of 5, and as a predisposing one in that of 9 individuals. It is right to observe, that of these several were persons of rather weak minds; and that two of them had not been educated in the Society of Friends, which they had only recently joined. Another case, that of a youth, was attributed, somewhat improbably, to his having attended the singing at a Methodist chapel, where the disorder was first manifested. In one of the women the mental disorder had supervened upon religious unsettlement, connected with becoming a follower of Joanna Southcote. In two younger females a

* "Treatise on Insanity," 1835, p. 187.

state of religious excitement had its origin during the progress of a religious controversy in the place where they resided. The proportion of cases connected with this kind of cause, is thus little more than three (3.3) per cent. of the whole number admitted; which is very small as contrasted with those reported in the published reports of most other public institutions in this kingdom.

In connexion with this subject, it may be stated, that during the forty-four years, there have only been four persons in the station of religious ministers in the Society of Friends admitted into the institution; and that in all of these there were causes for the mental disorder, wholly unconnected with the religious habits or opinions of the individuals.

It may perhaps be fairly concluded from the statements now made, that the religious tenets and practices of the Society of Friends are not, as has been sometimes supposed, in themselves, unfavourable to sanity of mind. Looking, indeed, at the question in a more general way, there can be no doubt that those whose minds are influenced by true religion, under whatever form, are less liable to insanity than others. As a learned and excellent physician has well observed, "the moral causes of derangement which would not fail of producing injurious effects on others, prove innocuous in them; for these causes would be met by controlling and calming considerations and sentiments, such as would deprive them of intensity, or neutralize their effects. Truly religious sentiments and obligations soothe the more turbulent emotions, furnish consolations in afflictions, heal the wounded feelings, administer hopes to the desponding, and arrests the hands of violence and despair."†

It was calculated by Pinel, and the statement has been confirmed by subsequent enquirers,* that more than twice the number of cases of mental derangement originate from moral, as compared with physical, causes; the proportion of moral causes being relatively larger for the upper and more educated; and smaller for the lower and less educated classes. No such disproportion as this, however, can be traced in the

* Dr. Copland. "Dictionary of Practical Medicine," Vol. 2. p. 491.

† See Prichard, *op. cit.* p. 176.

numbers at the Retreat traceable to these two classes of causes. Confining our attention to the exciting causes, we find only one hundred moral, to eighty-six physical, causes. But, even after excluding hereditary predisposition as a cause, if the predisposing causes be united to the exciting, there will be found two hundred and fifty-three physical, and only two hundred and fourteen moral, causes. The physical causes thus exceeded the moral, by 18 per cent. When the average degree of intelligence and of mental cultivation, which prevail in the Society of Friends are considered, this predominance of physical over moral causes, cannot but be regarded as an interesting fact. Does not this circumstance alone indicate, that habits of endurance, fortitude, and self-government are more prevalent in this community, than in the world at large?

The influence which the different causes of insanity exert upon the result, presents a question of much practical interest. It is one, however, which requires to be examined with much caution; and it will require the observation of a very large number of recent cases, accompanied by much more accurate histories than are usually obtained, even at the Retreat, before it can ever be satisfactorily determined. A few remarks may, nevertheless, be ventured upon the apparent influence, in this respect, of the most important of the predisposing causes, viz., of hereditary predisposition, and congenital weakness and peculiarity of mind; limiting our comparison to cases of Class I, or of not more than three months' duration when admitted.

Assuming the information respecting these points to have been nearly accurate, and it was probably as much so as is ever likely to be obtained, it would not appear, as the following table will shew, that these circumstances exert any decided influence upon the probability of recovery. Indeed the proportion of recoveries, in cases in which hereditary or congenital predisposition were ascertained, amounted to 79 per cent. and did not vary, beyond the extent of a trifling fraction, from the proportion where no such predisposition was known to exist.

TABLE SHEWING THE APPARENT INFLUENCE OF HEREDITARY AND CONGENITAL PREDISPOSITION UPON THE PROPORTION OF RECOVERIES AND OF RELAPSES, OR SECOND ATTACKS.

FIRST CLASS.—Cases of the first attack, and of not more than three months' duration.	ADMITTED.				RECOVERED.			
	Recovered.		Not Recovered.		Relapsed.		Not Relapsed.	
	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.
Marked by Hereditary Predisposition	12	19	3*	5	6	8	6	11
Marked by Congenital Weakness or Peculiarity of Mind	6	5	2	1	3	3	3	2
Hereditary or Congenital	18	24	5	6	9	11	9	13
No Hereditary or Congenital Predisposition known	17	17	5	4*	5	6	12	11
	35	41	10	10	14	17	21	24
Total.....	76		20		31		45	

* Two cases, viz. one of each of the numbers marked thus, *, promised recovery when this table was drawn up, and have since been discharged well.

As might have been expected, however, these kinds of predisposition do really exert a very material influence upon the number of relapses and second attacks of the disorder. Though anticipating the subject of a succeeding section (X), it be here stated that the proportion of such relapses and second attacks, which the above table exhibits, amounts to 40.7 per cent., (40 per cent. for men and 41.5 per cent. for women). This is a proportion which does not indicate any materially different liability to such recurrences, in cases brought early under treatment in the institution, as compared with cases of all descriptions in this respect. But of the cases in which a hereditary or congenital predisposition existed, as many as 47 per cent. have experienced such 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. The important bearing which this fact has upon prognosis need hardly be pointed out.

None of the ninety-six cases appeared to be connected with epilepsy, apoplexy, or paralysis, as a cause; though in one case epilepsy existed in combination with mania, the patient recovering from both, and remaining well during fourteen years, at the end of which period, he sustained a second attack. In another instance, the patient had experienced one or two attacks of apoplexy before admission, and died of that disorder in the course of ten weeks.

It may, perhaps, be worth mentioning that amongst the women a somewhat larger proportion, or 88 per cent., of the recent cases recovered, when the apparent exciting cause was of a moral, than when it was of a physical, character; in which latter class of cases only 70 per cent. recovered. Amongst the men the reverse was observed; the proportions being 72 per cent. when the causes were of a moral, and 81 per cent. when of a physical, character.

IV. OF THE FORMS OF MENTAL DISORDER.

THE classification of the cases as regards the form of mental disorder which has been adopted, is that usually recognised into Mania, Melancholia, Dementia, and Amentia or Idiocy. The separate head of Delirium has been added, in order to embrace three or four cases of delirium tremens and of the delirium of fever, not properly coming within the province of the institution. Various subdivisions of the foregoing primary forms of disorder have been employed, not as offering a systematic classification of mental disorders, but for the sake of more clearly exhibiting the character of the cases admitted. (Table 17.)

Of the 615 cases, or whole number admitted, including readmissions, (Table 22), there were 277, or more than 45 per cent., of mania; 215, or nearly 35 per cent., of melancholia; 64, or somewhat more than 10 per cent., of monomania; and 41, or about 8 per cent., of dementia. Of amentia, or congenital idiocy and imbecility, five cases only have been admitted, in which further mental disorder had not supervened. But in addition to these, two men and five women, in whom mania, and one woman in whom monomania had

supervened on original imbecility bordering upon idiotcy, have also been admitted. This small proportion of idiotic cases must in great measure be attributed to the original rule of the institution against their admission. But as I have remarked in another place, it is still interesting to observe that the number of cases of congenital idiotcy, occurring in the Society of Friends, is remarkably small.

The relative proportion of cases of mania and monomania was the same for the two sexes; melancholia was 10 per cent. more frequent in females; and dementia was more than twice as frequent in males as in the other sex.

In consequence, however, of the changes which mental disorders undergo during their progress, the above estimate does not represent the exact proportions of the different forms of disorder treated in the institution. Even in the earlier stages, and the more acute cases, a state of mental excitement is often followed by the opposite state of depression; and, on the contrary, melancholia often passes into mania, before complete recovery takes place. When the disorder has become chronic, and especially when it has assumed a recurrent form, these alternations perhaps still more frequently occur. In cases of incurable insanity, likewise, the violence of the original disorder for the most part gradually abates, leaving a weakened condition of the memory, judgment, and other mental powers, and, as a consequence, a state of imbecility or incoherence. (Tables 33, 41, and 45). These are the first stages of dementia, which not unfrequently terminate in complete fatuity; and which, except by attention to the history, is scarcely to be distinguished from, and, especially in parliamentary and other statistical returns, is often confounded with, original idiotcy. In all institutions, therefore, which combine the two objects of the recovery of the curable, and the care of the incurable insane, a large number of cases of more or less confirmed dementia will always be found. And thus, although only 48 cases have been admitted, and there have, on the average, been less than 11 (10.71), who were admitted in that state, constantly resident (Table 22), yet as many as 44 have died (Table 33); and, at the date of this report, there were 41, or 45 per cent. of the whole number resident.

in a more or less decided state of dementia (Table 45). It would appear that melancholia and monomania, when they become incurable, have less tendency than mania to pass into fatuity. For of 87 cases of mania there were 27, or nearly one-third, and of 97 cases of melancholia and monomania 17 only, or somewhat more than one-sixth, which have merged into dementia. (Tables 33 and 45).

A marked disposition to, or attempt at suicide, either previous or subsequent to admission, was observed in sixty-two persons connected with the Society of Friends who, for the most part, laboured under melancholia. In 14 of these, the disorder was chiefly marked by religious apprehensions and fears. Of the whole number of persons admitted connected with this community, there have been 15 per cent. in whom the cases were marked by a suicidal tendency. (Table 17).

Although, as we have seen, the hopes and fears connected with religion and a future state do not, in many cases, appear to have operated as a cause; they have perhaps had their full share in modifying the form which the mental disorder has assumed. Thus, out of the 162 persons, who laboured under melancholia, the disorder in 42 was chiefly marked by solicitude and fears connected with a future state. Out of 52 persons also admitted with monomania, the hallucinations, in 9, assumed a decidedly religious character. There is no reason for supposing, that these are larger proportions than are met with in other institutions; but, even supposing them to be so, they should not perhaps surprise us, when we recollect that in the education that prevails in this society, great stress is generally laid upon the authority of an enlightened conscience; the workings of which, in the absence of self-control from disorder of the mind, will naturally often become both apparent and exaggerated.

Six cases are inserted under the head of *apathetic insanity*;—a form of mental disorder characterized by great mental inaction and apparent loss of voluntary power. It should be carefully distinguished from simple melancholia, with which it is, perhaps, often confounded; though it is more nearly allied to dementia, into which it sometimes quickly passes.

Moral Insanity, of which there have not been more than 4 marked cases, has for the sake of convenience, been made a subdivision of monomania; to which, indeed, it appears to be often closely related.

V. OF THE DURATION OF RESIDENCE.

THE average duration of residence has been very high; and for the whole number admitted, has hitherto been nearly five (4.8) years. For the whole number discharged and died, it has been three and a-half (3.52) years; viz: for those discharged recovered, a year and a third (1.32); improved, two years and a quarter (2.25); unimproved, three years (3.06); and for those who have died, nearly nine (8.83) years. For those remaining in the house, Midsummer 1840, the average period of residence was twelve and a-half (12.49) years. It is worth remarking, that more than a third of those who have recovered were discharged within six months of admission; whilst of those who have died, little short of a third had resided from ten to forty-four years in the institution. (Tables 18 and 19).

The long period of residence of patients at the Retreat should be borne in mind, in comparing its statistics with those of other institutions. This prolonged average residence is to be attributed to the period of discharge, in curable cases, being seldom or never hastened by pecuniary considerations; and to the caution exercised in removing patients before the apparent convalescence has been tested by a sufficient continuance. During this period of probation, which is sometimes as much desired by the patient himself as by the officers of the institution, a relapse has in many instances occurred. The stay, in such cases, is consequently still further protracted; and one recovery only appears, where, had the patient been discharged more speedily and re-admitted upon relapse, two recoveries would, in many instances at least, have been reported.

But this long average duration of residence is, no doubt, in at least an equal degree, to be attributed, to the low rate of mortality which, as we shall see, prevails at the Retreat.

On the other hand, however, this low rate of mortality is reciprocally, though in a less degree, influenced by the long average residence. The number of *existing* cases of insanity in the Retreat, which, relatively to the numbers of the Society of Friends as a body, is comparatively large, is thus satisfactorily accounted for, without any necessity for supposing that insanity is more prevalent in that community than in the population at large. For determining the interesting question as to the exact prevalence of insanity, either in the kingdom at large, or in the Society of Friends, I have elsewhere shewn that the necessary data do not exist; though as regards the latter, some approximation to it may be made.

VI. OF THE RESULTS OF TREATMENT UNDER DIFFERENT CIRCUMSTANCES OF SEX, AGE, DURATION, AND FORM, OF DISORDER.

THE three Tables (20, 21, 22,) given in this section comprise the various data for calculating the proportions of recoveries, and the mean annual mortality, as modified by the sex and age, and by the duration and form of the disorder. The details which they contain are therefore important, and serve as guarantees for the calculated recoveries and mortality, by will be given one to test the accuracy of the tables which enabling any in succeeding sections.

It will be observed, that these tables comprise a greater number of cases than Tables 7, 12, and 17, which refer to the same subjects; the tables, as already explained, being, in the one case of *persons*, and in the other of *cases*. In the tables under consideration, we have not only the facts as observed on first admission, and as given in the corresponding tables which have been referred to, but also the same facts as observed in the re-admitted cases; the age, duration and form of the disorder being, of course, given as they existed on re-admission.

We may now at once proceed to the consideration of the *average proportion of recoveries*, and afterwards to that of the *mean annual mortality*, as deduced from these tables.

VII. OF THE AVERAGE PROPORTIONS OF RECOVERIES UNDER DIFFERENT CIRCUMSTANCES.

In entering upon the consideration of the recoveries, it must be here premised that those cases only are considered *recovered*, in which the patient is so far restored as to appear fully capable of performing, with propriety, the duties belonging to his social and civil position in the world; though it is not pretended but that, upon a minute examination, traces of mental disorder might, in some cases, still be detected. In the few cases in which an attack of mania had supervened upon a condition of original imbecility, the patient has been considered recovered, when restored to the care of his friends in the state he was in before the attack. In a small number likewise, which have been removed in an advanced stage of convalescence, from the desire of their friends, or from its being thought in the particular case desirable, the patients have been considered recovered when the convalescence has been confirmed. Those who still require the particular care of their friends, though so far benefited by treatment, that further residence in the institution is thought unnecessary, are, on their discharge, considered as *improved*.

Of the whole number of 615 cases admitted, 291, or 47.31 per cent., were discharged recovered. But it is, perhaps, more proper to limit this calculation to the cases for which the institution is more particularly designed; and we then find that of the 550 cases in persons belonging to, or connected with, the Society of Friends, 276, or 50.18 per cent., were discharged recovered. On an average, one of every two cases of all descriptions recovered. This proportion is somewhat above the general result obtained in the large public institutions of this country and of Ireland, in which the recoveries appear seldom to exceed 40 or 45 per cent. of the admissions. In one or two of these establishments indeed, the reported number of recoveries amount to 52 per cent. On the other hand, the recoveries, in similar institutions, are frequently not more than 30 or 35 per cent.* As already observed, had the discharge of convalescent patients at the Retreat been more

* For a table exhibiting the average proportion of recoveries, and the mean

speedy, a greater number of re-admissions from relapse would no doubt have occurred, and the estimated proportion of recoveries would have been greater. But after allowing for this, and provided the enumeration of cases of recovery, be made on nearly the same principle in the different institutions, the aggregate result obtained at the Retreat is not perhaps more favourable than might, under the circumstances, have been anticipated. (Tables 20, 23, and 25.)

The recoveries, when calculated upon the average population or upon the mean annual number resident, were at the annual rate of 9.845 per cent., (Table 23). In this estimate time, or duration of treatment, is taken into consideration. Thus 9.845, when multiplied by the average length of residence, or by 4.8 years, gives 47.25, which is only a fraction less than 47.31, the actual proportion of recoveries per cent. of the admissions. If the average duration of residence in different hospitals were the same, the rates of recovery, as calculated upon these two plans, would observe a certain proportion; and it would be perfectly indifferent which of the two methods were selected for comparison. But since the object in the treatment of the insane is not merely to produce a speedy recovery, but as it should combine that of fortifying the system against a relapse, it is obvious that the time in which recovery is effected, though of great, is still only of secondary importance. This being the case, the proper method of estimating the relative proportion of recoveries, must evidently be that calculated upon the number admitted or treated, and not upon the average number resident. In the tables, now before us, therefore, we need only consider the figures in the second series of the columns; viz. those under the head of "proportion of recoveries per cent. of the admissions." (Tables 23, 24, and 25).

Influence of Sex, Age, Duration, and Form, of the Disorder on the Proportion of Recoveries.—All indiscriminating comparisons of the proportion of recoveries out of the aggregate number admitted, are extremely fallacious, and open to much

annual mortality in upwards of forty Hospitals for the Insane in this and other countries, the reader is referred to my "Observations on the Statistics of Insanity."

objection; from the results being so greatly modified by the character, in several respects, of the cases admitted, viz. by the sex and age, and by the duration and form of the disorder.

Sex.—*Table 23.*—The recoveries amongst women exceeded those amongst men, by about 20 per cent.; and this is a difference which is to be observed under nearly all circumstances of age, duration, and form of disorder.

Age.—*Table 23.*—Age exerts a marked influence upon the number of recoveries. The probability of recovery is greatest in the young, and undergoes a very regular diminution as age advances. Thus the recoveries at 10-20 years (on admission), were 55.55 per cent. and at 70-80 years, only 20. per cent. of the admissions. When the proportion of recoveries per cent. are given for periods of life of twenty years' duration each, the rate of decrease in the recoveries will be seen not to be the same for different ages, but to be a progressively accelerating one.

Age.	Proportion of Recoveries per cent. of the Admissions.	Decrease per cent. (excluding fractions.)
0 to 20 years	55.55	
20 to 40 „	51.77	7.
40 to 60 „	46.16	11.
60 to 80 „	27.8	40.

So remarkable a result perhaps warrants the supposition that the decrease in the number of recoveries with age, may observe some regular geometrical proportion. May not more extended researches shew the recoveries to be inversely as the square of the age?

The only important exceptions, to the general law of the recoveries decreasing with age, is found amongst the women, in whom the recoveries at 10-20 and 40-50, were less numerous than at the succeeding periods of 20-30 and 50-60 years of age. These exceptions, may probably both of them, be attributed to the peculiarity of the sex.

One reason for the larger proportion of recoveries in recent cases, though this can scarcely operate to any very considerable extent, is doubtless the earlier average age at which they come under treatment. For, as a comparison of the following table with Table 7 will shew that whilst the average age at

the origin of the disorder, in the ninety-six most recent cases of Class I. was 33.5 years, and consequently not materially differing from the average age at the origin of the disorder, in the whole number admitted; these cases came under the care of the institution, on the average, six years earlier in life than the patients generally; and, by so much, at a period when recovery was more probable.

TABLE SHEWING THE ACTUAL AND AVERAGE AGES AT WHICH CASES OF THE FIRST ATTACK, AND OF LESS THAN THREE MONTHS' DURATION WERE ADMITTED; WITH THE NUMBERS THAT DID AND DID NOT RECOVER.

AGE.	ADMITTED.						AVERAGE AGE AT ORIGIN OF DISORDER.		
	Recovered.			Did Not Recover.			ADMITTED.		
	Male.	Fem.	Total	Male.	Fem.	Total	Males.	Females.	
From 14 to 20 years	5	3	8	.	2*	2	34.3	32.7	33.5
„ 20 to 30 „	10	24	34	2	2	4	33.3	30.7	31.9
„ 30 to 40 „	10	6	16	4	1	5	42.1	44.7	43.5
„ 40 to 50 „	6	2	8	.	2	2	TOTAL ADMITTED.		
„ 50 to 60 „	3	5	8	1*	2	3	Male.	Fem.	Total.
„ 60 to 70 „	1	1	2	2	1	3	45	51	96
„ 70 to 80 „	.	.	.	1	.	1			
Total.....	35	41	76	10	10	20			

* Two cases, viz. one of each of the numbers marked thus, *, promised recovery when this table was drawn up, and have been since discharged well.

The influence of age upon recovery is still further shewn by the fact, that the average age at the origin of the disorder and on admission in such of the recent cases as recovered, was less, by nearly twelve years, than in those who did not recover; it being 31.9 years in the former, and 43.5 in the latter. The difference in the proportion of recoveries, in the cases admitted at different ages, was still more in favour of the earlier periods of life, in these recent cases, than in the cases generally. As may be ascertained from the preceding table of recent cases, of those from 14 to 20 years of age, 90

per cent., from 20 to 40, 84.7 per cent., from 40 to 60, 80.9 per cent., and from 60 to 80 years of age, 33.3 per cent., were discharged recovered.

Duration of Disorder.—Table 24.—Of all the circumstances affecting the probability of recovery, the duration of the disorder on admission, is perhaps the most important. Thus it will be seen that of cases in Class I., admitted within three months of the first attack, 80 per cent. within a fraction, (79.16) have been discharged recovered. The expectation of recovery in such cases is therefore, in the aggregate, as four to one. But were the cases in this class excluded, which, upon admission, were complicated with diseases in themselves fatal to life, such as pulmonary consumption and apoplexy, as well as those which had been previously marked by so much eccentricity as, perhaps, properly to constitute them *old* cases, though not so regarded by their friends, the experience of the Retreat would shew that, when brought under care at this early stage of the disorder, the probability of recovery is fully as nine to one. Of twenty cases indeed of this class, taken indiscriminately, admitted in ten years, 1798-1808, as many as nineteen were discharged recovered. Of cases in Class II., of the first attack, and of from three to twelve months' duration when admitted, 46.15 per cent. recovered. Of cases in Class III., not of the first attack and of less than twelve months' duration when admitted, and which, consequently, embraced many recent cases of recurrent insanity, as many as 62.08 per cent. recovered. In Class IV., embracing cases whether of the first or of a subsequent attack, of more than twelve months' duration, the proportion of recoveries was not more than 19.35 per cent.; the expectation of recovery in such cases being less than one to four.

Recovery, however, is not only more frequent, but is effected also in a period which is shorter in proportion as the attack is recent. (Table 19). Thus the average length of residence in those who recovered, who had been admitted within three months of the first attack, (Class I.,) was three quarters (.78) of a year; in those admitted from three to twelve months after the first attack, (Class II.,) one and a quarter (1.23) year; in those admitted within twelve months

of a second or any subsequent attack, (Class III.,) one and a half (1.47) year; and in those admitted more than twelve months after the attack, (Class IV.,) two (1.97) years. That appropriate moral and medical treatment is to a very great extent, more available in the early stages of the disorder, and that patients, consequently, should be placed under proper care at an early period after the attack, is thus on all hands evident.

The importance, however, of placing the patient under proper care at an early period of the disorder, is not only apparent from a comparison of the results of treatment, but is equally inculcated by that aggravation of the disorder and increased difficulty of management, which are the nearly uniform results, when persons attacked by insanity are detained at home; where they are surrounded by near relatives, or by servants, whose attempts to controul them, which they naturally resist, generally prove either futile or injurious. The friends of the patients are not always aware of these facts, but when they are, are too often reluctant to stamp the case with the character, or, as some think, the stigma, of confirmed insanity. It is believed, however, that correcter views with respect to mental disorders, and such as cannot but prove advantageous to the patient, are gradually diffusing themselves in the public mind. "Whoever," as Sir James Mackintosh wrote to the celebrated Robert Hall, "has brought himself to consider a disease of the brain as differing only in degree," (as regards the importance of the organ affected), "from a disease of the lungs, has robbed it of that mysterious horror, which forms its chief malignity." By these remarks it is far from being intended to recommend the premature removal of persons attacked by mental derangement or by delirious excitement, to hospitals for the insane. Such a course, in many cases, is altogether unnecessary, and in some would be positively injurious; and it should rarely, if ever, be resorted to except under the advice of a judicious medical practitioner.

Form of Disorder.—*Table 25.*—The probability of recovery is, it will be seen, greater when the mental powers are more generally affected, whether by excitement, as in mania, or by

depression, as in melancholia, than when the mind is affected by partial insanity, or monomania. In dementia, recovery is very rare, and in amentia (idiotcy), it is almost needless to say, is never known to occur. Esquirol and others have observed, that "a greater proportion of cases of mania are cured than of any other variety of madness."* The experience of the Retreat appears, at first sight, to be at variance with this statement; for 54.88 per cent. cases of melancholia, and only 53.43 per cent. of mania recovered. In estimating the relative number of recoveries, it appears that Esquirol did not distinguish melancholia from the other forms of monomania; but, even when these two groups are united, the proportion of recoveries from monomania, in this more extended sense, at the Retreat, would still amount to 42 per cent.;—a proportion much nearer to that of recoveries from mania than is generally supposed to occur. It is highly probable that the true explanation of this is to be found in the circumstance of a larger number of the slighter cases of melancholia having been treated at the Retreat than at Charenton, or indeed than is common in hospitals for the insane generally. Of monomania, exclusive of melancholia, 31.25 per cent. recovered. In dementia the recoveries were only 2.08 per cent.; a proportion which closely corresponds with that observed by Esquirol.

VIII. OF THE DEATHS AND MEAN MORTALITY UNDER DIFFERENT CIRCUMSTANCES.

THERE were 139 deaths during the forty-four years at the Retreat; and of these, 126 were of persons connected, and 13 of persons unconnected, with the Society of Friends. As there were 615 admissions during the same period, *the proportion of deaths to the admissions* was 22.6 per cent. This computation, however, affords no index to the actual mortality as compared with that of other institutions. Were, indeed, the average period of residence in different institutions the same, such a comparison would hold good; though, even in that case, the proportion of deaths so calculated could

* Statistique, p. 136, in the "Annales d'Hygiène;" item, art. "Folie" in "Dict. des Sciences Méd." See Prichard, "Treatise on Insanity," p. 128.

not be compared with the mortality of the population at large, nor with that of other communities. The uncertainty which has hitherto so generally prevailed as to the comparative mortality of the insane may, in great measure, be attributed to the calculation having nearly always been made according to this fallacious method. In the tables of mortality now before us, the reader need therefore only attend to the figures in the second series of columns, or to those under the head of "mean annual mortality per cent. resident." (Tables 26, 27, 28.) For, as is now well known, the mortality of any class of people is only correctly expressed by the proportion of deaths out of a given population, or number living a given time: in other words, we have to ascertain the mean annual mortality per cent. of the average number in the house.* Calculated in this way, as the average number resident during the forty-four years was 67.15, *the mean annual mortality* was at the rate of 4.7, or exclusive of those unconnected with the Society of Friends, 4.59 per cent. This is a very low rate of mortality; and indeed the lowest which has been published for any institution, public or private, that has been in operation during so extended a period.†

Influence of Sex, Age, Duration, and Form of the Disorder of the Mortality.—The sex, age, duration, and form of the disorder exert as marked an influence over the mortality of the insane as they do over the proportion of recoveries; and it is interesting to observe that for the most part, it is under the same circumstances under which the recoveries are most numerous, that the mortality is the lowest.

Sex.—Tables 26, 28.—The mean annual mortality amongst men exceeded that amongst women by 35 per cent.; that of the former being at the annual rate of 5.39, and that of the latter 3.99 per cent.

Age.—Table 26.—The influence exerted by age on the mortality of any class of persons, it need scarcely be ob-

* "Statistics of English Lunatic Asylums. By William Farr." Sherwood and Co. Page 12.

† For a statement of the mean annual mortality in various Hospitals for the Insane, the reader is referred to the table in the "Observations on the Statistics of Insanity," &c.

served, is of the first importance; but its influence on the mortality of the insane has never been anywhere previously shewn. The value of the table now before us is consequently great, and the pleasure of being able to present it in this place fully compensates for the labour required in the collection of the data on which it is founded. With little exception, it will be observed that the mortality increases in a regularly progressive ratio with each succeeding decennial period of life.

But although the mortality of the insane, like that of the general population, increases remarkably with age, it is an extraordinary fact that, though absolutely higher at all ages, the progressive increase of the mortality with advancing age is relatively greater in the general population than among the insane. Thus, whilst the mortality at the Retreat, from 20 to 50 years of age, especially among males, was double, treble, and even quadruple what it is among the sane at the same ages, at 70 years of age and upwards it is only slightly, if at all, higher than in the population at large. And thus it appears not improbable, that if the insane survive the 60th year, they are nearly as likely to attain advanced age as the sane. At this period of life the disorder has, in general, passed into fatuity, or at least into a chronic and often lively form of insanity; and the bodily functions are often remarkably active, if not also vigorous. The prevalent error of the insane being long-lived is perhaps to a certain extent to be explained by this interesting and unexpected result.

Duration of Disorder.—Table 27.—Of cases in Class I., admitted within three months of the first attack, the mortality was 6.19 per cent.; of cases in Class II., of the first attack, and of three to twelve months' duration when admitted, 3.9 per cent.; and of cases in Class IV., of more than twelve months' duration when admitted, 4.48 per cent. Though this statement does not give us the exact mortality at different stages of the disorder, it is sufficient to shew that the mortality is greatest in the recent cases. And thus we find that of cases in Class III., not of the first attack, but of less than twelve months' duration when admitted, consequently embracing many recent cases, the mortality was as

high as 5.78 per cent. Had the influence of the duration of disorder upon the mortality been judged of by the proportion of deaths per cent. of the admissions, what an opposite and completely erroneous conclusion would have been formed, may be seen by reference to the first series of columns of this table. This different aspect of the results, when considered according to these two methods, is explained by the very different proportions of recoveries, and by the consequent difference in the average duration of residence in these four classes.

Form of Disorder.—*Table 28.*—The rate of mortality in those admitted in a state of mania, has been 3.99, in melancholia, 6.96, in monomania, 3.46, and in dementia, 4.45 per cent. The mortality in idiotcy has been at the rate of 2.87 per cent.; but the cases admitted have been too few to warrant our placing much reliance on this result; which only slightly exceeds that of the population at large. In this calculation the changes which took place in the form of disorder before death (*Table 33*) have not been taken into account; and as there has been no register kept of the cases resident in the several forms of disorder, founded on censuses made at regularly recurring periods, annual or more frequent, I can in this table only present an approximation to the true rates of mortality in the different forms of disorder, regarding which no accurate observations appear hitherto to have been published.

Age at the Time of Death.—*Table 29.*—Of the 126 deaths of persons connected with the Society of Friends, 57, or 45 per cent., were upwards of 60, and of these 14, or 11 per cent. of the whole, were from 80 to 97, years of age. This is a proportion of old persons, which is probably unequalled in the annals of such institutions. The average age at death, of persons connected with the Society of Friends, was 56.5 years; whilst in others it was only 47.7 years. The average age of females exceeded that of males by about three years.

Duration of Residence at the Time of Death.—*Table 30.*—Of the 126, there were 23, or nearly a fifth of the whole, (18.2 per cent.) who, at the time of death, had resided from twenty to forty-four years in the institution. The average duration of residence in those who died, connected with the Society of

Friends, was nine and a half (9.44), and that of others only three (2.94) years.

Duration of Disorder at the Time of Death.—Table 31.—Of the 126, as many as 48, or 38 per cent., had suffered from the disorder, though in many cases with intervals of sanity, for periods of from twenty to sixty years at the time of death. The average duration of the disorder at death, as nearly as could be ascertained, was 17.31 years; whilst, in the few unconnected with the Society of Friends, it was only 9.34 years.

Influence of Insanity on the Duration of Life.—The influence of insanity on the duration of life is a subject on which authors have been long divided; and the opinion that mental alienation is not necessarily prejudicial to longevity is even yet not quite exploded. Cases of longevity in the chronic forms of insanity do no doubt often occur; and, as we have seen, persons may live thirty, forty, fifty, and even sixty years in a state of intellectual derangement. Instances of this description, however, are very far from being sufficiently frequent to compensate for the large mortality in the early stages and acuter forms of the disease. With the data now before us (Tables 29 and 31), the average age at which the 139 who died, were attacked with the disorder, may be ascertained; and will be found to have been, for those connected with the Society of Friends, 39.19 years; and for others, 38.36 years. ($56.5 - 17.31 = 39.19$; and $47.7 - 9.34 = 38.36$.) Now the expectation of life at thirty-eight and thirty-nine years of age, according to the most recent researches, is not less than twenty-eight years;* so that the mean ages attained should have been sixty-seven and sixty-six, instead of fifty-six and forty-seven respectively (Table 29). In those connected with the Society of Friends, less than two-thirds, and in the others, not more than a third, of the expectation of life at the time of attack was, on an average, realized. This is one way in which the prejudicial influence of insanity upon the duration of life may be shewn.

* See "Fifth Report of the Registrar General," 1843, p. xix; Finlaison's Tables of Expectation of Life, in "Macculloch's Statistical Account of the British Empire," 1837, vol. 1, p. 419; and Table for the Society of Friends; "Rules of the Friends' Provident Institution," 1836, p. 45.

The average age at death of those who recovered and died subsequent to discharge, differed but slightly from that observed in the institution itself; and the average age at attack was also very similar (Table 35). As is the case after recovery from most important diseases, the average duration of life after recovery from insanity is thus seen to be materially diminished. The experience out of the institution, as to the influence of insanity upon the duration of life, even in those who have recovered, confirms that in the Retreat itself.

The mortality of England and Wales for the seventeen years, 1813—1830, was, according to Edmonds, 2.12 per cent. at all ages;* and that of persons of adult age, with which the mortality of hospitals for the insane should be compared, can only be estimated a few fractions higher. The mortality, then, of the Retreat, 4.59 per cent., was double, and that of the York Lunatic Asylum, 7.35 per cent., still a favourable result, treble, that of the general population. The interesting and important question, whether insanity has any positive influence in diminishing the probability of human life, is thus very decidedly answered in the affirmative.

Causes of the low rate of Mortality at the Retreat.—The low rate of mortality at the Retreat is so remarkable and important a feature in its statistics, that we can here scarcely avoid stopping to enquire whether there are any peculiar and extrinsic circumstances upon which it depends, and whether it would be proper to attribute it altogether to the situation and economy of the institution, and to the adaptation of the means employed to the objects which it contemplates, viz. the restoration of the curable, and the comfort and health of the incurable, insane. A little reflection on the circumstances of the particular community to which this institution is principally appropriated, will convince us that although, to a certain extent, this may be a correct inference it is far from being altogether so.

It must be recollected that the Society of Friends, as al-

* British Medical Almanack, 1836, p. 104; and 1837, p. 135: also Macculloch, op. cit. vol. 2, p. 568. The mortality of England and Wales, according to the Registrar-General, during four years, 1837—1841, was 2.22 per cent. See "Fourth Report," p. 5; and "Fifth Report," p. xi.

ready stated, forms a select class, consisting for the most part of persons in the middle class of society, generally in more or less easy circumstances, and, by their liberal provision for their poor, in all cases removed above immediate want. There can scarcely be a doubt likewise that their habits, on the whole, are even more favourable to health and longevity than are those of the middle classes of this country in general; and, consequently, that their mortality is considerably less than that of the entire population of the kingdom. In consequence of the numbers of the Society of Friends living at different ages not being known, the precise amount of its mortality at each age cannot be ascertained; but a table of mortality calculated upon the deaths alone, and thus liable to the same error, with respect to the lower ages, as the Northampton and other tables, constructed upon the same principle, actually does exhibit a greatly diminished rate of mortality for all the higher ages.* The mortality then of the Society of Friends being less than that of the general population, it becomes highly probable that the mortality of their insane will also be less than that of the insane taken from all classes of the general population. This is a consideration which applies to the mortality of the Retreat more perhaps than to that of any other institution; but it should never be forgotten in estimating the mortality of the insane of any select class.

As, however, the following table will shew, it does not appear that the low rate of mortality at the Retreat can be altogether ascribed to the more favourable mortality of the Society of Friends as a body. This table exhibits the mortality at different ages at the Retreat, and at the York Lunatic Asylum, compared with that of the Society of Friends as a body, and with that of the general population of England and Wales, so far as the latter are known. As the actual mean rates of mortality, for all ages, in these four instances cannot be fairly compared with each other, in consequence of the very different proportions which they contain of persons living at the several ages, a standard of comparison has been deduced by calculating what the mean rate of mortality for

* See Appendix II.

all ages would be in each instance, supposing there were one hundred persons living at each decennial period of life. In this comparison the mortality of the York Lunatic Asylum is supposed to represent, (though, if anything, it does so too favourably,) what the mortality of the insane of all classes through the kingdom would be, if placed under favourable circumstances.

TABLE SHEWING WHAT THE MEAN ANNUAL MORTALITY WOULD BE, SUPPOSING EQUAL NUMBERS LIVING AT THE DIFFERENT AGES—IN ENGLAND AND WALES, IN THE SOCIETY OF FRIENDS, AT THE YORK LUNATIC ASYLUM, AND AT THE RETREAT.

AGE.	England and Wales. (Edmonds.)	Society of Friends. (Appendix II)	York Lunatic Asylum. (Appendix I. Table E.)	The Retreat, York. (Table 26.)
From 20 to 30 years.	1.02	1.37	4.76	3.6
„ 30 to 40 „	1.19	1.23	6.78	2.82
„ 40 to 50 „	1.49	1.47	9.35	3.35
„ 50 to 60 „	2.25	1.91	6.38	4.48
„ 60 to 70 „	4.33	3.75	6.89	6.33
„ 70 to 80 „	9.9	8.12	12.06	8.6
„ 80 to 90 „	22.08	15.78	30.	22.09
	42.26	33.63	76.22	51.27
Mean Mortality, supposing of 700 living there were 100 of each of the above ages.	6.03	4.8	10.88	7.32
Actual Mortality from 20 to 30 years.	2.45 ?	2. ?	7.35	4.7

By the above table it is shewn that, supposing equal numbers of persons living at each of the seven decennial periods of life from 20 to 90, the mortality of England and Wales would have been 6.03, that of the Society of Friends 4.8, that of the York Lunatic Asylum 10.88, and that of the Retreat 7.32 per cent. With these data, we can ascertain whether the rates of mortality for the two institutions observe the same proportion as those for the two communities. By the rule of proportion however, it is readily ascertained that, supposing equal numbers living at the different ages, 8.66 instead of

7.32 per cent., would represent the mortality at the Retreat, were not that still more favourable than the lower mortality of the Society of Friends would have prepared us to expect; ($6.03 : 4.8 :: 10.88 : 8.66$). In the same way, by comparing the difference between 7.32 and 8.66 with 4.7 per cent., the actual rate of mortality at the Retreat, we ascertain that this would have been 5.56 instead of 4.7 per cent., had it observed the proportions that, on such a supposition, might have been looked for ($7.32 : 8.66 :: 4.7 : 5.56$). In other words, there were only 139 deaths at the Retreat, during a period in which, upon the grounds now explained, at least 164 might have been expected.

A portion of the difference, then, between the low rate of mortality at the Retreat and the higher one at the Asylum, or 1.79 per cent. (which is the difference between the mortality at the Asylum 7.35, and that which, for the above reasons, was to have been expected at the Retreat, 5.56), appears to be attributable to the more favourable mortality of the Society of Friends as a body. And further, the difference between 5.56 and 4.7 per cent., the actual rate of mortality at the Retreat, or .86 per cent., may perhaps in part be attributed to the favourable locality of the institution, and to the general adaptation of the means at its disposal to the health of its inmates. The precise accuracy of this calculation altogether depends upon that of the estimated mortality in the Society of Friends, and in the kingdom generally. But any inaccuracy that may be hereafter detected in these details, which to any great extent is not probable, will not affect the principle of the calculation.

Fatal Diseases.—Table 32.—There was very little doubt as to the exact cause of death, in any of the cases in which this was not determined by post mortem examination.* The fatal diseases have been arranged upon the same plan as that adopted by Mr. Farr, under the sanction of the Registrar-General; and they thus admit of comparison with the causes of death, either in the kingdom generally, or in any part of it.

* I reserve for some other occasion, the observations I have made on the pathological condition of the brain and other organs, in fatal cases of insanity.

Excepting the influenza of 1836-7, of which there were five fatal cases, no disease has at any time prevailed epidemically in the institution. The few cases of diarrhœa, dysentery, erysipelas, and fever which occurred, in no instance affected more than one person at the same time: all of these, but particularly the three former, being diseases which have often proved extremely fatal in hospitals for the insane. Of the three cases of fever, only one was attacked with the disorder in the house: the other two died a few days after admission in a state of febrile delirium, which had been mistaken for mania, and brought as such to the institution.

Only two cases of death from (general) paralysis, are given in the table; but it must be stated, that there were at least three or four other instances in which more or less marked general or local paralysis existed, but which ultimately proved fatal from the supervention of such diseases as mortification of the extremities and inflammation of the lungs. In cases of inflammation of the lungs, under these circumstances in particular, the pulmonary affection has often been detected with great difficulty during life; and has sometimes manifested itself almost solely in disturbance of the nervous system, often of an apoplectiform character.

There were twenty deaths from diseases of the organs of digestion. More than half of these were from some form of inflammation of the stomach or bowels (gastritis, enteritis, peritonitis, ulceration,) which frequently assumed a very obscure form, and was in some cases hardly suspected during life.

The five deaths from mortification, chiefly of the extremities, occurred in persons whose ages averaged 65 years. In none of these was the mortification the result of exposure to cold; nor, unless this could be said to have been the case in a female who had been bed-ridden from paralysis for a considerable period, was it at all connected with confinement, personal restraint, or the want of exercise. In one instance the disorder existed at the time of admission, three weeks after which the patient died; and in two others, decided symptoms of a diseased state of the heart and circulating organs had for a long period been observed.

Two or three of the six fatal cases attributed to atrophy, a

form of death to which the insane have been considered very liable, were most likely instances of pulmonary consumption in a latent form. But that this was not so in all these cases, was proved by examination after death.

Exhaustion, from a state of long-continued maniacal excitement, has not been a frequent cause of death at the Retreat; and in two of the three instances of this description, the fatal event was at least hastened by the fatigue of travelling. These two patients, before we had the advantages of railway travelling, were brought in the one case 220, and in the other 270, miles, without being allowed sufficient rest by the way; and they both died within about a week of arriving at the institution.

There were five deaths from suicide; all of which were in males, and were effected by hanging. Three of the number occurred in the infancy of the institution, when the officers were probably less experienced in the care of persons with this unhappy propensity. The two other cases occurred since the year 1829.

Comparison of Fatal Diseases with those of the community at large.—As the enquiry how far the fatal diseases of the insane differ from those of the community at large is one of considerable interest, we may here devote some space to its consideration.

In the subjoined table a comparison has been made of the several classes of disease proving fatal at the Retreat, and of some of those separate diseases to which the insane are, or have been thought to be, peculiarly liable, with those which proved fatal through the whole of England and Wales, in the year 1838.

As the deaths at the Retreat were only 139 in number, such a comparison as this is no doubt to be received with some allowance; but as the causes of death were generally well ascertained, and as they extended over a period of forty-four years, the comparison must still be allowed not to be destitute of value. Indeed I conceive the deaths at the Retreat are particularly calculated for a comparison of this kind, the object of which is to ascertain the modifying influence on the causes of death, of insanity uncomplicated, as

much as may be, with those other disorders which in pauper asylums are frequently met with as the results of intemperance and privations.

The only important point of difference which should be recollected in a comparison of this kind is that of the fatal disorders peculiar to infancy and youth, not being causes of death to the insane. Did infantile disorders enter in the same proportions into the several classes of disease, the estimate we are forming, would not be affected by them; but as this is not the case, they must be pointed out where they occur to such an extent as, in any material degree, to affect the comparison.

TABLE SHEWING OUT OF ONE HUNDRED DEATHS THE NUMBERS FROM EACH OF TWELVE CLASSES AND EIGHT DISTINCT FORMS OF DISEASE—IN ENGLAND AND WALES, AND AT THE RETREAT.*

CAUSES OF DEATH.	England and Wales. 1838.†	The Retreat, York. 1796—1840.
1. Epidemic, Endemic, and Contagious Diseases.	20.538	8.633
2. Diseases of the Nervous System	15.016	19.424
including <i>Convulsions</i> (almost en- } tirely of Infants) }	7.879	.
<i>Apoplexy</i>	1.703	11.510
<i>Paralysis</i>	1.505	1.438
<i>Epilepsy</i> . . . . .	.330	4.316
<i>Disease of Brain</i> . . . . .	.425	2.158
3. Diseases of the Respiratory Organs	27.484	24.460
including <i>Inflammation of Lungs</i> ..	5.445	4.346
<i>Consumption</i>	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 <i>Suicide</i> . . . . .	.320	3.597

* The Table is read thus:—Of 100 deaths, in which, as respects England and Wales, the causes were specified, 20.538 died of epidemic, endemic and contagious diseases; or, without decimals, out of 100,000 deaths, 7879 were from convulsions. In the same manner likewise, of 100 deaths at the Retreat, 11.510, died of apoplexy.

† Second Annual Report of the Registrar-General, 1840. Appendix, p. 58.

Although it is not to be forgotten that not less, probably, than one half of the deaths from epidemic and contagious diseases in the general population occur in children, the general proportion at the Retreat actually of this character, and not exceeding four or five per cent. of the whole number of deaths, is still remarkable; and speaks loudly in favour of the locality of that institution, if not likewise of its general economy.

The deaths at the Retreat, from apoplexy and other diseases of the nervous system, especially when those connected with the Society of Friends are separately considered, have not been so numerous as in many other institutions; yet the greater liability of the insane to these diseases is remarkably evident from the comparison in the above table. More than two-thirds of the registered deaths from diseases of the nervous system in England and Wales occur in children; so that of the 15.016 per cent. from this class of diseases, there would not remain more than four or five per cent. in persons of adult age. The deaths at the Retreat from the same class of diseases, were 19.424 per cent. of the whole number, or nearly five-fold what they were in the general population. The deaths from epilepsy were increased fourteen-fold; and those from apoplexy and other diseases of the brain, five or six-fold. Paralysis, according to the table, occurred in barely the same proportion of cases; but it has already been explained that there were several other cases in addition to those reported as fatal from this cause, which were ultimately terminated by other diseases, in which more or less advanced paralysis existed. This disease therefore can scarcely be considered as forming any exception to the general and well ascertained fact of fatal diseases of the nervous system having a greatly increased prevalence in the insane.

Diseases of the lungs and other organs of respiration, as a class, appear to have been scarcely so fatal at the Retreat, as

Table O, &c. The mean of the proportions for the two sexes is given. The relative proportion of deaths from the different classes of disease through England and Wales, in 1838, were almost precisely the same as in the previous year, 1837 (July—December); and as in the succeeding year, 1839. See First Report of Registrar-General, 1839; Table N. p. 123; and Third Report, 1841; Table U. p. 93.

they are in the kingdom generally. As regards inflammation of the lungs, however, there is reason to believe that two-thirds of the deaths from this cause in the general population, occur in children; and consequently the deaths from this disease at the Retreat, must be regarded as double what they are in adults in the community at large. Pulmonary consumption is a disorder to which the insane, especially the melancholic, have been long considered peculiarly liable. One seventh, or 14.388 per cent., of the deaths at the Retreat were from this cause. Consumption then has not been so fatal at the Retreat as in the general population; there being reason to believe, that even when those under 15 or 20 years of age are excluded, more than one-fifth of the deaths throughout the kingdom are from this disease.

There were nine deaths from diseases of the heart, being 6.402 per cent. of the whole number. In England and Wales they are stated at 1.075 per cent. only; and this when children are excluded is probably not more than 2 per cent. This increased proportion cannot altogether, though it may in part, be attributed to these diseases having been more often recognized when they existed at the Retreat, than in the general population; and it agrees with the observations of those older physicians who have stated that the insane are very liable to hydrothorax,—a disorder which in the majority of cases is only a consequence of disease of the heart. The importance and prevalence of diseases of the heart are perhaps not even yet fully admitted; whilst their frequent connexion with insanity, both as cause and effect, appear hitherto to have been little more than suspected.

The deaths from diseases of the organs of digestion were 20 in number, or 14.388 per cent. of the whole. This is a proportion which is nearly treble, and, exclusive of children, perhaps more than treble, that in the community at large. The important connexion, already alluded to, between mental derangement and dyspeptic and other disorders of the digestive organs, is thus still more strongly exhibited.

The comparison of the relative proportion of deaths under the succeeding heads, does not present us with any particular feature of interest; but it may be observed that little import-

ance can be attached to the comparison of the number of deaths from "old age," as in a great proportion of the cases of the aged at the Retreat, the cause of death was ascertained with much more precision than can be presumed to be the case in the general population, in which as has been justly observed by Mr. Farr, "there is reason to believe that many of the diseases of the aged are not detected; and that the terms 'old age' and 'natural decay' are often incorrectly assigned as causes of death."* From this statement, it would appear that the deaths from old age at the Retreat were only three-fourths what they were in England in the year 1838; but when the comparison is made of the relative proportion above 70 years of age out of every 100 deaths, I find that they approximated much more closely; there having been of all deaths above 20 years of age in England and Wales, 28 per cent. in the year 1838, and 30 per cent. in the year 1840 at 70 years of age and upwards; whilst of all deaths of persons connected with the Society of Friends at the Retreat, there were 26 per cent. who had attained to the same age.

Violent deaths occurred in almost precisely the same proportion during the 44 years at the Retreat, as in the kingdom at large, in 1838; but the deaths from suicide, considered separately, (those from violent causes at the Retreat being all of this character,) were ten or eleven times as numerous at the Retreat as in England and Wales during the year referred to. This is perhaps a no larger proportion than might be expected where suicidal persons are collected together, even when every possible precaution is taken against these melancholy casualties.

		Deaths from all causes.	Suicides.	All Violent Deaths.	Proportion per cent.	
					Suicides.	All Violent Deaths.
Retreat, York	1796—1840	139	5	5	3.59	3.59
Asylum, York	1814—1840	255	6	9†	2.35	3.52
Asylum, Nottingham.	1812—1840	168	5	8†	2.97	4.76
Asylum, Lincoln	1820—1842	159	7	7	4.4	4.4

* "Fourth Annual Report of Registrar General. 1842. Appendix, p. 97.

† The three other violent deaths at the York Lunatic Asylum were two of them from injuries inflicted by patients, and one from an accidental burn. By a singular coincidence, the causes of the three other violent deaths at Nottingham, were the same as at York.

I have only been able to procure the statistics as regards the number of suicides and other violent deaths of three other asylums, with which to compare the experience of the Retreat. The preceding are the facts as observed at the Retreat, and at the York, Nottingham and Lincoln Asylums.

From this table it appears that the proportion of violent deaths of all kinds, as compared with deaths from all causes, was higher at Nottingham and at Lincoln than at the two institutions at York, in which they were nearly in the same proportion. But when the deaths from suicide are considered separately, the proportion for the Retreat, as compared with the other establishments, appears larger, and is only less than that observed at Lincoln. Upon consideration, however, it is obvious that this comparison is hardly an accurate one; the mortality at the Retreat being very low, and the duration of residence being very extended. The comparison indeed should no doubt be made as regards the average population of the house; and it would be desirable we should know whether there were equal proportions under care in the several establishments labouring under a suicidal propensity. The following table exhibits the results of such a comparison.

		Subjective Time, or Years of Life.	Mean Annual Mortality per cent. From Suicides.	From all Violent Deaths.
Retreat, York.....	1796—1840	2954.6	.169	.169
Asylum, York.....	1814—1840	3466.6	.173	.259
Asylum, Nottingham	1812—1840	2289.	.218	.349
Asylum, Lincoln ..	1820—1842	1163.	.601	.601

Thus calculated, cases of suicide occurred least frequently at the Retreat; and, considered separately from other kinds of violent death, were only a slight fraction more frequent at the York Lunatic Asylum. In the other two establishments at Nottingham and Lincoln, they occurred considerably more frequently; but the cases admitted with a suicidal propensity may have been more numerous. When the violent deaths of all kinds are considered together, the transitions are less abrupt, although the difference between the two extremes of the scale are the same; there having been no deaths of this class except from suicide, either at the Retreat or at Lincoln.

Changes in the mental disorder before death.—Table 33.—

The changes from one form of mental disorder to another, exhibited in this table, have already been pointed out (page 87). It is, however, also intended to shew that, during the progress of fatal diseases and the advancing bodily infirmity of the insane, though this cannot be calculated on, the mental disorder in some cases undergoes a marked degree of alleviation, and that in rarer instances there is even a decided return to reason. This circumstance, alluded to by the poets as “a lightning before death,” appears to take place oftener in mania than in other forms of mental disorder. Thus of thirty-three cases of mania, 8; of forty-five cases of melancholia, 8; and of fourteen cases of monomania, 2, exhibited a decided improvement before death occurred; but of these there were three cases in which the patient was considered convalescent, and was taken off suddenly by such disorders as apoplexy and epilepsy. Much less often the mental disorder assumes a more severe form on the approach of death, and there were two cases of melancholia at the Retreat in which this was the case.

Influence of the Moon on the period of death.—I shall not in this place enter into the question of the connexion of insanity with lunar influence; a view which, as to its general operation, is now deservedly exploded. That, indeed, there may be some latent connexion between the changes of the moon and the phenomena of insanity, and of nervous disorder generally, I am not altogether prepared to deny; though what may be the nature or extent of their influence we are still quite ignorant.

Dr. Matthew Allen, in his work entitled “Cases of Insanity,”* has a section “On Lunar Influence,” in which he has furnished us with some observations on this subject. He gives a table shewing the periods of the moon at which the deaths of thirty patients occurred at the York Lunatic Asylum, during four and a half years, 1820-24. Dr. Allen observes, “The explanation of the table is this,—that on the supposition of an increase of excitement occurring at the new and full moons, and a diminution at the quadratures, we shall

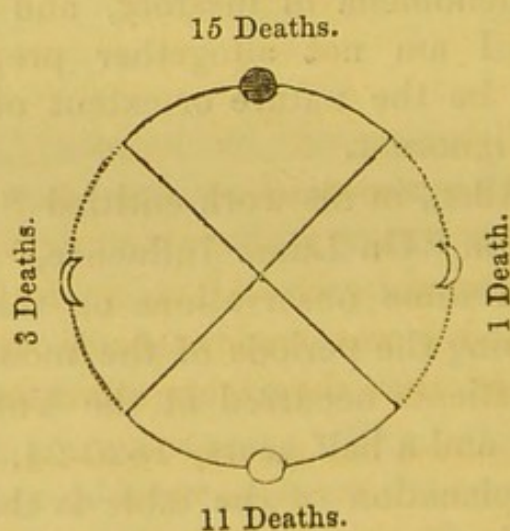
* London. 1821. p. 76—104.

have cases of excitement more liable, on an average, to die at the new and full moons, and cases of exhaustion at the quadratures."

"This table exhibits the different periods of 58 moons, and the dates of 30 deaths, occurring during that time out of 234 patients. Every one of these, I am certain, had every possible attention; and if there were any blame, it was decidedly on the side of too good living and nursing; and therefore, the greater number, according to this theory, should fall at the periods of excitement. It will be found that the tables are very striking in this respect. Out of 30 deaths, 26 occur at these periods, and the other 4 were cases of extreme debility. One female out of this number died suddenly of water in the chest."

"It will be seen in these tables, that I make the periods of increased excitement to commence two days before new and full moons, and to continue during four days after, and the periods of diminished excitement to commence three days before the first and last quarters, and to continue four days after; making each of the four periods consist of three parts, thus completing thirty days, which is only a few hours more than a lunar month."

The following diagram, adopted from Orton,* exhibits the number of deaths occurring under Dr. Allen's observations, at the four periods of the moon which have been described.



* "On Epidemic Cholera, by Reginald Orton." 1831. "It is presumed that the morbid influence is greatest about the full and change, and least about the quarters. It will therefore be useful to divide the whole lunation into four pe-

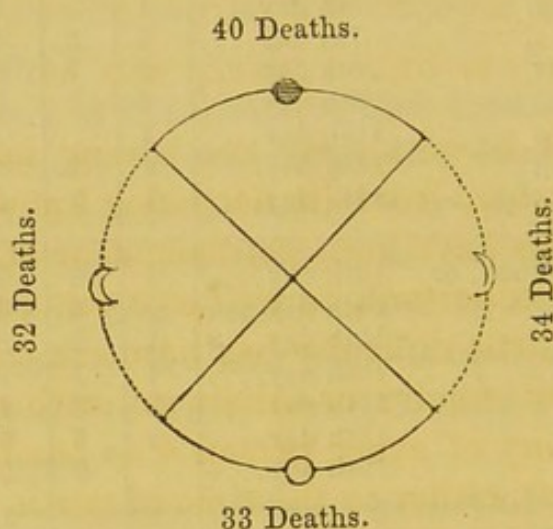
TABLE SHEWING THE AGE OF THE MOON AT THE TIME OF THE OCCURRENCE OF 139 DEATHS;—THE RETREAT, 1796—1840.

PERIOD OF THE MOON.		Numbers of Deaths on each day of the Moon.					
		Male.	Fem.	Total	Male.	Fem.	Total
2 days before New Moon, or 28th day		3	6	9			
1 day " " 29th day		1	4	5			
New Moon 30th day		4	3	7			
1 day after " 1st day		2	1	3			
2 days " " 2nd day		1	3	4			
3 days " " 3rd day		2	4	6			
4 days " " 4th day		5	1	6	18	22	40
3 days before First Quarter, or 5th day		2	2	4			
2 days " " 6th day		1	2	3			
1 day " " 7th day		2	3	5			
First Quarter 8th day		5	3	8			
1 day after " 9th day		2	3	5			
2 days " " 10th day		1	.	1			
3 days " " 11th day		4	2	6			
4 days " " 12th day		1	1	2	18	16	34
2 days before Full Moon, or 13th day		6	3	9			
1 day " " 14th day		2	4	6			
Full Moon 15th day		1	2	3			
1 day after " 16th day		1	1	2			
2 days " " 17th day		2	2	4			
3 days " " 18th day		4	3	7			
4 days " " 19th day . . . .		.	2	2	16	17	33
3 days before Last Quarter, or 20th day		2	1	3			
2 days " " 21st day		2	1	3			
1 day " " 22nd day		2	4	6			
Last Quarter 23rd day		5	1	6			
1 day after " 24th day		1	2	3			
2 days " " 25th day . . . .		.	3	3			
3 days " " 26th day		4	1	5			
4 days " " 27th day		2	1	3	18	14	32
Total Deaths in forty-four years . .		70	69	139	70	69	139

The results obtained by Dr. Allen, so far as they go, are very striking; and I was curious to ascertain whether it could be presumed that they were more than coincidences,

riods, as in the accompanying diagram, with the new and full in the centres of two of them, and the quarters in the centres of the other two; and to consider the two former (marked by black lines) as the unhealthy periods, and the two others (marked by dotted lines) as the healthy periods." p. 207. The reader, interested in this subject, may consult a paper "On Lunar Influence, by T. Laycock, M.D. "The Lancet," 1842-3. vol. 2, p. 440-42.

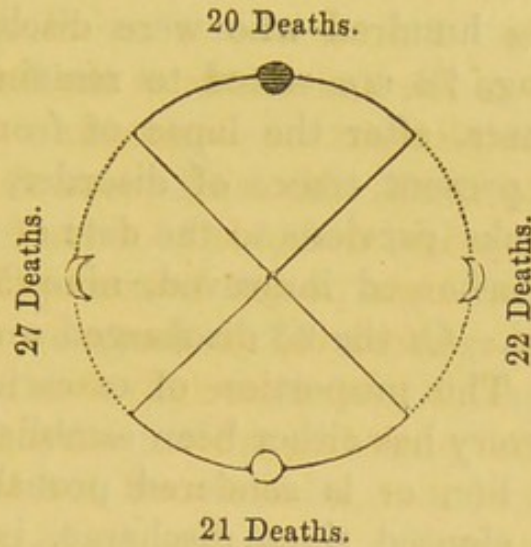
and whether the deaths at the Retreat had occurred at corresponding periods. I possessed no record of the age of the moon at the dates of the 139 deaths at the Retreat; nor had I access to any complete set of almanacks for the forty-four years from 1796 to 1840. My only plan, therefore, was to ascertain the moon's age at the date of each death from the Golden Number or Year of the Lunar Cycle for each year during the period referred to, as shewn in a table of lunar and solar time.* This I have carefully done; and the results are exhibited in the preceding table. Arranged according to the same diagram as that I have used for Dr. Allen's facts, they appear as follows :



The much larger number, then, of facts bearing on this question observed at the Retreat, appear quite opposed to Dr. Allen's conclusions, as to the influence of the moon on the time of death of the insane. That any such influence is exerted, I cannot therefore but regard as altogether doubtful; and in this conclusion I think I am borne out by a series of observations during eight years, 1833—1840, of the age of the moon at the time of the occurrence of ninety deaths at the State Lunatic Asylum, Worcester, U. S.,† which, according to a similar scheme, may be arranged as follows :

* For such a table, see "The Bioscope. By Granville Penn, Esq." 1814. Page 262.

† Eighth Annual Report, 1841, p. 62.



IX. OF THE HISTORY SUBSEQUENT TO DISCHARGE.

THE statistics of hospitals for the insane lose, in general, much of their value, from its not being known how far the reported recoveries have been permanent or otherwise. And it is therefore an important, as well as a remarkable, circumstance, that but little difficulty has been experienced in tracing, by particular enquiry or otherwise, with scarcely an exception, the history of every person who has been under the care of the Retreat, either to the time of death, or to the date of this report. And thus, when the information which is given in the table before us is taken in connexion with that relative to re-admissions, the exact value of the recoveries which have occurred in the institution may be ascertained (Table 34).

There were admitted during the forty-four years, 469 persons; and on deducting from this number those who died, 139, and those who remained in the house at the date of this report, 91, there are left 239; who, after one or more admissions, have hitherto been finally discharged, and whose general history has been traced. Of the whole number, 172 had recovered, 44 were improved, and 23 unimproved, at the time of their last discharge. Seventy-two of those who were discharged recovered, have since died; and of these, 54 remained well, (in nearly half the cases, after the lapse of from ten to forty-three years), 10 presented traces of disorder, and 8 had

sustained fresh attacks at the time of their respective deaths.* Of the remaining hundred who were discharged recovered and are yet living, 78 are stated to remain well, (in more than half the cases, after the lapse of from ten to forty-three years), 13 present traces of disorder, and 9 had sustained fresh attacks previous to the date of this report. Of the 44 persons discharged improved, nine (5+4) have subsequently recovered. Of the 23 discharged unimproved, none have recovered. The proportion of cases in which the permanence of recovery has either been established by its continuance during life, or is rendered probable by the long period that has elapsed since discharge, is thus seen to be very considerable. Still, as will be seen from this table, several (eleven) cases of a recurrence of the disorder have occurred after intervals of ten, twenty, and even thirty years of continued sanity.

It seems proper to observe that of those who have been discharged recovered, the history of a few has since been characterized by more or less of intemperate and irregular conduct; that of one or two by fraudulent transactions; and that of a few others by a somewhat enthusiastic and roving disposition. Cases of this kind form, however, quite the exception; and a large proportion, or even the majority, have become respectable and useful members of domestic and civil society; many have succeeded in business and otherwise; and at least twenty-five (fifteen men and ten women) have formed matrimonial connexions.

The information given in Table 36, relative to the diseases which have proved fatal since discharge, may be regarded as supplementary to that in Table 32, in the same way as Table 35 is supplementary to Table 29; both of them referring to the deaths which have occurred subsequent to discharge from the institution (Tables 35, 36).

* In two of these cases the return of the disorder was characterized by a suicidal disposition, and the individuals died by their own hands, after intervals, in the one case of five, and in the other of fifteen, years. In a third case, that of a female, death was the result, either of an intentional and suicidal, or of an accidental, fall from a window during a state of delirious excitement (Table 36).

X. OF THE RE-ADMISSIONS.

THE cases re-admitted were 146 in number, and occurred in 97 persons. Of these, 135 occurred in 86 individuals connected with the Society of Friends (Table 37).

Of the whole number of 146, 119 had been previously discharged recovered; and of these 72, or 60.5 per cent., were again discharged recovered. This is a large proportion, which is partly attributable to the tendency of recurrent insanity to assume a remittent form. For example, of these 72 recoveries, 17 occurred in two females, who, during periods of fifteen and twenty-four years respectively, were each ten times admitted,* with intervals of sanity of from one to two years between discharge and subsequent admission (Table 37).

But though in a large proportion of cases of recurrent insanity the patient again recovers, the liability to future attacks must be regarded as increasing with every such recovery in the same individual. Nineteen, or one-fifth of the whole number remaining in the house at the date of this report, consisted of re-admitted cases (Table 40).

The date of re-admission only imperfectly represents that of second or subsequent attacks: and the history furnished with the cases when re-admitted was not always sufficiently precise to enable us to distinguish *relapses* from distinct recurrences, or *second attacks*. Twenty-eight cases, however, were re-admitted within six months of being discharged as recovered; and it is probable that at least this proportion, or one-fourth of the whole, consisted of relapses; to be attributed either to too speedy removal, to the strength of the constitutional predisposition, to subsequent injudicious treatment, or to all these combined, rather than to the influence of fresh exciting causes. After the period in which a true relapse may occur has passed by, the liability to a recurrence of the disorder remains, but diminishes probably with the lapse of time. Thus, omitting as relapses the re-admissions after recovery

* Since 1840 one of these females has been twice again re-admitted. In consequence of the greater aptitude in the female system to undergo periodical changes, second attacks, and particularly frequently recurring ones, are probably more numerous in women than in men.

within six months of discharge, we find that nearly two-thirds, 60 per cent., were re-admitted within the fifth year; whilst between the fifth and the twentieth, a period of three times the length, not more than a third, or 34 per cent. of the whole, were re-admitted. There were, however, five cases re-admitted from 20 to 25 years after previous discharge (Table 38).

Liability to relapse or recurrence.—What is the proportion of relapses and second attacks, after recovery from a first attack of insanity? This question is one of the highest importance, in regard to the prognosis which we are often called upon to form after the recovery of patients. The only method hitherto resorted to for determining it, is that of calculating the proportion which the re-admissions into hospitals for the insane bear to the first admissions, or to the recoveries. But this is a method upon which no reliance can be placed, not a few cases being removed, and again placed under care during the progress of the same attack; and many patients experiencing second attacks, who do not return to the same institution. Upon data of this description, it has, however, been calculated by Esquirol,* that relapses and recurrent attacks occur in the proportion of about 10 per cent. of the recoveries; whilst Pinel and Desportes estimate them at about 17 per cent. Both these estimates are obviously very much below the mark; and Mr. Farr has found that the re-admissions into the English County Asylums, during five years, 1831—35, were at the rate of 30 per cent. of the recoveries. At the Retreat the re-admissions were 23 per cent. of the admissions ($615:146::100:23$), and 50 per cent. of the recoveries ($291:146::100:50$).

But though still only an imperfect method, it is fairer, in endeavouring to answer this question, to restrict the enquiry to the re-admissions in cases which had actually been discharged recovered; and in which only one attack had been experienced when first admitted. We will therefore apply this plan to the cases admitted at the Retreat.

Of the total number of 291 recoveries, 149 occurred in cases of the first attack (Table 21); and of this number, 47 persons (Table 39) were re-admitted on account either of a

* "Des Maladies Mentales," Tom 1. p. 99.

relapse or subsequent attack of the disorder. These numbers would give 31.5 per cent., (27.3 per cent. for men, and 35 per cent. for women,) or about one in every three cases, as the proportion of relapses and recurrences after recovery from the first attack. This, however, must be regarded as much less than the actual proportion; for many, particularly of those more recently discharged, who have hitherto escaped, are yet liable to, and will in all probability experience, second attacks. In support of this statement, it may be observed that since the date of this report, and consequently not entering into the above calculation, five men labouring under second attacks have been re-admitted.* In these cases intervals of four, five, eight, fourteen, and nineteen years had elapsed after their respective recoveries from the first attack. There have likewise been seventeen persons (8+9) who have experienced subsequent attacks, but have not been re-admitted; of whom six, three of each sex, had recovered at the Retreat from the first attack of mental disorder (Table 34). According, then, to this experience and this method of examining the subject, the liability to a relapse or recurrence of insanity, after recovery from a first attack, all things considered, can scarcely be estimated as at all less than 50 per cent., or as one in every two cases discharged recovered.

As has been hinted by Mr. Farr, it will only be by following through life, a large number of cases after recovery from the first attack, that the question as to the frequency of second attacks of insanity can ever be satisfactorily answered. No institution is perhaps so well calculated as the Retreat, for determining this important question in this way; for not only is almost every case of second attack re-admitted, but an opportunity may generally be found for ascertaining the subsequent history of all cases that have at any time been under care. The following table exhibits the results of such an enquiry applied to 244 cases, embracing every person who has been under care at the Retreat, during the entire period of forty-four years, in whom death has occurred either in the house or after discharge. Of the 244 cases, 139 died in the

* Three of these cases were re-admitted in the course of a single month, in the autumn of 1840.

house (Table 21), and 105 at different periods after discharge (Table 34). I have followed each of these cases through life in special reference to the present question. Distinguishing the sex, I have, in the following table, exhibited the number who died during the first attack, as well as the number who recovered; and, of the latter, the number whose recovery was permanent through life, and the number who experienced subsequent attacks, distinguishing such as died in a state of sanity or otherwise.

TABLE SHEWING THE HISTORY OF TWO HUNDRED AND FORTY-FOUR PERSONS WHO DIED AT, OR AFTER DISCHARGE FROM, THE YORK RETREAT, FROM 1796 TO 1840; WITH THE NUMBER WHO DIED DURING, AND AFTER RECOVERY FROM, THE FIRST OR 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 (the first of the kind I believe ever published), 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. The proportion was rather lower, or 63.7 per cent., for the men, and rather higher, or 67.1 per cent., for the women. It must, however, be recollected that a considerable number of these cases had not recovered from the *first* attack of the disorder at the Retreat, and that many of them had been very much neglected, if not improperly treated, in its early stages. The results, therefore, can hardly be regarded as identical with those

have been obtained in cases treated *from the first* in the institution.

Though, for these reasons, considerable deductions must be made from the picture which this table exhibits, it must still be allowed to be a melancholy one. Of 244 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 53.6 per cent. recovered from the first attack; during which the rest died. And on 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, whose 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 unfavourable 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) the individual has lived in all the enjoyments of social life.

XI. OF THE CASES REMAINING UNDER CARE.

I shall conclude this Statistical Report by briefly referring to the character of the cases remaining in the institution, as exhibited in the four tables with which the series concludes. Of the 91 cases remaining at the date of the report, the average age will be seen to be one year and a half less than that observed during the whole period (Table 7); although 19, or more than 20 per cent., are from sixty to seventy, and 4 from seventy to eighty, years of age (Table 42). Of the whole number, 13 have been in the house from twenty to

forty, and 4 from forty to forty-three, years (Table 43). Not more than 28, or less than a third of the whole, offer the least prospect of recovery; but this result cannot be regarded as probable in more than half of these, or in 6 men and 8 women (Table 44). As regards the form of the disorder, the 91 cases may be distributed into 27 of mania (the majority in a chronic form), 9 of melancholia, 12 of monomania, 41 of different grades of dementia, and 2 of partial idiocy (Table 45).

the first attack; during which the rest died. During the 131 through life, it appears that there was only one third of these, viz. 45, or 34.4 per cent. of the whole whose 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 28.6 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 is presented is somewhat 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) the individual has lived in all the enjoyments of social life.

XI. OF THE CASES REMAINING UNDER CARE. I shall conclude this Statistical Report by briefly referring to the character of the cases remaining in the institution, as exhibited in the four tables with which the series concludes. Of the 31 cases remaining at the date of the report, the average age will be seen to be one year and a half less than that observed during the whole period (Table V); although 19, or more than 60 per cent., are from sixty to seventy, and 4 from seventy to eighty, years of age (Table 42). Of the whole number, 13 have been in the house from twenty to

STATISTICAL TABLES.

§ 1.—General view of the experience of the Retreat since its opening, in 1796.

TABLE 1.—SHEWING THE ADMISSIONS, DISCHARGES, AND DEATHS, FOR THE YEAR 1839—1840.

	Male.	Fem.	Total	Male.	Fem.	Total
Remaining in the Institution, Midsummer 1839	36	47	83			
Admitted during the year	9	8	17			
Total under care during the year				45	55	100
Discharged						
Recovered	3	3	6			
Improved	2	.	2			
Died	1*	.	1			
Total discharged and died during the year				6	3	9
Remaining, Midsummer 1840				39	52	91
				Male.	Fem.	Total
Average numbers resident during the year				37	48	85

* This patient was 76 years of age, and had resided in the Institution 43 years; having been admitted in 1796, the year it was opened.

TABLE 2.—SHEWING THE ADMISSIONS, DISCHARGES, AND DEATHS, FOR THE FORTY-FOUR YEARS, 1796—1840.

	Male.	Fem.	Total.
Admitted during the forty-four years	282	333	615
	Male.	Fem.	Total
Discharged			
Recovered	121	170	291
Improved	41	24	65
Unimproved	11	18	29
Died	70	69	139
Total discharged and died during the forty-four years..	243	281	524
Remaining Midsummer, 1840	39	52	91
	Male.	Fem.	Total.
Average numbers resident during the forty-four years..	28.50	38.65	67.15

TABLE 3.—SHEWING THE NUMBERS ADMITTED, DISCHARGED, DIED, AND REMAINING EACH YEAR; WITH THE MEAN NUMBERS ANNUALLY RESIDENT; FROM THE OPENING OF THE INSTITUTION IN 1796, TO 1843.

YEARS ENDING AT MIDSUMMER.	DISCHARGED AND DIED.										REMAINING.			MEAN NUMBERS ANNUALLY RESIDENT.				
	Recovered.			Improved.			Unimproved.			Died.			Male.	Fem.	Total.			
	Male.		Total	Male.		Total	Male.		Total	Male.		Total						
	1796—1797	8	10	18			1							2	1	3	6.25	8.50	14.75
1797—1798	3	8	11			2							1			8.	12.50	20.50
1798—1799	9	7	16			4										14.	16.	30.
1799—1800	3	8	11			5										15.50	19.75	35.25
1800—1801	5	8	13			6										15.50	24.	39.50
1801—1802	1	8	9			6										15.25	27.	42.25
1802—1803	6	7	13			6										15.	31.25	46.25
1803—1804	3	1	4			5										17.50	29.75	47.15
1804—1805	3	8	11			2										17.	30.75	47.75
1805—1806	7	5	12			3										17.75	35.25	53.
1806—1807	5	5	10			8										19.75	31.25	51.
1807—1808	6	9	15			7										24.	31.50	55.50
1808—1809	3	7	10			5										24.50	34.25	58.75
1809—1810	2	4	6			6										23.50	34.25	57.75
1810—1811	4	4	8			5										22.75	34.	56.75
1811—1812	5	10	15			4										26.	37.50	63.50
1812—1813	2	7	9			2										25.	39.	64.
1813—1814	5	6	11			8										25.	36.50	61.50
1814—1815	7	7	14			12										23.	37.75	60.75
1815—1816	6	4	10			5										26.	38.50	64.50

TABLE 3 CONTINUED.

1816-1817	7	6	13	3	2	5	.	1	.	1	.	1	2	1	1	5	7	26.75	63	35	28	35	63	34.	60.75
1817-1818	4	6	10	1	5	6	.	.	.	.	.	.	2	1	1	6	1	28.75	65	35	30	35	65	35.50
1818-1819	5	4	9	4	4	8	1	.	.	.	.	.	1	1	1	3	4	29.75	60	30	30	30	60	33.75
1819-1820	5	5	12	4	4	6	1	1	1	1	1	1	1	2	2	5	4	29.50	61	33	28	33	61	30.25	
1820-1821	10	6	16	4	1	5	2	1	1	3	1	1	1	1	4	6	2	30.	68	35	33	35	68	33.50	
1821-1822	11	6	17	7	2	9	1	3	.	.	.	3	2	3	4	7	2	28.75	67	38	29	38	67	37.25	
1822-1823	7	5	12	3	4	7	1	2	2	2	2	2	2	2	2	6	4	31.25	68	36	32	36	68	38.75	
1823-1824	7	9	16	4	2	6	1	2	2	1	1	1	3	2	3	3	4	31.	74	42	32	42	74	39.50	
1824-1825	13	11	24	5	6	11	1	2	2	1	2	3	2	2	4	6	3	33.25	79	43	36	43	79	43.	
1825-1826	8	13	21	5	2	7	1	2	2	1	1	1	2	1	4	7	4	35.25	86	49	37	49	86	47.25	
1826-1827	10	15	25	3	8	11	3	2	2	1	1	1	3	1	4	7	3	36.	87	51	36	51	87	50.75	
1827-1828	12	15	27	4	7	11	2	2	2	1	4	1	2	1	1	5	2	38.75	94	53	41	53	94	51.25	
1828-1829	10	8	18	7	1	8	2	2	1	.	.	.	2	1	4	3	8	38.25	93	55	38	55	93	53.25	
1829-1830	9	9	18	2	4	6	1	2	2	.	.	.	2	2	2	3	5	40.25	98	56	42	56	98	54.50	
1830-1831	11	8	19	5	7	12	2	2	2	.	.	.	2	5	5	2	5	43.50	96	55	41	55	96	55.75	
1831-1832	4	10	14	4	4	8	.	.	.	.	.	.	1	2	2	2	2	39.75	100	61	39	61	100	58.75
1832-1833	12	4	16	4	3	7	3	6	2	6	2	3	2	2	1	6	6	40.50	107	60	47	60	107	57.75	
1833-1834	7	8	15	2	6	8	3	4	2	1	1	1	2	2	4	2	4	44.50	101	57	44	57	101	58.25	
1834-1835	6	8	14	3	4	7	1	2	2	1	1	1	2	2	4	6	6	44.	98	53	45	53	98	56.25	
1835-1836	7	8	15	2	5	7	2	2	2	1	1	1	2	2	2	5	7	44.	96	49	47	49	96	52.	
1836-1837	7	8	15	6	3	7	1	2	2	1	1	1	2	2	1	4	5	44.	95	49	46	49	95	50.25	
1837-1838	4	11	15	1	10	11	4	1	1	.	.	.	1	3	6	2	5	44.75	89	47	42	47	89	46.75	
1838-1839	4	7	11	2	4	6	1	1	1	1	1	1	2	3	1	4	2	42.25	83	47	36	47	83	49.	
1839-1840	9	8	17	3	3	6	2	2	2	1	2	2	3	1	1	3	3	38.	91	52	39	52	91	48.	
1840-1841	13	4	17	7	4	6	2	2	2	1	2	2	3	1	4	6	2	37.	89	50	39	50	89	51.3	
1841-1842	9	9	18	1	2	11	2	2	2	1	2	2	3	2	7	4	4	40.	91	52	39	52	91	51.58	
1842-1843	11	10	21	5	5	10	1	.	.	.	3	1	1	3	1	3	3	38.08	94	51	43	51	94	51.50	
47 years, 1795-1843.	315	356	671	134	181	315	46	25	71	16	21	37	76	78	154	43	51	29.12	94	51	43	51	94	39.46	68.58

TABLE 4.—SHEWING THE NUMBERS ADMITTED AND DISCHARGED, WITH THE MEAN NUMBERS RESIDENT, AND THE RESULTS OF TREATMENT; ARRANGED IN DECENNIAL PERIODS FROM THE OPENING OF THE INSTITUTION, MIDSUMMER 1796, TO MIDSUMMER 1840.

PERIODS OF TEN YEARS.	ADMITTED AND TREATED.		DISCHARGED AND DIED.					REMAINING.	MEAN NUMBERS RESIDENT DURING EACH PERIOD.
	Admitted.	Under treatment.	Recovered.	Improved.	Un- improved.	Died.	Total.		
10 years 1796—1806	48 | 70 118	48 | 70 118	13 | 27 40	3 | 4 7	. | . .	12 | 5 17	28 | 36 64	20 | 34 54	14.18 | 23.35 37.53
10 years 1806—1816	45 | 63 108	65 | 97 162	20 | 44 64	8 | 4 12	1 | 3 4	9 | 10 19	38 | 61 99	27 | 36 63	23.95 | 35.35 59.30
10 years 1816—1826	77 | 37 150	104 | 109 213	40 | 30 70	6 | 7 13	5 | 4 9	16 | 19 35	67 | 60 127	37 | 49 86	30.42 | 37.25 67.67
10 years 1826—1836	88 | 93 181	125 | 142 267	36 | 49 85	16 | 7 23	4 | 11 15	22 | 26 48	78 | 93 171	47 | 49 96	40.95 | 54.75 95.70
4 years 1836—1840	24 | 34 58	71 | 83 154	12 | 20 32	8 | 2 10	1 | . 1	11 | 9 20	32 | 31 63	39 | 52 91	40.50 | 48.50 89
44 years 1796—1840	282 | 333 615	282 | 333 615	121 | 170 291	41 | 24 65	11 | 18 29	70 | 69 139	243 | 281 524	39 | 52 91	28.50 | 38.65 67.15

TABLE 5.—SHEWING THE AVERAGE PROPORTION OF RECOVERIES AND THE MEAN ANNUAL MORTALITY, DURING THE SEVERAL DECENNIAL PERIODS, 1796—1840 :—DEDUCED FROM TABLE 4.

PERIODS OF TEN YEARS.	Proportion of Recoveries per cent. of the Admissions.			Mean Annual Mortality per cent. Resident.		
	Males.	Fem.	Mean.	Males.	Fem.	Mean.
10 years 1796—1806....	27.08	38.57	33.90	8.47	2.14	4.52
10 years 1806—1816....	44.44	69.84	59.26	3.76	2.82	3.20
10 years 1816—1826....	51.95	41.09	46.66	5.26	5.10	5.07
10 years 1826—1836....	40.91	52.69	46.96	5.37	4.74	5.01
4 years 1836—1840....	54.17	58.22	56.90	6.79	4.64	5.61
AVERAGE 44 years 1796—1840	42.91	51.05	47.31	5.58	4.05	4.70

TABLE 6.—SHEWING THE AVERAGE PROPORTION OF RECOVERIES AND THE MEAN ANNUAL MORTALITY FOR PERIODS SUCCESSIVELY INCREASING BY TEN YEARS, 1796—1840 :—DEDUCED FROM TABLE 4.

PERIODS INCREASING BY TEN YEARS.	Proportion of Recoveries per cent. of the Admissions.			Mean Annual Mortality per cent. resident.		
	Male.	Fem.	Mean.	Male.	Fem.	Mean.
10 years 1796—1806....	27.08	38.57	33.90	8.47	2.14	4.52
20 years 1796—1816....	35.48	53.38	46.01	5.50	2.55	3.71
30 years 1796—1826....	42.94	49.02	46.27	5.39	3.54	4.31
40 years 1796—1836....	42.24	50.16	46.50	5.38	3.98	4.57
AVERAGE 44 years 1796—1840	42.91	51.05	47.31	5.58	4.05	4.70

§ 2.—Of the condition and history of the cases previous to admission.

TABLE 7.—SHEWING THE ACTUAL AND AVERAGE AGES OF THE PATIENTS AT THE ORIGIN OF THE MENTAL DISORDER, AND ON FIRST ADMISSION; AND LIKEWISE THE MEAN NUMBERS RESIDENT AT DECENNIAL PERIODS OF LIFE.

AGE.	AGES AT ORIGIN OF DISORDER.						AGES ON FIRST ADMISSION.						MEAN NUMBERS RESIDENT AT DECENNIAL PERIODS OF LIFE.					
	Society of Friends and connected with it.			Unconnected with the Society of Friends			Society of Friends and connected with it			Unconnected with the Society of Friends			Society of Friends and connected with it.			All cases admitted.		
	Male	Fem.	Total	Male	Fem.	Total	Male	Fem.	Total	Male	Fem.	Total	Male	Fem.	Total	Male	Fem.	Total
Under 10 years	3	1	4*	.	1	1	3	1	4	.	.	.	.	.	.	.	.	.
From 10 to 15 "	5	3	8	.	1	7	11	8	19	.	.	2	.	.	.	.55	.46	1.01
" 15 to 20 "	24	21	45	6	1	7	58	59	117	1	1	2	.48	.	.	.	.	.
" 20 to 30 "	64	71	135	10	11	21	40	46	86	10	3	13	3.30	3.75	7.05	4.09	4.11	8.20
" 30 to 40 "	36	47	83	7	5	12	35	42	77	8	11	19	5.56	6.59	12.15	6.20	7.50	13.70
" 40 to 50 "	33	33	66	1	5	6	24	31	55	3	6	9	5.21	7.95	13.16	5.49	8.75	14.24
" 50 to 60 "	19	25	44	.	6	6	20	23	43	1	5	6	5.16	7.78	12.94	5.18	8.51	13.69
" 60 to 70 "	12	13	25	1	.	1	7	5	12	1	3	4	3.57	6.08	9.65	3.63	6.09	9.72
" 70 to 80 "	2	2	4	.	.	.	2	2	4	1	.	1	2.37	2.56	4.93	2.46	2.56	5.02
" 80 to 90 "	.	1	1	.	.	.	.	2	2	.	.	.	.77	.67	1.44	.77	.67	1.44
" 90 to 100 "	.	.	.	.	.	.	.	.	.	.	.	.	.13	.	.13	.13	.	.13
Total.....	198	217	415	25	29	54	198	217	415	25	29	54	26.55	35.80	62.35	28.50	38.65	67.15
	Male	Fem.	Mean.	Male	Fem.	Mean	Male	Fem.	Mean	Male	Fem.	Mean	Male	Fem.	Mean	Male	Fem.	Mean.
AVERAGE AGES.....	33.5	35.1	34.4	28.3	36.6	32.8	38.3	39.9	39.2	34.1	41.0	37.8	48.5	49.1	48.9	47.6	48.6	48.1

* These were cases of congenital idiocy and imbecility.

+ Except one of the men, these cases were more or less connected with a superannuated state of mind.

TABLE 8.—SHEWING THE CONDITION IN REFERENCE TO MARRIAGE.

CONDITION IN REFERENCE TO MARRIAGE.	Society of Friends and connected with it.			Unconnected with the Society of Friends.		
	Male.	Fem.	Total	Male.	Fem.	Total
Unmarried	128	149	277	16	15	31
Married, but having had no offspring	7	13	20	1	1	2
Married, with offspring	49	33	82	5	8	13
Widowed, but having had no offspring	2	6	8	1	.	1
Widowed, with offspring	12	16	28	2	5	7
Total	198	217	415	25	29	54

TABLE 9.—SHEWING THE RANK OR PROFESSION OF THE PATIENTS.

RANK OR PROFESSION.	Society of Friends and connected with it.			Unconnected with the Society of Friends		
	Male	Fem.	Total.	Male.	Fem.	Total
Gentlemen and Gentlewomen	7	31	38	7	19	26
Clergyman of the Church of England .....	.	.	.	1	.	1
Military Officers .....	.	.	.	2	.	2
Physician and Surgeons	6	.	6	1	.	1
Solicitor	1	.	1	.	.	.
Architects and Artists	3	.	3	1	.	1
Literary persons	1	1	2	1	.	1
School-masters, Teachers, and Governesses	6	18	24	.	.	.
Merchants, &c.	4	.	4	3	.	3
Manufacturers	13	.	13	2	.	2
Tanners and Curriers	6	.	6	.	.	.
Farmers, &c.	35	.	63	2	.	3
Wives and daughters of Farmers .....	.	28		.	1	
Agents, Commercial-travellers, and Clerks	11	.	11	1	.	1
Chemists and Druggists	10	.	10	1	.	1
Persons in various descriptions of Trade ..	44	4	94	2	2	8
Wives and daughters of persons in Trade, &c	.	46		.	4	
Ship-captains and Sailors	3	.	3	1	.	1
House-keepers .....	.	12	12	.	.	.
Seamstresses .....	.	13	13	.	.	.
Shopmen and Shopwomen	6	4	10	.	.	.
Domestic servants (one of the men an attendant at the Retreat)	2	37	39	.	3	3
Mechanics and Artizans	26	.	26	.	.	.
Wives and daughters of Mechanics .....	.	19	19	.	.	.
Shoemakers	5	.	5	.	.	.
Tailors	3	.	3	.	.	.
Weavers	6	.	6	.	.	.
Exact rank unknown .....	.	4	4	.	.	.
Total	198	217	415	25	29	54

TABLE 10.—SHEWING THE DESCRIPTION OF THE DISTRICTS FROM WHICH THE PATIENTS HAVE BEEN RECEIVED.

DESCRIPTION OF DISTRICT.	Society of Friends and connected with it.			Unconnected with the Society of Friends		
	Male.	Fem.	Total	Male.	Fem.	Total
Cities and large Towns	97	131	228	14	17	31
Small Towns and Villages	52	49	101	3	4	7
Rural Districts	49	37	86	8	8	16
Total	198	217	415	25	29	54

TABLE 11.—SHEWING THE NUMBERS ADMITTED AND THE MEAN NUMBERS RESIDENT, CONNECTED AND UNCONNECTED WITH THE SOCIETY OF FRIENDS.

PROFESSION OF RELIGION.	Numbers admitted.			Mean Numbers resident.		
	Male.	Fem.	Total	Male.	Fem.	Total.
SOCIETY OF FRIENDS AND CONNECTED WITH IT.						
Members of the Society of Friends by birth-right	160	190	350	} 24.13	34.77	58.90
Persons who had joined the Society, but who were not educated in it ..	9	14	23			
Person professing with, and, for the most part, once members of the Society	29	13	42	2.42	1.03	3.45
	198	217	415	26.55	35.80	62.35
UNCONNECTED WITH THE SOCIETY OF FRIENDS.						
Persons attending their places of worship, but not otherwise connected with the Society of Friends	4	7	11	} 1.95	2.85	4.80
Persons of other religious denominations	21	22	43			
	25	29	54	1.95	2.85	4.80
Total	223	246	469	28.50	38.56	67.15

TABLE 12.—SHEWING THE DURATION OF THE DISORDER, AND THE NUMBERS WHO HAD SUFFERED FROM MORE THAN ONE ATTACK, WHEN FIRST ADMITTED.

DURATION OF DISORDER WHEN FIRST ADMITTED.	Society of Friends and connected with it.			Unconnected with the Society of Friends.		
	Male.	Fem.	Total	Male.	Fem.	Total
FIRST CLASS.—First attack, and within three months	43	49	92	2	2	4
SECOND CLASS.—First attack, above three, but within twelve months	43	39	82	5	4	9
THIRD CLASS.—Not first attack, and within twelve months	33	39	72	7	8	15
FOURTH CLASS. { a First attack, and more than twelve months....	71	79	150	8	13	21
	b Not first attack, and more than twelve months....	8	11	19	3	2	5
Total.....	198	217	415	25	29	54

§ 2.—Of the probable causes of the disorder.

TABLE 13.—SHEWING THE NUMBERS IN WHOM CAUSES OF THE DISORDER WERE, AND WERE NOT, KNOWN OR ASSIGNED.

DESCRIPTION OF ASSIGNED CAUSES.	Society of Friends and connected with it.			Unconnected with the Society of Friends.		
	Male.	Fem.	Total	Male.	Fem.	Total
Predisposing and exciting causes both assigned	66	86	152	11	16	27
Predisposing causes only assigned	58	58	116	5	5	10
Exciting causes only assigned	56	48	104	7	7	14
Neither predisposing nor exciting causes known	18	25	43	2	1	3
Total.....	198	217	415	25	29	54

TABLE 14.—SHEWING THE NUMBERS IN WHOM A HEREDITARY PREDISPOSITION TO INSANITY WAS KNOWN TO EXIST.

HEREDITARY PREDISPOSITION.	Society of Friends and connected with it.			Unconnected with the Society of Friends.		
	Male.	Fem.	Total	Male.	Fem.	Total
Hereditary on the paternal side	17	18	35	2	2	4
Hereditary on the maternal side	16	22	38	1	1	2
Hereditary on both paternal and maternal sides	3	2	5	.	1	1
Hereditary, whether on paternal or maternal side not known.....	29	35	64	3	1	4
Known to be hereditary	65	77	142	6	5	11
Not known or stated to be hereditary..	133	140	273	19	24	43
Total.....	198	217	415	25	29	54

TABLE 15.—SHEWING THE PREDISPOSING CAUSES OF THE DISORDER, SO FAR AS THESE WERE STATED OR COULD BE ASCERTAINED.

PREDISPOSING CAUSES.	Society of Friends and connected with it.			Unconnected with the Society of Friends.		
	Male.	Fem.	Total	Male.	Fem.	Total
PHYSICAL CAUSES.						
Hereditary tendency, the only predisposing cause known.....	31	39	70	1	1	2
Fright to the mother; in two cases followed by premature birth	2	1	3	.	1	1
Congenital weakness of mind in various degrees	24	26	50	2	.	2
Decided congenital peculiarity of mind..	17	16	33	2	4	6
Extreme degrees of melancholic, or nervous temperament	4	4	8	1	1	2
Lactation by a parent strongly predisposed	1	2	3	.	.	.
Period of senility (average age at attack 72 years)	2	4	6	.	.	.
Insufficient exercise	2	.	2	.	.	.
Fever.....	2	1	3	.	.	.
Rickets .....	.	1	1	.	.	.
Apoplexy and paralysis	1	1	2	.	.	.
Epilepsy	4	.	4	.	.	.
Blindness	1	1	2	.	.	.
Chorea .....	.	1	1	.	1	1
Hysteria	1	4	5	.	2	2
Hypochondriasis	2	1	3	.	.	.
Dyspepsia, and other disorders of the stomach, &c	6	12	18	1	1	2
Gouty and rheumatic disorders .....	.	2	2	.	1	1
Injudicious blood letting.....	.	1	1	.	.	.
Spermatorrhœa	1	.	1	.	.	.
Irregular and suppressed catamenia .....	.	7	7	.	.	.
Intemperance and free living.....	7	.	7	5	1	6
	108	124	232	12	13	25
MORAL CAUSES						
Neglected or perverted education; in three cases very indulgent, in one very rigid	4	.	4	.	1	1
Ill-regulated temper and disposition	4	7	11	1	2	3
Solitary mode of life .....	.	1	1	.	.	.
Mental disquietude from various causes..	3	7	10	1	3	4
Political enthusiasm.....	1	.	1	1	.	1
Excitement connected with religious hopes, fears, or speculations	4	5	9	1	2	3
	16	20	36	4	8	12
No PREDISPOSING CAUSES KNOWN	74	73	147	9	8	17
Total.....	198	217	415	25	29	54

TABLE 16.—SHEWING THE EXCITING CAUSES OF THE DISORDER, SO FAR AS THESE WERE STATED OR COULD BE ASCERTAINED.

EXCITING CAUSES.	Society of Friends and connected with it.			Unconnected with the Society of Friends.		
	Male.	Fem.	Total	Male.	Fem.	Total
PHYSICAL CAUSES.						
Fevers and febrile diseases	8	8	16	1	.	1
Mechanical injuries of the head	7	3	10	1	.	1
Inflammation of the brain	4	2	6	.	.	.
Apoplexy and paralysis	3	2	5	1	.	1
Epilepsy	6	6	12	.	.	.
Neuralgia and cephalalgia	2	.	2	.	.	.
Hysteria .....	.	3	3	.	.	.
Dyspeptic and hepatic disorders	2	9	11	1	1	2
Masturbation	4	.	4	2	.	2
Irregular or suppressed catamenia .....	.	9	9	.	1	1
Puerperal disorders .....	.	5	5	.	4	4
Protracted or suddenly subsiding lactation .....	.	2	2	.	.	.
Checked perspiration	1	2	3	.	.	.
Suppressed eruptive disorders .....	.	3	3	.	.	.
Suddenly subsiding diarrhoea	1	.	1	.	.	.
Long continued ill health .....	.	2	2	.	.	.
Loss of sleep from fractured arm .....	.	1	1	.	.	.
Severe scald in infancy	1	.	1	.	.	.
Injudicious use of mercury	2	.	2	.	.	.
Intemperate use of alcoholic and fermented liquors	16	2	21	2	1	3
Intemperate use of opium with spirits .....	.	3		.	.	.
Generally dissolute and dissipated conduct	2	.	2	.	.	.
	59	62	121	8	7	15
MORAL CAUSES.						
Joy from elated anticipations	2	.	2	1	.	1
Fear or terror	6	2	8	.	.	.
Sorrow from the death of near relatives ..	5	13	18	.	2	2
Unhappy conjugal connexions	1	6	7	.	3	3
Distress from other domestic trials	2	12	14	.	.	.
Anxiety respecting a livelihood, or pecuniary losses	19	12	31	.	2	2
Anxiety as to the success of business	3	1	4	7	.	7
Anxiety from perplexing trusteeships and other affairs	5	.	5	.	.	.
Disappointed affections	8	14	22	1	7	8
Disappointed matrimonial plans	4	3	7	.	.	.
Disappointed plans and hopes of other kinds ..	2	2	4	.	1	1
Great changes in the mode of life .....	.	2	2	.	.	.
Excessive mental exertion	2	.	2	.	.	.
Long and anxious nursing of sick relatives ..	.	3	3	.	1	1
Remorse	1	.	1	1	.	1
Excitement connected with religious hopes, fears, or speculations	3	2	5	.	.	.
	63	72	135	10	16	26
NO EXCITING CAUSES KNOWN	76	83	159	7	6	13
Total	198	217	415	25	29	54

TABLE 17.—SHEWING THE FORMS OF MENTAL DISORDER ON FIRST ADMISSION.

FORMS OF DISORDER.	Society of Friends and connected with it.			Unconnected with the Society of Friends.		
	Male.	Fem.	Total	Male.	Fem.	Total
MANIA.						
Mania	62	58	120	11	8	19
Remittent and intermittent Mania	7	9	16	3	1	4
Hysterical Mania .....	.	5	5	.	1	1
Mania alternating with Melancholy ; (Mania predominating)	11	8	19	.	4	4
	80	80	160	14	14	28
MELANCHOLIA.						
Melancholy	22	37	59	2	5	7
Suicidal Melancholy*	13	24	37	.	3	3
Religious Melancholy	14	14	28	1	.	1
Religious and suicidal Melancholy*	5	9	14	.	.	.
Hypochondriacal Melancholy	3	2	5	.	.	.
Melancholy alternating with Mania ; (Melancholy predominating)	4	9	13	.	1	1
Apathetic insanity	5	1	6	.	.	.
	66	96	162	3	9	12
MONOMANIA OR PARTIAL INSANITY.						
Monomania of suspicion and fear	8	9	17	.	1	1
Monomania of religion	6	3	9	.	1	1
Monomania of drunkenness .....	.	3	3	.	.	.
Monomania of various forms—pride, vanity, imagination, &c	8	11	19	.	.	.
Moral insanity	2	2	4	.	.	.
	24	28	52	.	2	2
DEMENTIA.						
Incoherence and Imbecility (acquired) ..	9	8	17	6	4	10
Confirmed Dementia, or Fatuity	13	3	16	2	.	2
	22	11	33	8	4	12
AMENTIA OR IDIOTCY, &c.						
Congenital Idiotcy	1	1	2	.	.	.
Congenital Imbecility	2	1	3	.	.	.
	3	2	5	.	.	.
DELIRIUM, SIMULATING INSANITY.						
Delirium tremens	1	.	1	.	.	.
Delirium of fever	2	.	2	.	.	.
	3	.	3	.	.	.
Total	198	217	415	25	29	54

* * There were eight cases of Melancholy and Mania alternating with each other, three of Mania, one of Monomania, and one of Dementia, making thirteen additional persons in whom a suicidal propensity existed.

§ 8—Of the duration of residence.

TABLE 18.—SHEWING THE ACTUAL AND AVERAGE DURATION OF RESIDENCE IN ALL CASES ADMITTED INTO THE INSTITUTION.

DURATION OF RESIDENCE.	ADMITTED.			DISCHARGED AND DIED.												REMAINING		
				Recovered.			Improved.			Unimproved.			Died.			Total.		
	Male.	Fem.	Total	Male.	Fem.	Total	Male.	Fem.	Total	Male.	Fem.	Total	Male.	Fem.	Total	Male.	Fem.	Total
Residing under 3 months	33	27	60	18	16	34	3	.	3	3	.	7	7	14	31	23	54	6
from 3 to 6 "	45	48	93	30	42	72	6	2	8	2	.	5	2	7	43	46	89	4
" 6 to 9 "	32	42	74	19	29	48	4	4	8	2	2	6	6	12	31	41	72	2
" 9 to 12 "	27	28	55	14	22	36	7	3	10	.	4	1	5	5	25	28	53	2
" 1 to 2 years	36	56	92	21	36	57	7	7	14	1	4	5	5	10	34	52	86	6
" 2 to 3 "	19	21	40	5	9	14	3	3	6	.	3	2	2	12	18	17	35	5
" 3 to 5 "	21	23	44	8	5	13	6	3	9	.	2	5	9	14	19	19	38	6
" 5 to 10 "	32	34	66	5	9	14	4	2	6	2	5	7	10	21	21	27	48	18
" 10 to 20 "	20	31	51	1	2	3	1	.	1	1	.	8	13	21	11	15	26	25
" 20 to 30 "	11	11	22	.	.	.	.	.	.	.	.	7	9	16	7	9	16	6
" 30 to 40 "	4	9	13	.	.	.	.	.	.	.	.	2	4	6	2	4	6	7
" 40 to 44 "	2	3	5	.	.	.	.	.	.	.	.	1	.	1	1	.	1	4
Total.....	282	333	615	121	170	291	41	24	65	11	18	29	70	69	243	281	524	91
AVERAGE DURATION OF RESIDENCE—IN YEARS.	Male	Fem.	Mean	Male	Fem.	Mean	Male	Fem.	Mean	Male	Fem.	Mean	Male	Fem.	Mean	Male	Fem.	Mean
	4.44	5.1	4.8	1.27	1.36	1.32	2.37	2.05	2.25	2.83	3.19	3.06	7.67	10.01	8.83	3.37	3.66	3.52
																11.16	12.88	12.49

TABLE 21.—SHEWING THE NUMBERS OF CASES ADMITTED, DISCHARGED, AND REMAINING; WITH THE MEAN NUMBERS RESIDENT; ARRANGED IN CLASSES, SO AS TO EXHIBIT THE INFLUENCE OF DURATION OF DISORDER ON THE RECOVERIES, DEATHS, AND OTHER RESULTS.

DURATION OF DISORDER WHEN ADMITTED.	ADMITTED.		DISCHARGED AND DIED.						REMAINING MIDSUMMER 1840.		MEAN NUMBERS RESIDENT.	
	M.	F.	Recovered.	Improved.	Not improved.	Died.	Total.		M.	F.	Male.	Fem.
FIRST CLASS.—Cases of the first attack, of not more than three months' duration....	45	51	35 41 76	2 2 4	1 . 1	5 5 10	43 48 91		2	3	1.55	2.12
SECOND CLASS.—Cases of the first attack, of more than three, but of not more than twelve months' duration	48	43	23 19 42	10 1 11	1 1 2	7 12 19	41 33 74		7	10	2.93	8.12
THIRD CLASS.—Cases not of the first attack, and of not more than twelve months' duration	86	125	49 82 131	12 12 24	2 6 8	15 14 29	78 114 192		8	11	4.85	6.54
FOURTH CLASS.—Cases whether of the first attack or not, and of more than twelve months' duration	103	114	14 28 42+	17 9 26	7 11 18	43 38 81	81 86 167		22	28	19.17	21.87
Total.....	282	333	121 170 291	41 24 65	11 18 29	70 69 139	243 281 524		39	52	28.5	38.65
		615								91		67.15

* Of these five cases, two have since recovered, one has died, and the other two remain, (1843), with little prospect of restoration.

+ Of these 42 recoveries, 31 (11 males and 20 females) occurred in cases of the first attack.

§ 7.—Of the average proportion of recoveries, under different circumstances.

TABLE 23.—SHEWING THE AVERAGE PROPORTION OF RECOVERIES AT DECENNIAL PERIODS OF LIFE.—DEDUCED FROM TABLES 7 AND 20.

AGE.	Mean annual number of Recoveries per cent. resident.			Proportion of Recoveries per cent. of the admissions.		
	Male.	Fem.	Mean	Male.	Fem.	Mean
From 10 to 20 years	41.31	24.68	33.75	58.82	50.	55.55
" 20 to 30 "	21.11	24.86	23.	46.34	61.64	53.55
" 30 to 40 "	10.63	11.51	11.11	49.15	50.66	50.
" 40 to 50 "	9.52	8.83	9.09	46.	48.57	47.5
" 50 to 60 "	4.38	7.74	6.47	30.3	53.7	44.83
" 60 to 70 "	5.	6.71	6.07	26.66	41.86	35.61
" 70 to 80 "	1.84	.88	1.35	22.22	16.66	20.
" 80 to 90 "	3.95	.	1.75	50.	.	25.
Average.....	9.64	9.99	9.84	42.91	51.05	47.31
AVERAGE PROPORTION OF RECOVERIES, EXCLUSIVE OF THOSE UNCONNECTED WITH THE SOCIETY OF FRIENDS.				44.8	54.66	50.18

TABLE 24.—SHEWING THE AVERAGE PROPORTION OF RECOVERIES IN CASES OF RECENT AND LONGER DURATION WHEN ADMITTED.—DEDUCED FROM TABLE 21.

DURATION OF DISORDER WHEN ADMITTED.	Mean annual number of Recoveries per cent. resident.			Proportion of Recoveries per cent. of the admissions.		
	Male.	Fem.	Mean	Male.	Fem.	Mean
FIRST CLASS.—First attack and within three months	50.96	43.91	46.86	77.77	80.39	79.16
SECOND CLASS.—First attack, above three, but within twelve months	17.74	5.3	8.63	47.91	44.18	46.15
THIRD CLASS.—Not first attack, and within twelve months..	22.88	28.44	26.07	56.97	65.6	62.08
FOURTH CLASS.—First attack or not, and more than twelve months	1.65	2.9	2.32	13.59	24.56	19.35
Average.....	9.64	9.99	9.84	42.91	51.05	47.31

TABLE 25.—SHEWING THE AVERAGE PROPORTION OF RECOVERIES IN THE DIFFERENT FORMS OF MENTAL DISORDER.—DEDUCED FROM TABLE 22.

FORM OF DISORDER WHEN ADMITTED.	Mean annual number of Recoveries per cent. resident.			Proportion of Recoveries per cent. of the admissions.		
	Male.	Fem.	Mean	Male.	Fem.	Mean
Mania	13.12	10.93	11.81	51.56	55.03	53.43
Melancholia.....	20.57	16.09	17.48	51.19	57.24	54.88
Monomania	2.62	5.13	3.84	24.14	37.14	31.25
Dementia .....	.38	.	.21	3.12	.	2.08
Average.....	9.64	9.99	9.84	42.91	51.05	47.31

§ 8.—Of the deaths; and of the mean annual mortality under different circumstances.

TABLE 26.—SHEWING THE MEAN ANNUAL MORTALITY AT DECENNIAL PERIODS OF LIFE.—DEDUCED FROM TABLES 7, 20, AND 29.

AGE.	Proportion of Deaths per cent. of the Admissions.			Mean Annual Mortality per cent. Resident.		
	Male.	Fem.	Mean	Male.	Fem.	Mean
From 10 to 20 years	11.76	20.	14.81	.	.	.
" 20 to 30 "	10.97	13.69	12.25	4.44	2.76	3.6
" 30 to 40 "	23.72	13.33	17.91	3.66	2.12	2.82
" 40 to 50 "	24.	22.85	23.33	3.72	3.11	3.35
" 50 to 60 "	45.45	20.37	29.88	6.57	3.2	4.48
" 60 to 70 "	40.	34.88	36.98	6.88	5.97	6.33
" 70 to 80 "	55.55	50.	53.33	8.31	8.87	8.6
" 80 to 90 "	50.	100.	75.	20.66	23.74	22.09
" 90 to 97 " .....	.	.	.	17.48	.	17.48
Average.....	24.82	20.72	22.6	5.58	4.05	4.7
MEAN ANNUAL MORTALITY EXCLUSIVE, OF THOSE UNCONNECTED WITH THE SOCIETY OF FRIENDS.				5.39	3.99	4.59

TABLE 27.—SHEWING THE MEAN ANNUAL MORTALITY IN CASES OF RECENT AND LONGER DURATION WHEN ADMITTED.—DEDUCED FROM TABLE 21.

DURATION OF DISORDER WHEN ADMITTED.	Proportion of Deaths per cent. of the Admissions.			Mean annual Mortality per cent. Resident.		
	Male.	Fem.	Mean	Male.	Fem.	Mean
FIRST CLASS.—First attack, and within three months	11.11	9.8	10.41	7.33	5.36	6.19
SECOND CLASS.—First attack, above three, but within twelve months	14.58	27.9	20.87	5.43	3.35	3.9
THIRD CLASS.—Not first attack, and within twelve months..	17.44	11.2	13.74	7.02	4.86	5.78
FOURTH CLASS.—First attack or not, and more than twelve months	41.74	33.33	37.33	5.09	3.94	4.48
Average.....	24.82	20.72	22.6	5.58	4.05	4.7

TABLE 28.—SHEWING THE MEAN ANNUAL MORTALITY IN THE DIFFERENT FORMS OF MENTAL DISORDER.—DEDUCED FROM TABLE 22.

FORM OF DISORDER WHEN ADMITTED.	Proportion of Deaths per cent. of the Admissions.			Mean Annual Mortality per cent. Resident.		
	Male.	Fem.	Mean	Male.	Fem.	Mean
Mania	17.18	18.79	18.05	4.37	3.73	3.99
Melancholia.....	22.61	21.37	21.86	9.09	6.11	6.96
Monomania.....	31.03	25.71	28.12	3.37	3.55	3.46
Dementia	53.12	25.	43.75	6.58	1.87	4.45
Amentia.....	33.33	.	20.	6.31	.	2.87
Average.....	24.82	20.72	22.6	5.58	4.05	4.7

TABLE 29.—SHEWING THE ACTUAL AND AVERAGE AGES OF THOSE WHO HAVE DIED IN THE INSTITUTION.

AGE.	Society of Friends and connected with it.			Unconnected with the Society of Friends.		
	Male.	Fem.	Total	Male.	Fem.	Total
From 20 to 30 years	7	4	11	1	1	2
" 30 to 40 "	9	5	14	1	2	3
" 40 to 50 "	7	12	19	2	.	2
" 50 to 60 "	14	11	25	1	1	2
" 60 to 70 "	10	14	24	1	2	3
" 70 to 80 "	9	10	19	.	.	.
" 80 to 90 "	6	7	13	1	.	1
" 90 to 97 "	1	.	1	.	.	.
Total.....	63	63	126	7	6	13
	Male.	Fem.	Mean	Male.	Fem.	Mean
AVERAGE AGE AT DEATH.....	54.8	58.1	56.5	49.0	46.3	47.7

TABLE 30.—SHEWING THE ACTUAL AND AVERAGE DURATION OF RESIDENCE IN THE INSTITUTION AT THE TIME OF DEATH.

DURATION OF RESIDENCE.	Society of Friends and connected with it.			Unconnected with the Society of Friends.		
	Male.	Fem.	Total	Male.	Fem.	Total
Under 3 months	6	7	13	1	.	1
From 3 to 12 months	14	7	21	1	2	3
" 1 to 2 years	4	4	8	1	1	2
" 2 to 5 "	12	9	21	3	2	5
" 5 to 10 "	9	10	19	1	1	2
" 10 to 20 "	8	13	21	.	.	.
" 20 to 30 "	7	9	16	.	.	.
" 30 to 40 "	2	4	6	.	.	.
" 40 to 44 "	1	.	1	.	.	.
Total.....	63	63	126	7	6	13
	Male.	Fem.	Mean	Male.	Fem.	Mean
AVERAGE DURATION OF RESIDENCE, —IN YEARS.	8.22	10.65	9.44	2.69	3.23	2.94

TABLE 31.—SHEWING THE ACTUAL AND AVERAGE DURATION OF DISORDER AT THE TIME OF DEATH.

DURATION OF DISORDER.	Society of Friends and connected with it.			Unconnected with the Society of Friends.		
	Male.	Fem.	Total	Male.	Fem.	Total
Under 3 months	2	.	2	.	.	.
From 3 to 12 months	5	3	8	.	.	.
" 1 to 2 years	3	4	7	.	.	.
" 2 to 5 "	9	6	15	3	3	6
" 5 to 10 "	11	7	18	2	1	3
" 10 to 20 "	11	17	28	1	2	3
" 20 to 30 "	8	13	21	.	.	.
" 30 to 40 "	6	11	17	.	.	.
" 40 to 50 "	4	2	6	1	.	1
" 50 to 60 "	4	.	4	.	.	.
Total.....	63	63	126	7	6	13
	Male.	Fem.	Mean	Male.	Fem.	Mean
AVERAGE DURATION OF DISORDER, —IN YEARS.	16.74	17.89	17.31	11.5	6.83	9.34

TABLE 32.—SHEWING THE DISEASES WHICH HAVE PROVED FATAL IN THE INSTITUTION.

CAUSES OF DEATH.	Society of Friends and connected with it.			Unconnected with the Society of Friends.		
	Male.	Fem.	Total	Male.	Fem.	Total
Diarrhœa	1	.	1	1	.	1
Dysentery .....	.	1	1	.	.	.
Influenza, of 1836-37 .....	.	1	1	.	.	.
„ with Pneumonia ..	.	2	5	.	.	.
„ with Diseased Heart	.	2		.	.	.
Fever	3	.	3	.	.	.
Erysipelas .....	.	1	1	.	.	.
EPIDEMIC AND CONTAGIOUS DISEASES.	4	7	11	1	.	1
Apoplexy	5	6	11	4	1	5
Paralysis	1	.	1	1	.	1
Epilepsy	3	2	5	.	1	1
Disease of Brain	2	1	3	.	.	.
DISEASES OF THE BRAIN AND NERVOUS SYSTEM.	11	9	20	5	2	7
Pleurisy	1	.	1	.	.	.
Pneumonia	6	.	6	.	.	.
Hydrothorax	1	1	2	.	.	.
Asthma	3	1	4	.	1	1
Pulmonary Consumption	6	11	17	1	2	3
DISEASES OF THE LUNGS AND OTHER ORGANS OF RESPIRATION.	17	13	30	1	3	4
DISEASES OF THE HEART.	7	2	9	.	.	.
Gastritis	1	4	5	.	.	.
Enteritis	2	1	3	.	.	.
Peritonitis .....	.	1	1	.	.	.
Ulceration of Bowels	1	1	2	.	.	.
Hernia	1	1	2	.	.	.
Hæmorrhage from Stomach	1	.	1	.	.	.
Cancer of Stomach .....	.	1	2	.	.	.
Cancer of Colon, with Fæcal Abscess .....	.	1		.	.	.
Jaundice	2	1	3	.	.	.
Abscess of Liver .....	.	1	1	.	.	.
DISEASES OF THE STOMACH AND OTHER ORGANS OF DIGESTION.	8	12	20	.	.	.
DISEASE OF THE KIDNEYS. Chronic Nephritis	.	.	.	.	1	1
DISEASE OF THE UTERUS. Menorrhagia ..	.	1	1	.	.	.
Dropsy	2	1	3	.	.	.
Abscess	1	1	2	.	.	.
Mortification	1	4	5	.	.	.
Atrophy	3	3	6	.	.	.
Exhaustion (in two cases from travelling to the Retreat)	1	2	3	.	.	.
DISEASES OF VARIOUS SEATS.	8	11	19	.	.	.
OLD AGE, OR NATURAL DECAY (average age $79\frac{3}{4}$)	3	8	11	.	.	.
DEATHS BY VIOLENCE. Suicidal Suspension	5	.	5	.	.	.
Total	63	63	126	7	6	13

TABLE 33.—SHEWING THE CHANGES THAT HAD TAKEN PLACE IN THE FORM AND CONDITION OF THE MENTAL DISORDER AT THE TIME OF DEATH.

FORM OF MENTAL DISORDER WHEN ADMITTED.		DIED.			FORM AND CONDITION OF MENTAL DISORDER AT THE TIME OF DEATH.											
					Mental disorder unchanged, and						Mental disorder changed into					
					Decidedly Improved.		Unimproved.		Decidedly Worse.		Mania.		Melancholia.		Dementia.	
					Male.	Fem.	Total	Male.	Fem.	Total	Male.	Fem.	Total	Male.	Fem.	Total
Mania	22	27	49	3	5	8	10	12	22	.	.	.	3	6	10	16
Melancholia	19	29	48	2	6	8	13	18	31	2	1	2	.	1	3	4
Monomania	9	9	18	1	1	2	6	6	12	.	.	.	1	1	2	3
Dementia	17	4	21	.	.	.	17	3	20	1	.	.	.	.	.	.
Amentia	1	.	1	.	.	.	1	.	1	.	.	.	.	.	.	.
Delirium of Fever	2	.	2	.	.	.	2	.	2	.	.	.	.	.	.	.
Total	70	69	139	6	12	18	49	39	88	2	1	2	3	4	15	23

TABLE 35.—SHEWING THE ACTUAL AND AVERAGE AGES OF THOSE WHO HAVE DIED SINCE THEIR DISCHARGE; WITH THE AVERAGE AGE AT THE FIRST ATTACK OF THE DISORDER IN THE SAME CASES.

AGE.	Remaining more or less disordered.			Recovery permanent.		
	Male.	Fem.	Total	Male.	Fem.	Total
From 20 to 30 years	2	1	3	1	1	2
„ 30 to 40 „	3	1	4	3	4	7
„ 40 to 50 „	4	5	9	4	8	12
„ 50 to 60 „	3	5	8	8	3	11
„ 60 to 70 „	3	5	8	2	8	10
„ 70 to 80 „	3	7	10	3	10	13
„ 80 to 89 „	2	2	4	2	2	4
Total.....	20	26	46	23	36	59
<hr/>						
	Male.	Fem.	Mean	Male.	Fem.	Mean
AVERAGE AGE AT DEATH.....	54.	60.4	57.6	55.	58.6	57.2
<hr/>						
	Male.	Fem.	Mean	Male.	Fem.	Mean
AVERAGE AGE AT FIRST ATTACK.....	32.9	38.1	35.8	40.2	39.8	40.

TABLE 36.—SHEWING SOME OF THE DISEASES WHICH HAVE PROVED FATAL TO THOSE WHO HAVE DIED SINCE THEIR DISCHARGE.

CAUSES OF DEATH.	Remaining more or less disordered.			Recovery permanent.		
	Male.	Fem.	Total	Male.	Fem.	Total
Diarrhœa	1	1	2	.	.	.
Spasmodic Cholera .....	.	.	.	1	.	1
Fever.....	.	1	1	2	.	2
Apoplexy	1	1	2	.	3	3
Paralysis .....	.	2	2	.	.	.
Inflammation of Lungs .....	.	1	1	.	.	.
Pulmonary Consumption.....	2	1	3	2	2	4
Disease of Heart	1	.	1	.	.	.
Diabetes	1	.	1	.	.	.
Parturition .....	.	.	.	.	1	1
Paramenia .....	.	.	.	.	1	1
Cancer of the Mammary gland .....	.	.	.	.	1	1
Dropsy .....	.	.	.	.	1	1
Suicide	2	1	3	.	.	.
Homicide by an insane person	1	.	1	.	.	.
Drowned accidentally	1	.	1	1	.	1
Causes of death known	10	8	18	6	9	15
Causes of death unknown	10	18	28	17	27	44
Total.....	20	26	46	23	36	59

TABLE 37.—SHEWING THE NUMBER OF PERSONS AND OF CASES RE-ADMITTED.

RE-ADMISSIONS.	Society of Friends and connected with it.			Unconnected with the Society of Friends.		
	Male.	Fem.	Total	Male.	Fem.	Total
Admitted twice	31	29	60	7	4	11
„ three times	9	8	17	.	.	.
„ four times	1	4	5	.	.	.
„ five times .....	.	2	2	.	.	.
„ ten times .....	.	2	2	.	.	.
Total number of <i>persons</i> re-admitted....	41	45	86	7	4	11
Total number of <i>cases</i> re-admitted	52	83	135	7	4	11

TABLE 38.—SHEWING THE LENGTH OF TIME AFTER PREVIOUS DISCHARGE, WHICH HAD ELAPSED AT THE TIME OF RE-ADMISSION.

CASES RE-ADMITTED, WITH THE LENGTH OF TIME AFTER DISCHARGE.	Had been discharged recovered.			Had been discharged not recovered.		
	Male.	Fem.	Total	Male.	Fem.	Total
Under 3 months	8	9	17	3	2	5
From 3 to 6 months	3	8	11	3	.	3
„ 6 to 12 „	6	8	14	2	2	4
„ 1 to 2 years	3	15	18	1	1	2
„ 2 to 5 „	9	14	23	3	3	6
„ 5 to 10 „	7	10	17	1	2	3
„ 10 to 20 „	6	9	15	2	1	3
„ 20 to 25 „	2	3	5	.	.	.
Total.....	44	76	120	15	11	26

TABLE 39.—SHEWING THE NUMBER OF PERSONS RE-ADMITTED, WITH THE DURATION OF DISORDER WHEN FIRST ADMITTED, DISTINGUISHING THOSE WHO HAD BEEN DISCHARGED RECOVERED.

DURATION OF ATTACK WHEN FIRST ADMITTED.	Had been discharged recovered.			Had been discharged not recovered.		
	Male.	Fem.	Total	Male.	Fem.	Total
FIRST CLASS.—First attack, and within three months	11	16	27	.	1	1
SECOND CLASS.—First attack, above three but within twelve months	6	8	14	5	.	5
THIRD CLASS.—Not first attack, and within twelve months	15	10	25	.	6	6
FOURTH CLASS. {	a. First attack, and more than twelve months			2	4	6
	b. Not first attack, and more than twelve months			7	2	9
	1	2	3	1	.	1
Total.....	35	40	75	13	9	22

TABLE 40.—SHEWING THE NUMBERS OF CASES RE-ADMITTED, RE-DISCHARGED, AND REMAINING, WITH THE RESULTS OF TREATMENT; DISTINGUISHING THE STATE AS TO RECOVERY OR OTHERWISE WHEN PREVIOUSLY DISCHARGED.

STATE WHEN PREVIOUSLY DISCHARGED.	RE-DISCHARGED AND DIED.												REMAINING 1840.					
	RE-ADMITTED.			Recovered.			Improved.			Unimproved.				Died.				
	Male.	Fem.	Total	Male.	Fem.	Total	Male.	Fem.	Total	Male.	Fem.	Total		Male.	Fem.	Total		
Recovered	43	76	119	19	53	72	9	5	14	.	1	1	11	9	20	4	8	12
Improved	14	7	21	4	3	7	5	.	5	1	.	1	2	2	4	2	2	4
Unimproved	2	4	6	.	.	.	.	.	.	.	1	1	1	1	2	1	2	3
Total.....	59	87	146	23	56	79	14	5	19	1	2	3	14	12	26	7	12	19

TABLE 41.—SHEWING THE FORMS OF MENTAL DISORDER UPON RE-ADMISSION, WITH THE CHANGES THAT HAD TAKEN PLACE IN THEM SINCE PREVIOUS ADMISSION.

FORM OF DISORDER WHEN PREVIOUSLY ADMITTED.	FORM OF DISORDER WHEN RE-ADMITTED.																	
	RE-ADMITTED.			Mania.			Melancholia.			Monomania.			Dementia.			Delirium tremens.		
			Total			Total			Total			Total			Total			Total
	Male.	Fem.		Male.	Fem.		Male.	Fem.		Male.	Fem.		Male.	Fem.		Male.	Fem.	
Mania	33	53	86	28	50	78	5	3	8	.	1	.	.	1	.	.	.	.
Melancholia	15	29	44	5	5	10	10	22	32	.	.	.	.	.	.	.	.	.
Monomania	6	5	11	1	.	1	.	1	1	5	4	9	.	.	2	.	.	.
Dementia	2	.	2	.	.	.	.	.	.	.	.	.	2	.	.	3	.	3
Delirium tremens	3	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Total.....	59	87	146	34	55	89	15	26	41	5	5	10	2	1	3	3	.	3

TABLE 42.—SHEWING THE ACTUAL AND AVERAGE AGES OF THOSE REMAINING IN THE INSTITUTION, MIDSUMMER 1840.

AGE.	Society of Friends and connected with it.			Unconnected with the Society of Friends.		
	Male.	Fem.	Total	Male.	Fem.	Total
From 10 to 20 years .....	.	.	.	.	1	1
„ 20 to 30 „	5	6	11	1	.	1
„ 30 to 40 „	6	8	14	4	1	5
„ 40 to 50 „	9	8	17	2	4	6
„ 50 to 60 „	6	6	12	.	1	1
„ 60 to 70 „	6	11	17	.	2	2
„ 70 to 80 „ .....	.	4	4	.	.	.
Total.....	32	43	75	7	9	16
	Male.	Fem.	Mean	Male	Fem.	Mean
AVERAGE AGE, 1840.....	45.2	49.	47.4	35.5	44.3	40.4

TABLE 43.—SHEWING THE DURATION OF RESIDENCE OF THOSE REMAINING IN THE INSTITUTION, MIDSUMMER 1840.

DURATION OF RESIDENCE.	Society of Friends and connected with it.			Unconnected with the Society of Friends.		
	Male.	Fem.	Total	Male.	Fem.	Total
Under 3 months .....	.	3	3	2	1	3
From 3 to 12 months	4	2	6	1	1	2
„ 1 to 2 years	2	3	5	.	1	1
„ 2 to 5 „	1	7	8	2	1	3
„ 5 to 10 „	10	5	15	1	2	3
„ 10 to 20 „	8	13	21	1	3	4
„ 20 to 30 „	4	2	6	.	.	.
„ 30 to 40 „	2	5	7	.	.	.
„ 40 to 44 „	1	3	4	.	.	.
Total.....	32	43	75	7	9	16

TABLE 44.—SHEWING THE DURATION OF DISORDER WHEN ADMITTED, AND THE ESTIMATED PROBABILITY OF RECOVERY IN THOSE REMAINING IN THE INSTITUTION, MIDSUMMER 1840.

DURATION OF DISORDER WHEN ADMITTED.	More or less hope of recovery.			Little or no hope of recovery.		
	Male.	Fem.	Total	Male.	Fem.	Total
FIRST CLASS.—First attack, and within three months	1	2	3	1	1	2
SECOND CLASS.—First attack, above three, but within twelve months	3	2	5	4	8	12
THIRD CLASS.—Not first attack, and within twelve months	5	8	13	3	3	6
FOURTH CLASS.—First attack or not, and more than twelve months	4	3	7	18	25	43
Total.....	13	15	28	26	37	63

* Recovery does not appear *probable* in more than half of these, or in six males and eight females.

TABLE 45.—SHEWING THE CHANGES THAT HAD TAKEN PLACE IN THE FORMS OF MENTAL DISORDER, IN THE CASES REMAINING IN THE INSTITUTION, MIDSUMMER, 1840.

FORM OF MENTAL DISORDER, MIDSUMMER 1840.																											
FORM OF MENTAL DISORDER WHEN ADMITTED.	REMAINING 1840.						Mania.			Melancholia.			Monomania.			Dementia.			Idiotcy.								
	Male.			Fem.			Total			Male.			Fem.			Total			Male.			Fem.			Total		
Mania	16	22	38	12	15	27	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Melancholia.....	7	9	16	.	.	.	4	5	9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Monomania.....	6	9	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Dementia	9	11	20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Amentia.....	1	1	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Total.....	39	52	91	12	15	27	4	5	9	4	8	12	18	23	41	1	1	2	1	1	2	1	1	2	1	2	

APPENDIX I.

STATISTICS OF THE YORK LUNATIC ASYLUM,

FROM 1814 TO 1840 ;

WITH A SKETCH OF ITS HISTORY AND PRESENT STATE.

THE five tables, given in this appendix, A, B, C, D, E, which exhibit the experience of the York Lunatic Asylum for a period of twenty-five years and eight months, 1814—1840, were calculated from data, kindly furnished me by Mr. Ellis, the late resident medical officer ; and are published with the permission of the committee of that institution.

It was thought that the results obtained at the York Lunatic Asylum since 1814, might be more fairly compared with those at the Retreat, than those of almost any other institution, and this for the following reasons :—First, the patients are derived from nearly the same ranks in society in both establishments. Secondly, from their proximity to each other, and from some of the members of the Retreat committee being also governors of the Asylum, the practices and modes of treatment in the two institutions have, no doubt, a certain reciprocal influence. And thirdly, and in particular, the diet table at the Asylum, though less so for the paupers, is, on the whole, a very liberal one ; and more than average domestic comforts are afforded to the patients.

In the comparison, however, of the results obtained at the two institutions, it should be borne in mind that, in three circumstances, the Retreat appears to have a very decided advantage over the Asylum. In the first place, the site of the former is considerably elevated, and on a dry, gravelly soil, which requires little artificial drainage ; whilst the latter, though not to be considered in an unhealthy situation, is raised but a few feet above the level of the river

Foss, and is situated in a flat district, which till lately has been but imperfectly drained. Secondly, at the Retreat, the previous habits of the patients must, on the whole, be regarded as much more favourable to longevity and, perhaps, also to recovery, than are those of the patients at the Asylum. Thirdly, it appears that, from pecuniary and other considerations, patients are frequently removed from the Asylum, by their friends or by the parish officers, to other institutions, before sufficient time for recovery has been afforded; and this is a circumstance which seldom occurs at the Retreat.

The following Sketch of the History and Present State of this Asylum has been compiled from the printed rules and reports, and from other authentic sources.

The York Lunatic Asylum was established by voluntary subscriptions, in the year 1777; at a period when there existed but two public institutions for the insane in the metropolis—the hospitals of Bethlem and St. Luke's; and but two in the provinces, viz., one at Newcastle and one at Manchester. It was designed chiefly for the relief of the indigent insane, whether parish paupers or otherwise; and, also for those who, in consequence of limited circumstances, cannot otherwise be supported without occasioning pressure to their families. A certain number of affluent patients are also admitted, at rates of payment proportioned to their abilities, with the view of making up for the deficiency in the payments of the parochial and poorer patients. Of the whole number of patients in the asylum at the present time, (1841), about one-third consists of paupers; whilst, judging from the rates of payment, another third or more may be regarded as belonging to the class of persons in limited circumstances, and the remainder to the more affluent ranks of society. No patients are refused admission in consequence of the form of mental disorder, or its supposed incurability.

For many years after its institution, the York Lunatic Asylum maintained a high character; but, perhaps in consequence of several defects in its original constitution, elsewhere alluded to,* it subsequently sank materially in public estimation. Soon after the publication of the "Description of the Retreat," in 1813, the then physician thought proper to make a severe attack upon the author of that work, as having, by his representations respecting the Retreat, cast reflections upon other establishments. A long controversy in the newspapers, and in other shapes, took place, which excited much interest; and which ended in the complete revision of the rules for

* See the Author's "Observations on the Statistics of Insanity."

the government of the institution, in the dismissal of every servant engaged in the care of the patients; and in the reorganization of the Asylum, and in the assimilation of its management to that of the Retreat.

During the thirty-seven (36.9) years that the institution had existed, from its establishment in 1777 to 1814, when the reform which has been alluded to took place, 2635 patients were admitted; of whom 2133 were discharged, and 399 died; and there remained in the house, October 10th, 1814, 103; viz., 60 men, and 43 women. In consequence of the imperfect state of the registers, the state of those discharged during this period, as regards recovery or otherwise, cannot now be ascertained. The average number resident during that period was 98.1; and the mean duration of residence for each patient admitted was 1.37 year; for those who were discharged and who died, 1.06 year; and for those remaining in 1814, 9.94 years.

Since its reorganization in 1814, the York Lunatic Asylum has fully redeemed its character; a system of labour, as a means of promoting the comfort and cure of the patients, has recently been introduced; and it is now to be regarded as a well conducted institution. As a striking proof of this, the mean annual mortality, as elsewhere shown, has been reduced from 11. per cent. 1777—1814, to 7.35 per cent. 1814—1840.

The principal feature in the Statistics of the York Lunatic Asylum which the tables before us exhibit, will be seen to consist in the amount of information they present in relation to age. I procured the results of treatment at different ages indeed, principally with the view of ascertaining the mean annual mortality at the several decennial periods of life, in order to compare the results with those obtained at the Retreat.

Age.—The proportions for the different ages at the time of admission or re-admission, (for in Table A, as in Table 20 of the Statistics of the Retreat, these are not distinguished), differ materially from those observed at the Retreat. As will be seen, the largest proportion was admitted from 30 to 40, the next from 40 to 50, and, the third, from 20 to 30 years of age.

Of every hundred cases on admission or re-admission, there were at successive decennial periods of life as follow:

10—20,	20—30,	30—40,	40—50,	50—60,	60—70,	70—80,	80—90,	years of age,
3.9	20.9	28.1	23.6	14.8	7.1	1.6	.	= 100

whilst at the Retreat the proportions were:

4.4	25.2	21.8	19.5	14.1	11.9	2.4	.7	= 100
-----	------	------	------	------	------	-----	----	-------

From the circumstances of the two institutions, the same degree of confidence cannot be placed in the exact accuracy of the results, as regards age, in the one case as in the other; but, from this statement there can be little doubt, that the attack of insanity in the cases admitted into the Asylum, occurred, on the average, at a decidedly later age than in the cases admitted into the Retreat. Part of this disparity may no doubt be attributed to the cases having been brought under care at the Retreat at an earlier period than at the Asylum. But this cannot have been the case to any great extent; for, as it is interesting to observe, the average age on admission, 38.8 years, corresponds, within a slight fraction, with that observed during forty-four years at the Retreat; where the average age of the females on admission, exceeded that of males by half a year; whilst, at the Asylum, it amounted to an entire year. (Table A.)

Owing to the higher rate of mortality at the Asylum, the average age of those constantly resident was only forty-seven and a half (47.6) years, (Table C.); or less, by eighteen months, than that of persons connected with the Society of Friends at the Retreat. It is a singular coincidence that, at the date of these tables, the average age of those remaining in the two institutions was precisely the same, or 47.4 years. (Table 42 and Table A.)

Duration of Residence.—This was little more than half that at the Retreat, or, for the whole number admitted, two and a half (2.52) years; and a difference, for the most part nearly as great, is to be noticed in the length of residence of those who were discharged recovered or otherwise, and of those who died; it having been barely two-thirds (.65) of a year for those who recovered, and only four (4.03) years for those who died. (Table B.) When the average period of residence was comparatively so short for those who recovered, it can scarcely be doubted that more relapses must have occurred, than would have been the case, had the residence been somewhat longer.

Recoveries.—The of recoveries during the 25 years did not exceed 33.88 per cent., (being actually somewhere between 31.34 and 33.88 per cent.) This is a somewhat small proportion; and is probably partly due to the circumstance of a smaller proportion of recent cases having been admitted; but it must be principally attributed to the circumstance, already alluded to, of patients being so often prematurely removed from the institution by their friends. That this is really the case is, I think, established by a comparison of the numbers under the heads, "discharged improved," and "discharged unimproved," in Table B, with the corresponding numbers in Table 18, referring to the Retreat. At the latter institution only 11 were

of six months; whilst, at the Asylum, there were 115 who were discharged as improved, and 113 as unimproved, within the same period. If economical and other motives had not operated in these cases, and if a longer period had been allowed to elapse prior to removal, it cannot be doubted that many of them, as well as many others who were removed from six to twelve months after admission, would have resulted in restoration, and thus that the proportion of recoveries would have been materially greater.

It may be observed, as illustrative of the fallacy of such a method of comparison, that the mean annual number of recoveries per cent. resident was higher than at the Retreat, and amounted to 12.43 per cent.; whilst at the latter institution they did not exceed 9.84 per cent. This is a result which is due to the undesirably short average duration of residence at the Asylum, as compared with that in the other establishment.

The recoveries, it will be seen, were as usual more numerous in women than in men, and very much more so at the earlier than at the more advanced ages; but the diminution with the increase of age, especially amongst the men, was less gradual than at the Retreat. This difference in the results is perhaps chiefly attributable to the disturbing influence resulting from the premature removal, of so large a number of cases.

Mortality.—Passing on to the consideration of the deaths, we find that, although, the average age on admission was, as we have seen, nearly the same in the two institutions, the average age at which death occurred was 49.5 years, or seven years earlier than at the Retreat. As at that institution, the average age at death, of the women, exceeded that of the men by about three years.

Out of the 255 deaths which occurred during the 25 years, there were only sixty-eight, or 26 per cent., who were above 60 years of age; and of these no more than four, or 1.5 per cent., had passed their 80th year. Though this result is so different from that observed at the Retreat, it will not be regarded as remarkably unfavourable, when compared with that observed in public asylums in general; for, on a comparison of the reports of several asylums for extended periods, I find that there is seldom a larger proportion than 20 per cent. of the deaths in persons above sixty years of age. Of those who died, there were only 26, or 10.1 per cent., who had been under care from 20 to 48 years; whilst, the proportion similarly circumstanced at the Retreat, amounted to 18.2 per cent.

These statements prepare us for the fact of the mean annual mortality at the Asylum being higher than at the Retreat; and we

find that, for the period to which these observations refer, it amounted to 7.35 per cent. Though this is 60 per cent. higher than the mortality of the Retreat, the result is still very favourable as compared with that of most similar institutions.

The mean annual mortality is nearly twice as high for the men as for the women; it being 9.49 per cent. for the former, and only 4.91 per cent. for the latter, sex.

The mortality will be seen, for the most part, to follow the general law of progressively increasing with each succeeding decennial period of life. But the increase in the mortality is less regularly progressive with age than at the Retreat, and there is one remarkable exception to the general principle of the mortality increasing with age, which cannot be explained by the disturbing effects of the premature removal of cases from under care. The mortality, in the male sex, at 30—40, and at 40—50, years of age, was at the comparatively enormous rates, for those ages, of 8.98, and 16.43 per cent.; whilst at 50—60, and at 60—70, years of age, it was only 6.99, and 7.59, per cent. respectively. It would require information as to the causes of death at those different ages, to speak with confidence on the subject; but there can scarcely be a doubt, that this remarkable exception to the ordinary laws of mortality is the result of various forms of excess and intemperance, which are so often the cause of diseases proving fatal in middle age. Even at the Retreat, where these causes are probably much less frequently in operation, the progressive increase in the mortality with age was much less regular in the male, than in the female sex.

TABLE A.—SHEWING THE NUMBER OF CASES TREATED AT THE YORK LUNATIC ASYLUM, DURING TWENTY-FIVE YEARS AND EIGHT MONTHS, FROM 1814 TO 1840; ARRANGED IN DECENNIAL PERIODS OF LIFE, ON ADMISSION; SO AS TO EXHIBIT THE INFLUENCE OF AGE ON THE RECOVERIES, DEATHS, AND OTHER RESULTS.—COMPARE WITH TABLES 7, 20, AND 42.

AGE.	ADMITTED.*			DISCHARGED AND DIED.												REMAINING MIDSUMMER 1840.								
	Male.	Female.	Total.	Recovered.			Improved.			Unimproved.			Died.			Total.								
				Male	Fem.	Total	Male	Fem.	Total	Male	Fem.	Total	Male	Fem.	Total									
From 10 to 20 years ..	31	22	53	15	13	28	6	1	7	5	5	10	2	1	3	28	20	48	3	2	5			
" 20 to 30 ..	153	134	287	41	67	108	37	27	64	48	18	66	10	7	17	136	119	255	17	15	32			
" 30 to 40 ..	232	154	386	59	52	111	33	44	77	60	25	85	48	13	61	200	134	334	32	20	52			
" 40 to 50 ..	193	132	325	58	44	102	24	18	42	31	32	63	56	20	76	169	114	283	24	18	42			
" 50 to 60 ..	97	107	204	27	29	56	18	16	34	17	26	43	31	23	54	93	94	187	4	13	17			
" 60 to 70 ..	49	49	98	10	12	22	5	5	10	7	12	19	22	11	33	44	40	84	5	9	14			
" 70 to 80 ..	13	9	22	3	1	4	.	2	2	3	1	4	6	5	11	12	9	21	1	.	1			
Total	768	607	1375*	213	218	431	123	113	236	171	119	290	175	80	255	682	530	1212	86	77	163			
AVERAGE AGE ON ADMISSION.	Male.	Female.	Mean.	AVERAGE AGE OF THOSE REMAINING, 1840																				
	38.3	39.4	38.8	Male																		Fem.		Mean
				44.7																		50.4		47.4

* The 1375 given under this head include 103 who remained in the Asylum at its re-organization, in 1814; and the ages of these are given as they existed at that period.

TABLE C.—SHEWING THE MEAN NUMBERS RESIDENT AT DECENNIAL PERIODS OF LIFE; AND THE AGES OF THOSE WHO HAVE DIED IN THE YORK LUNATIC ASYLUM, FROM 1841 TO 1840.—COMPARE WITH TABLES 7 AND 29.

AGE.	Mean Numbers Resident.			Deaths at different Ages.		
	Male.	Female.	Total.	Male.	Female.	Total.
From 10 to 20 years .....	.72	1.09	1.81	.	.	.
„ 20 to 30 „	9.19	6.34	15.53	11	8	19
„ 30 to 40 „	16.02	11.53	27.55	37	11	48
„ 40 to 50 „	13.02	16.04	29.06	55	15	70
„ 50 to 60 „	15.59	14.77	30.36	28	22	50
„ 60 to 70 „	12.77	9.71	22.48	25	15	40
„ 70 to 80 „	4.44	3.27	7.71	19	5	24
„ 80 to 90 „ .....	.	.50	.50	.	4	4
Total.....	71.75	63.25	135.	175	80	255
AVERAGE AGE OF THOSE RESIDENT, AND AVERAGE AGE AT DEATH....	Male.	Female.	Mean.	Male.	Female.	Mean.
	47.4	47.8	47.6	48.6	51.5	49.5

TABLE D.—SHEWING THE AVERAGE PROPORTION OF RECOVERIES, AT DECENNIAL PERIODS OF LIFE, AT THE YORK LUNATIC ASYLUM, FROM 1814 TO 1840.—DEDUCED FROM TABLES A AND C.—COMPARE WITH TABLE 23.

AGE.	Mean Annual Number of Recoveries per cent. resident.			Proportion of Recoveries per cent. of the cases treated.		
	Male.	Female.	Mean.	Male.	Female.	Mean.
From 10 to 20 years	80.55	45.87	60.22	48.38	54.5	52.83
„ 20 to 30 „	17.3	41.16	27.04	26.79	50.	37.63
„ 30 to 40 „	14.29	17.51	15.98	25.43	33.76	28.75
„ 40 to 50 „	17.35	10.66	13.66	30.05	33.33	31.38
„ 50 to 60 „	6.73	7.65	7.18	27.83	27.1	27.45
„ 60 to 70 „	2.97	4.73	3.82	20.4	24.49	22.44
„ 70 to 80 „	2.47	.91	1.94	23.07	11.11	18.18
Average.....	11.56	13.42	12.43	27.73	35.91	31.34
AVERAGE PROPORTION OF RECOVERIES PER CENT. OF THE AD- MISSIONS, FROM 1814 TO 1840, EXCLUSIVE OF THOSE REMAIN- ING IN THE ASYLUM, 1814.....				30.08	38.65	33.88

TABLE E.—SHEWING THE MEAN ANNUAL MORTALITY AT DECENNIAL PERIODS OF LIFE, AT THE YORK LUNATIC ASYLUM, FROM 1814 TO 1840.—DEDUCED FROM TABLES A. AND C.—COMPARE WITH TABLE 26.

AGE.	Proportion of Deaths per cent. of the cases treated.			Mean Annual Mortality per cent. resident.		
	Male.	Female.	Mean.	Male.	Female.	Mean.
From 10 to 20 years	6.45	4.54	5.66	.	.	.
„ 20 to 30 „	6.53	5.22	5.92	4.57	4.90	4.76
„ 30 to 40 „	26.89	8.44	15.80	8.98	3.64	6.78
„ 40 to 50 „	29.01	15.15	23.38	16.43	3.61	9.35
„ 50 to 60 „	31.95	21.49	26.47	6.99	5.75	6.38
„ 60 to 70 „	44.89	22.44	33.67	7.59	5.97	6.89
„ 70 to 80 „	46.15	55.55	50.	16.66	5.81	12.06
„ 80 to 86 „ .....	.	.	.	.	30.	30.
Average.....	22.78	13.17	18.54	9.49	4.91	7.35
MEAN ANNUAL MORTALITY FOR 37 (36.9) YEARS, FROM 1777 TO 1814.....						11.

APPENDIX II.

CONTRIBUTIONS TO THE STATISTICS OF THE SOCIETY OF FRIENDS.

FOR the data from which the following tables have been constructed I am principally indebted to the standing committee of the Yearly Meeting, or "Meeting for Sufferings," of the Society of Friends, by permission of whom the required extracts have been made from a digested transcript and index of the registers of the society from its earliest period; the originals of which are now deposited, as part of the national registers, under the care of the Registrar-General.* For superintending the arrangements for these extracts

* In the year 1836, a commission was appointed by the Crown, "for the purpose of inquiring into the state, custody, and authenticity of any such registers or records of births, deaths, or burials and marriages, as have been heretofore or are now kept in England and Wales, other than the parochial registers; and also for inquiring whether any and what measures can be beneficially adopted for collecting and arranging all or any of such registers and records; and for depositing the same or copies thereof in the office of the Registrar-General,"—"or for otherwise preserving the same; and also for considering and advising the proper measures to be adopted for giving full force and effect, as evidence in all courts of justice, to all such registers as are found accurate and faithful, and for facilitating the production and reception of the same."

For the inspection of this commission, the several registers of the society from its origin down to the establishment of the system of civil registration, under the Act of 6 and 7 Will. IV., were brought to London; and whilst the society was deliberating as to their surrender to public custody, the Commissioners reported, that they had "visited their place of deposit, and saw enough of their state and condition to testify that they exhibit an admirable specimen of the state to which order and precision may be carried in the classification and arrangement of records of this description." The total number of volumes of registers, which were surrendered to the Registration Commissioners in 1840, was 1472, besides which there were fifty-six bundles of original notes and certificates of marriages, births, and burials; the whole containing about 40,000 entries of marriages, 260,000 entries of births, and 310,000 entries of deaths, duplicates included.

being made, and for other kind assistance during the course of the investigation, I must not omit the expression of my obligations to the respected recording clerk of the society, James Bowden.

In this place, I shall not attempt to point out all the inferences which are to be drawn from the accompanying statistics of the Society of Friends. Though far from being destitute of an independent interest, they are, as here introduced, strictly supplementary to the primary objects of this work; and, contenting myself with such explanatory observations as appear to be called for, I shall, for the present, forego any more extended exposition of the subject.*

Enumeration of the Society in 1840. Tables 1, 2.—The number of members of the society, living in England and Wales, was ascertained by returns from each district of the kingdom, in the summer of 1840. The accuracy of these returns may, it is believed, be relied on. A return, obtained by the editors of a monthly paper four years later, presents us with a somewhat less number as that of the society in the united kingdom.†

In order to understand the exact statistical value and bearing of these and of the subsequent tables, it would be desirable to be informed as to the changes in the society, which result from immigration and emigration; as well as to those which are produced by the secession or exclusion of its members, and by the addition of converts from other religious denominations.

As regards the fluctuation in numbers connected with the addition of new, and the secession or exclusion of old, members, I am only able to state the general belief, which I find prevails in the society, that in this country the annual increase from the former, barely compensates for the decrease from the latter cause.‡

* The author will feel obliged by being furnished with any observations on the subject of this appendix, which any of his readers may incline to communicate to him.

† "British Friend." 1844. Vol. 2, p. 184.

‡ In the "Monthly Meeting" of York, with an average population of 312 persons, I am informed that, during the twenty years from 1824 to 1843, there were 47 persons admitted into the society. Of these, 20 joined the society from other communities; 5 were persons who had once been members, but had been excluded (re-admissions); 5 were more or less connected with the society by birth or education; and 17 were children who may be considered as having entered along with their parents. During the same period, 33 persons either

The emigration, however, of members, and particularly of young men, as compared with the numbers of the society, is by no means inconsiderable, and, as the immigration of natives of other countries, and the return of emigrants from this, are so infrequent as scarcely to affect the general inferences, it is clear that there must be a corresponding decrease in the numbers of the society in this country from this cause. The average annual diminution in the society is indeed perhaps sufficiently accounted for by the number of its members who emigrate. My friend, James Bowden, informs me that, for the last three or four years, he has accounts of members of the society who have left this country for America, averaging about 50 per annum. He further states that, for five or six years prior to this time, the number of emigrants to that country, did not average half that number; the proportion being less, probably, in consequence of the attractions held out by our own colonies of Australia, &c., in which I am informed there are now upwards of one hundred members of the society, most of whom left this country several years ago. The emigration of members of the society, from this country, from the year 1676, (the date of the settlement of New West Jersey,) to within a very recent period, was almost exclusively to America. In addition to the Jerseys, Pennsylvania (settled by Penn in 1681,) was, to a great extent, colonized by Quakers, and it appears not improbable that up to the year 1700, as many as 10,000 members of the society, had left this country for America. Indeed, from what is stated by Proud, in his History of Pennsylvania, it is clear that up to the period at which he wrote, (1776-80) the emigration from this country of members of the society, to what may be called the Quaker Colonies of America, as well as to the other settlements of that country, continued to be considerable. Bancroft, the historian of the United States, speaks of numerous Quaker emigrants to Rhode Island and the Carolinas. On the breaking out of the American war, emigration, already much diminished, doubtless declined still more considerably, and probably remained at a low rate for more than thirty years.

The same friend who has furnished me with much of the preceding information on the subject of emigration as affecting the num-

separated themselves or were excluded from the society, by the exercise of its discipline. Of these 10 seceded from, and 23 were disowned by, the society. The number of admissions exceeded that of those who ceased to be members by 14. In other districts, no doubt, a considerable preponderance would be found on the other side.—In the same district, during the same twenty years, 8 persons emigrated to America; none immigrated from foreign countries.

bers of the society, gives reasons from which he concludes that, in 1770, there were in the American colonies at least 50,000 members of the society, of whom not far from one-half were in Pennsylvania alone; and the great majority of whom had, either themselves or their ancestors, emigrated from this country. It is indeed a well known fact, that in many parts of England the society was much thinned, whilst Wales was almost stripped of its Quaker population, in consequence of emigration to Pennsylvania.

At the present time it is thought that there are about 100,000 persons who go under the name of Quakers in the United States.* Thus, although the Society of Friends, for more than a century and a quarter, has in this country more or less regularly declined in numbers, we find that, when the society in both Europe and America is considered, this has not been the case.

With these remarks we may proceed to the consideration of the natural increase and decrease of the society by birth and death.

Marriages, Births, and Deaths. *Tables 2, 3, 4, 5.*—These tables exhibit the numbers of marriages, births, and deaths among members of the society and those connected with them in profession, (and on that ground using their registers for the registration of births, and their burial grounds for the interment of their dead) in the different

* This number may perhaps be taken as referring to members of the society and to persons professing and connected with them; and, it is almost needless to state, that it is independent of the large separatist community known by the name of Hicksites. According to the statement of a friend, who visited the United States a few years ago, it appears that the number of members of the society in North America is between 83,000 and 84,000. The following are the numbers given for the several "Yearly Meetings."

Pennsylvania (New Jersey, &c.)	8,686
New York (and Canada)	11,000
New England	10,000
Ohio	18,000
Indiana, &c.	30,000
Maryland, Virginia, &c.	1,200
North and South Carolina, &c.	4,500
Total	83,386

("Letters on America." By John Candler. *British Friend*. 1843. Vol. 1, p. 117.) Before 1827, when the Hicksite separation took place, the numbers of the society in several of the older states, was much more numerous than at present; and Dr. Evans, of Philadelphia, informs us that the "Yearly Meeting" of Pennsylvania, from 1817 to 1827, consisted of the mean number 21,500 members. Many of these, however, may have gone westward.

counties ("Quarterly Meetings,"*) of England and Wales, at successive decennial periods from 1800 to 1837.

The following is a comparison of the marriages, births, and deaths of members of the society during the first thirty-seven and a half years of the present century, as contrasted with those in the general population of England and Wales, during four years from 1839 to 1842.

SOCIETY OF FRIENDS.	10 years, 1800-9.	10 years, 1810-19.	10 years, 1820-29.	7½ years, 1830-37.	37½ years, 1800-37.
Marriages	955	834	864	663	3316
Births	4863	4331	3850	2922	15966
Deaths.....	4855	4525	4363	3446	17189
Excess of Deaths over Births	.	194	513	524	1223

This statement shews that the births registered during the 37½ years have been in the proportion of 4.81 to each marriage. This may be regarded as an average rate of fecundity, and is very decidedly higher than that shewn by the Registrar-General, for the four years before us, for the kingdom at large. At present, however, all the births in the general population are not registered; and the Registrar-General is of opinion that in England there are little short of five children born to every two persons married.†

ENGLAND AND WALES.‡	1839.	1840.	1841.	1842.	4 years. 1839-42.
Marriages	123,166	122,665	122,496	118,825	487,152
Births	492,574	502,303	512,158	517,739	2,024,774
Deaths.. ..	338,979	359,634	343,847	349,519	1,391,979
Excess of Births over Deaths	153,595	142,669	168,311	168,220	632,795

A very striking fact in these statistics of the Society of Friends, is that the registered deaths exceed the births by 7.6 per cent., or about one thirteenth; whilst, in the kingdom at large, during

* The boundaries of "Quarterly Meetings" are not always exactly the same with those of counties.

† "Sixth Report of Registrar-General." 1844. 8vo. p. xxx. ‡ *Ibid.* p. xviii.

the four years 1839-42, the registered births have exceeded the deaths by 45. per cent., and the actual births probably exceed the actual deaths by at least one half. This remarkable disparity is doubtless, in great measure, to be attributed to the small proportion of marriages, and consequently of births, in the society, as compared with those which occur in the kingdom at large.

The numbers quoted from the Registrar-General's report, shew that, during the four years 1839-42, the annual proportions of marriages, births, and deaths to the population of the kingdom were as follow : *

	One Marriage in	One Birth in	One Death in
Persons living, England and Wales	130	31	45.5

We have no return of the population of the Society of Friends in England and Wales, for the earlier part of this century; but for the period of $37\frac{1}{2}$ years, commencing with 1800, we may estimate it approximatively at 18,500.† According to this estimate the

* "Sixth Report," &c. pp. xviii, xix.

† I have returns from forty-nine of the ninety "Monthly Meetings" in England and Wales, of the members living in 1820 as well as in 1840, which shew that their number was 11,194 in the former, and 9,959 in the latter, year. As the numbers of the society throughout England and Wales were 16,277 in 1840, these returns may warrant our concluding that in 1820 they were about 18,300, and that in 1818 they would be about 18,500. Assuming a like rate of decrease during the ten years 1820-30 as during the ten years 1830-40, the numbers in 1830 would be about 17,300. We can, however, only take this as the number of the society in 1830, by supposing an equal rate of decrease between 1820 and 1830 as between 1830 and 1840. Assuming such a regular diminution, the decrease, during the twenty years, was at the rate of 100 per annum. We have, however, returns from sixty, or two-thirds, of the districts of the kingdom, comprising the principal "Monthly Meetings," which give the numbers of the society belonging to them, as 12,528 in 1830, and as 11,388 in 1840. It is possible that the rate of decrease may have been somewhat different in the districts from which there are no returns, but it is not probable, if the returns had been complete, that the proportion would have been materially different. We thus find that, in this kingdom, in 1830, the probable number of members of the society, was 17,900. The cause of the greater decrease, from 1830 to 1840 than from 1820 to 1830, is no doubt in part to be found in an unusual, though still not very considerable, secession which took place about 1835, in connexion with a controversy in the society, which at that time prevailed. There may perhaps, too, have been a greater amount of emigration during the ten years from 1830 to 1840.

annual proportions of marriages, births, and deaths to the population of the society were as follow :

	One Marriage in	One Birth in	One Death in
Persons living, Society of Friends	209	43	40.4

It must here be remembered that the registered marriages do not include all the marriages of members of the society which occur. Though I have no return of the numbers marrying contrary to the rules, and who, by this act, virtually disunite themselves from the society,* they certainly do not constitute an insignificant proportion of the whole number of marriages of members. It is not improbable that there is at least one such marriage to every five marriages according to the rules of the society. In nearly all these cases, one only of the parties contracting marriage is a member ; and in a statistical point of view, therefore, such marriages, *quoad* the society, must be regarded as half-marriages. On this assumption, the addition of one-tenth is the correction required for those marriages and births, which belonging in part to the statistics of the society, are notwithstanding merged in those of the general population. † The proportions will then be as follow :

	One Marriage in	One Birth in	One Death in
Persons living, Society of Friends	190	39.5	40.4

This correction, it will be seen, only slightly raises the proportion of marriages, (to every 100 of which, in proportion to the numbers of the society, there will still be 146 in the general population), and barely makes the births equal to the deaths. The correction required for marriages out of the society may perhaps be greater than that I have assumed ; and there are probably other disturbing causes at work connected with emigration and immigration, and in particular with the ages at which admission into, and secession from, the society usually occur, which it may be difficult to appreciate correctly, and which may materially disturb the infer-

* A considerable proportion of those who are disunited from the society, for this and other causes, are again admitted into membership ; in which case the children born subsequently are likewise registered as members, and those also born prior to such re-admission have not unfrequently been admitted, with a view to the education afforded by the public schools of the society.

† "Sixth Report," &c. pp. xviii, xix.

ences which might otherwise be formed. Thus, if we could include the children born abroad, of young men who have emigrated to America, Australia, &c. it is not improbable that the births would be found to exceed the deaths. Something too must be allowed for the general fact that the registration of births is more likely to have been neglected than that of deaths. It is not improbable, also, that there is a somewhat less proportion, than in the general population, of members of the society living in this country of marriageable ages, (say from 20 to 45); but, after allowing for all these circumstances, we must still admit that the fact of the population of the Society of Friends, in this country, being a somewhat decreasing one, is fully explained by its small relative proportion of marriages.

Quetelet, who well observes that "the prosperity of states consists less in the multiplication than in the conservation of the individuals composing them," has shewn that a great mortality generally coexists with (in proportion to the population) a great number of births,* and this is a rule which recent enquiries seem generally to confirm.† A law, the converse of this, would seem to hold good in the Society of Friends. As shewn by the preceding statement, however, the mortality of the society for the $37\frac{1}{2}$ years from the commencement of this century, appears higher than that of the general population of the kingdom, for the more recent period of four years from 1839 to 1842. But there can be no doubt that an opposite result would appear, were the comparison one for corresponding periods, and were the ages of the living and the dying distinguished. And it must also be remembered that whilst the accuracy of the deaths registered in the society is probably complete, this can scarcely be asserted of those for the kingdom at large. Indeed whilst, in the society, the census of the living refers strictly to members only, any error which may have crept into the returns of deaths must almost necessarily be on the side of excess. Errors of this kind are probably trifling in extent, but the fact of "not in membership" may it is possible, have been omitted to be registered in a few cases.‡ The still-born have also in many cases

* *Quetelet*. "Treatise on Man." Chambers' English Edition. 1842. p. 28.

† See "Second Report of Commissioners for inquiring into the State of Large Towns and Populous Districts." 1845. 8vo. Vol. 1, p. 442. Dr. Lyon Playfair, on the State of Large Towns in Lancashire.

‡ Any omission of this kind would, of course, be as likely to apply to the returns of births as to those of deaths.

(Table 9) been registered, at least amongst the deaths, whilst in the general population, under the registration act, they are not registered at all. To conclude, the observations I shall have to make further on, will I think shew, as clearly as our imperfect materials will allow, that the mortality of the society is in truth, decidedly less than that of the kingdom at large.

Births registered from the origin of the Society. Table 6.—This table shews the entire number of births registered by the society, in England and Wales, from its origin, about 1650, to 1837, when, under the provisions of the registration act, the registers of the society were merged in the civil registers of the nation. The table does not exhibit the births of members as distinguished from those more or less connected and professing with the society, but not in membership; which latter, as a preceding statement (Table 4) would seem to shew, have probably been an increasing body from the establishment of the society to the present day. Whether in the earlier periods of the society, the births and deaths of this class were generally registered as regularly as has of late been the case, appears doubtful.*

The table shews a considerable diminution in the number of births registered during the decennial periods from 1710 to 1770; which diminution, from 1710 to 1750, was very marked. This would at first appear to indicate a very considerable diminution in the numbers of the society. Some decrease no doubt did occur in connection, it is thought, with the lax state of religious society in this country, during the early part of the last century; at which time there was a marked diminution in the numbers joining the society from other religious communities. This however was not the sole cause; and considerable effect must have been produced by the numbers who had emigrated to the North American Colonies during the latter part of the seventeenth, and commencement of the eighteenth, century, and which emigration probably continued, at a not inconsiderable rate, up to the period of the American war. It is also not improbable that part of the diminution in the births registered, as compared with the previous and subsequent periods, may be attributed to neglect, or rather perhaps indifference, as to the mode, of registration;—not a few, it is thought, having at that time been entered in the parochial registers or in family records. About the year 1774, and for some time before, considerable efforts, it ap-

* The society, by a minute of the "Yearly Meeting" of London, of 1767, appears first to have *enjoined* the practice on its constituent meetings.

pears, were made to insure the more complete registration of marriages, births, and deaths; and this, connected with the probably diminished amount of emigration at this time, no doubt accounts for the greater number of registered births which the table exhibits for all the decennial periods subsequent to 1770; from about which time, the greatest confidence may be placed in the general accuracy of the registers.

Sex at Birth, and of the Living. Tables 7, 1, 2.—Of members of the society, from 1800 to 1837, there were 105.7 males born, to every 100 females. This is a somewhat higher proportion of boys at birth than is found in the kingdom at large, in which during the three years from 1838 to 1841, the births registered were in the proportion of 104.8 boys to 100 girls.* In Europe generally the proportion appears to be that of 106 males to 100 females.† The table shews the very unusual proportion of 110.8 boys to 100 girls, in the births registered by persons not members of the society, and this would be a singular circumstance, could we feel an equal confidence as to all the births being in these cases registered. When special facilities are not afforded to families for the registration of every birth, it is not improbable that in many cases somewhat more importance will be attached to the registration of the births of boys, than to that of girls.

The returns of the population of the Society of Friends in this country (Tables 1, 2,) shew that there is a considerable excess of women over men, and that the sexes of the living in 1840 were in the proportion of about 120 females to 100 males.‡ According to the census of 1841, the proportion in England and Wales is that of 100 men to 104 women.§ We have just seen that, in this particular community, there is at least the usual excess of male births. We may therefore infer that, up to 20 or 30 years of age, there is no material disproportion in the numbers of the sexes in this community, and that the disparity which does exist applies to

* "Fourth Report of the Registrar-General." 1842. pp. 9, 10.

† Op. Cit. English Edition. p. 11.

‡ The returns for 1820 and 1830, so far as they extend, shew a similar proportion of the sexes.

§ There is a curious difference in the proportions of the sexes in the more or less recently settled states of the North American union, and those which are found in almost every country of Europe. In the former, women are with few exceptions less numerous than men, whilst in Europe I am not aware of a single country in which the female population is not the most numerous. The follow-

persons from 20 to 30 years of age and upwards. This is the period of life, at which, if we except the advanced ages, the excess of females in the general population of this country is the greatest.

England and Wales, 1841.					
	Males.		Females.		
0—20 years	100	100.17	50—60 „	100	106.
20—100 „	100	108.	60—70 „	100	112.
			70—80 „	100	115.
20—30 „	100	112.	80—90 „	100	129.
30—40 „	100	106.	90 and upwards ..	100	167.
40—50 „	100	104.	All ages *	100	104.5

The causes of the marked disparity of the sexes in members of the society, (that connected with the greater mortality of male children also obtaining in the general population,) are no doubt chiefly found in the larger proportions of men who emigrate, and who either leave the society or are disunited from it. Though not confined to

ing, I find, are the proportions, according to the returns of the latest censuses, in the several countries and states.

Country.	Census.	Male.	Fem.	Country.	Census.	Male.	Fem.
Sweden	1835	100	107	France	1841	100	102
Denmark	1840	100	102.5	United States of } 1840	104	100	
England and Wales	1841	100	104.5	America }			
Scotland	1841	100	111	Massachusetts ..	1840	100	102
Ireland	1841	100	103	Pennsylvania ..	1840	101.5	100
Russia	1842	100	101.5	Pennsylvania ..	1830	103.5	100
Austria	1840	100	104	Ohio	1840	106	100
Prussia	1840	100	100.5	Indiana	1840	108	100
Saxony	1840	100	105	Michigan	1840	115	100
Wurtemberg.....	1842	100	104	Van Diemens Land.	1836	151	100
Netherlands	1840	100	104	Western Australia .	1836	202	100

According to these statements, it will be seen that very much in proportion to the length of time since the settlement of the different American states, does the proportion of the sexes approximate to the European standard. The cause of the disparity is no doubt to be found in the excess of men, in the original settlers of, and subsequent immigrants into, these states.

What may be the proportion of the sexes in the Society of Friends in the United States I have no means of determining; but it is not improbable that the proportion of males may be such as to compensate, to a certain extent, for the excess of females in the society in this country.

* In the United States of America, on dividing the population returns into quinquennial periods under, and into decennial periods above, 20 years of age, I find that, except from 15 to 20, and from 70 to 100 years, when women somewhat exceed, there is an excess of males (in many of the states excessive) at every period of life.

these ages, the diminution of numbers from these causes is no doubt greatest at the period of life between 20 and 40 years of age. We can thus scarcely estimate the excess of females in the adult members of this community in England and Wales, at less than from 30 to 35 per cent.

Deaths. Tables 8, 9, 10.—The returns of deaths, from which the succeeding tables have been principally calculated, have been obtained for the purposes and at the cost of the “Friends’ Provident Institution;” and I am indebted to the directors of that institution for this opportunity of presenting them to the reader. I regret, however, that the time during which the deaths occurred, includes a period anterior to the present century. Though affecting a community like the Society of Friends less than the population at large, and much less than the poorer classes of the kingdom, we must still admit that during the present century, in consequence of improvements in social and domestic economy and in medical science, particularly as connected with the discovery of vaccination, the value of human life has materially increased. This must be borne in mind in drawing any inferences from the tables of mortality which follow. For if these are in any degree favourable to the society, when compared with the mortality of the kingdom at large of late years, it is at least highly probable that they would have been still more so, had the data from which they have been constructed, been restricted to corresponding periods of the present century.

Proportions of Deaths at different Ages. Tables 11, 12.—These tables exhibit the proportions of deaths at different ages, in the Society of Friends, as deduced from the preceding tables and from other sources, compared with those at corresponding ages, in the general population of the kingdom, for four years from 1837 to 1841. The much larger proportions which die at the more advanced ages, furnish strong presumptive evidence in favour of the greater average duration of life in the society. Thus, we find that the proportion of deaths during infancy and childhood, (0-10 years) is very much lower, that during youth and middle age, (10-50 years) nearly the same, whilst that for more advanced life, (50-70 years) is much higher, and that for old age, (70-100 years) very much higher, than in the population at large. Indeed, whilst out of 1000 deaths in England and Wales, only 144 died at and above the age of 70, there were as many as 288 who attained the same age in this society, during the 57½ years from 1780 to 1837; and, according to a separate return for Great Britain and Ireland, as

many as 327, during the more recent period of two years from 1842 to 1844.

We must not however conclude that the circumstances of this particular community, are favourable to longevity, exactly in the proportion which the numbers arriving at advanced age, and the high average age at death,* (Table 12) might at first seem to indicate. This would only be the case if in the kingdom at large, and in the Society of Friends, there were the same proportions of persons living at the several ages.† The question is materially affected by the relative numbers of marriages and births in the communities which are compared. But, whilst the kingdom at large is every year advancing rapidly in population, and whilst the number of children born and exposed to the chances of death is proportionately large, we have seen that, during the greater part of the present century at least, the annual number of births registered by members of the society is actually less than that of deaths. There is no reason for believing that the secession and emigration of adults is at all adequate to compensate for this smaller proportion of young lives, and it is thus evident that the proportion of infantile deaths must on this account alone, be less than in the general population.

But, whilst we must avoid drawing any positive inferences, from the tables now before us, as to the value of life in the Society of Friends, the character of the results is such that, after making every allowance for the circumstances alluded to, and for others not

* Though I cannot, with the writer, accept the *average age at death* as an expression of the actual longevity in any community or district, I yet think that the following remarks on the average age attained in the Society of Friends, by a contributor to the "First Report of the Commissioners for inquiring into the State of Large Towns," &c. are possessed of considerable interest. "In the city of Geneva, where the average age of death appears to be the highest yet ascertained of the whole population of any city, being upwards of 40 years, or 10 years higher than in London, the births but slightly exceed the deaths, and there is but a slow increase of the population. In the community from which the above returns are taken," (see the substance of these returns, in Tables 11, 12,) "in which there is great attention to temperance, cleanliness and order, and in which an average duration of life of from 12 to 14 years above the experience of the Carlisle table is attained, and in which a marriage under age is unheard of, and improvident marriages are rare,—it is stated on good authority, as a well known fact, that amongst this population also the annual number of births only slightly exceeds," (it is really rather less than,) "that of the deaths." Vol. 1, p. 270.

† "Registrar-General's Reports." 1st, 1839, p. 15; 2nd, 1840, p. 103; 3rd, 1841, p. 12.

yet fully ascertained, we are still justified in concluding that the frequency with which advanced age is attained in this community, is decidedly greater than in the kingdom at large.

In the comparison made in Table 12, in addition to the deaths from 1780 to 1837, I have introduced the proportions of deaths, at successive ages, in the society in Great Britain and Ireland, during two years from 1842 to 1844,* by which it appears that in the united kingdom there were 356 deaths at all ages in the year 1842-3, and 342 deaths in the year 1843-4. This return, it will be seen, shews a still larger proportion of deaths at the higher ages, than that of the deaths from 1780 to 1837. I have also added to the same table, the proportions per 1,000 deaths at all ages, registered by the society, during twenty years from 1811 to 1831, in the Metropolis and in the five counties of Middlesex, Essex, Yorkshire, Lancashire, and Westmoreland. The return of these deaths was obtained in 1831, in order to calculate a table of the expectation of life for the use of the "Friends' Provident Institution." The experience of this association, during thirteen years, would seem to shew that the expectation of life in this kingdom, in that portion of the society which has hitherto availed itself of this institution, for the purpose of life insurance, is greater than that shewn by this table. From an examination of the table before us, and of those which follow, it would appear that the average mortality of the society in the metropolis and these five counties is less favourable than that of the society throughout England and Wales, even when the latter applies to a period which embraces twenty years of the last century. It is not improbable that the society in London and these five counties, includes more than an average proportion of city population, and that in some other respects it is less favourably circumstanced for longevity than it is on an average in the rest of the kingdom. Of the 6,113 deaths during the twenty years, in the five quarterly meetings, 1919 were registered in London and Middlesex, 392 in Essex, 1950 in Yorkshire, 1305 in Lancashire and 547 in Westmoreland. The 6113 deaths include all who were interred in the burial-grounds of the society, whether members of the society or not.

* "Annual Monitor." York. 1844 and 1845.

The following are the deaths registered at the different ages :

	0-1	0-5	5-10	10-15	15-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	All Ages.
Males.	413	729	115	77	117	259	172	191	232	344	424	267	27	2954
Fem. .	305	712	99	101	132	273	248	246	248	371	470	309	50	3159
Total	718	1341	214	178	249	532	420	437	480	715	894	576	77	6113

The births, of members and others, registered during the same period, were 6534, viz. 3370 males and 3164 females ; being in the proportion of 106.5 boys to 100 girls. The marriages of members only were 830. About one-third of the deaths would consist of persons professing or connected with, but not members of, the society. The comparison, which the table before us enables us to make, seems to prove that this is a circumstance which, in some degree unfavourably, affects the comparative results ; and at least justifies our separation of the two classes of members and others, in the subsequent tables.

Mean Annual Mortality. Tables 13 and 14.—The only correct method of judging of the value of life in any given population or community, consists in the comparison of the annual deaths at different ages, with the living at the same ages. It is to be regretted that we possess no enumeration of the ages of the living at any period in the Society of Friends. Where, however, as in this community, the births and deaths are nearly equal, a table of mortality for the different ages may be formed,—the ages at death alone being given. This is the method on which the Northampton table was calculated ; and it appears to be generally admitted by actuaries, that the only material error in this table, is that of representing the mortality of the ages below 40 or 50 somewhat higher than it really is.

In Table 13 the reader is presented with a table of mortality for the society, calculated, from the materials already given, upon this method. In this table the reader will find, in the first place, the mortality, from 1780 to 1837, of members only, distinguishing the sexes ; and in the second place, that of all persons, members and others, who have been interred in the burial grounds of the society. I have likewise appended the mortality observed, from 1811 to 1831, in the five counties above referred to. In all these instances there was a slight disparity in the numbers of births and deaths. The deaths registered by the society throughout the kingdom, from 1780

to 1837, exceeded the births by 4.3 per cent.; and the excess for this period was probably still greater amongst members only, it having amounted to 7.6 per cent. during the $37\frac{1}{2}$ years from 1800 to 1837. In the metropolis and the five counties, on the other hand, the births registered by the society, from 1811 to 1831, exceeded the deaths by about 7 per cent. So slight a difference as that depending on an excess, whether of births or deaths, not exceeding one fourteenth, produces very little effect on the results; but it should be remembered that in the first part of the table, where the deaths exceed the births, the mortality is represented a few fractions lower, and in the second part of the table, where the births exceed the deaths, a few fractions higher than really obtained. For many reasons, those columns of the table which refer to members only, may be presumed to be most accurate and most deserving our confidence. I have, however, only recently obtained access to the data from which these have been calculated; and the difference which this part of the table presents, when compared with that which exhibits the mortality for the metropolis and the five counties, is not so material as in any degree to invalidate the conclusions arrived at, from the use of the latter in the preceding pages.*

In Table 14, I have compared the mortality of the society, calculated from the deaths alone, with that of the general population of the kingdom, as given by the Registrar-General, for four years from 1838 to 1841,† and as given by Edmonds, for eighteen years from 1813 to 1830. At the time of its publication, and until after the census of 1841, the latter was the only table having any claim to confidence, which exhibited the mortality of the kingdom at different ages. It was the opinion of Mr. Farr, when, some years since, he did me the favour of examining my table of mortality for the society in the metropolis and the five counties, that “though the mortality in Mr. Edmonds’ table may be a little *below* the truth, the error is slight.” Of the general accuracy of the table for 1838-41 there can be no reasonable doubt; founded, as it is, on the ages enumerated at the census of 1841, and on the registered deaths, throughout the kingdom, during the four years to which it refers.

In comparing the mortality of the Society of Friends with that of the general population of the kingdom, it must be remembered

* “Statistics of the Retreat.” pp. 103-4.

† “Reports.” Fourth, 1843, pp. 13, 128; Sixth, 1844, 8vo. p. xliii.

that the mortality of the latter, was doubtless less favourable during the earlier part of the century, than it is at present, and that it must have been still less so during the last century. But, notwithstanding these considerations, it will be seen that the table, for the period extending from 1780 to 1837, exhibits a lower mortality for the society at all ages, excepting those between 10 and 30, (for which ages we have shewn that the mortality was probably really lower than represented by the table), and that it shews a very decidedly lower mortality at all ages below 5 and above 40.

TABLE 1.—SHEWING THE NUMBER OF MEMBERS OF THE SOCIETY OF FRIENDS, LIVING IN GREAT BRITAIN AND IRELAND, AS ASCERTAINED IN THE SUMMER OF 1840.

GREAT BRITAIN AND IRELAND.	Males.	Females.	Both Sexes.
England and Wales	7,388	8,889	16,277
Scotland.....	79	69	148
Ireland	?	?	3,280
Total.....	.	.	19,705

TABLE 2.—SHEWING THE MARRIAGES, BIRTHS AND DEATHS, REGISTERED BY THE SOCIETY OF FRIENDS, IN THE DIFFERENT COUNTIES ("QUARTERLY MEETINGS") OF ENGLAND, IN $37\frac{1}{2}$ YEARS FROM 1800 TO 1837; WITH THE NUMBERS LIVING IN THE SAME DIVISIONS OF THE KINGDOM IN THE SUMMER OF 1840.

QUARTERLY MEETINGS.	Marriages, 1800 to 1837	Births, 1800 to 1837.		Deaths, 1800 to 1837.		Population in 1840.		
	Members.	Mem- bers.	Not Mem- bers.	Mem- bers.	Not Mem- bers.	Members.		
						Male.	Fem.	Total.
Bedfordshire and Herts..	58	295	96	326	144	146	173	319
Berkshire and Oxon.	96	431	190	546	165	199	264	463
Bristol and Somerset....	183	1002	367	969	546	440	537	977
Buckinghamshire	59	173	76	247	92	79	105	184
Cambridgeshire & Hunts.	33	129	46	124	60	48	58	106
Cheshire & Staffordshire .	61	218	225	302	190	102	114	216
Cornwall	53	290	190	258	107	164	187	351
Cumberland & Northumb.	164	653	707	970	443	285	361	646
Derbyshire and Notts. . .	63	267	243	386	101	115	139	254
Devonshire	47	249	116	256	87	115	173	288
Dorset and Hants.	87	379	142	378	103	174	199	373
Durham	99	707	373	665	212	383	447	830
Essex	138	621	129	560	224	345	387	732
Gloucestershire & Wilts..	62	343	110	381	164	172	190	362
Herefordshire, Worcester- shire and Wales	104	481	198	525	218	205	280	485
Kent	44	214	51	259	6	83	110	193
Lancashire	336	1857	1314	1593	1095	995	1131	2126
Lincolnshire	41	176	72	152	83	65	55	120
London and Middlesex . .	554	2782	1037	2893	950	1131	1390	2521
Norfolk and Norwich....	79	330	195	489	234	127	162	289
Northamptonshire	33	168	11	184	47	78	103	181
Suffolk.....	53	206	106	269	74	134	192	326
Sussex and Surrey.....	96	437	101	405	104	201	240	441
Warwickshire, Leicester- shire and Rutland	131	565	199	645	184	311	352	663
Westmoreland	114	437	619	611	381	188	245	433
Yorkshire	528	2556	1623	2796	1175	1103	1295	2398
England and Wales .	3316	15966	8536	17189	7189	7388	8889	16277
		24,502		24,378				

TABLE 3.—SHEWING THE NUMBERS OF MARRIAGES BETWEEN MEMBERS OF THE SOCIETY OF FRIENDS, IN ENGLAND AND WALES, REGISTERED IN DIFFERENT PERIODS FROM 1800 TO 1837 (AND 1840).

Period of 37½ years, and 40 years.	Periods of Ten Years.			Period of 7½ years, and 10 years.
1800-37, and 1800-39.	1800-9.	1810-19.	1820-29.	1830-37, and 1830-39.
3316 37½ years. 3505 40 years.	955.	834	864	663 7½ years. *852 10 years.

TABLE 4.—SHEWING THE NUMBERS OF BIRTHS OF MEMBERS OF THE SOCIETY OF FRIENDS AND THOSE CONNECTED WITH THEM, IN ENGLAND AND WALES, REGISTERED IN DIFFERENT PERIODS FROM 1800 TO 1837.

Period of 37½ years.		Periods of Ten Years.						Period of 7½ years.	
1800-37.		1800-9.		1810-19.		1820-29.		1800-9.	
Members	Not Members	Members	Not Members	Members	Not Members	Members	Not Members	Members	Not Members
15,966	8,536	4,863	2,047	4,331	2,294	3,850	2,540	2,922	1,655
24,502		6,910		6,625		6,390		4,577 equivalent to 6103 for 10 years.	

TABLE 5.—SHEWING THE NUMBERS OF DEATHS OF MEMBERS OF THE SOCIETY OF FRIENDS AND THOSE CONNECTED WITH THEM, REGISTERED IN ENGLAND AND WALES, IN DIFFERENT PERIODS FROM 1800 TO 1837.

Period of 37½ years.		Periods of Ten Years.						Period of 7½ years.	
1800-37.		1800-9.		1810-19.		1820-29.		1830-37.	
Members	Not Members	Members	Not Members	Members	Not Members	Members	Not Members	Members	Not Members
17,189	7,189	4,855	1,628	4,525	1,772	4,363	2,074	3,446	1,715
24,378		6,483		6,297		6,437		5,161 equivalent to 6881 for 10 years.	

TABLE 6.—SHEWING THE BIRTHS REGISTERED BY THE SOCIETY OF FRIENDS IN ENGLAND AND WALES, FROM THE ORIGIN OF THE SOCIETY, ABOUT 1650, TO 1837.

Periods of Ten Years.	Births registered.	Periods of Ten Years.	Births registered.	Periods of Ten Years.	Births registered.
—?—1659	3,104	1720—29	7,354	1790—99	6,713
1660—69	7,262	1730—39	6,492	1800—9	6,910
1670—79	9,753	1740—49	5,544	1810—19	6,625
1680—89	9,211	1750—59	5,578	1820—29	6,390
1690—99	9,130	1760—69	6,010	1830—37 } 7½ years }	4,577
1700—9	9,074	1770—79	6,586		
1710—19	8,358	1780—89	6,817		
1650—1719	55,892	1650—1789	100,273	Total.	131,488

* 663 Marriages, from Registers of the Society of Friends, for 7½ years, 1830-37; and 189, from the Registrar-General's Annual Reports, for 2½ years, 1837-39; viz. 76 for 1837-38, 73 for 1838-39, and 40 (?) for the latter half of 1839,—the real number being 81 for 1839-40. The Marriages in 1840-41 were 66; in 1841 (including half of the preceding year) also 66; and in 1842, 58.

TABLE 7.—SHEWING THE SEX AT BIRTH OF MEMBERS OF THE SOCIETY OF FRIENDS AND THOSE CONNECTED WITH THEM, REGISTERED IN ENGLAND AND WALES, DURING $37\frac{1}{2}$ YEARS FROM 1800 TO 1837.

Parents Members.			Parents not Members.			Parents Members & not Members		
Male.	Female.	Both Sexes.	Male.	Female.	Both Sexes.	Male.	Female.	Both Sexes.
8,207	7,759	15,966	4,488	4,048	8,536	12,695	11,807	24,502
Proportions of Males to 100 Females.								
105.7	100.		110.8	100.		107.5	100.	

TABLE 8.—SHEWING THE DEATHS REGISTERED BY THE SOCIETY OF FRIENDS, DURING $57\frac{1}{2}$ YEARS, FROM 1780 TO MIDSUMMER 1837, IN THE DIFFERENT COUNTIES ("QUARTERLY MEETINGS") OF ENGLAND AND WALES:—EXTRACTED FROM THE REGISTERS OF BURIALS.

QUARTERLY MEETINGS.	Members.			Not Members.			Members and others.
	Male.	Female.	Both Sexes.	Male.	Female.	Both Sexes.	
Bedfordshire and Herts..	299	317	616	107	92	199	815
Berkshire and Oxon.	407	527	934	162	127	289	1223
Bristol and Somerset	791	1014	1805	380	374	754	2559
Buckinghamshire	194	238	432	58	65	123	555
Cambridgeshire & Hunts	105	150	255	59	42	101	356
Cheshire & Staffordshire .	268	256	524	145	188	333	857
Cornwall	182	209	391	59	62	121	512
Cumberland & Northumb.	834	960	1794	366	309	675	2469
Derbyshire and Notts. ..	239	295	534	83	78	161	695
Devonshire	220	240	460	72	58	130	590
Dorsetshire & Hampshire.	302	391	693	58	52	110	803
Durham	509	590	1099	187	152	339	1438
Essex	414	481	895	178	160	338	1233
Gloucestershire & Wilts..	305	358	663	128	117	245	908
Herefordshire, Worcester- shire, and Wales	422	507	929	198	179	377	1306
Kent	209	229	438	6	6	12	450
Lancashire	1145	1310	2455	718	672	1390	3845
Lincolnshire	116	152	268	67	56	123	391
London and Middlesex ..	2203	2567	4770	813	693	1506	6276
Norfolk and Norwich ..	374	443	817	183	168	351	1168
Northamptonshire	146	181	327	52	39	91	418
Suffolk	189	272	461	59	51	110	571
Sussex and Surrey	340	398	738	75	62	137	875
Warwickshire, Leicester- shire, and Rutland....	513	595	1108	189	148	337	1445
Westmoreland	448	559	1007	329	241	570	1577
Yorkshire	2240	2521	4761	846	744	1590	6351
England and Wales	13,414	15,760	29,174	5,577	10,512	4,935	39,686

TABLE 9.—SHEWING THE DEATHS AT EVERY YEAR OF LIFE, AND AT EVERY MONTH UNDER ONE YEAR, REGISTERED BY THE SOCIETY OF FRIENDS IN ENGLAND AND WALES, FROM 1780 TO 1837.

AGE.	Members.		Not Members.		AGE.	Members.		Not Members.	
	Male.	Fem.	Male.	Fem.		Male.	Fem.	Male.	Fem.
Still Born ..	30	155	8	26	49 years....	72	84	36	40
Under 1 month	444	262	136	88	50 "	108	176	57	54
1 month ..	188	136	97	65	51 "	83	98	41	26
2 months..	130	113	69	52	52 "	97	128	66	43
3 " ..	133	96	56	44	53 "	97	133	40	47
4 " ..	143	87	63	42	54 "	104	133	62	36
5 " ..	130	82	39	34	55 "	113	132	65	52
6 " ..	128	89	64	49	56 "	106	134	65	38
7 " ..	127	67	36	38	57 "	110	124	56	40
8 " ..	95	86	40	42	58 "	140	183	57	44
9 " ..	115	102	43	48	59 "	89	129	60	39
10 " ..	95	79	35	32	60 "	193	258	106	79
11 " ..	65	61	21	40	61 "	133	137	42	44
1 year	566	546	273	251	62 "	141	184	67	56
2 years....	335	322	161	128	63 "	173	215	77	63
3 "	224	242	113	113	64 "	182	227	77	46
4 "	164	182	84	62	65 "	177	239	63	67
5 "	142	129	51	65	66 "	196	242	60	73
6 "	100	98	53	41	67 "	176	215	60	58
7 "	69	76	41	33	68 "	162	241	81	58
8 "	82	68	31	36	69 "	159	186	54	40
9 "	72	70	31	22	70 "	267	385	120	105
10 "	72	45	24	32	71 "	169	202	55	57
11 "	66	76	21	13	72 "	227	276	97	63
12 "	55	79	21	22	73 "	228	253	90	59
13 "	63	80	26	27	74 "	224	234	80	61
14 "	72	105	31	29	75 "	241	276	61	84
15 "	65	94	21	41	76 "	205	263	78	55
16 "	79	107	34	37	77 "	191	279	72	53
17 "	100	101	33	36	78 "	198	253	65	59
18 "	111	118	31	31	79 "	144	208	58	36
19 "	113	114	35	45	80 "	227	344	100	84
20 "	123	112	36	37	81 "	123	181	45	43
21 "	111	102	49	37	82 "	159	205	62	43
22 "	108	117	34	33	83 "	158	160	36	45
23 "	108	121	23	36	84 "	165	184	52	40
24 "	114	122	37	39	85 "	126	151	31	39
25 "	96	106	34	30	86 "	98	142	22	27
26 "	96	118	32	45	87 "	89	111	22	24
27 "	119	131	37	38	88 "	87	108	16	21
28 "	94	127	42	35	89 "	41	75	14	8
29 "	89	110	33	33	90 "	68	72	18	22
30 "	83	117	42	40	91 "	28	48	8	4
31 "	71	97	37	43	92 "	27	41	8	9
32 "	63	106	44	45	93 "	26	34	3	4
33 "	77	101	30	41	94 "	9	20	4	8
34 "	68	110	42	36	95 "	11	13	9	2
35 "	90	114	36	59	96 "	10	8		4
36 "	74	110	44	32	97 "	6	8	2	1
37 "	70	109	45	24	98 "	2	5	2	1
38 "	69	130	35	35	99 "	3	2		1
39 "	65	100	42	30	100 "	1	4		1
40 "	97	139	49	59	101 "	1			
41 "	53	100	38	35	102 "		1		1
42 "	81	93	55	23	103 "	1			
43 "	62	103	34	43	104 "				
44 "	53	114	42	39	105 "		1		
45 "	76	108	57	47	Age unknown	238	314	58	61
46 "	67	107	51	24		13414	15759	5577	4935
47 "	77	113	57	39	Total deaths registered	29,173		10,512	
48 "	78	96	38	46					

TABLE 10.—SHEWING THE DEATHS AT DECENNIAL AGES ABOVE, AND AT QUIN-
QUENNIAL AGES UNDER, 20 YEARS; REGISTERED BY THE SOCIETY OF FRIENDS,
IN ENGLAND AND WALES, FROM 1780 TO 1837.—DEDUCED FROM TABLE 9.

AGE.	Members.			Not Members.			Members and others.		
	Male.	Fem.	Both Sexes.	Male.	Fem.	Both Sexes.	Male.	Fem.	Both Sexes.
Under 1 year*	1793	1260	3053	699	574	1273	2492	1834	4326
Under 5 years	3082	2552	5634	1330	1128	2458	4412	3680	8092
From 5 to 10 years	465	441	906	207	197	404	672	638	1310
„ 10 to 15 „	328	385	713	123	123	246	451	508	959
„ 15 to 20 „	468	534	1002	154	190	344	622	724	1346
„ 20 to 30 „	1058	1166	2224	357	363	720	1415	1529	2944
„ 30 to 40 „	730	1094	1824	397	385	782	1127	1479	2606
„ 40 to 50 „	716	1057	1773	457	395	852	1173	1452	2625
„ 50 to 60 „	1047	1370	2417	569	419	988	1616	1789	3405
„ 60 to 70 „	1692	2144	3836	687	584	1271	2379	2728	5107
„ 70 to 80 „	2094	2629	4723	776	632	1408	2870	3261	6131
„ 80 to 90 „	1273	1661	2934	400	374	774	1673	2035	3708
„ 90 to 100 „	190	251	441	54	56	110	244	307	551
„ 100 to 106 „	3	6	9	.	2	2	3	8	11
Total Ages registered	13146	15290	28436	5511	4848	10359	18657	20138	38795
Still-born	30	155	185	8	26	34	38	181	219
Ages unknown	238	314	552	58	61	119	296	375	671
Total Deaths regis- tered	13414	15759	29173	5577	4935	10512	18991	20694	39685

TABLE 11.—SHEWING, OUT OF 1,000 DEATHS, THE PROPORTIONS AT SUCCESSIVE AGES, REGISTERED BY THE SOCIETY OF FRIENDS, IN ENGLAND AND WALES, FROM 1780 TO 1837.—DEDUCED FROM TABLE 10.

AGE.	Members.			Not Members.			Members and others.
	Male.	Female.	Both Sexes.	Male.	Female.	Both Sexes.	
Under 1 year	136.4	82.5	107.4	126.8	118.4	122.9	111.5
Under 5 years	234.4	166.9	198.1	241.3	232.7	237.3	208.6
From 5 to 10 years	35.4	28.8	31.9	37.6	40.8	39.	33.8
„ 10 to 15 „	25.	25.2	25.1	22.3	25.4	23.8	24.7
„ 15 to 20 „	35.6	34.9	35.2	27.9	39.2	33.2	34.7
„ 20 to 30 „	80.5	76.3	78.2	64.8	74.9	69.5	75.9
„ 30 to 40 „	55.5	71.6	64.2	72.	79.4	75.5	67.2
„ 40 to 50 „	54.5	69.1	62.3	82.9	81.5	82.3	67.6
„ 50 to 60 „	79.6	89.6	85.	103.3	86.4	95.4	87.8
„ 60 to 70 „	128.7	140.2	134.9	124.7	120.4	122.7	131.6
„ 70 to 80 „	159.3	172.	166.1	140.8	130.4	135.9	158.
„ 80 to 90 „	96.8	108.6	103.2	72.6	77.	74.5	95.6
„ 90 to 100 „	14.5	16.4	15.5	9.8	11.5	10.6	14.2
„ 100 to 106 „	.2	.4	.3	.	.4	.2	.3
Total	1000	1000	1000	1000	1000	1000	1000
Under 70 years of age	729	703	715	777	781	779	732
70 years and upwards	271	297	285	223	219	221	268

* The numbers in this series, in this and the succeeding tables, are included in the next series, "under 5 years."

TABLE 12.—SHEWING, OUT OF 1,000 DEATHS, THE PROPORTIONS AT SUCCESSIVE AGES, REGISTERED BY THE SOCIETY OF FRIENDS; COMPARED WITH THE PROPORTIONS REGISTERED AT THE SAME AGES IN THE KINGDOM AT LARGE.

AGE.	General Population of England and Wales, 1837-41.	Society of Friends.			
		Members.		Members and others.	
		Great Britain and Ireland, 1842-44.	England and Wales, 1780-1837.	England and Wales, 1780-1837.	Metropolis and Five Counties, 1810-21.
Under 1 year	216.1	74.5	107.4	111.5	117.5
Under 5 years	396.8	131.8	198.1	208.6	219.4
From 5 to 10 years	50.8	28.6	31.9	33.8	35.
„ 10 to 15 „	26.9	11.5	25.1	24.7	29.1
„ 15 to 20 „	34.9	40.1	35.2	34.7	40.7
„ 20 to 30 „	77.7	78.9	78.2	75.9	87.
„ 30 to 40 „	66.3	64.5	64.2	67.2	68.7
„ 40 to 50 „	61.5	63.	62.3	67.6	71.5
„ 50 to 60 „	61.8	90.2	85.	87.8	78.5
„ 60 to 70 „	79.8	164.8	134.9	131.6	117.
„ 70 to 80 „	84.8	174.8	166.1	158.	146.3
„ 80 to 90 „	50.7	128.9	103.2	95.6	94.2
„ 90 to 100 „	7.7	22.9	15.5	14.2	12.6
„ 100 & upwards	.3	.	.3	.3	.
Total	1000	1000	1000	1000	1000
Under 70 years of age	856	673	715	732	747
70 years and upwards	144	327	285	268	253
Average age at death, in years	28 $\frac{3}{4}$	49 $\frac{1}{2}$	44 $\frac{1}{2}$	43 $\frac{3}{4}$	41 $\frac{3}{4}$

TABLE 13.—SHEWING THE MEAN ANNUAL MORTALITY PER CENT., AT SUCCESSIVE AGES, IN THE SOCIETY OF FRIENDS IN ENGLAND AND WALES: CALCULATED FROM THE DEATHS ALONE.

AGE.	England and Wales, 1780-1837.				Metropolis and Five Counties of England, 1811-31.		
	Members.			Members and others.	Members and others.		
	Male.	Female.	Both Sexes.		Male.	Female.	Both Sexes.
Under 1 year . . .	14.63	8.59	11.34	11.81	15.03	11.44	12.47
Under 5 years	5.31	3.64	4.39	4.07	5.63	4.28	4.92
From 5 to 10 years	.94	.7	.81	.87	1.06	.79	.91
„ 10 to 15 „	.69	.63	.66	.66	.74	.84	.79
„ 15 to 20 „	1.03	.91	.96	.96	1.18	1.15	1.17
„ 20 to 30 „	1.27	1.08	1.16	1.14	1.45	1.31	1.37
„ 30 to 40 „	.98	1.13	1.07	1.14	1.09	1.36	1.23
„ 40 to 50 „	1.07	1.23	1.16	1.29	1.37	1.56	1.47
„ 50 to 60 „	1.81	1.85	1.83	1.97	1.96	1.87	1.91
„ 60 to 70 „	3.84	3.81	3.82	3.94	3.86	3.65	3.75
„ 70 to 80 „	8.33	8.13	8.22	8.35	8.37	7.91	8.12
„ 80 to 90 „	15.34	15.27	15.3	15.34	16.68	15.14	15.78
„ 90 to 100 „	19.38	19.08	19.21	19.23	20.76	20.	20.26
„ 100 to 106 „	20.	20.	20.	20.	.	.	.
All Ages	2.35	2.13	2.22	2.25	2.45	2.28	2.36
Mean numbers living, supposing the births and deaths equal* . .	9,719	12,459	22,178	29,935*	6,019	6,881	12,901
Proportion of Sexes.	44	56	100	.	46.7	53.3	100

* Table 6 shews that during the 57 $\frac{1}{2}$ years in which the total number of deaths of members and others, excluding the still born, was 39,466, that of the registered births was 38,032.

TABLE 14.—SHEWING THE MEAN ANNUAL MORTALITY PER CENT., AT DIFFERENT AGES, IN THE SOCIETY OF FRIENDS; COMPARED WITH THE MORTALITY AT THE SAME AGES IN THE KINGDOM AT LARGE.

AGE.	General Population of England and Wales.				Society of Friends.		
	Registrar-General, 1837-41.			Edmonds 1813-80.	England and Wales, 1780-1837.		Metropolis and Five Counties, 1811-31.
	Male.	Female.	Both Sexes.	Both Sexes.	Members.	Members and others.	Members and others.
					Both Sexes.	Both Sexes.	Both Sexes.
Under 1 year	19.73	14.98	17.36 [*]	.	11.34	11.81	12.47
Under 5 years	7.1	6.12	6.61	4.98	4.39	4.07	4.92
From 5 to 10 years..	.95	.92	.94	.7	.81	.87	.91
„ 10 to 15 „ ..	.52	.58	.55	.51	.66	.66	.79
„ 15 to 20 „ ..	.73	.82	.78	.74	.96	.96	1.17
„ 20 to 30 „ ..	.99	.97	.98	1.02	1.16	1.14	1.37
„ 30 to 40 „ ..	1.13	1.17	1.15	1.19	1.07	1.14	1.23
„ 40 to 50 „ ..	1.5	1.37	1.43	1.49	1.16	1.29	1.47
„ 50 to 60 „ ..	2.3	1.98	2.14	2.25	1.83	1.97	1.91
„ 60 to 70 „ ..	4.33	3.77	4.05	4.33	3.82	3.94	3.75
„ 70 to 80 „ ..	9.2	8.28	8.74	9.9	8.22	8.35	8.12
„ 80 to 90 „ ..	20.17	17.99	19.08	22.08	15.3	15.34	15.78
„ 90 to 100 „ ..	36.19	33.32	34.76	37.1	19.21	19.23	20.26
„ 100 & upwards..	45.48	45.01	45.25	58.58	20.	20.	.
All ages	2.32	2.14	2.23	2.12	2.22	2.25	2.36

* The mortality "under 1 year" is for one year only, and is taken from the "Fifth Annual Report of the Registrar-General," 1843, p. xii.



