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PART I.--ORIGINAL ARTICLES.

Remarks on a recent attempt at the Comparative Statistics of Bethlehem Hospital and of the English County Asylums. By C. LOCKHART ROBERTSON, M.D. Cantab.; Medical Superintendent of the Sussex Lunatic Asylum, Haywards Heath.

(Read at the Annual Meeting of the Medico-Psychological Association, held at the Royal College of Physicians, July 13th, 1865.)

MR. PRESIDENT AND GENTLEMEN,—In the annual report of the resident physician of Bethlehem for 1864 the following observations on the comparative statistics of Bethlehem Hospital and the English County Asylums occur:—

The attention of the Governors and of all those interested in obtaining accurate information on the important question of the cure of the insane is earnestly requested to the following statistics collected by Mr. James Ellis, Medical Superintendent at St. Luke's Hospital, from the admissions into forty-four public asylums in the united kingdom, and from actual returns from each asylum. It shows the total number of patients received into each institution, and distinguishes those which would be from those which would not be admitted into Bethlehem Hospital. It also shows the numbers and percentage of the cures and deaths of such admissible patients during the first year of residence. [Here follows Mr. Ellis's table.]

Table of per-centages, 1860.

CURES.			DEATHS.				
Bethlehem . Home Counties	•	52.02 per cent. 38.86 "	Home Counties Bethlehem .		13.54 per cent. 5.05 "		
Or in favour of Bethlehem	}	13.16 per cent.	Or in favour of Bethlehem	}	8.49 per cent.		

Thus it will be seen that the treatment pursued at Bethlehem Hospital VOL. XI. 22

has proved eminently successful, particularly when it is borne in mind that our per-centage of cases during 1860 (the year for which these returns were compiled) was exceptionally low, lower, in fact, than it had been in any of the preceding ten years. Notwithstanding this, however, the cures in Bethlehem are at the rate of nearly 10 per cent. higher, and the death-rate is 7 per cent. lower than the average of the forty-four asylums from which returns were obtained. These facts distinctly show the situation of Bethlehem Hospital cannot be unhealthy, and that its natural advantages are very great.

I ask your leave to offer a few remarks on this attempt at the comparative statistics of Bethlehem Hospital and of the English county asylums.

It would be beyond my limits to discuss to-day the principles which are admitted on all sides to regulate inquiries into the statistical results of the treatment of the insane. This subject has been already handled in a masterly manner by one who, on two former occasions, occupied the President's chair at these annual meetings, and it is no strained compliment for me to say that Dr. Thurnam's elaborate work on the Statistics of Insanity has been accepted, both at home and abroad, as the standard of appeal in all such inquiries. I shall to-day content myself with directing your attention to the manner in which every landmark laid down by Dr. Thurnam, and every qualifying circumstance which he showed us influenced--irrespective of place or treatment-our statistical results have been set aside, in the forlorn hope that the site and structure of Bethlehem, condemned by this Association, by the Commissioners in Lunacy, by the House of Lords and the Government, and by the medical and general Press, may, on the evidence of figures perverted to this purpose, be shown at last to be nevertheless 'healthy, and possessed of very great natural advantages."

And well, indeed, might it be deemed so, did Dr. Helps's statistics tell a true story. A mortality, in recent curable cases of insanity, eight and a half per cent. lower than in the asylums of the home counties, *i. e.* a saving of life of 85 in the 1000 might well be thought an answer to the cavils of all the detractors of Bethlehem.

In the British army* the mortality in England is 9 in the 1000; on the deadly station of the Gold Coast it rises to 46 in the 1000, being a saving of life in favour of service in England of 37 in the 1000. This vast difference is, however, cast into the shade by Dr. Helps' figures. According to his conclusions the mortality in the early stages of insanity at Bethlehem is 50 in the 1000 as against 135 in the 1000 in the asylums of the Home Counties. Thus, deadly as the service on the Gold Coast is deemed, yet deadlier in their influences on the recently insane, in the ratio of 37 to 85, stand the asylums of the home counties, as in contrast with

* Aitkin's 'Science and Practice of Medicine,' vol. ii, p. 1046.

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'the healthy situation and very great natural advantages of Bethlehem.'

I pass to my remarks on these comparative Statistics.

I. Of the comparative proportion of cures in cases of recent insanity in Bethlehem Hospital and in the English County Asylums.

In the table before us an attempt is made to separate the admissions in the county asylums during the year 1860 into two classes, viz., the paralysed, idiotic, epileptic, insane twelve months, discharged uncured from other asylums, i. e. all those inadmissible at Bethlehem; and, secondly, those admissible at Bethlehem. It is evident that a source of fallacy, as against the county asylums, is at once introduced by this arbitrary standard. It would have been difficult in 1860 to say, with any certainty, how curable a case might have not have been rejected at Bethlehem, and there is, consequently, a marked difference in this table in the proportion these admissible patients bear to the total admissions of the year in the different county asylums. Thus, at Brentwood the proportion of admissible patients to the total admissions is given as 62 per cent., at the Stafford asylum it is 71 per cent., at Rainhill 78 per cent., and at the Durham asylum 62 per cent.; while at Haywards Heath it falls to 50 per cent., at the Cambridge asylum to 49 per cent., at the Dorset asylum to 46 per cent., and at the Hull Borough to 42 per cent.

The fallacies involved in this varying standard are overlooked in the conclusions drawn by Dr. Helps from the table before us.

Farther, no notice is taken of the several circumstances in the character of the cases admitted which modify, irrespective of place or treatment, our statistical results.

"There can, indeed, be no doubt," writes Dr. Thurnam, "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 require 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."

Of the several important circumstances in the character of the cases admitted, which, according to Dr. Thurnam, materially influence, irrespective of 'very great natural advantages of situation,' the results of treatment, I shall here confine myself to the question

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of age—a question entirely overlooked, and of which no mention occurs in this table. Yet, in a comparison like that attempted by the resident physician of Bethlehem, the element of age is most important. Every medical Superintendent will bear me out in the statement that a large proportion of our so-called recent cases in county asylums are cases of mania or melancholia occurring in feeble, old people, who have previously passed many years in the union houses, and are too often sent to the county asylum only to die. Yet such cases must be termed, according to this table, "admissible patients," while assuredly they are never admitted into Bethlehem, and their presence in the county asylums tends necessarily to lessen the rate of cures and to increase the rate of mortality on the year's admissions, the standard of comparison here selected by Dr. Helps. On this point let me quote Dr. Hood, a great authority on the statistics of insanity:—

"According to the experience of Bethlehem," he says, "the recoveries under 25 amount to three fifths of the admissions, and to about one half between 30 and 65, if we deduct certain inconsiderable fluctuations. After 65, as might be expected, the recoveries are greatly diminished, being about one seventh."

I might similarly, did time permit, illustrate my position by the influence which diet exerts in the cure of mental disease, and show how the better and more expensive diet of Bethlehem influences, irrespective of healthy site and very great natural advantages, the comparative statistical results of Bethlehem.

I pass, however, from these manifest objections to the statistical comparison here attempted to a consideration of the per-centage of cures thereby obtained.

These calculations place the recoveries in the first year of residence, as calculated on the admissions, at 52 per cent. at Bethlehem, and at an average of 39 per cent. in the English county asylums, thus giving Bethlehem an advantage of 13 per cent. in its cures. A more detailed examination of the table, however, places this apparent advantage in a less flattering light, and entitles me to question if the treatment pursued at Bethlehem has, after all, proved so eminently successful, as Dr. Helps here asserts. Thus I find that the following asylums are shown by this table to have attained a higher per-centage of cures than Bethlehem :---

	PER	CEN	T.	PER	CE	NT.			
The Dorset County Asylum	•	60	being	•	8	in	excess	of	Bethlehem.
The Durham County Asylum	ι.	56	,,		4	,,	,,		"
The Somerset County Asylun	n.	56	,,		4	,,	,,		,,
The Stafford County Asylum	•	56	"		4	,,	"		,,
The Hull Boro' Asylum .		57	"		5	,,	,,		,,
The Lincoln Lunatic Hospits	al.	64	,,	1	2	,,	,,		,,
The Norwich Bethel	•	55	"		8	,,	,,		••
The York Lunatic Hospital	•	73	,,	2	21	,,	,,		,,
The York Retreat	•	71	,,	1	9	"	"		**
The Perth Royal Asylum .	•	55	"		3	,,	,,		,,

There does not appear to me to be much room for this selfcongratulation by the resident physician of Bethlehem on his rate of cures.

II. Of the comparative death-rate in cases of recent insanity of Bethlehem Hospital, and of the English County Asylums.

The death-rate in England and Wales being 22 to the 1000 living (mean population), sanitary reformers regard it as a great triumph when they point to districts in which the death-rate is reduced to 15 in the 1000, and they rightly mark it as a blot on civilisation when this rate reaches 30 in the 1000. Now, in the table under consideration the mortality ranges per cent. from nothing at the York Retreat up to 28 per cent. at the Hull Asylum, or, to bring it into comparison with the death-rate of the population, it is here represented, that, while in the 1000 curable cases admitted none die during the year of admission at the York Retreat, and proportionately 40 die at the Dorset Asylum and 50 at Bethlehem, as many as 280 die at Hull, 140 at Haywards Heath, 90 at Brentwood, 260 in the Hants, and 150 at Northampton. Thus, while the Registrar-General grounds his highest laudations and his gravest censures on a deathrate varying between 15 and 30 in the 1000, the resident physician of Bethlehem claims his meed of praise on a comparative death-rate varying from 0 and 50 up through 90 and 140 to 280 in the 1000. With some sense of this incongruity in his results, Dr. Helps strikes an average, and is content to claim for Bethlehem a pre-eminence over the county asylums because the death-rate at Bethlehem is 70 in the 1000 lower than their average. An excess in the death-rate of 15 in the 1000 scares the Registrar-General; yet it is here calmly stated as a fact that while the death-rate in 1860, in recent curable cases of insanity, was 135 in the 1000 in the asylums of the Home Counties, it fell to 50 in the 1000 at Bethlehem.

How is it possible, it may well be asked, to arrive at such a wonderful conclusion as that 'the healthy situation' and 'very great natural advantages of Bethlehem' should result in so incredible a saving of life in cases of recent mania as 80 in the 1000? It has been done, as I have said before, simply by ignoring every principle of statistical science, as it relates to the comparative death-rate of any given population or disease, when dealing with these figures so diligently collected by Mr. Ellis. "The uncertain and erroneous views," writes Dr. Thurnam, "which have hitherto so generally prevailed as to the comparative mortality of the insane are in a great measure to be attributed to the calculations having generally been made according to an erroneous method. The method of calculating the proportion of deaths upon the admissions is 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."

I submit that the comparative death rate of Bethlehem and of the county asylums in recent cases of insanity, 50 in the 1000 as against 130 in the 1000, is such an erroneous inference thus obtained.

In 1862 Dr. Hood published a well-digested Report of the Statistics of Bethlehem Hospital from 1846-1860. Dr. Hood had studied his subject carefully, and he did not fall into the errors and exaggerations shown in the table under consideration. He takes the comparative mortality of Bethlehem and of the Retreat, and shows how, in an experience of 100 years, the mean annual mortality of Bethlehem stands at 7.5 per cent. as against 4.7 per cent. at the Retreat during 50 years, adding, however, most fairly, that during the 5 years, 1856-60, the death rate at Bethlehem had fallen 2 per cent. to 5 1, as, I may add, might have been anticipated from the improved treatment introduced by Dr. Hood during the period. Dr. Hood also placed the death-rate in the county asylums at 10 per cent. His conclusions may thus be stated :- At the York Retreat 47 in the 1000 die annually; at Bethlehem 51 in the 1000, where formerly 75 in the 1000 died; in the county asylums 100 in the 1000. And here it must be remembered that Dr. Hood, in comparing thus the mortality of Bethlehem and of the English county asylums, fully acknowledges the causes of this different rate, and chiefly the presence in the county asylums of cases of general paralysis and senile mania, which so materially swell the death-rate while extending the usefulness of the latter.

Dr. Helps, on the other hand, with an appearance of fairness, confines himself to the comparison of the death-rate in cases of recent insanity only, and arrives, through a faulty method of calculation, at the result that this mortality at Bethlehem stands in the ratio of 50 to 130 in the county asylums; and he directs 'the attention of the governors, and of all those interested in obtaining accurate information on the important question of the cure of the insane,' to these results, in evidence of the 'eminently successful treatment pursued at Bethlehem,' of its 'healthy situation,' and its 'very great natural advantages.'

I would, in conclusion, ask leave briefly to show what the real comparative statistics of Bethlehem Hospital are. The necessary figures are calculated from returns in the 'Eighteenth Report of the Commissioners in Lunacy to the Lord Chancellor.' The comparative results for a period of five years are given in the following table :---

Table showing the proportion of recoveries per cent. of the admissions, and of the mean annual mortality per cent. of those resident in Bethlehem Hospital and in five other Iunatic Hospitals, and in five of the English County Asylums.

Five years, 1859-63.				Recov	roportion of eries per cent. admissions.	Mean annual Mortality per cent. of those resident.	
1. Lunatic Hospitals.							
Bethlehem Hospital		•			47'4	5.7	
The Retreat, York .	•				39·2	5.2	
York Lunatic Hospital .			•		36 ·9	6.6	
Coton Hill, Stafford .					42.1	5.2	
Warneford Asylum, Oxford				•	28.5	2.1	
Bethel Hospital, Norwich	•	•	•	•	53·8	5-7	
2. County Asylums.*							
Essex County Asylum .					46.9	10.2	
Wilts County Asylum .					43.9	12.6	
Somerset County Asylum					50·5	10.8	
Stafford County Asylum.				•	52.5	14.7	
Suffolk County Asylum .	•	•		•	47.9	12.9	

Again, in 1864, the admissions at Bethlehem were 189, the cures 82, the deaths 17, and the mean population 263. The per-centage of cures is thus 43.3, the mean annual mortality 6.4. At the Friends' Retreat the admissions in 1864 were 15, the cures 6, the deaths 6, and the mean population 122. The per-centage of cures is thus 40, the mean annual mortality 4.9.

I do not think that Bethlehem has much to boast of in these official figures. Its proportion of cures on the total admissions, despite the careful selection of curable cases only for admission, is exceeded by the Bethel Hospital, Norwich, and by the Somerset, Stafford, and Suffolk county asylums. And turning to the deathrate, the mean annual mortality of Bethlehem, despite its freedom from cases of general paralysis and of senile mania, is shown to be 57 in the 1000, while at the Warneford Asylum, Oxford, it is 21 only, at Coton Hill 52, at the Retreat 52. In 1864 the Bethlehem mortality is 64 in the 1000 as against 49 in the 1000 at the Retreat.

I venture to submit to this meeting that Comparative Statistics enforce the resolution adopted two years ago by this Association, THAT THE SITE OF BETHLEHEM HOSPITAL IS ILL ADAPTED TO THE PRESENT STATE OF PSYCHOLOGICAL AND SANITARY SCIENCE, and negative the statistical conclusions of Dr. Helps as to its 'healthy site' and 'very great natural advantages.'

* See the report of the Essex Lunatic Asylum for 1864, for a detailed calculation of the per-centage of Cures and Mean Annual Mortality in the several county asylums of England.

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Note.-In the debate which followed the reading of this Paper (see Part IV, ' Report of the Annual Meeting of the Association') considerable misunderstanding appeared to be entertained by Drs. Monro and Wood as to my object in writing it. Thus, Dr. Monro, after stating the little faith he placed in any statistics, said that if he had to choose between figures, he preferred Dr. Helps' to mine, and he certainly more than implied that I was actuated by a feeling of personal annoyance in what he viewed as my present unsuccessful attempt to disparage Dr. Helps' statistical praises of ' the eminently successful treatment pursued at Bethlehem Hospital.' He also complained of a supposed effort on my part to farther disparage Dr. Helps by comparing his treatment and its results with the statistics of Bethlehem Hospital formerly published by Dr. Hood ; and referring to the hereditary ties which bound him to Bethlehem, he dwelt on the pain which the censures, of late so indiscriminately heaped on that time-honoured site and structure, occasioned him.

This is not, of course, the place to defend statistics in their application to Medical Science against Dr. Monro's misgivings. Besides. he afterwards modified and explained away these doubts. Then, as to his preference of Dr. Helps' statistics of Bethlehem to mine, any reader of my Paper must admit that I in no way give any statistics of Bethlehem, save such as are recorded in the official report of the Commissioners in Lunacy. If Dr. Monro prefers Dr. Helps' great conclusion from Mr. Ellis' figures, that the mortality in recent cases of insanity at Bethlehem Hospital stands to that of the asylums of the Home Counties in similar cases in the ratio of 50 to 135 in the 1000, to the more sober truth revealed by the statistics of the Commissioners in Lunacy, I can only regret that his hereditary zeal for the honour of Bethlehem should so dim his judgment. I certainly claimed Dr. Hood as a witness to the inaccuracy of Dr. Helps' figures. Nothing can be fairer or more imbued with the spirit of truth (which should be the end sought in all scientific inquiry) than Dr. Hood's comments on the statistics of Bethlehem Hospital. It was impossible, in a protest against the false conclusions attempted to be drawn by Dr. Helps of the comparative success of Bethlehem Hospital and of the asylums of the Home Counties, not to remember the just and wise method in which the same figures had been dealt with by Dr. Hood.

Next, it is true that thirteen years ago, in 1852, I was a candidate for Bethlehem, and though possessed of no city influence whatever, nor of relations connected with the Corporation, the Bethlehem Committee did me the high honour of placing me, at twenty-seven years of age, second on the list of candidates for the office of Resident Physician, which they then most wisely substituted for the services of their hereditary Visiting Physician. When, subsequently, by Dr. Hood's well-merited promotion, the office was vacant in 1862, I should probably, led by the ambition of making Bethlehem a great school of Mental Pathology,* again have offered myself to the notice of those who had so honoured my previous application, had I not been authoritatively informed that Dr. Helps' ten years' service, as resident medical officer, was considered by the Committee as a claim against all possible candidates, which, indeed, the result of the election proved it, in the opinion of the governors of Bethlehem, to be. But why these facts in my private history should be brought before the meeting as arguments against my criticisms on the foolish and obstinate refusal of the governors of Bethlehem to remove the sile of their hospital and to build a new Bethlehem in accord with the present state of psychological and sanitary science. I am at a loss to conceive; save that no other answer to them may be found. Still less can I see what other connection they have with my present protest against Dr. Helps' misuse of statistics in the table in question. Yet, surely, such matters are best discussed on their own merits.

In the subsequent discussion Dr. Wood and Baron Mundy, in pointing out the fallacies which result from a varying standard in statistics, ably enforced the truth which I here endeavour to defend, viz., that mere figures, without the varied qualifying circumstances influencing the results of treatment, are more generally delusive than not. Moreover, that they are specially so in the table in question I venture to think my Paper proves. Dr. Wood also truly urged that no deduction as to the unhealthiness of Bethlehem could be drawn from a consideration of the mortality irrespective of the history of the fatal cases, showing how many of these admissions must die from the mental disease irrespective of the site of Bethlehem. It will be seen that I endeavour to support similar views. My Paper is a protest against Dr. Helps' comparison of the Counties, as having been obtained by an ignoring of those elementary rules in comparative statistics on which Dr. Wood thus dwelt. I could wish no abler advocate of these opinions.

I would only add, that in my endeavour to show how Statistics negative Dr. Helps' conclusions as to the 'healthy site' and 'very great natural advantages of Bethlehem' I did not, and am in no way disposed to, support my former criticisms on the unfitness of the present site and structure of Bethlehem Hospital, on any use I might be able to put their statistical results to. The question admits of a much

^{*} The Senate of the University of London, in their wish to acquire elinical instruction in Mental Disease for their degree in medicine, are at this time placed in the difficulty of not knowing where this clinical teaching is to be had! It weakly languishes at St. Luke's, and, in direct negation of the Rules for the guidance of the Resident Physician, is a dead letter at Bethlehem; while in Edinburgh, in Vienna, in Paris, such teaching is amply and successfully supplied.

broader treatment, as will be seen by a reference to the discussion at our annual meeting in 1863 on my Resolution relative to the site of Bethlehem. Thus, to quote the speech of my revered friend Dr. Conolly in seconding the same :--

DR. CONOLLY.—It appears to me that Dr. Robertson's object is only that the Association should in some way or other be led to express an opinion upon a very important subject—a subject of very great interest to the public. It is not a matter between the governors of Bethlehem and their patients, but a matter that concerns the public administration of a charity of very great importance. I think we might, as a large association of gentlemen connected entirely with the subject of insanily, venture to express an opinion, at all events ; not by any means to dictate the course to be pursued; and that such opinion might be so expressed to the Commissioners as to have some influence. The usefulness of Bethlehem ought certainly to be very much wider than it is, and its influence upon medical education ought, I may say, to be created, for it does not at present exist. There are benefits of the most important character, not only to the interests of medical men connected with insanity, but to the public at large, that should at this moment be pressed upon the attention of the governors in the strongest manner; for if the opportunity now goes by, the state of Bethlehem must continue what it is for another hundred years. I appeal to any gentlemen who receive, as I frequently do, foreign visitors, who come to visit our asylums, and I ask whether such visitors do not go back with all their prejudices confirmed, by seeing that we, in our writings, express certain views and opinions as to the treatment of insane, and that our large public institutions in or near London, to which they are especially and almost exclusively directed, do not present to them the model or example which they were led to expect. I offer these remarks without the slightest disrespect to any one connected with those institutions; but I cannot conceal from myself that they require very great alteration and improvement. I believe that the medical men attached to these institutions—1 speak particularly of Bethlehem—are quite incapable of carrying out in the present building many improvements that might be suggested by them in accordance with the present state of psychological and of sanitary science, subjects which now deservedly occupy so much public attention. I am, therefore, very anxious that Dr. Robertson's proposition should be carried into effect, and that the members of the Association should not separate without expressing their views on this great impending public question. If the present opportunity is passed over, it will not recur in the lifetime of any one of us. (Applause.)

Dr. Helps endeavoured to prove, by his comparative Statistics of Bethlehem Hospital and of the English County Asylums in 1860, that this Association erred in the judgment it had thus passed on the site and structure of Bethlehem. His Statistics, as I have shown, are obtained by an erroneous method of calculation as regards the comparative death-rate (which he took on the total admissions instead of on the mean population resident), and by an ignoring of all the circumstances influencing results of treatment in reference to the comparative cures. Nevertheless Dr. Helps' own figures show no excess in cures at Bethlehem over many of the County Asylums, while, when the comparative death-rate is properly calculated, it is found that the mortality at Bethlehem is in excess of similar institutions enjoying less advantages in the selection of their patients.

I cannot think that the reputation of Bethlehem has gained by

these statistical feats of the Resident Physician, and the fallacies of which it has not been, with all deference to Dr. Monro's adverse opinion on my Paper, a difficult task to expose.

HAYWARDS HEATH ; July 15th.

The Prognosis in Mental Disease. By W. GRIESINGER, M.D., Professor of Medicine and Psychiatrie in the University of Berlin.

(A translation from the German.)

THE prognosis in mental disease involves two separate questions. In the first place, DOES THE EXISTING DISEASE ENDANGER LIFE? And in the second place, IF LIFE BE CONTINUED, WHETHER, AND TO WHAT EXTENT, MAY RECOVERY FROM THE MENTAL DERANGEMENT BE HOPED FOR?

The reply to the first of these questions often depends more upon the presence of serious disease in other parts, as tuberculosis, heart disease, &c. (which are to be estimated according to established principles), than upon the presence of the cerebral affection. Amongst the purely cerebral affections, the most rapidly fatal are those serious degenerations of the brain, connected with the symptoms of general paralysis, because they, as a rule, prove fatal in from one to three years, and very often in even a much shorter period. Of unfavorable prognosis are likewise extensive and intense hyperæmias of the brain which occasionally, at a certain stage, lay the foundation of mania, but more frequently come on paroxysmally during the course of that disease; they may rapidly advance to acute softening of the cortical substance, or may prove almost immediately fatal by causing serous effusions, extravasation of blood, &c. Edema of the brain, especially if it comes on acutely, might be a cause of death; and the refusal of food, seen in certain cases of melancholia, if long continued, becomes one of the events dangerous to life. As a rule, there is a much greater tendency to death within the earlier periods, during the acute stages of melancholia and mania, than in those conditions of chronic irritation, or more gradual, but incurable, changes of structure in the brain, which give rise to chronic forms, to monomania, to melancholia with the character of mental weakness, or to imbecility. These thoroughly chronic forms allow of not only a long duration of life, but very frequently there is noticed at an early stage of the disease a remark-