the glorious inflorescence, of a consistent life. No question that it was the natural evolution of his previous intellectual career: a self-sufficiency knowing no bounds had risen to the preposterous pretensions of monomania, and an imagination habitually running riot had at last run mad. To live a life of complete seclusion, to pursue contentedly an individual line of thought, isolated from communion with men, estranged from their doings and interests, is nowise the way to preserve a sound mental equilibrium; it is indeed the sure way to engender a morbid style of thought and feeling, to lead to a moral or intellectual monomania. Speculative philosophers, impracticable theorists, self-inspired prophets, and other able men unhappily insulated by undue self-esteem, may retire to the solitude of their chambers, and launch forth their systems, their theories, their denunciations, or their scorn, but the greatest men, who have preserved a healthy tone of mind and displayed the highest intellectual energy, have not separated themselves from other men, but have lived in sympathy with them, and have moved and had their being among them. As outward expression of idea is essential to its clearness of conception, so a life of action is essential to the highest life of thought. It is in the social as it is in the bodily organism: the surrounding elements of the structure ever exert a beneficial controlling influence on any element which has taken on an excessive individual action; and if this escape from such modifying influence, its energy runs into disease, and it becomes an excrescence.

(*To be continued.*)

Observations on the causes of death in Chronic cases of Insanity.

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As the necessity of providing accommodation for chronic cases of insanity in lunatic asylums, as well as for the aged and infirm, or chronic, cases in workhouses, is becoming more and more urgent, and is engrossing the attention of those concerned in the relief of the poor at the present time, it occurred to me, that enquiry into the causes of death amongst

chronic cases of the insane might be a very fit subject to bring before the members of this association.

Owing to the illiberal provision made for cases of accident or sickness under the Poor Law, compared to the very liberal provision for the insane poor under the Lunacy Laws, for several years past county asylums have not been strictly confined to the reception of the insane, but have also been much used as infirmaries to workhouses, from the number of paralytics, fatuous persons, and those suffering from temporary delirium from physical causes, very frequently sent to the asylum who should be cared for at the workhouse This has been more recently the case since the expense of maintenance of paupers has been transferred from the parish to the common fund of the union, and has consequently contributed in no small degree to the increased numbers in asylums.

The great additional accommodation provided, and the reports published of the annually increasing numbers in pauper asylums, would lead persons unacquainted with these circumstances to believe that there was an enormous increase in the numbers of the insane poor in England, which in reality may not be the case, taking into account that a very considerable number of those returned as lunatics are paralytics or aged persons in a state of fatuity, removed to asylums from workhouses and elsewhere. Instances could be given of octogenarians being sent as dangerous lunatics to the county asylum, the existing state of the laws facilitating, if not rendering necessary, such removals, and improperly placing on the roll of pauper lunatics aged and fatuous persons.

It has been calculated that about 27 per cent. of the cases in the asylum for the County Somerset are of a quiet and harmless class, that might be as well treated in the workhouse, if a sufficient dietary and paid nurses were there provided. By the removal of such chronic and incurable cases, the asylum would be more manageable, from the decrease in numbers, and better circumstanced as an hospital for the treatment of acute cases. The curable cases are about 17 per cent; the incurable sick and infirm form the remainder, about 56 per cent.

We are all aware how difficult it is to define insanity; can it then be wondered at, that under two such different laws in the treatment of the patient, every case that can be sent, is sent, from the workhouse to the asylum?

As the connection between the chronic cases in asylums and in workhouses is, from the circumstances here stated,

more intimate than many persons might at first be disposed to admit, the observations I have to offer regarding the diseases of chronic cases in the asylum may be to a considerable extent applied to those in the workhouse also.

Medical superintendents might furnish, from the records of some of the older asylums, information of much value at the present time. It is a question whether large institutions are best adapted for the class of cases to be provided for; their advantages in an economical point of view seem to be very doubtful, and if they are wanting in that respect, their advantages in other ways are still more doubtful. In another point, the difficulty of heating, lighting, and ventilation, is greater and more expensive (comparatively) in large than in small buildings. It has been long the opinion of some experienced physicians that asylum and hospital life have a tendency to produce in patients long resident, tubercular disease of the lungs, from inhaling, especially in those affected with tuberculous disease, over and over again the breath of others; the opinion is also becoming more prevalent that the removal of patients to hospitals and infirmaries diminishes their chances of recovery. This opinion I formed many years ago from the statistics of the diseases of the indoor and outdoor poor of the parish of St. Mary-le-bone, and no doubt the psychical effect of the removal of patients from their homes to an infirmary, in the midst of sickness and strange nurse-tenders, depresses and counterbalances the advantages of superior cleanliness, better attendance, and the good food provided in public institutions. The erection of temporary hospitals for the reception of persons suffering from contagious or epidemic diseases, is necessary, and now recommended in preference to permanent and expensive buildings for such cases. In small towns and villages in populous districts cottage hospitals for the reception of accidents, &c., have gradually been increasing in public favor.

As I am not aware that any data have been published for or against the opinion that continued residence in an asylum has a tendency to produce tubercular disease of the lungs, I ascertained by *post mortem* examination the cause of death in the chronic cases examined in the Somerset County Asylum during the twenty years of my residence there. The numbers of each sex are distinguished, the form of the disorder, the state of bodily health on admission, the assigned cause of death, distinguishing tubercular disease of the lungs from inflamma-

tory disease of the lungs, besides other causes, including cerebral and abdominal disease, taking three periods of life and giving the per centages.

From the 1st March, 1848, to the 1st March, 1868, there were 3284 patients admitted; 1649 males, and 1635 females. Reduced to a per centage these results stand thus:—

The recoveries	42·	per cent.
The numbers discharged relieved .	8·6	do.
Do. do. not improved	4·5	do.
Do. who died . . .	28·6	do.
Do. remaining in asylum .	16·3	do.
	100·0	

There was an excess of nearly five per cent. of the recoveries in the females, during that long period, their recoveries amounting to 44·3, and that of the males to 39·4 per cent.; and an excess of nearly two per cent. of the females of those relieved, the ratio discharged relieved being 9·4 for females, and 7·8 per cent. for males. In those discharged not improved, the ratio was greatest for males, being 5·7, and for females 3·4 per cent., and for those who died, there was an excess of 8½ per cent. in the males, the ratio for them being 32·9, and for females 24·4 per cent. Those remaining in the asylum at the end of the period of twenty years amounted to 14·2 per cent. of the male, and 18·5 per cent. of the female admissions. On the 1st March, 1868, there were still in the asylum, 43 patients—24 males and 19 females, of those admitted twenty years previously, in 1848; the number of admissions was greater that year than in any succeeding one, being for the most part transfers from licensed houses, where they had previously been under care.

Up to the year 1864 the average admissions to the asylum were 155 annually, in that year the admissions amounted to 217 and since then the average has been about 200 annually. Accommodation is now provided in the asylum for about 700, just double the number for which it was originally built.

Of 938 deaths, 542 males and 396 females, 336 were chronic cases, of 2 years residence and upwards, and of these, in about one third, the assigned cause of death was from tubercular disease of the lungs. The proportion of deaths from this

particular disease was much greater in females, amounting to nearly 41 per cent., and to 25 per cent. only in males.

Of the 336 chronic cases, 185 were of from 2 to 5 years residence, of these 102 being males and 83 females; 151 were of 5 years residence and upwards, 70 of these being males and 81 females.

Tubercular disease of the lungs was the assigned cause of death in 27 males and 31 females, or 31·4 per cent. of the 185 cases of from 2 to 5 years residence in the asylum, and in 16 males and 36 females, or 34·5 per cent of the 151 cases of from 5 years residence and upwards, shewing an excess of 3 per cent. in those the longest resident.

Many of the cases in which tubercular disease was put down as the assigned cause of death were complicated with bronchitis, pneumonia, pleurisy, and a few with gangrene of a portion of lung, also with ulceration of intestines, œdema, anasarca, and often with opacity of the cerebral membranes and fluid in the ventricles, chronic meningitis and cerebritis.

Tubercular disease of the lungs or pulmonary phthisis has been fatal in nearly a third of the chronic cases; less than a fifth of the English adult population fall victims to this disease, so that its greater fatality in chronic cases of insanity must be due to some cause or causes still to be investigated.

In 1866, the deaths from all causes in England were in male adults of 20 years and upwards 126,235, and of these, 22,918, or 10·2 per cent., died from tubercular disease. In female adults of 20 years and upwards the total deaths were 128,359, and of these 22,749, or 17·7 per cent., died from tubercular disease.

There was never any epidemic at the Somerset County Asylum, and the health of the patients was generally as good as in any other similar institution, but it must be admitted that post mortem examinations often reveal diseases of the lungs which have never been suspected.

However we regard the fact, whether from the numbers collected, or from insanity being more prevalent amongst phthisical patients than others, or from both causes, the mortality from tubercular disease was about double, amongst chronic cases of insanity in both sexes as here shown, to that of the adult male and female population of England, according to the annual report of the Registrar General for 1866, as above stated. A fuller inquiry into this subject would be of great value and interest.

The following table, A, shows the assigned causes of death in chronic cases of from 2 to 5 years and from 5 years and upwards residence in the asylum.

Assigned cause of death.	RATIO PER CENT. OF CHRONIC CASES OF INSANITY.			
	2 to 5 years' residence.		5 years & upwards in asylum.	
	102 males	83 females	70 males	81 females.
Tubercular disease of lungs	26·4	37·4	23	44·4
Other diseases of lungs —broncho-pneum,&c.	36·3	26·5	37	17·3
Diseases of abdominal organs	5·9	9·6	10	21
—— cerebro-spinal organs	31·4	26·5	30	17·3
	100	100	100	100

Table B, shows the state of bodily health on admission in the chronic cases of insanity.

1st class—2 to 5 years.	2nd class—5 years and upwards.
State—Good in 20 per cent.	33·7 per cent.
Bad in 34 per cent.	26·5 per cent.
Indifferent 46 per cent.	39·8 per cent.
100	100

Table C, shows the ratio per cent. of the two classes of chronic cases of insanity at three periods of life.

Period of life.	1st class 2 to 5 years.	2nd class 5 years and upwards.
Under 40 years	36·8 per cent.	27·8 per cent.
40 to 60 years	37·8 per cent.	39·1 per cent.
60 years and upwards	25·4 per cent.	33·1 per cent.
	100	100

The mortality in the more acute stage of insanity, of less than 2 years' duration was 64 per cent., in the chronic stage of from 2 to 5 years 20 per cent., and in chronic stage from 5 years upwards 16 per cent.

With a view further to show the amount of mortality from tubercular disease of the lungs amongst the inmates, the assigned cause of death in those of from 1 to 2 years' residence has been taken. There were 124 cases, 71 males and 53 females; of these 37 had tubercular disease of the lungs, 19 males and 18 females. The mortality from tubercular disease of the lungs in 20 years was as follows:—

TABLE D.

	No.		M.	F.	Total.
In those of from 1 to 2 years residence	37	per cent,	26·5	33·8	29·7
Do. do. 2 to 5 do. do.	58	per cent.	26·5	37·4	31
Do. do. 5 years and upwards	52	per cent.	22·9	44·5	34·4

From which there appears to have been an increase in mortality from tubercular disease in those longest resident, and that the increase is confined to the females.

In those who died from tubercular disease of the lungs or pulmonary phthisis, melancholia was the prevailing form of mental disorder; of 57 cases labouring under that form of insanity, 20 males and 37 females, 27 or nearly one half, 11 males and 16 females, died from pulmonary phthisis. One third of those suffering from mania and dementia died of pulmonary phthisis, and in idiocy as many as 43 per cent, in epilepsy 22 per cent, and in general paralysis only 6½ per cent. In almost every case of general paralysis disease of the brain and spinal cord existed; any complications with disease of other organs, which frequently happen, may be considered secondary.

The other diseases of the lungs, pneumonia, bronchitis, asthma, pleurisy taken together, came next in frequency to pulmonary phthisis, and were very common in all the different forms of insanity.

Of 460 cases, of 2 years' duration and upwards, the assigned causes of death were as follows—

TABLE E.

Tubercular disease of the lungs in	.....	147 cases.
All other disease of the lungs in	.....	136 „
Disease of abdominal organs in	.....	49 „
Disease of brain and spinal cord in	.....	128 „
	Total	460

In these 460 cases, 243 males and 217 females, the ratio of mortality is shown in

TABLE F

	Males.	Females.
From pulmonary phthisis	25·4	39·1 per cent.
„ other disease of the chest	35·6	22·4 „
„ disease of abdominal organs	7	15
„ disease of cerebro-spinal organs	32	23·5
	100	100

The mortality from disease of the brain and spinal cord,

and from inflammatory affections of the lungs, was about one third more in males than in females, whilst the mortality was one third greater in females than males from tubercular disease of the lungs; and from disease of the abdominal organs the mortality in females was double that in males.

MORTALITY AT DIFFERENT AGES.

Of the three given periods of life, viz:—under 40 years, from 40 to 60 years, from 60 upwards, the greatest mortality occurred at the middle period in both sexes; at the last period it was greater among females than males, and this coincides with the Registrar General's returns.

SUMMARY.

The number of deaths in 20 years was 938, of these 542 were males and 396 females. What may be termed acute cases of insanity occurring

Within the first year,	478	died,	299	males,	179	females.
From 1 to 2 years	124	do.	71	„	53	„
Chronic cases.						
From 2 to 5 years	185	do.	102	„	83	„
From 5 years upwards	151	do.	70	„	81	„
Total	938		542		396	

Of the 478 acute cases, of less than a year's duration, no statistics are given. The others are divided into three classes, 1st, those of from 1 to 2 years; chronic cases of from 2 to 5, and from 5 years upwards. The form of disorder in the three classes is shown in the following table:—

TABLE G.

Mania	in	47	males	and 68	females.
Monomania	in	9	„	and 10	„
Melancholia	in	20	„	and 37	„
Dementia	in	32	„	and 46	„
Epilepsy	in	60	„	and 33	„
Idiocy	in	20	„	and 12	„
General Paralysis ..	in	50	„	and 10	„
Fatuity	in	5	„	and 1	„
Total ..		243		217	

The state of health on admission in the three classes was good in 66 males and 38 females; bad in 83 males and 74 females; indifferent in 94 males and 105 females. The assigned cause of death in the three classes was, from tubercular disease of the lungs in 64 males and 85 females, from other diseases of chest and respiratory organs, 87 males and 49 females, from disease of abdominal organs, 17 males and 32 females; and from diseases of the nervous system 73 males and 51 females.

In relation to those pulmonary diseases which are so frequently fatal in chronic cases of insanity, there is this peculiarity to be observed: that the usual symptoms affecting the respiration are almost invariably wanting; there is an absence of cough and expectoration, even throughout a long continued case of phthisis, where large tuberculous cavities are found in the lungs after death. Where a patient, therefore, appears to be failing in any degree in his usual state of health, a thorough examination of the bodily condition is necessary, including the chest by percussion and auscultation, in order to obtain the requisite information for the proper treatment of the case. Each case may require a different or varied treatment. The almost indiscriminate use of stimulants has of late years been too much in vogue. In sudden attacks, as epilepsy, an opposite treatment—the abstraction of blood by cupping—has proved beneficial. For a medical officer of an asylum the knowledge obtained by clinical instruction in the diagnosis of disease at a general hospital is the best preparation, as correctness of diagnosis is especially requisite with the insane, who are impatient like children, and give either no information, or such as may mislead.

In concluding these few remarks on chronic cases in asylums and workhouses, it may be observed that had the Poor Law Bill of Mr G. Hardy been applied to the kingdom generally, instead of being confined to the Metropolis, it might have provided for all such cases, to the relief of over-crowded asylums, by appropriating the vacant room in the country union workhouses to their use, under proper regulations, without the expense of adding new buildings. It would be well if the laws relating to medical relief and pauper lunacy were amalgamated and properly administered. Diseases, whether of the head, trunk, or limbs, are still of the body, and had better be treated as one; treated quickly and efficiently, which would prove in the end both the best and the cheapest course.