

*On the Effect of Prosperity and Adversity in the Causation of Insanity.* By T. A. CHAPMAN, M.D., Medical Superintendent of the Hereford Asylum.

The subject of the causation of insanity has recently attracted considerable attention; and with the abundant material which the Commissioners in Lunacy are annually accumulating, we may expect by-and-bye to learn something more of this large and complicated subject.

In this note I only propose to touch on one phase of the matter, and that in only one aspect. When, some years ago, Dr. Yellowlees propounded the hypothesis that adversity is favourable to mental stability and prosperity the reverse, the immediate facts under his cognizance certainly appeared to point in that direction, but I believe it is now admitted that they owed that aspect to some accidental and exceptional circumstances,\* and that similar series of events that have since occurred have not produced the same results.

I think the facts on which this paper is founded, go to show, if they do not prove, that prosperity is a prophylactic of insanity; if not always and generally, at least in that section of the people who are always within a measurable and very narrow distance of pauperism and starvation, and with whom the least additional prosperity brings increased well-being in some important respect; taken broadly, this is not an exaggerated description of the worldly position occupied by a large proportion of agricultural labourers. In this county, for instance, 12s. a week and two quarts of cider a day is at present the usual wages of an ordinary labourer,† and when, for example, the wife of such an one, with a family of four to eight children, becomes insane after nursing the youngest for 12 or 18 months, it is not wholly accurate to ascribe the disorder to prolonged lactation, a large share in the causation must attach to the penurious circumstances under which the prolonged strain on the vital resources is borne, and a slight alleviation of which might have averted the catastrophe.

In my Annual Report for 1879, I made some remarks on the circumstance that during the latter half of that year

\* We should like to know from Dr. Yellowlees whether his subsequent experience has or has not confirmed his original statement. — [Eds.]

† As statements of this sort often give rise to controversy it may be well to note that skilled labourers, such as waggoners, &c., get often several shillings more, and that an additional pound or two is usually to be got at harvest time.

there was a marked increase in the number of recent and curable cases admitted into the Hereford Asylum, an equally marked but gradual diminution of their numbers having been going on during the few previous years; and I advanced some reasons for suspecting that the explanation of the fact was to be found in the circumstance that from about the years 1873 and 1874 the wages of agricultural labourers had been largely advanced from their previous low point, and that in 1879 (and to some extent in 1878) they had again fallen to their old figure; and that the well-being of the agricultural labourer, and consequently his freedom from insanity as from other ailments, was roughly proportional to the amount of his wages; and I pointed out that the circumstance would result in a larger number of recoveries during 1880 than had latterly obtained.

It occurred to me that if there was anything in the hypothesis so advanced, it would hold good in other agricultural districts as well as in Herefordshire, and that the matter might be tested by ascertaining whether the prediction founded upon it, viz., that agricultural districts would show a marked increase in the number of recoveries in 1880 as compared with the previous years, was fulfilled.

With a view to apply this test, I selected the reports of the asylums of all the counties that I believed to be purely or mainly agricultural, except one or two whose statistics were imperfect or did not extend far enough back. The asylums so selected were—Cambridge, Hants, Lincoln, Denbigh, Salop, Berks, Somerset, Dorset, Wilts, Beds, Sussex, Beverley, Leicester, Suffolk, Chester, Bucks, Hereford, Norfolk and Oxford. From these reports I tabulated the recoveries of each year, from 1870 to 1879, for a few of the earlier years in a few instances, where the statistics were deficient, I put in an average figure so as to make the totals comparable, no such estimated figures occur in or after 1873, I had then perforce to wait the appearance of the figures for 1880.

Before going further I ought perhaps to give my reasons for taking the recoveries instead of the admissions.

What I want to obtain is the actual production of insanity in each year, or some measure of it. Or, more strictly, the insanity not produced in the year, but that due to causes acting during the year. Many causes influence the sending of patients to an asylum, that is the number of patients admitted during the year, apart from the actual production of insanity; such causes, for example, as the proximity to the asylum, the amount of Government grants, willingness

or the reverse of relatives to undertake the care at home, &c. These, I fear, I cannot eliminate. But when we come to take the question of the production of insanity as influencing the numbers sent to asylums, it is obvious that the patients sent in any one year have been produced by causes acting at very various periods of time. An idiot, perchance, may trace his condition to causes acting on his parents or ancestors 50 or a 100 years before the date of his being sent to the asylum. On the other hand, the acute cases, though they may present many predisposing and even some exciting causes, dating back many years, will probably include all the cases that have already occurred, due to recently acting causes (usually as exciting). In two consecutive years, the chronic cases admitted will owe their production to causes not operating in those years; any difference in the causes operating during these two years, if found to have had any effect on the admissions, will be found to have produced that effect among the recent and acute cases. If intemperance does not act during 1885 and acts strongly in 1886, we shall find among the admissions of both years, cases of chronic alcoholism due to the intemperance of previous years, but delirium tremens and mania-a-potû will occur only in 1886.

A difference, therefore, in the acute cases of two years may be taken as measuring the difference in the causes acting during those two years. But we have no satisfactory record of the acute cases, the best is that given in Table VII. of the Association Tables. But there is another test of their number, and that is the number of recoveries, the more acute cases the larger the number of recoveries. And I have adopted this measure both because it is justified in this way, and also because it was in this form that the matter first suggested itself to me. And it has this further convenience that the recoveries of one year are partly due to the admissions of the previous year, partly due to its own earlier months. Hence the recoveries of 1880 may be taken as varying with the causes operating during 1879. A cause operating during 1879 may produce effects at any date thereafter, but if it acts as an exciting cause of an acute case, that case will probably occur late in 1879 or early in 1880, and appear as a recovery (if recovery take place) among the recoveries of the latter year.

Now the actual recoveries of the 19 asylums selected as belonging to agricultural districts during the 11 years under review were as under:—

The total number of recoveries											
in	1870,	1871,	1872,	1873,	1874,	1875,	1876,	1877,	1878,	1879,	1880.
were	968	986	959	885	911	863	941	859	853	829	943
In all County Asylums	} 3123	} 3308	} 3389	} 3201	} 3674	} 3759	} 4058	} 3855	} 4247	} 4293	} 4336

I have placed under them the figures representing the recoveries in all county asylums, which will make it more plain in what respect the fluctuations in the number of agricultural recoveries differs from the fluctuation of those of the whole of England.

The agricultural figures show a fall in 1873, a rise in 1874, and a greater rise in 1876, but it at once appears that these are not special features of the agricultural figures, but are shared by the total statistics, and must be due to causes of more general operation.

But the special difference is found in that somewhere about the year 1873, a decline in the number of agricultural recoveries begins, and, neglecting the fluctuations affecting the general figures also, they steadily decline from 959 in 1872 to 829 in 1879, rising suddenly in 1880 to 943, a higher figure than belongs to any other year after 1872. The general figures on the other hand show throughout this period (apart from special fluctuation) a steady rise throughout the period from 3389 in 1872 to 4336 in 1880.

This steady rise in the general recoveries is due no doubt largely to the increased number of patients sent to asylums, partly from increase of population, partly from increased readiness to send them, so that a larger number of slighter (and more curable) as well as of others have been sent. But I should not be transgressing against the spirit of this paper if I suggested that the trade depression and otherwise hard times we have passed through, were really to an appreciable extent increasing the production of insanity, therefore in the first place of recent and acute insanity and therefore of recoveries.

Some one will say we have heard of trade depression, but have we not heard very much more of agricultural depression, and is not the decline in the agricultural recoveries, if it has anything to do with this matter at all, due to this depression and to the more hopeless state of patients from agricultural districts? But such an one cannot have followed the effect which matters agricultural and manufacturing have produced on the wages of the agricultural labourer. When the manufacturing and other industries of the country

were, in 1872 and 1873, in a whirl of prosperity that was never to cease, an effect was first produced in agricultural districts of drawing away to manufacturing industry much of its labour, and this diminution of its more speculative population may be an element in the sudden fall in the number of the recoveries of 1873. But it was not till the trade prosperity was almost at its close, that a rise took place in the wages of agricultural labour, which probably reached its highest point about 1875 or 1876. And in spite of agricultural depression this rise held its ground more or less firmly for several years, and the increased cost of labour to the farmer was well recognized as one of the elements intensifying the difficulties in which he was placed. Whilst this improvement lasted the agricultural labourer and his family were no doubt improving in health and stamina, and we see the figures show a decline during this period in the production of acute insanity. There can be little doubt that with good seasons this improvement would have continued. But in 1878 and 1879 affairs culminated in such a manner that the improved wages could no longer be paid, and they are now, so far as I can learn, in very much the same position as eight or ten years ago; and, as an immediate effect, the causes of insanity are seen to operate with their old intensity in 1879, as evidenced by the recoveries of 1880, approaching their old point.

If prosperity and adversity act on the production of insanity in the manner I have endeavoured to show, they must also operate in a very similar way on the death-rate; and even more generally we might expect the recoveries to exhibit a certain parallelism with the death-rate. If there have been more recoveries in 1880 owing to a worse state of health in 1879, so there should have been a higher death-rate in 1879.

Now, if I tabulate the agricultural recoveries against the death-rate of the previous years in Herefordshire, I get a table as follows:—

	1874,	1875,	1876,	1877,	1878,	1879.
Death Rate.	20·6	18·3	17·7	15·9	15·0	18·9
Recoveries of } following year.	863	941	859	853	829	943
Death Rate. } England.	22·3	22·8	21·0	20·4	21·7	21·0
Death Rate } Small Towns & } country parishes.	19·5	20·7	18·6	18·2	19·0	19·1

The parallelism between the death rate of Herefordshire (for which I am indebted to Dr. Sandford, the medical officer of health), and the agricultural recoveries is very striking.

There is, moreover, no correspondence between these figures and the general death-rate of England; the only exception is one that curiously proves the rule. The death-rate of 1875 is high, and accompanies a high recovery-rate of the following year; this high recovery-rate, we have already seen, however, was not an agricultural phenomenon, but affected the whole recoveries of the country, which were very numerous and coincided with the highest death-rate (but one, by 0·1 per cent.) of the last ten years.

I think this fact alone is sufficient to give great probability to the more general expression of the hypothesis I am advancing, viz., that insanity is largely under the control of the same general agencies that affect the public health in other respects. The special case of this hypothesis under discussion being that prosperity (in a pecuniary sense) is a marked agency of this kind among agricultural labourers.

I have not got a general agricultural death rate. The death rate of "small towns and country parishes" is the nearest approach to it. It does show a slight tendency to fluctuate from the death rate of all England in the direction of the Herefordshire death rate and of the agricultural recoveries, but contains, no doubt, enough manufacturing and mining elements to prevent any further approach.

I ought to add that these recoveries are not due in any way to variations in the number of the admissions. The decline in the recoveries goes on with an increase in the admissions, and the admissions of 1878 and 1879 (giving recoveries for 1879 and 1880) are curiously enough so near as 2,581 and 2,584 in the agricultural asylums, although there is so marked a difference in the corresponding recoveries, and the admissions of 1880 are fewer in excess of 1879 than its recoveries are, and would, of course, afford but few additional recoveries during the currency of that year, say 15 recoveries where 110 have to be accounted for.

An exact parallelism between the fluctuation in the recoveries in all asylums and the death-rate of all England cannot be traced, the connection only appearing where they are greater than usual; this is not, however, at all surprising, since the fluctuations in the death-rate are not large, whilst the conditions affecting asylum admissions (and recoveries)

are so numerous and variable that any one element, such as that we are considering, cannot show itself unless it be very pronounced. The high death rate of 1875 and the large number of recoveries in 1876, is the only unequivocal instance occurring during the period under review.

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*The Prognosis in Insanity.* By D. G. THOMSON, M.D.

The subject of the Prognosis in Insanity is a most interesting and important one. The prognosis—prospect of recovery or the reverse in any disease—is the one point around which the hopes and fears of our patients and their friends centre, but perhaps this is more true of insanity than any other ill that flesh is heir to; the interests, as a rule, are great and far-reaching. This is at once apparent when we consider that besides the ordinary domestic relationships at stake such as obtain in all other diseases, the liberty of the subject, administration of the patient's affairs and property by legal inquisition while he is yet alive, and the great question of responsibility, social or criminal, add grave importance to the question at issue.

Now where are we to find the materials to assist in forming opinions and laying down rules for the Prognosis in Insanity? Firstly and chiefly, in the records of experience gained by observation and comparison of symptoms in individual cases or groups of cases throughout their course to their termination; secondly, by statistics. These, although useful to the economist and to the profession generally, are not of much avail when the physician is brought face to face with a case, and are, as will be shown hereafter, unless examined and analysed from every point of view, highly fallacious. Besides, when we have to pronounce upon any individual case, it does not assist us much to know that 38·0068 of such cases recover, or even supposing a recovery rate to be 95 per cent., yet this brings us but little nearer the point, which rather is how are we to know if our case belongs to the doomed five which remain chronic and die, or to the ninety-five which will recover.

I believe it advisable in considering this subject to divide the forms of mental disease for our present purpose into two great classes: 1st, those mental diseases depending on mere functional disturbance; and 2ndly, those forms of insanity