

will be at once observed that the only parts of the kingdom which did not suffer from a lack of sunshine were the coast of Lancashire and North Wales, Torquay, and some other resorts on the South-West of England, the North of Ireland, and one or two isolated localities elsewhere. The sunniest districts were the Channel Isles, the coast of Devon, and various resorts on the coast between Bournemouth and Felixstowe, while the most sunless were the City of London, and some of the large populous centres of the North, the absolute lowest record being 933 hours at Newcastle-on-Tyne. Compared with Torquay, the sunniest spot on the mainland, the figure at Newcastle is remarkable, showing an average of little more than $2\frac{1}{2}$ hours per day against an average at Torquay of more than $4\frac{3}{4}$ hours. The greatest minus difference from the normal was at Jersey, which suffered a loss equal to more than half an hour a day, while at Blackpool, the only place with a very notable excess, there was a similar amount per day gained. In the metropolitan area there was a general deficit, except at Westminster, where the total number of hours exceeded the average by two. Over the kingdom as a whole the rainfall was in excess of the average, the plus value being very large in the Channel Isles, at many places in the south-west of England, and also at Bath. It may be remarked that for several years before 1910 the south-west of England had an annual fall considerably below its normal. The driest place given in the table is Clacton, with no more than 21.5 in., but Southend-on-Sea, Cambridge, and Whitby had an aggregate nearly as low, while the number of days with rain was smaller at Tottenham than in any other part of the kingdom. Many districts in England experienced at least 50 more days with rain than Tottenham, and at Cromer there were as many as 99 more rainy days. The frequency of slight rain in some parts of East Anglia was one of the most noteworthy features of the year. Very few localities in the wettest districts of Ireland and Western Scotland had rain on more days than Cromer, and yet at Great Yarmouth and Lowestoft the number was relatively low—only 170 at the former, or 85 less than at Cromer. Although the general character of the year was wet there were dry patches, especially in the centre and north-east of Great Britain, and also in the south of Ireland. In the latter region most of the recent years have been markedly deficient in their rainfall, and last year the largest deficit was at Roche's Point at the mouth of Cork Harbour, where the total fall was $5\frac{3}{4}$ in. less than the average.

THE CONQUEST OF CONSUMPTION.

ONE of the most hopeful auguries for the eventual conquest of tuberculous disease is the increasing attention that is being devoted to this subject by public health authorities, philanthropic agencies, and administrative bodies. The various suggestions for the establishment of sanatoriums for poor consumptives, for compulsory notification, and for invalidity insurance are all indications of the increasing interest aroused in this subject. One of the greatest needs at the present time is a general awakening of the public at large to the main facts in connexion with this disease and to the great waste of human life and activities which it entails. Dr. A. Latham and Mr. C. H. Garland have recently published a new and revised edition of their book, "The Conquest of Consumption: an Economic Study."¹ In it they give an interesting and instructive account of some of the main problems in connexion with this disease, written in simple, non-technical language, and they also suggest a scheme for an efficient campaign against consumption, with some calculations of the

probable cost. In our review of the first edition of this book we pointed out that the statistics of the mere monetary loss produced by tuberculosis among the wage-earning classes, as given by Dr. Latham and Mr. Garland, were simple but convincing. Consumption alone appears to cost the friendly societies more than £1,000,000 a year in sick benefits, and if to this are added the sums expended by means of Poor-law relief and by charitable agencies, such as special hospitals and sanatoriums, the total direct loss is estimated at nearly £3,000,000 a year. The subject of State intervention in this matter is discussed in an interesting and practical manner. The writers assert that it is the duty of the State to protect the population from this disease and to provide means of regaining the wage-earning capacity to those who fall victims. They estimate that of the total population of 43,000,000, only 2,000,000 persons are in a position to pay fully for treatment of this disease if they fall victims to it, and that of the remainder 13,000,000 are so near the poverty line that they would be quite unable to contribute towards their own treatment. Any successful scheme for dealing with this question must, they propose to demonstrate, embrace measures for the prevention of the spread of infection, the detection of the disease in its early stages, the provision of adequate sanatorium and home treatment, the support of the family when the breadwinner is away, and the question of after-employment. The essentials of the scheme suggested in this book are the provision of 30,000 sanatorium beds, the establishment of anti-tuberculous dispensaries, the allowance of a weekly payment of £1 to the individual patient's dependents, and some means of dealing with the hopeless and incurable cases. It is estimated that about 56,510 persons contract consumption every year, and that the total consumptive population reaches figures between 250,000 and 300,000, many of whom are in such an advanced stage that there is no hope of restoring them to lasting working capacity. The suggested scheme would provide adequate accommodation for 60,000 patients per annum if treatment at the sanatorium were to extend to six months. The estimated cost, based on certain actuarial calculations, would involve a capital outlay of £2,250,000 and an annual expenditure of £4,500,000, the latter diminishing as the good results of efficient and early treatment became felt. Dr. Latham and Mr. Garland defend the sanatorium system against the attacks which have been made against it, and especially against the suggestion that if some specific treatment more effective than the present tuberculin injection is discovered the sanatoriums will be unnecessary. They admit that the details of any comprehensive scheme and the methods of raising the necessary money are questions to be worked out by statesmen, but conclude by stating that their endeavour has been to show the urgent necessity of both Government inquiry and State intervention. The problem is certainly one of national importance, and one which will sooner or later have to be faced. This little book is a practical discussion of the question and one which may be read with advantage by the public, for whose instruction it is primarily intended.

WINKLES AND TYPHOID FEVER.

A CASE of typhoid fever having been traced to winkles taken from the river Ouse at Newhaven the urban council of that town prosecuted at Lewes petty sessions on March 14th a man who had been gathering the shell-fish from the river bank. An officer of the council approached the man while taking the winkles. He informed him that they were not fit for human food and asked him to give them up. The man declined, but consented to interview a magistrate who at once condemned the winkles as being

¹ The Conquest of Consumption: An Economic Study. By Arthur Latham, M.D., and C. H. Garland. London: T. Fisher Unwin. 1911. Pp. 159. Price 1s. net.

unfit for human consumption. The man still refused to give up the winkles, hence the summons and the police court proceedings. Defendant contended that if properly cleaned the winkles would be wholesome and of good flavour. The justices, however, thought otherwise and imposed a fine of 5s. The fine does not err on the side of severity, but it was the first case of the kind taken by the authorities under the Public Health Act. Authorities in general while looking after winkle gatherers might do well to give some attention to the condition of the river banks where winkles unfit for human consumption appear to thrive.

BERI-BERI ON SHIPS.

BERI-BERI is met with at British ports on board ships under two different conditions: (1) on ocean-going steamers carrying Asiatic crews; and (2) on sailing ships, manned chiefly by Scandinavians, coming into port after a protracted voyage. Modern scientific investigation has brought forward very strong evidence associating the disease with the consumption of white polished rice from which there had been removed in the process of milling certain layers of the rice grain containing relatively large proportions of organic phosphorus; and that among the coolies employed on the plantations in the Malayan Peninsula this form of "phosphorus starvation" was the cause of beri-beri. An Asiatic crew on ship board among whom white or polished rice was the staple article of diet might be expected to suffer from the disease in the same way as the Malayan coolie on shore. But on the sailing ships the crews of which are Europeans, and where little or no rice is consumed, it was until lately more difficult to account for the appearance of beri-beri. These ships, owing to their slower progress, remain at sea for long periods, during which no fresh meat or vegetables can be obtained. Their dietary is of necessity made up largely of preserved food, much of it tinned. There has been brought forward recently evidence to show that in some of the processes employed for preserving these kinds of food the organic phosphorus is extracted or destroyed, and also that the growth of certain moulds on long-stored food-stuffs robs them of a proportion of their phosphorus. So that it appears that beri-beri may be produced by the same cause, not only among coolies in the East and Asiatic sailors aboard steamships, but also among European seamen on sailing vessels during long voyages. The deficiency of the necessary amount of organic phosphorus in the dietary produces wasting of nerve tissue which needs a certain amount of that element for its normal nutrition. It is not so long ago that beri-beri was regarded by some persons as an infectious disease, and this view still retains a hold upon the public mind. In THE LANCET of March 4th our correspondent in Ireland reported that three negroes had been landed at Galway from a barque which had arrived there from the West Coast of Africa, and that under the directions of the port medical officer the patients had been removed to the union fever hospital. Considerable anxiety, it was stated, had arisen from the presence of beri-beri in the town, the sanitary condition of which, it was admitted, left a good deal to be desired. Since this was published one of our readers has written to point out that the good people of Galway had no cause for anxiety, since the disease was not due to infection and could not therefore spread from imported cases; some of his own experience of the disease while abroad was also quoted by him in support of his opinions. It may be mentioned that on March 9th a question was asked in Parliament as to the isolation of these cases. In this connexion we may refer to a leaflet recently issued by the Marine Department of the Board of Trade, giving instructions on the subject of beri-beri, and intended primarily

for the use of masters of steamships carrying Asiatic crews. After a distinct statement that beri-beri "is not contagious from one man to another," the leaflet goes on to describe the symptoms of the disease; the appropriate treatment is then indicated and the prophylaxis discussed. The theory of causation of beri-beri by white rice appears to be accepted by the Board of Trade, for it is strongly recommended that the ship's stores should contain no white or polished rice, but that yellow or unpolished rice should be substituted. At the same time an open mind is kept, for the leaflet states that the instructions issued by the Board of Trade will be liable to revision as the advances of our knowledge of the causes and effects of the disease may require. It is further mentioned that though many deaths from beri-beri are annually reported to the Board as having occurred on British vessels, these may not show the full extent of the mortality from the malady, since other cases which are reported as dropsy, paralysis, or heart disease may very probably be in reality deaths from beri-beri. The Board of Trade's leaflet should prove of great service in spreading knowledge as to the causation of this interesting disease and to the simple means for preventing it. To the masters of vessels carrying no surgeon the outlines of treatment given in the instructions should be of much assistance in the event of any of their crew being attacked.

THE "DRY" WINE AND THIRST.

THERE is a curious lay impression that the so-called "dry" wine conduces to thirst, a literal meaning, no doubt, being associated with the word "dry." Applied to wine, the word "dry" really means, of course, free from juice which implies sugar. As sugar disappears in a wine by the continuance of fermentation the acid character of the fluid comes into evidence. Sugar, in fact, masks acidity, and the use of sugar in a lemon squash or on a fruit tart is resorted to for that reason. The acidity, however, is still there, but owing to the presence of sugar the acid is probably not so rapidly diffused, and therefore it does not have such an exciting effect upon the sensory nerves. It can hardly be supposed that because a wine is "dry"—that is, contains a minimum of sugar—it is thirst-producing. The "driest" of all wines is claret, and that is why so many people regard it as a sour or acid wine, there being practically no sugar present to balance the acidity. Sound claret is, as a matter of fact, the least acid of wines and the least sugary, but no complaint is made against it that it is thirst-producing. Champagne is just as acid as, if not more so than, claret, but contains more sugar, and it is champagne which is commonly accused of giving rise to a considerable thirsty feeling. The ingestion of much sugar gives rise to thirst, but a dry champagne contains not more than 2 per cent., and a reputed pint would not contain more than one-fifth of an ounce of sugar, which is less than many people use in a cup of tea or coffee. Another theory has reached us, which is that champagne gives rise to thirst because it is "limed" to make it "dry." Here again the suggestion is that the word "dry" connotes an absence of moisture or that lime absorbs moisture and leaves the consumer thirsty. The theory is manifestly absurd, and as a matter of practice lime is never found in the wine. It is, however, so common a matter of observation that champagne leaves a thirsty feeling, that there must be some reason why that wine should be distinguished from other wines in having this post effect. The sparkling quality of champagne, perhaps, coupled with the sugar contents, is probably a factor. Apart from the consideration that an alcoholic beverage is in itself a diffusible stimulant, its action is, no doubt, considerably accelerated when that