

THURSDAY, JULY 3, 1884

CHOLERA AT TOULON

THE doubt which existed as to whether the outbreak in and about Toulon was true cholera or only the sporadic type of the disease must be regarded as set at rest; indeed, from the date when the details of the outbreak first became public, it is probable that those who declared the affection to be only of a local and sporadic character were mainly influenced by political motives. Dr. Fauvel apparently now stands alone in the determination not to admit that the epidemic is the same as that which is known as Asiatic in type, and the fact that the source of the infection cannot by any chance be attributed to England is almost enough of itself to mould the views of this able physician. The onset of the disease, the sudden outbursts during its subsequent course, its diffusion to other towns and places, and notably to Marseilles, and the fatality attending it, all prove that we have not to do with the disease which in this country goes by the name of English cholera, and which when occurring in hotter climates and under favouring conditions of filth is known as sporadic, but with true cholera, such as was imported into the south of France and into England from Alexandria in 1865 and 1866.

Of the future course of the epidemic it is at this stage almost impossible to speak with any authority, but it is very certain that occasional lulls in the number of attacks—occurrences which are immediately reported as indicating a subsidence in the outbreak—cannot be regarded as having much significance in this respect; for it is one of the essential characteristics of cholera, especially in the early stage of an epidemic, to exhibit periodic fluctuations both in the number and in the intensity of attacks. So, also, the hold which cholera acquires in any town or district is largely dependent on the sanitary circumstances of the locality, and it is well known that in Toulon the conditions of filth which so especially favour the spread of that disease are exceptional in point of general prevalence and intensity. Marseilles stands much higher in this respect, but French towns which are regarded as ranking among the most advanced in so far as their sanitary circumstances are concerned stand but low in the scale when compared with the healthy towns of England.

Another circumstance has rendered it well-nigh impossible to foretell events, and that is the flight of panic-stricken persons to all parts of the country. Instead of dealing with the outbreak in its early stage, the French authorities made a secret of the matter, and by the time that the Government which takes precedence of all others in extolling the virtues of *cordons sanitaires* were prepared to act, they found that their secret had oozed out, and that thousands had fled beyond all *cordons*; and so once again the fear of restrictive measures such as quarantine and its allied practices has defeated the very objects which the advocates of that system so unhesitatingly claim for them.

Bringing the lesson of the epidemic home to ourselves, it must be admitted that, with the constant communica-

tion which exists between the various French and English ports, we are not free from the risk of having cholera imported. To prevent importation by imposing a lengthened quarantine on the almost numberless vessels arriving in England from the various French ports would be an impossibility; and our Government, fortified by the decision of the last European Conference held at Vienna, will unquestionably trust, as heretofore, to a combined system of inspection and isolation. For this purpose all the Orders and Regulations which were re-issued during the prevalence of cholera in Egypt last autumn remain in force, as also does the special provision that persons removed to the hospitals of the Metropolitan Asylums Board are not to be regarded as having become pauperised in consequence of such removal. At our various ports vessels arriving from infected places will be inspected, first by the Customs Officers, and then by the Sanitary Officers of the ports; all cases of cholera or choleraic diarrhoea will be at once removed to such hospitals as have been provided for the purpose; any doubtful cases will be detained to undergo a short supervision; the healthy will be allowed to land; and no detention of the ship or of persons on board will exceed forty-eight hours, a period regarded as ample in view of the short period of incubation in the case of cholera.

Last year, when the question of the importation of cholera from Egypt was so urgent, the Local Government Board issued a special Memorandum to port, urban, and rural sanitary authorities, urging them to observe the utmost cleanliness in relation to all sources whence any pollution of water drunk or of air breathed could possibly emanate, and a vast amount of valuable sanitary work was carried out with the object of preserving water-sources from contamination, of excluding sewer and drain air from dwellings, and procuring the rapid and regular removal of all sources of nuisance and offensiveness from premises. We shall this year profit from so much of that work as was of a permanent character; but since it is essentially on cleanliness of all our surroundings that we must rely, the work of 1883 should be continued and renewed this year. Such work is never wasted. Even should cholera die out in the south of France, and never come nearer to us than it has done already, progress in sanitary work will be amply remunerative in the prevention of those diseases which, in point of origin, so much resemble cholera, and it will, in addition, tend to the moral and social improvement of those who only cling to filthy surroundings because the means of cleanliness have never been provided for them.

We are glad to learn that Dr. Koch, the chief of the recent German Cholera Commission to Egypt and India, has left Berlin for Toulon. His journey is undertaken partly at the wish of the French Government, who are anxious to know more of the methods of investigating and suppressing cholera which that gentleman has pursued with such signal success. Dr. Koch is going to France alone, although he had full permission to take with him any of his recent colleagues in Egypt and India. Moreover, the German Imperial Cholera Commission has concluded its deliberations. The result has now been submitted to the Government, and will be immediately published. The Commission holds that the sanitary condition of Germany in general is not favourable

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to the outbreak of the epidemic. Further to lessen the danger, every separate household is to be requested immediately to carry out scrupulously the precautions and orders in reference to disinfection which are to be issued by the Government.

THE EARTH AS A GLOBE

Die Erde als Weltkörper, ihre Atmosphäre und Hydrosphäre, Astronomische Geographie, Meteorologie und Oceanographie. Von Dr. Julius Hann. Pp. 209. (Prag: F. Tempsky; Berlin: G. Freytag. 1884.)

IT sometimes happens that the leading words in the title of a book give a very inadequate impression of its contents. Such, to an English reader at least, might be the case as regards the work before us. We should have rather anticipated a discussion of the relation of our globe to the surrounding universe, or at any rate its position as a member of the great family dependent on the same central source of light and warmth. A compatriot of the writer, it is but fair to suppose, would have formed a juster anticipation of what the title-page expresses and the contents explain, that we have here a description of the earth as an isolated globe. The first section sets before us its form, dimensions, density, seasons, magnetism in its several aspects, and auroral illumination. The following one discusses the various conditions of our atmosphere with regard to temperature, pressure, humidity, rainfall, winds, cyclones, and all that English people express by the brief and usually not complimentary phrase, "the weather." The third section relates to the "hydrosphere," or fluid envelope, comprising its extent, colour, saltness, temperature, currents, waves, and tides. This programme is carried out not only with a great deal of industry, and care, and judgment, but with a clearness and facility of expression which are not always remarkable in scientific treatises. We are very favourably impressed by it as a whole, and look upon it as a very valuable addition to the branch of science which it undertakes to elucidate. At the same time there are a few respects in which improvement might be desirable. We should have preferred, for instance, some explanation of the comparative imperfection of the longitude-measures obtained from Jupiter's satellites, as well as from lunar distances; the aeronautic details might have borne expansion with advantage; and we are a little disappointed in the very scanty notice of atmospheric electricity. Of this it may indeed be said that its investigation is peculiarly difficult, and that many of its modifications hitherto defy explanation; but it would have been, we venture to think, a preferable course, especially as so much pains have been taken with magnetism, if more explicit reference had been made to an influence of so powerful, yet so occult and mysterious a nature.

We may add, though we are treading on uncertain ground, that our author's descriptions of the English climate, or rather of what he considers that it ought to be, with regard to dryness or the reverse, are not altogether in agreement with our own experience. The character of our month of February, as expressed in the very ancient and still surviving epithet, "fill-dyke" (or "fill-ditch"), or in an old rhyme of the seventeenth century—

"Foul weather is no news; hail, rain, and snow
Are now expected and esteem'd no woe,"—

does not tally well with our author's estimate of January as the most rainy of months, at least in West England; and his description of October as having a full maximum of rain in East and a secondary maximum in West England matches as little with the traditional remark of half a century ago, that eighteen fine days always occur in that month. Nor again is the April of West England, as he asserts, characterised by dryness, which used to be predicated of March, together with, in our grandsires' remembrance, a degree of heat which caused the unyoking of the weary ox during the noontide hours; so that we find in these instances the anticipation or postponement of a month. Our ground however is, as we have said, somewhat insecure; and we are obliged to admit that our old-world remembrances are often as far out of keeping with our present experience as the theoretical deductions of Dr. Hann. The October of late years has certainly not maintained its reputation for fineness, and we miss the regularity as well as the intensity of the equinoctial gales. There is an element of uncertainty and instability not only in the daily or monthly condition of the weather but in its annual recurrence, at least as far as our own climate is concerned; and it has presumably a much wider extent: a similar remark is not unknown in Switzerland, and was confirmed as to North Italy by the disappointing experience of that most accurate astronomer, Baron Dembowski, who in his latter years had, as he informed the writer of these lines, to contend with an unwonted amount of unfavourable skies. Such variations may possibly be very slowly periodical, and, if so, their recurrence might well be the subject of a careful examination. The weather-lore of modern days is undoubtedly far in advance of the imperfect forecasts of a century ago, and the pages before us have done well in aid of its further progress; but experience shows that the science of meteorology requires to be set upon a deeper and stronger foundation. The neglect of one or more imperfectly appreciated factors is probably indicated by the uncertainty or inconsistency of the results. One such factor may readily be pointed out in electrical agency, latent on every side, but awakened from time to time in manifestations equally fearful and incomprehensible. How to take due account of this all-pervading influence is a problem for future generations.

In closing our brief notice of this valuable work we would especially allude to the especial clearness—with few exceptions—of the very satisfactory as well as numerous diagrams which illustrate it. So far as we have observed, the faults of the book are very few: the greatest, as far as English students are concerned, is one that may easily be rectified, and we trust soon will be—its appearance in a foreign tongue.

PRACTICAL BOTANY

Das botanische Practicum. Von Dr. Eduard Strasburger. (Jena: Gustav Fischer, 1884.)

THE production of a series of important works in rapid succession has pointed out Prof. Strasburger as one of the most prominent figures among botanists of the present century. It will be readily