THE CHOLERA WEATHER.

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In the cholera epidemics of 1849 and 1854, the mortality reached its maximum in the second week of September. "In both eruptions," says the Registrar-General, in his return for the week ending September 16th, 1854, p. 357, "the mortality was the highest on nearly the same days of September, and its decline commenced in the corresponding week." In the corresponding week of the present year, the Registrar-General, in his return for the week ending September 13th, 1856, reports that four deaths are returned as caused by cholera in London, two of which are those of infants, and two of women aged respectively 42 and 81 years." So that there were four deaths from this disease in the second week of September in 1856, while there were 2,050 deaths in the corresponding week of the same month in 1854. What is the cause of this difference?

Concerning the weather of 1854, the Registrar-General reports for the week ending September 9th, p. 325: "The sun has great power, but clouds and fogs have intervened; no rain has fallen; the wind has been very dry and languid; the electricity positive," etc. Let us compare this report with that for the corresponding week of the present year. The Registrar-General, in his weekly return of the meteorological observations taken at the Royal Observatory, Greenwich, under the superintendence of the Astronomer Royal, p. 296, reports the temperature as being 1 deg. below the average; in 1854, it was above it. The movement of the air in 1856, as being denoted by the figures 420, while in 1854 it was only 195; the rain as being 0.09 in 1856, while in 1854 it was 0.00, or zero; the sky in 1856 as being variable with thunder-storms and rain-clouds, but, on the contrary, monotonous and motionless in 1854; and the electricity, which was positive but weak in 1854, as being both active and positive, with strong tension and volleys of sparks in 1856. Now, no contrast can be greater than this, and yet this is not all; for the barometer furnishes a still stranger contrast than anything else. For the six weeks extending between August 26th and September 30th, 1854, in the Registrar-General's returns of the meteorology at Greenwich, the barometer is quoted at 29.915 in., 30.202 in., and 30.166 in., when the disease had reached its height; and at 29.857 in., 29.972 in., and 30.076 in., when the epidemic was declining; giving a mean height of 30.031 in., according to Mr. Glaisher's computation, quoted in the Registrar-General's Quarterly Return for July, August, and September, 1854, page 30. On comparing the corresponding six weeks extending between August 23rd and September 27th of the present year 1856, the barometer is quoted at 29.472 in., 29.821 in., 29.847 in., 29.852 in., 29.905 in., and 29.241 in., according to the several weekly returns of the meteorology at Greenwich, giving a mean height of no more than 29.591 in. The contrast presented by these numerals is so self-evident that it requires neither remark nor comment, since it speaks for itself; it is, in short, the difference of nearly an inch in the height of the mercurial column.

It may be objected that this is pressing the value of figures too far, and playing with arithmetic for the purpose of enunciating a favourite opinion of one's own. But they, who have recorded the foregoing observations on the weather, and returned them in their reports, have been entirely uninfluenced by any preconceived notions on the subject. Their statistics are official data stamped with the seal of public authority and credit, and as documentary evidence they are of the highest value, if not entirely incontestable.

In an article published in the ASSOCIATION JOURNAL, for the week ending August 2nd, 1856, I ventured to predict that there was this year "no doubt of our liability to another outbreak of the pest, but should the wind continue to blow from the west, instead of from the north-west or north-east, with plenty of rain, we might escape it; but

should the northerly winds prevail, with a drought, and a dull sky, we might now surely prepare ourselves for another irruption of it." What I predicted has literally come to pass. The atmospheric conditions peculiar to the prevalence of Asiatic cholera have been absent, and the disease has been absent also. In March and June, the atmospheric conditions were present for a short time, and so was the disease. The atmosphere changed for the better, and the disease ceased. Allowing for these two slight exceptions in June and March, the weather has been just the reverse of the cholera atmosphere. Instead of a drought, there has been rain; instead of a calm, frequent storms of wind; instead of an overcast sky, white cumuli on the alert throughout the summer. September 1854, was almost devoid of rain. Sept. 1856, has been very wet. Above all, instead of a barometer obstinately fixed at 30 inches, it has, on the contrary, been fluctuating between 30.120 and 29.520 inches. If the movement of the air was represented by the figures 195 in 1854, it has, in 1856, ranged between 420 and 1020; or, the movement of the air has been five times as rapid in 1856 as it was in 1854.

Another singular feature in the history of this plague is the one which is being slowly brought to light respecting the most successful treatment of it. The weight of testimony decidedly preponderates in favour of the mercurial treatment. It brings us back to the old and acknowledged system of therapeutics, and strips the disease of much of its anomalous and mysterious character. In its early stages, the mercurial treatment, judiciously employed, seems altogether successful, while even in its last and worst stage, the greater number of cures seemed to be justly attributable to its prompt employment. This practice corresponds with that which we heard so much of from India, before we became acquainted with the disease in this country, and gives us a clue to its pathology, which is akin to that of congestive inflammation, arising from contaminated blood.

Reviews and Notices.

ON CALCULOUS DISEASE AND ITS CONSEQUENCES; being the Croonian Lectures for the year 1856, delivered before the Royal College of Physicians. By G. OWEN REES, M.D., F.R.S., etc. pp. 81. London: Longmans. 1856.

THE points treated of by Dr. REES in his first Lecture are the so-called oxalic acid diathesis, and the generation of the earthy phosphatic deposit in urine. The oxalic diathesis he believes to be merely a variation of the uric.

"The close relation between the oxalic and uric diathesis has been frequently noticed by chemists, and formulae invented showing the facility with which the elements of uric acid may be converted into those of oxalic acid and urea by the addition of water and oxygen. It has also been long known that the urate of ammonia contained in specimens of guano, frequently becomes entirely converted into oxalate of ammonia during the voyage home; so that there is but little difficulty in believing that oxalate of ammonia may thus form in human urine when urate of ammonia is in excess, and that by decomposition of the calcareous salts present, oxalate of lime may form.

"The question, however, must arise as to the locality in which this change is effected; whether, that is to say, oxalic acid and its compounds be produced from uric acid or from the urates in the blood; or whether, on the other hand, the change be effected in the urine after secretion by the kidney. In this latter case, the uric acid in combination will be excreted as such into the urine, but by after processes, occurring either in the urinary passages, bladder, or chamber vessels, it will present itself to the medical attendant converted (as in guano) into a compound of the oxalic acid. If this be really the case, then we are, of course, constrained to admit that the state of system in which we observe a tendency to the formation of oxalate of lime in the urine, must be considered identical with that of accompanying the uric acid diathesis, and as requiring the same treatment, and the same precautionary measures. Now it has been stated, on the other hand, that oxalate of