SATURDAY, OCTOBER 17TH, 1857.

FRANCIS HIRD, Esq., President, in the Chair.

OUTBREAK OF CHOLERA AT WEST HAM. BY J. SNOW, M.D.

The outbreak had taken place in a row of cottages, called Abbey-row. He had learned a number of particulars from Dr. Elliott, who had attended most of the cases, from other persons, and by his own observation, which he would relate to the Society. Abbey-row consists of about sixteen small houses, situated about a hundred yards from one of the divisions of the river Lea, and about two miles from the Thames. There had been upwards of a dozen very severe cases in a short time, besides some slighter ones, and seven deaths occurred between the 3rd and 13th of the present month. All the cases occurred in the row of houses above-mentioned, except one, which was fatal on the 11th to the sister of a publican living opposite to Abbey-row. She assisted in the business, and had frequent intercourse with persons from the houses where the disease was prevailing. The sole water supply of the row was from a pump situated opposite to the centre of the row, and this pump was used only by the inhabitants of Abbey-row, for the surrounding houses had other supplies. The water from this pump was very impure, and deposited a considerable quantity of organic matter on standing at rest. This impurity was derived, according to Dr. Elliott and others, who had no doubt on the subject, from a sewer which passes almost close to the pump-well. This sewer was open in the greater part of its course between Abbey-row and the branch of the River Lea. It was not a black, offensive sewer; for the water of the Lea flowed up it at a certain part of every tide, and its contents did not differ much in appearance from Thames water. The following was his (Dr. Snow's) explanation of the origin of this outbreak: According to the Weekly Returns of the Registrar-General, a seaman died of Asiatic cholera, on September the 22nd, on board ship at Horsleydown, after an illness of nineteen hours. The ship had arrived the previous afternoon from Hamburgh, and had touched at Gluckstadt, and stopped there twenty hours; the cholera had lately raged at Gluckstadt, and had carried off five per cent. of the inhabitants. There might, of course, have been other cases on board of the shipping from the Elbe, but if not fatal they would not be published in the Returns of the Registrar-General. The ejecta of the above seaman, at all events, would be thrown overboard, and become distributed amongst the water of the Thames, passing up and down with the tide. Now the water of the Thames passed up the Lea, and a portion of this water passed up the tidal ditch or sewer by which the pump-well supplying Abbey-row was contaminated. There was therefore an opportunity for some of the minute particles of the ejecta thrown overboard into the river Thames to reach this pump-well. The first case of cholera in Abbey-row occurred on September 29th, seven days after the death of the seaman at Horsleydown, and two other cases occurred in the same family, but they were not fatal. Numerous occurrences in former epidemics of cholera confirmed this explanation, extraordinary as it might otherwise seem. The first recognised case of true Asiatic cholera in this metropolis in 1848, occurred also on September 22nd, and the subject of it was also a seaman from the river Elbe (the port of Hamburgh), who died at Horsleydown, but ashore, and near the river. Excepting the next case, which occurred in the very same room, all the first succeeding cases, to the number of thirteen, took place as follows: On September 30th a man was taken ill in Lower Fore-street, Lambeth, and died on the following morning. On the same day the first of a series of cases occurred in White Hart-court, Duke-street, Chelsea, near the river. A day or two afterwards there was a case at 3, Harp-court, Fleet-street. The next case occurred on board a hulk, lying off Woolwich; and the next to this in Lower Fore-street, three doors from where the previous case had occurred. Now the people in Lower Fore-street obtained water by dipping a pail into the Thames, there being no other supply in the street at that time. In White Hart-court, Chelsea, the inhabitants also obtained water in a similar way, and had no other supply. The people in Harp-court, Fleet-street, were in the habit of procuring water from St. Bride's pump, which was afterwards closed on its being found that the well had a communication with the Fleet Ditch, and the tide flows up this ditch from the Thames. So much for the introduction of the cholera to Abbey-row, and there were also circumstances to explain its propagation on the spot. The houses were provided with a sort of water-closet, to which, however, the water was carried by hand, and these water-closets communicated, by means of drain-pipes, with a large covered cesspool at the back of the row. This cesspool was believed to be not yet full as regarded its solid contents, but it received all the water used in the cottages, and the overflow of this liquid passed into the same tidal sewer or ditch, by which the pump-well was contaminated. In this way the disease had, in his opinion, been communicated from one to another of the inhabitants of the row without personal intercourse. Some patients, however, when others were previously ill in the same family, had probably acquired the malady in the more ordinary way, by the reception of the *materies morbi* without the medium of water, and the public-house in which one case had occurred was provided with a separate pump-well on the premises. The handle of the pump was removed on the previous Monday, the 12th, and there was but one case after this, which was fatal on the following day. He did not know, however, whether or not the outbreak might have exhausted itself before this precaution was taken. It was not known that there were any other cases of cholera at the time in the parish, or even in the whole of London.

Dr. LANKESTER had no doubt that the cases referred to were true cholera. Though Dr. Snow had proved his position with respect to the Broad-street pump, he (Dr. Lankester) did not think he had succeeded in showing that the cases at West Ham had their origin in the case on board a vessel two miles away. The outbreak was more likely to be dependent on some atmospheric or climatic influence making choleraic matter contagious.

LUPUS TREATED BY COD-LIVER OIL. BY T. HUNT, ESQ.

Mr. HUNT exhibited a patient who, under a protracted course of cod-liver oil, in small doses, had been cured of lupus exedens, of the strumous character. The patient was a woman twenty-two years of age, and had suffered from the disease for twelve years, the ulceration having involved a portion of the nose and face. The oil was administered in drachm doses three times a day, and continued for some months.

ON THE MORTALITY OF INFANTS IN FOUNDLING INSTITUTIONS, AND GENERALLY AS INFLUENCED BY THE ABSENCE OF BREAST-MILK. BY C. H. F. ROUTH, M.D.

After a few introductory remarks on the paucity of statistics published on this subject, as showing the experience of this country, Dr. ROUTH stated he was obliged to have recourse to the experience of foreign countries, more especially France. It was true that there might be error introduced by the comparison of data collected in different countries, still, as the vital statistics in most countries were governed by the same laws, the results would still be relatively true. Most writers on foundlings had attributed the mortality to want of breast-milk, whereas there were other causes of mortality far more potent. In papers of this kind, it was usual to speak of three hospitals, Paris, Lyons, and Rheims, besides Parthenay, and a place called X. Now, in Lyons and Parthenay, where the children were suckled at the breast, the mortality was respectively 33·7 and 36 per cent.; whereas in Paris, Rheims, and X, where they were brought up by hand, it was respectively 50·3, 63·9, and 80 per cent. From more extended examples in Europe, it was found the mortality of ordinary foundlings varied from 40 to 91 per cent. M. de Watteville, however, had shown that in France the mortality, where it was highest for foundlings, varied from 50—25, a mean of 26·5; where it was least, from 0 to 5—mean, 3·6 per cent.; and for exposed foundlings, from 83 to 60 where it was highest—mean, 72·4; and where it was least, from 0 to 19·2—mean, 13·4. In other words, the mortality from 1 to 12 years was 78 per cent.; in the first year, 50 per cent.; and the mean duration of life of foundlings was 4 years. Fortunately, of late years, it was on a decrease for all France, having been 14 per cent. in 1838, and 11·30 in 1844. Dr. Routh then instanced particularly the cases of Lyons, Rheims, and Paris, showing that the arrangements in Lyons were excellent, and all the children were wet-nursed. In Rheims, besides dry-nursing, they were very badly cared for; whereas in Paris, most were also wet-nursed, but in the two latter cases the nurses were not watched sufficiently closely.

1. In comparing the mortality of such institutions, it was necessary to determine what was the actual mortality out of hospitals amongst children generally. This was mostly neglected. Here, at the outset, there was a remarkable difference between *town* and *country* residents. In Ireland, in civic districts, the mean mortality was per cent. for children under 1, 14·7 civic, 8·8 rural districts; for children under 5 years old, 8·1 civic, 4 rural. In England, taking towns and agricultural counties, the proportion of deaths of children under 1 and 5 to all deaths was respectively, for the former age, 23·7 and 49·8; for the latter age, 21 and 34·9. Calculating for foundlings from 1 to