

all selected solely because of their manifest illness, so that the entire series of 46 cases may be regarded as fairly representative.

2 It should be remarked that the present inquiry is in some respects a peculiar one, for an impression already exists that the fever in question is of a "relapsing" type—tending, that is, to recur after intervals of 6 or 8 days, and being liable to last for a month or more; hence the need of sufficiently prolonged observation, and the period of 3 weeks occupied by the Committee cannot be regarded as too long a time. Again, those cases which came first under notice will obviously be the most complete, whilst those taken down subsequently must be more or less imperfect; and, further, as it was impossible to restrain the movements of patients, many individuals left before they were really convalescent.

3. Analysis of the series obtained after much care, shows the following results:—

Nature of ailment.	First series.	Second series.	Total.
Fever of relapsing type.....No.	8	4	12
Intermittents (?)	3	0	3
Remittents....."	4	3	7
Undecided	9	18	27

Five deaths are known, all amongst the cases too briefly studied to be accurately discriminated.

The above summary is only a very general one, but it serves to show what has here been elicited: thus 12, or about $\frac{1}{4}$ of the total instances, were of the relapsing type, whilst there were rather fewer of ordinary malarious character, although the conditions abounded in Camp for developing this latter form. Of the "undecided" cases, many would of course, come under one or other heading; but the Committee have no reason for believing that the "undecided" differed essentially from those cases whose real character was fully ascertained.

4. For purpose of discrimination, it was necessary to note—1st, common symptoms; 2nd, the natural course of the disease; and, 3rd, diagnostic points; and the Committee having employed these means, are of opinion that there is now prevalent in Bombay a severe form of fever, which presents a decided recurring tendency, and which has also many of the more general characters of "relapsing" fever so-called; they would especially record that amongst the few cases it was practicable to examine, in 5 instances (4 of which may be regarded on other grounds as typical) the peculiar organism known as the *Spirillum Febris Recurrentis* of Coïn (*vide* Health Reports of the Privy Council, new series, No. III, London, 1874.) has been satisfactorily demonstrated by one of themselves to exist in the blood of patients during the febrile paroxysms. Now, if this last fact be viewed as truly diagnostic, the question of the nature of the more prevalent form of fever here is so far disposed of, that it may be said there is the closest resemblance between the relapsing fever of Bombay and that of Europe. To advance more than this might be premature, for it is well known to medical men that the remittent variety of malarious fever is capable of assuming many phases; and, besides, there is on record abundant evidence of the prevalence in India, in late and bygone times, of fevers nearly approaching the relapsing type but not yet proved to be identical with the European species. In submitting these remarks the Committee consider it not beyond their office to intimate that present experience in Bombay will probably serve to amend the views upon this important topic which have hitherto prevailed.

5. Regarding the subject of the spread of these fevers, the Committee have acquired but scanty data, and more particularly referring to the recurrent form; they are content to observe that it has been known here to affect members of a family in succession; relatives of the sick and, as well, members of the establishments in connection with the Camp, have been attacked with a severe form of fever; but being aware that other causes than contagion might possibly be adduced to account for these events, the Committee are not prepared to offer further comment.

As to the connection of this fever with famine or destitution and want, and as to the sole liability of immigrants as compared with those resident in Bombay for more than 6 months, the Committee find no clear affirmative evidence; and, lastly, while they are unable to assign a single cause for the serious malady

under consideration, they are of opinion that malarious influences, insufficient or poor diet, hard work, and particularly overcrowding in unhealthy homes, have probably a great share in its production; the last-named hurtful agency they would especially note, inasmuch as it has been particularly indicated in Europe, and is notoriously prevalent in Bombay.

6. In conclusion, the Committee have to thank Mr. Blaney and the Municipal and Police authorities at the Camp, for much useful aid; and they would record their approbation of the unselfish exertions of the medical subordinates told off to assist in this inquiry.

Appended are 49 temperature charts and 2 large tabular statements of details.

April 27th, 1877.

NOTE ON CHOLERA.

By W. ROBERT CORNISH, F.R.C.S.,
Sanitary Commissioner, Madras.

IN the March number of the *Practitioner*—Department of Public Health—I see that Dr. Max von Pettenkofer repeats a story with reference to a conversation he had with General Sir Patrick Grant on the precautions taken to prevent an outbreak of cholera in a European regiment marching from Bangalore to Madras just twenty years ago. The story as related by Pettenkofer was given to the British public in the *Lancet* of September, 1871, by Professor G. Rolleston of Oxford, and immediately on seeing the statement I contradicted it, my letter being published in the *Lancet* of 11th May, 1872. Mr. C. Macnamara, in his *History of Asiatic Cholera*, pp. 248, 249, quotes both the statement and refutation, and notwithstanding this public denial I see that Pettenkofer repeats the story in support of his view that cholera is not influenced by the nature of the water-supply, just as if his facts had never been questioned. It so happens that Mr. Madden, Deputy Surgeon-general, is now in Madras, and this officer was in medical charge of the wing of H. M.'s 43rd Regiment when the cholera outbreak quoted by Pettenkofer occurred, and he assures me, that the statement regarding water having been carried from a healthy district for the use of troops while passing through a tract invaded by cholera, is a pure fiction. Deputy Surgeon-general Madden reminds me that the march of the regiment was undertaken at twenty-four hours' notice, in order to relieve a corps in Madras ordered for active service in Persia, and that even if any orders had been issued on the subject of carrying pure water, there was no time to make the necessary arrangements. As a matter of fact the water issued for the troops was taken from the several villages in which cholera prevailed, and the efforts of the officers to isolate the men of the regiment from the infected villages were nugatory, and the official records of the regiment prove that the first cases of cholera occurred in men who had been straying from the camp to infected villages in search of drink. The late Deputy-Surgeon-general A. Barclay's contradiction of the statement was just as emphatic as Dr. Madden's. Dr. Barclay was at the time surgeon to H. M.'s 43rd Regiment. This example should, therefore, be eliminated from the store of Dr. Pettenkofer's facts regarding the mysteries of cholera.—*Practitioner*.

A Transformation following Mumps.—M. Lereboullet presented a soldier, aged twenty-two, before the Société des Hôpitaux who had undergone a very serious transformation as a result of an attack of mumps. When affected by this four months ago, he was in possession of full virile powers, but four days after the origin of the mumps he was seized with double orchitis, the testicles acquiring the size of a fist. Three days later, the orchitis disappeared, the parotidian tumefaction persisting for some time longer, and then also disappearing. In the course of twenty days the testes became so atrophied as not to exceed an almond in size. At the same time the mammary glands underwent considerable development. The man, whose pilous system of the pubis was well developed, also found his beard ceased growing, so that the chin became absolutely smooth. Thus, this young man, who before had presented all signs of virility, and no signs of feminism, now found his testicles wasted, his breast developed, and his venereal desires gone. Mr. Lereboullet believed these changes were definitive, and that they should (why we cannot imagine) exempt the subject of them from military service.—*Medical Times and Gazette*.