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# MADRAS RECORD OFFICE

## GOVERNMENT OF MADRAS

Revenue DEPARTMENT

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| G.O. No. / B.P. No. | 1271. | Press / Mis. |
| Dated | 6 . 10 - 1874 ~~196~~ . . | |

*Not to be folded or roughly handled*

*Proceedings of the Madras Government, Revenue Department,*
*6th October* 1874.

No. 49. Read the following letter from Surgeon-General E. G. BALFOUR, Surgeon-General, Indian Medical Department, to the Secretary to Government, Revenue Department, dated Fort St. George, 15th September 1874, No. 428 :—

In my letter, No. 363, dated 11th August 1874, and the attached report, I had the honor to submit to the Right Honorable the Governor in Council all the information which had been obtained regarding the disease attended with great thirst from which the people were suffering in the Tinnevelly and adjoining districts.

2. I have now to submit a further report from Surgeon Rickard and one from Hospital Assistant V. Ramasawmy, No. 256, and a report from Hospital Assistant P. Nalliah Naidu, No. 476, descriptive of the causes of sickness which occurred in the Ettiapuram and Ottapidaram Taluqs of Tinnevelly. Hospital Assistant V. Ramasawmy says he had, under his medical care, seventy-six cases of the water-drinking disease, mostly mild, and some requiring little or no treatment; but he does not give the dates at which he saw these ailments. The symptoms which he describes as attending the disease are those of fever with a very hot skin. I gather from his remarks that the people attributed the disease to the use of unripe Cumboo (*Pencillaria spicata*), which had been cut before fully ripened, and a scant rain-fall; and the Hospital Assistant also indicates as causes scarcity of water with severe heat, as he found a peculiar taste in almost every tank and well sunk in the bed of the river adjacent to each village, impregnated with saline matters, bitter and unfit for drinking purposes. The treatment he adopted was such as is usual in fever attended with severe heat of skin. He reports the occurrence of thirteen deaths from diarrhœa and dysentery brought on from living on water and not taking any nourishing food.

3. Surgeon Rickard made a house-to-house visitation of Ettiapuram along with Mr. Bird. He describes it as a poor, dependent village; its sanitary condition as, indeed, at a low ebb; and the wells something dreadful to behold, with thick, black fetid mud round their walls, constantly stirred up and rendered more liquid by the crowds of persons, the water percolating into the wells; the well-water brackish; and the whole country for miles around with a parched up and withered appearance. He found to be due to other ailments many cases which the people believe to be of this new disease; but that there has been very severe sickness in that locality is proved by the fact that of fifty-two cases thirteen had died,—25 per cent.,—between 9th July and 8th August of the current year. Surgeon Rickard recognises that there has been a large amount of sickness and increased mortality in a poor, ill-fed, and badly-housed community, but is of opinion that the diseases have been various, and that there has not been any epidemic prevailing. He is inclined to attribute the sickness of the people to the use of the unripe Cumboo grain, used while too recently gathered. He looks to better food and to an abundant rain-fall as a remedy for the existing condition, and, whilst the people are being supplied with rice, milk, *etc.*, from the Chuttrum fund, recommends that all suspected cases of Tunnir-kudi-novoo should be fed from that fund; he recommends that a medical subordinate should perambulate the district, and induce the villagers to remedy the defective sanitation.

4. In my former letter I mentioned that the examination which had been made of the sample of the grain received from Tinnevelly failed to detect any difference in it from that found in the Madras market; the reports now sent point to new Cumboo

as one possible cause of the unusual sickness. But the state of the drinking water and the condition of the wells are almost sufficient to produce severe diseases; and I have, in anticipation of approval, directed the Deputy-Surgeon-General of the Southern Districts to detail a warrant medical officer to report on the sanitary condition of the villages in that tract of country and to carry with him medicines suitable for the kind of ailments with which he will meet.

5. I recommend that, while so employed, the Apothecary be allowed the marching batta of his rank and be compensated for the Rs. 30 per mensem which he would lose by leaving his fixed appointment, or, if more acceptable, an allowance of 50 per cent. of his salary which would be Rs. 75 per month.

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ENCLOSURE No. 1.

From Surgeon F. M. RICKARD, Zillah Surgeon, Tinnevelly, to R. K. PUCKLE, Esq., Collector of Tinnevelly, dated Palamcottah, 31st August 1874, No. 169.

IN compliance with your letter, No. 684, dated 11th August 1874, I have the honor to inform you that I have visited and carefully inspected Ettiapuram, and give below the results of my inquiry there.

Ettiapuram is essentially a poor village, the inhabitants for many reasons being in a poor and dependent position; the houses are bad and ill ventilated; the streets are dirty and ill-made; sanitation in this village is, indeed, at a low ebb; and the wells are something dreadful to behold,—the thick, black, fetid mud round the wells is constantly being stirred up and rendered more liquid by the crowds of persons frequenting them, thus rendering it more easily absorbed again into the wells, round which there are no precautions taken against the soiled water percolating back. The water of this village is impure and brackish in taste and cannot be wholesome. At present, there is no sign of rain there, and the whole place and for some miles round has a withered and parched appearance. There has been no rain there now for nearly a year. During the time I was at Ettiapuram I made house-to-house visitation accompanied by Mr. Bird, who obtained for me much useful information, and assisted me very much in my inquiries. I have appended tabular statements, to which I shall make reference in the course of my report.

The first point I would notice is, that the number of cases of Tunnir-kudi-novoo reported seems to me to be a mistake, as many cases were attributed to this disease; whereas, in truth, they had no connection whatever with it. This I was able to prove and verify by my personal observation. To give an example of the manner in which every case of sickness is at once attributed to Tunnir-kudi-novoo: a child aged ten months was shown to me and symptoms described, and its parents were perfectly under the impression that it had the disease, whereas the little child was simply suffering from teething.

Another example is almost as far-fetched, in which an old woman, aged 80 years, suffering from a large malignant tumour on the back of the head, was shown to me as a victim of Tunnir-kudi-novoo.

There is not the slightest doubt that numbers of cases have been reported as suffering from the above-named disease and wrongly attributed to it.

*Secondly.*—I found that fifty-two cases of Tunnir-kudi-novoo had been reported, and that of that number thirteen had died and twenty-eight had got without any treatment whatever. In Table A the whole of the fifty-two cases are given as reported.

*Thirdly.*—I would here remark on the thirteen deaths as reported. Table B gives the deaths with age and caste. With reference to the ages of the deceased, I find that they are rather under than over-stated. In the thirteen deaths it will be noticed that ten are 40 years



and above. Of the three remaining cases, viz., Nos 8 10, and 13, I gleaned the following informations from the relatives of the deceased persons:—

In the case of No. 10 the husband stated that his wife had always been very sickly. They had been married four years but had no children. She was always subject to diarrhœa, and latterly suffered much from dysentery, which eventually proved fatal. In the case of No. 13, the mother states that her daughter's age was nearly 50 when she died, and that she had been sick for six months and had suffered from dysentery up to the day of her death.

In the case of No. 8 (an orphan boy) the friends state he was ill about a month-and-a-half and had fever, which eventually carried him off.

Thus, of the thirteen deaths, we have eleven cases of 40 and above, and two of 22 and 12, respectively; but this is not sufficient evidence to prove the existence of an epidemic, nor is it unreasonable to suppose that the whole number (thirteen) died from general causes.

*Fourthly.*—We now come to the cases actually seen tabulated in Form C. Of these it will be noticed that six are above 65 years of age, suffering from various complaints, and the rest, with the exception of No. 1, just such cases as exist in every village, only requiring some little treatment. The first case in this table,—a young female aged 25,—was suffering from severe diarrhœa, but which I treated and relieved. In this case there were symptoms which might be attributed to Tunnir-kudi-novoo, and the diarrhœa was possibly the result of the continued use of Cumboo grain. There was thirst in this case, but not excessive,—not more so than met with in ordinary practice. This case, however, was better when I left the village.

Of the remainder of the cases in this statement it will be unnecessary to report further, as the cases speak for themselves.

*Fifthly.*—The next point is, what caste or castes have been particularly attacked with the disease? In Form D the castes are given and the number attacked in each caste. In the statement it will be noticed that forty-five persons of the Weaver caste were attacked, only two Maravens, two Betelmonger, and three Pandarams. The Weaver caste is notoriously an unhealthy one and, I regret to say, tainted with hereditary syphilitic poison to an alarming extent. It will be noticed that not a single Brahman has been attacked, and in the same manner nearly all the higher castes have escaped any ill-effects of the disease. Further, among those who have been attacked with the disease the greatest number were old and enfeebled persons, averaging from 50 to 70 years of age.

That there has been a large amount of sickness in this village and an increased mortality I believe; but when we come to consider that the population is about 6,500 and that the people are poor, ill-fed, and badly-housed, I do not admit that there has been anything of the character of an epidemic, which, if present, would respect little, either age or caste. It appears that the staple-food of the people of this part is Cumboo, and that the harvest of this grain has been very unsatisfactory owing to the great want of rain. In consequence of this great drought, the grain has not matured in the ear before it has been reaped, and it has, therefore, not developed the properties belonging to it. Moreover, the new Cumboo is cheaper than the old, and therefore it is manifest why it is eaten by the poorer classes. That this new Cumboo has caused sickness I have not the slightest doubt, and all the information I obtained tended to the same opinion. Until we can have the blessing of good rain, I am afraid that this state of things must continue to a greater or lesser degree; but I cannot advise any line of treatment, unless, of course, it was possible to provide the afflicted villages with grain of a better sort. Those who are now sick are being supplied with rice, milk, *etc.*, from the Chuttrum fund, and all cases of suspected Tunnir-kudi-novoo should be at once fed from the same fund. I do not consider much good is to be gained from medical treatment; but I would suggest that a subordinate be ordered to travel from village to village to render what assistance he can, and also to induce the villagers to take some steps to remedy their defective sanitation.

I have the honor to enclose the reports from the two medical subordinates who were detailed to render what assistance they could in some of the villages where Tunnir-kudi-novoo was supposed to exist.

STATEMENT A, showing the Number of Persons affected by Water-drinking Disease.

| Name of Village | Names of Persons. | Age. | Sex. | Caste. | Date on which Sickness was reported. | Recovered. | Died. | Date of Death. | |
|---|---|---|---|---|---|---|---|---|---|
| Ettiapuram. | S. Sankaralinga Mudaly .. | 40 | Male. | Weaver. | 9th July 1874. | .... | 1 | 30th July 1874. | |
| | Soobramania Mudaly .. .. | 50 | Do. | Do. | Do. | 1 | .. | | |
| | Omeya Mudaly .. .. | 40 | Do. | Do. | Do. | .... | 1 | 2nd Aug. 1874. | |
| | R. Sankara Mudaly .. .. | 60 | Do. | Do. | Do. | .... | 1 | 7th " " | |
| | Patchoe .. .. .. .. | 22 | Female. | Do. | Do. | 1 | .... | | |
| | Ammamuthu .. .. .. | 50 | Do. | Do. | Do. | 1 | .... | | |
| | Akkammal .. .. .. | 50 | Do. | Do. | Do. | 1 | .... | | |
| | Cannamai .. .. .. | 50 | Do. | Do. | Do. | 1 | .... | | |
| | Annamalai Mudaly .. .. | 60 | Male. | Do. | Do. | .... | 1 | 4th Aug. 1874. | |
| | Sankaralinga Mudaly .. .. | 60 | Do. | Do. | Do. | 1 | .... | | |
| | Arikonda Mudaly .. .. | 22 | Do. | Do. | Do. | 1 | .... | | |
| | Muthoo Valy .. .. .. | 22 | Female. | Do. | Do. | 1 | .... | | |
| | Avaday .. .. .. .. | 25 | Do. | Do. | Do. | 1 | .... | | |
| | Valli .. .. .. .. | 22 | Do. | Do. | Do. | 1 | .... | | |
| | Ponnaiyavoo .. .. .. | 60 | Do. | Do. | Do. | 1 | .... | | |
| | Mankamy Mudaly .. .. | 45 | Male. | Do. | Do. | 1 | .... | | |
| | Anandy .. .. .. .. | 40 | Female. | Do. | Do. | 1 | .... | | |
| | Madathy .. .. .. .. | 22 | Do. | Do. | Do. | 1 | .... | | |
| | Mootoo Mudaly .. .. .. | 60 | Male. | Do. | Do. | 1 | .... | | |
| | Camatchee .. .. .. | 25 | Female. | Do. | Do. | 1 | .... | | |
| | Viraven Autchee .. .. | 40 | Do. | Do. | Do. | .... | 1 | 6th Aug. 1874. | |
| | Ponnoo .. .. .. .. | 55 | Do. | Do. | Do. | .... | 1 | 8th " " | |
| | Sodalaimootoo .. .. .. | 15 | Male. | Betelmonger. | Do. | 1 | .... | | |
| | Veerabuthern Mudaly .. .. | 60 | Do. | Weaver. | 4th Aug. 1874. | 1 | .... | | |
| | Sevavetty .. .. .. .. | 60 | Do. | Do. | Do. | 1 | .... | | |
| | Annanchee .. .. .. .. | 21 | Female. | Do. | Do. | .... | .... | ..... | Under treatment. |
| | Sonachellum Mudaly .. .. | 40 | Male. | Do. | Do. | .... | 1 | 6th Aug. 1874. | |
| | Annamalai Mudaly .. .. | 30 | Do. | Do. | Do. | 1 | .... | | |
| | Muthuvalu .. .. .. .. | 35 | Female. | Do. | Do. | 1 | .... | | |
| | Maden Mudaly .. .. .. | 12 | Male. | Do. | Do. | .... | 1 | 10th Aug. 1874. | |
| | Ranalingam .. .. .. | 65 | Do. | Washerman. | Do. | 1 | .... | | |

*Proceedings of the Madras Government, Revenue Department, 6th October 1874.*

STATEMENT A, showing the Number of Persons affected by Water-drinking Disease.—(*Continued*).

| Name of Village | Names of Persons. | Age. | Sex. | Caste. | Date on which Sickness was reported. | Recovered. | Died. | Date of Death. |
|---|---|---|---|---|---|---|---|---|
| Ettiapuram.—(*Continued.*) | Sevanoo .. .. .. .. | 58 | Male. | Washerman. | 4th Aug. 1874. | 1 | .... | |
| | Madasamy .. .. .. .. | 15 | Do. | Weaver. | 6th Aug. 1874. | 1 | .... | |
| | Ramalinga Mudaly .. .. | 60 | Do. | Do. | Do. | 1 | .... | |
| | Autchee .. .. .. .. | 65 | Female. | Do. | Do. | .... | 1 | 14th Aug. 1874. |
| | Avoodai .. .. .. .. | 22 | Do. | Do. | Do. | .... | 1 | 6th do. |
| | Kunnayee .. .. .. .. | 72 | Do. | Do. | Do. | 1 | .... | |
| | Ackasa Mudaly .. .. .. | 65 | Male. | Do. | Do. | .... | 1 | 6th do. |
| | Alankarai Mudaly .. .. | 60 | Do. | Betelmonger. | Do. | 1 | .... | |
| | Santhamarutha Pulaven .. | 72 | Do. | Sungamandy. | Do. | 1 | .... | |
| | Naiyagam .. .. .. .. | 30 | Female. | Do. | Do. | 1 | .... | |
| | Ramasamy .. .. .. .. | 45 | Male. | Maraven. | Do. | 1 | .... | |
| | Muthoo Rakoo .. .. .. | 15 | Female. | Do. | Do. | 1 | .... | |
| | Coolanthavelu Pulaven .. | 67 | Male. | Sungamandy. | Do. | 1 | .... | |
| | Vallian Mudaly .. .. .. | 30 | Do. | Weaver. | 8th Aug. 1874. | 1 | .... | |
| | Madathy .. .. .. .. | 48 | Female. | Do. | Do. | .... | 1 | 8th Aug. 1874. |
| | Sivanauchari .. .. .. | 50 | Do. | Do. | Do. | 1 | .... | |
| | Kaly .. .. .. .. | 60 | Do. | Do. | Do. | 1 | .... | |
| | Avooday .. .. .. .. | 50 | Do. | Do. | Do. | .... | 1 | 8th do. |
| | Mankamy .. .. .. .. | 30 | Do. | Do. | Do. | 1 | .... | |
| | Sanmoogum .. .. .. | 12 | Do. | Do. | Do. | 1 | .... | |
| | Vallaiammal .. .. .. | 40 | Do. | Do. | Do. | | | |

(Signed) F. M. RICKARD, Surgeon,
*Zillah Surgeon, Tinnevelly.*

PALAMCOTTAH,
31*st August* 1874.

*Proceedings of the Madras Government, Revenue Department, 6th October 1874.*

STATEMENT B, showing the Number of Deaths.

| No. | Names. | Age. | Sex. | Caste. | Date on which Disease was reported. | Date of Death. | Remarks. |
|---|---|---|---|---|---|---|---|
| 1 | S. Sangaralinga Mudaly .. .. | 40 | Male. | Weaver. | 9th July 1874. | 30th July 1874. | |
| 2 | Omaya Mudaly .. .. | 40 | Do. | Do. | Do. | 2nd August 1874. | |
| 3 | R. Sungara Mudaly .. .. | 60 | Do. | Do. | Do. | do. | |
| 4 | Annamalai Mudaly .. .. | 60 | Do. | Do. | Do. | do. | |
| 5 | Vyravanatchee .. .. | 40 | Female. | Do. | 6th do. | 6th do. | Probably died from some severe form of fever. |
| 6 | Ponnoo .. .. | 55 | Do. | Do. | Do. | 10th do. | |
| 7 | Somachellum Mudaly .. | 40 | Male. | Do. | 4th August. | 6th do. | Woman always delicate; Suffered much from diarrhœa and dysentery. |
| 8 | Madan Mudaly .. .. | 12 | Do. | Do. | Do. | 6th do. | |
| 9 | Autchee .. .. | 65 | Female. | Do. | 6th do. | 14th do. | |
| 10 | Avoodai .. .. | 22 | Do. | Do. | 6th do. | 6th do. | |
| 11 | Akasa Mudaly .. .. | 65 | Male. | Do. | 6th do. | 6th do. | |
| 12 | Sevanatchee .. .. | 50 | Female. | Do. | 8th do. | 8th do. | |
| 13 | Mankamy .. .. | 30 | Do. | Do. | 8th do. | 8th do. | This woman's age was nearly 50. |

PALAMCOTTAH,
31st August 1874.

(Signed) F. M. RICKARD, Surgeon,
Zillah Surgeon, Tinnevelly.

STATEMENT C, showing the Number of Cases actually seen on 20th and 21st August 1874.

| No. | Names. | Age. | Sex. | Caste. | Date on which Sickness was reported. | Disease. | Result. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| 1 | Ananjee .. .. .. | 25 | Female. | Weaver. | 9th July 1874. | Diarrhœa. | Better. | Treated. |
| 2 | Alangamm .. .. .. | 70 | Male. | Betel-monger. | do. | Tunnir-kudi-novoo. | Recovered. | Supposed to have suffered from the disease. |
| 3 | Avoodai .. .. .. | 65 | Female. | Weaver. | Do. | Diseases of heart. | Sick. | Do. |
| 4 | Kunnayee .. .. .. | 80 | Do. | Do. | Do. | Cancer. | Do. | Do. |
| 5 | A. Avoodai .. .. .. | 25 | Do. | Do. | Do. | Dyspepsia. | Better. | Do. |
| 6 | Ammaimootoo .. .. .. | 65 | Do. | Do. | Do. | Diarrhœa. | Do. | Do. |
| 7 | Shunmoogum .. .. .. | 8 or 9 | Male. | Do. | Do. | Worms. | Do. | Do. |
| 8 | Valleammah .. .. .. | 35 | Female. | Do. | Do. | Tunnir-kudi-novoo. | Recovered. | Do. |
| 9 | Colanthavaloo .. .. .. | 65 | Male. | Pandarem. | Do. | Do. | Do. | Treated for (do.) Constipation. |
| 10 | Nayagum .. .. .. | 25 | Female. | Do. | Do. | Do. | Do. | Do. |
| 11 | Sundamuratha Pulaver Pandarem .. .. | 72 | Male. | Do. | Do. | Do. | Do. | Do. |

PALAMCOTTAH,
31st August 1874.

(Signed) F. M. RICKARD, Surgeon,
Zillah Surgeon, Tinnevelly.

*Proceedings of the Madras Government, Revenue Department,*
*6th October* 1874.

STATEMENT D, showing the Number of Persons of different Castes residing at Ettiapuram and also the Number of Persons affected by water-drinking Sickness.

| No. | Description of Caste. | No of Persons in Ettiapuram. | No. of Persons affected by the Sickness. |
|---|---|---|---|
| 1 | Brahmins | 411 | .. |
| 2 | Vellalars | 615 | .. |
| 3 | Sungarapully Pandarams | 82 | 3 |
| 4 | Chettis | 225 | .. |
| 5 | Caveri Vaidoos | 87 | .. |
| 6 | Smiths | 318 | .. |
| 7 | Marayers | 322 | 2 |
| 8 | Shepherds | 20 | .. |
| 9 | Oil-monger | 22 | .. |
| 10 | Curavers | 56 | .. |
| 11 | Dyers | 20 | .. |
| 12 | Barbers | 80 | .. |
| 13 | Fishermen or Parawars | 10 | .. |
| 14 | Washermen | 27 | .. |
| 15 | Tailors | 45 | .. |
| 16 | Betel-mongers | 241 | 2 |
| 17 | Mussulmans | 230 | .. |
| 18 | Weavers or Kykalers | 938 | 45 |
| 19 | Arrack-sellers | 125 | .. |
| 20 | Bricklayers | 45 | .. |
| 21 | Puttans or Saibs | 262 | .. |
| 22 | Paravarathars | 1,406 | .. |
| 23 | Pullars | 199 | .. |
| 24 | Pariahs | 416 | .. |
| 25 | Chucklers | 119 | .. |
| 26 | Shanars | 141 | .. |

PALAMCOTTAH,
31st *August* 1874.

(Signed) F. M. RICKARD, Surgeon,
*Zillah Surgeon, Tinnevelly.*

ENCLOSURE No. 1.

From V. RAMASAWMY, No. 256, Hospital Assistant, Sub-Collector's Department, Tinnevelly, to the Zillah Surgeon, dated Courtallam, 16th August 1874.

WITH reference to your docket, dated 12th instant, I beg to report that seventy-six cases of Tunnir-kudi-novoo were admitted by me during my stay at Ettiapuram and Ottapidaram Taluqs. Most of these cases were mild and some of them required little or no treatment. I adopted was to give 5-grain doses of "Chlorate of Potassa" once in every four hours. Every case that took the medicine in the manner alluded to reported favorably and proved well. Meantime, I paid attention to the state of the bowels, and I found nothing remarkable therein.

2. One case of diarrhœa was brought to me and fully succeeded by the usual treatment. No deaths occurred in any of the cases that were brought to my treatment.

*Report on Tunnir-kudi-novoo.*

DURING the time I was in the Vellattikulam Division to treat the persons suffering from the disease called Tunnir-kudi-novoo, I observed the following symptoms:—Intolerable thirst, particularly at night, dry skin, lassitude, loss of appetite, bowels irregular, pulse quick and feeble, tongue furred and in some clean, general burning sensation in the evening, restlessness at night, urine said to be in all cases free and in a large quantity.

2. The persons who came under my treatment were almost all of the working class entirely living on Cumboo.

3. When questioned the people of that part of the district about the cause of this complaint, they say that it is owing to the untimely harvest of Cumboo, fearing that it might be robbed by the poorer classes for the scarcity of grains occurred in this year and for not having the usual and sufficient rain prior to the harvest; but, in my humble opinion, that scarcity of water and severity of the sun also may be the cause, as I experienced peculiarity in taste that almost every tank and well sunk in the bed adjacent to each village are composed of some saline matters and found to be deficient and unfit for drinking purposes and in some slight bitterness. In some villages the well-to-do class run a cart to the neighboring village where they could get water.

4. The treatment consisted sudorifics, purgatives, refrigerants, and Cinchonine of 5-grain doses, twice a-day; and I advised the people conjee-water, milk-conjee or butter-milk, with some rice instead of bare water drinking.

5. The cause of several deaths occurred, without treatment from diarrhœa and dysentory, produced from living themselves on water without any nourishment.

COURTALLAM,
15th August 1874.

(Signed) P. NALLIAH NAIDOO,
Hospital Assistant, Collector's Establishment.

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No. 50. ORDER THEREON, 6th October 1874, No. 1,271.

Miscellaneous.

COMMUNICATED to the Board of Revenue and to the Sanitary Commissioner.

2. The Surgeon-General's action in directing a warrant medical officer being sent to inspect in those parts of the country where this novel disease has appeared is approved, and further orders on the subject will be passed in the Public Department.

(True Extracts)

(Signed) C. G. MASTER,
*Acting Secretary to Government.*

To the Board of Revenue.
„ the Sanitary Commissioner.
„ the Surgeon-General, Indian Medical Department.
„ the Public Department.

Ed. F. R. Bantleman.

No 169

13
b/1271.

Ballinasloe
31st August 1874

From

Surgeon W. H. Sheppard
Gillah Surgeon Innomelly

To

The H. C. Duke Engineer
Collector of Innomelly

Sir,

In compliance with your
Letter No 684, dated 11th August 1874, I have the
honor to inform you, that I have visited &
carefully inspected Ellaparaw, and give below
the results of my enquiry there.

Ellaparaw is essentially a poor village,
the inhabitants for many reasons, being in a
poor and dependent position. The houses are
bad and ill-ventilated, the Streets are dirty
and ill made. Sanitation in this village is
indeed at a low ebb, and the wells are somethin
dreadful to behold. The thick black fetid
mud round the wells is constantly being
stirred up and rendered more liquid, by the
crowds of persons frequenting them, thus rendering

Scht. of 1874 Exhibits.

REVENUE.

To

THE BOARD OF REVENUE,

&c, &c, &c.

Fort St George,
The 3rd October 1874.

Sir,

I have the honor to forward herewith, for the information of the Board of Revenue, a copy of a Report, dated 28th ultimo, from the Surgeon-General, Indian Medical Department, submitting further reports on the —: appearing to the Surgeon-General's opinion in ordering a Civil Surgeon to visit certain parts of the country with a view to ascertaining the cause of the prevalence of fever in those parts, and directing the issue of further orders on the subject in the Public Department.

I have, &c.

Sd/ —

Secretary to Government.

G. O. (Ex.) October 1874, No. 1,271.

OCTOBER.

Nos. 49-50.

"Water-drinking" Disease, lately prevalent in Tinnevelly.—Communicating to Revenue Board and Sanitary Commissioner Inter alia from the Surgeon-General, Indian Medical Department, submitting further reports on the —: appearing to the Surgeon-General's opinion in ordering a Civil Surgeon to visit certain parts of the country with a view to ascertaining the cause of the prevalence of fever in those parts, and directing the issue of further orders on the subject in the Public Department.

to more easily absorbed again into the wells, round which there are no precautions taken against the soiled water percolating back— The water of the village is impure and brackish in taste and unwholesome. At present there is no sign of rain there, and the whole plain for some miles round, has an withered & parched up appearance. It is now nearly a year since there has been any rain. During the time I was at Ellapuram, I made house to house visitation, accompanied by Mr Bird, who obtained for me much useful information, and assisted me very much in my enquiries. I have appended tabular Statements to which I shall make reference in the course of my report.

The first point, I wanted to notice, is, that the numbers of cases of Summer-Fever reported to me seems to be an mistake, as many cases were attributed to this disease, which were in truth they had no connection

with it. I was able to form, from personal observation, an example of the manner in which every case of Sickness is set down as Summer Fever. A child aged 18 months was shown to me, and Symptoms described, and its parents were perfectly under the impression that it had the disease, whereas the little child was simply suffering from teething.

One [illegible] is related as a fever-stricken, in which an old woman aged 80 years, suffering from a large malignant tumour, on the back of the head, was shown to me as an victim of Summer-Fever.

There is not the slightest doubt that numbers of cases have been reported as suffering from the above named disease, and wrongly attributed to it.

Secondly. I found that 52 cases of

Twenty Eight Deaths have been reported and that of that number 13 had died and 28 had got without any treatment whatever.

In Table A, the whole of the 52 cases are given as reported.

Thirdly. I would here remark on the 13 deaths as reported. Table B gives the deaths with age and caste. With reference to the ages of the deceased, I find that they are rather under than over stated. In the 13 deaths it will be noticed that 10 are 40 years and above. Of the 3 remaining cases, viz, Nos 8, 10, & 13, I obtained the following information from the relatives of the deceased persons.

In the case of No 10 the husband states that his wife had always been very sickly. They had been married 15 years but had no children. She was always subject to diarrhea, and latterly suffered much from dysentery, which eventually proved fatal.



In the case of 13, the mother states that her daughter's age was nearly 50, when she died, and that she had been sick for 6 months, and had suffered from dysentery up to the day of her death.

In the case of No 8 an orphan boy, the friends state he was ill about 3 months and a half and had fever, which eventually carried him off.

Thus of the 13 deaths, we have 11, cases of [illegible] and two of 22 and 12 respectively, but this is not sufficient evidence to prove the existence of an epidemic, nor, is it unreasonable to suppose that the whole number (13) died from general causes.

Fourthly. We now come to the cases actually seen tabulated in form C. Of these it will be noticed that 6 are above 65 years of age, suffering from various Complaints, and the rest with the exception of No 1 just such cases as exist in every

village, early requiring some little treatment.
The first case in this little, a young female
aged 25, was suffering from severe diarrhœa,
which I treated, & relieved. In this
case, there were symptoms, which might be
attributed to Summer-Quarter-house, and the
diarrhœa was possibly the result of the continued
use of Cumboo grain. There was little in this
case, but not excessive, not more so than
met with in ordinary practice. This case
however was taken when at last the milage
of the remaining of the cases of this
Statement it will be unnecessary to report
further, as the cases speak for themselves.
Fifthly. The next point is what caste
or castes have been particularly attacked
with disease? In Form D, the castes
are given, and the number attacked in
each caste. In the Statement it will
be noticed that 15 persons of the Weaver
Caste were attacked, only 2 Mussulmans, 2 Bekt
manjee, and 3 Pondarams. The weaver caste

is notoriously an unhealthy one, and I
regret to say, tainted with hereditary Syphilitic
poison to an alarming extent. It will be
noticed that not a single Brahman has
been attacked, and in the same manner
nearly all the higher castes have escaped
any ill-effects of the disease. Further, among
those who have been attacked with the disease
the greatest number were old & infeebled
persons, averaging from 50 to 70 years of age.
That there has been a large amount
of sickness in this village, and an increased
mortality I believe, but when we come to
consider that the population is about 6,500,
and that all the people are poor, ill-fed
& badly-housed, I do not admit that there
has been anything of the character of an epi-
demic, which if present, would respect
caste, either age or caste. It appears that
the staple food of the people of this part
is Cumboo, and that the harvest of this grain
has been very unsatisfactory, owing to the

great want of rain. In consequence of this great drought the grain has not matured in the ear, before it has been reaped, and it has therefore not developed the properties belonging to it. Moreover the new Cumboo is cheaper than the old, and therefore it is manifest why it is eaten by the poorer classes. That this new Cumboo has caused sickness, I have not the slightest doubt, and all the information I obtained tended to the same opinion. Until we can have the blessing of good rain, I am afraid that this state of things must continue to a greater or lesser degree but I cannot advise any line of treatment unless of course it was possible to provide the afflicted villages with grain of a better sort. Those who are now sick and living supplied with rice, milk &c. from the Chultrum funds, and all cases of suspected Summer Fever should be at once

sent from the same funds. I do not consider much good is to be gained from medical treatment, but I would suggest that a Subordinate be ordered to travel from village to village, to render what assistance he can and also to induce the villagers to take some steps to remedy their defective sanitation.

I have the honor to enclose the reports from the two Medical Subordinates who were detailed to render what assistance they could in some of the villages where Summer Fever was supposed to exist.

I have the honor to be
Sir
Your most obt Servant
(Signed) H. M. Richard Surgn
Zillah Surgeon Tinnevelly

True copy
Richard Surgeon
Zillah Surgeon Tinnevelly

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| | Madathy | 48 | Inmates | Weaver | 8th August | 1 | " | " | |
| | Sivanandhapuram | 50 | do | do | do | " | 1 | 8th August | |
| | Kalyanadurgam | 60 | do | do | do | 1 | " | " | |
| | Aroodaly | 50 | do | do | do | " | 1 | 8th August | |
| | Mankamy | 80 | do | do | do | 1 | " | " | |
| | Sammoogum | 12 | do | do | do | 1 | " | " | |
| | Vallavanmadevy | 40 | do | do | do | 1 | " | " | |

11/1271

Palamcottah
31st August 1847

/Signed/ H. M. Pickard
Assistant Surgeon Tinnevelly

/True copy/

Wm Rheyard Surgeon
Assistant Surgeon Tinnevelly

Statement A Showing the Number of persons affected by Water drinking Diseases

| Serial Number | Names of persons | Age | Sex | Caste | Date on which Sickness was reported | Recovered | Died | Date of Death |
|---|---|---|---|---|---|---|---|---|
| 1 | Sankaralinga Mudaly | 40 | Male | Weaver | 9th July 1874 | | 1 | 30th July 1874 |
| 2 | Sockanmania Mudaly | 50 | Male | do | do | | 1 | 30th July 1874 |
| 3 | Amya Mudaly | 40 | do | do | do | 1 | | |
| 4 | Sankara Mudaly | 60 | do | do | do | | 1 | 2nd August |
| 5 | Matchee | 22 | Female | do | do | | 1 | 7th do |
| 6 | Ammamuthu | 30 | do | do | do | 1 | | |
| 7 | Ekkammal | 30 | do | do | do | 1 | | |
| 8 | Pannamal | 50 | do | do | do | 1 | | |
| 9 | Annamalai Mudaly | 60 | Male | do | do | | 1 | 15th August |
| 10 | Sankaralinga Mudaly | 60 | do | do | do | 1 | | |
| 11 | Pethonda Mudaly | 22 | do | do | do | 1 | | |
| 12 | Muthoo Nady | 22 | Female | do | do | 1 | | |
| 13 | Ayaday | 25 | do | do | do | 1 | | |
| 14 | Valli | 22 | do | do | do | 1 | | |
| 15 | Ponnayaroo | 60 | do | do | do | 1 | | |
| 16 | Manikamy Mudaly | 45 | Male | do | do | 1 | | |
| 17 | Amandy | 40 | Female | do | do | 1 | | |
| 18 | Madathy | 22 | do | do | do | 1 | | |
| 19 | Mados Mudaly | 60 | Male | do | do | 1 | | |
| 20 | Pamatchee | 25 | Female | do | do | 1 | | |
| 21 | Vengoo [illegible] | 40 | do | do | do | | 1 | 6th August |
| 22 | [illegible] | 35 | [illegible] | do | do | | | |
| 23 | Sadasivamadoo | 15 | Male | Weaver | do | 1 | | |
| 24 | Varadachary Mudaly | 60 | do | Weaver | 6th August | 1 | | |
| 25 | Ismaely | 60 | do | do | do | 1 | | |
| 26 | Annamchee | 21 | Female | do | do | | | Murder treatment |
| 27 | Sonachellum Mudaly | 40 | Male | do | do | | 1 | 6th August |
| 28 | Annamalai Mudaly | 30 | do | do | do | 1 | | |
| 29 | Muthuvalu | 35 | Female | do | do | 1 | | |
| 30 | Madoo Mudaly | 12 | Male | do | do | | 1 | 10th August |
| 31 | Ramalingam | 65 | do | Washerman | do | 1 | | |
| 32 | Arunachellum | 58 | do | do | do | 1 | | |
| 33 | Maduvasamy | 15 | do | Weaver | 6th do | 1 | | |
| 34 | Ramalinga Mudaly | 60 | do | do | do | 1 | | |
| 35 | Autchee | 65 | Female | do | do | | 1 | 11th August |
| 36 | Sivacontee | 22 | do | do | do | | 1 | 6th do |
| 37 | Ramayee | 72 | do | do | do | 1 | | |
| 38 | Achasamudaly | 65 | Male | do | do | | 1 | 6th do |
| 39 | Manikarai Mudaly | 60 | do | Betel Shop | do | 1 | | |
| 40 | Santhamaruthu Pulavan | 72 | do | Sangamam | do | 1 | | |
| 41 | Nayagam | 30 | Female | do | do | 1 | | |
| 42 | Ramasamy | 45 | Male | Mannan | do | 1 | | |
| 43 | Muthoo Nadoo | 15 | Female | do | do | 1 | | |
| 44 | Coolanthavalu Pulavan | 67 | Male | Sangamam | do | 1 | | |
| 45 | Vallian Mudaly | 20 | do | Weaver | 8th do | 1 | | |

Statement B Showing the number of deaths.

| Serial No. | Names | Age | Sex | Caste | Date on which illness was reported | Date of Death | Remarks |
|---|---|---|---|---|---|---|---|
| 1 | Sangakalinga Mudaly | 40 | Male | Weaver | 9th July 1874 | 30th July 1874 | |
| 2 | Amya Mudaly | 40 | do | do | do | 2nd August | |
| 3 | Sangaramudaly | 60 | do | do | do | 7th do | |
| 4 | Annamalai Mudaly | 60 | do | do | do | 11th do | |
| 5 | Vyramatchee | 50 | Female | do | 6th do | 15th do | |
| 6 | Ponnoo | 50 | do | do | do | 8th do | |
| 7 | Sonachellum Mudaly | 40 | Male | do | 11th August | 15th do | |
| 8 | Madoo Mudaly | 12 | do | do | do | 10th do | Gradually died from Some Severe fever of fever |
| 9 | Autchee | 65 | Female | do | 6th do | 11th do | |
| 10 | Sivacontee | 22 | do | do | 5th do | 8th do | Woman always sickly & suffered much from Menstrual Irregularity |
| 11 | Achasa Mudaly | 65 | Male | do | 6th do | 15th do | |
| 12 | Sivanadoo | 50 | Female | do | 8th do | 8th do | |
| 13 | Manikarai | 30 | do | do | 8th do | 8th do | His mamiti's age was nearly 80. |

Palamcottah
31st August 1874

True Copy

Signed J. C. Sticker Surg

Statement C showing the number of Cases actually seen on 20th & 21st August 1874

| No. | Names | Age | Sex | Caste | Date on which Medicine was report | Disease | Remarks |
|---|---|---|---|---|---|---|---|
| 1 | Anangee | 25 | Female | Weaver | 19.7.74 | Diarrhoea | Better | Expected |
| 2 | Ramgeram | 70 | Male | Cultivator | do | Summer Indisposition | Recovered | Supposed to have suffered from the heat |
| 3 | Seeday | 65 | Female | Weaver | do | Diseases of Heart | Sick | do |
| 4 | Cunnayee | 50 | do | do | do | Cancer | do | do |
| 5 | Do Do | 20 | do | do | do | Dyspepsia | Better | do |
| 6 | Annamootoo | 65 | do | do | do | Diarrhoea | do | do |
| 7 | Shunmoogum | 8 or 9 | Girls | do | do | Worms | do | do |
| 8 | Valliammah | 30 | Female | do | do | Summer Indisposition | Recovered | do |
| 9 | Colanthanaloo | 65 | Male | Pandaram | do | do | do | Treated for (do) Constipation |
| 10 | Nageegum | 20 | Female | do | do | do | do | do |
| 11 | Sundaramurthia Pillai | 72 | Male | do | do | do | do | do |

Pandaram

Palamcottah
31st August 1874

[True copy]
H. Rungan Surgeon
Hill Asst Surgeon Sessions Cy

[Signed] H. Dr. Oldham Surgeon
Hill Asst Surgeon Sessions Cy

Statement D showing the number of persons of different C
residing at Ellia puram & also the number of persons a
fected by sweet drinking Sickness.

| No | Description of Caste | No of persons in Ellia puram | No of persons affected by the Sickness |
|---|---|---|---|
| 1 | Brachmins | 11 | " |
| 2 | Vellalas | 610 | " |
| 3 | Sungamandy Pandarams | 82 | 3 |
| 4 | Chettis | 225 | " |
| 5 | Canarin Paraberus | 37 | " |
| 6 | Smiths | 318 | " |
| 7 | Marauers | 322 | 2 |
| 8 | Shepherds | 20 | " |
| 9 | Oil Mongers | 22 | " |
| 10 | Barauers | 56 | |
| 11 | Dyers | 20 | " |
| 12 | Barbars | 80 | " |
| 13 | Fishermen or Paraans | 10 | " |
| 14 | Washermen | 27 | |
| 15 | Tailors | 45 | " |
| 16 | Betel Mongers | 241 | 2 |
| 17 | Mussulmans | 230 | " |
| 18 | Weauers or Sykalers | 938 | 45 |
| 19 | Arrack Sellers | 125 | " |
| 20 | Bricklayers | 45 | " |
| 21 | Duttans or Sailes | 262 | " |
| 22 | Parwarathars | 1406 | " |
| 23 | Dullars | 183 | |

Cariahs ——— 416

Chucklers ——— 119.

Shanars ——— 141

Dalamcottah
16th August 1854

/Signed/ H. Bn. Rickard Surgn
Zillah Surgeon Tinnevelly

/True copy/

Rickard Surgeon
Zillah Surgeon Tinnevelly

Stated Abstract to be rendered by Hospital
Subordinate and its Consequent
Water Supply bad food — Bad Sanitation
Diseases ascribable to the Natural Febrile

12

Dalamcottah
16th August 1854

From,

The Hospital Apothecary
Sub Collectors Department

To

Tinnevelly

The Zillah Surgeon

Tinnevelly

Sir,

With reference to your Circular dated 12th Instant, I beg to report that 76 cases of Summer Fever have been admitted by me during my stay at Ettiapuram and Ettapidaram Talugs. Most of these cases were mild & some of them required little or no treatment. I accepted was to give 5 grain doses of Calomel & Potassia ones in every 4 hours. Every case that took the medicine in the manner directed, is reported favorably & proved well. Once time I paid attention to the State of the bowels and I found nothing remarkable thereon.

One case of Diarrhoea was brought to me & fully succeeded by the usual treatment. No deaths occurred in any of the cases that were brought to my treatment.

I beg to remain Sir
Your obedient Servant

/True copy/ /Signed/ V. Ramasamy
Hospital Apothecary

Rickard Surgeon
Zillah Surgeon Tinnevelly

## Report on Famine Fever &c.

17/71.

During the time I was in the Village Pulam Division to treat the persons suffering from the disease called, Famine Fever I observed the following Symptoms — inveterable thirst particularly at night, dry Skin, dissolute, loss of appetite, bowels irregular, pulse quick and feeble, tongue furred and in some clean, general burning Sensation in the evening, restlessness at night — paint — pain to the — — — in large quantity.

The persons who came under my treatment were almost all of the working Class entirely living on Cumboo.

When questioned the people of that part of the District about the cause of the Complaint, they say that it is owing to the untimely harvest of Cumboo, fearing that it might be robbed by the poorer Class for the scarcity of grains occurred

in this Year and not for not having the usual & sufficient rain prior to the harvest, but in my humble opinion that Scarcity of water and Scarcity of the Sun also, may be the Cause, as I experienced peculiarly to taste that almost every Tank & well Tank in the Tract adjacent to each Village are composed of some Saline matters and found to be deficient and ungitfor drinking purposes & in some Slight Villages in some Village the well to to Class-men is Cast to the neighbouring Village where they Could get water

The treatment consisted Sudorifics Purgatives, refrigerants and Cinchonine of 5 grains doses, twice a day, and I advised the people Conjee water, milks Conjee or Sweet Milk with some rice instead of bare water drinking

The Causes of Several deaths occurred without treatment from Diarrhea

V. Dysentery, produced from living themselves on water without any nourishment.

Courtallum
15th August 1874

(Signd) F De Sullivan Chadwo
Hospl Assistant
Collector Tinnevelly

True Copy

Thos Rogers Surgeon
Civil Surgeon Tinnevelly

No. 428.

19/1271

OFFICE OF ~~INSPECTOR~~-GENERAL, I. M. D.,
*Fort Saint George, 15th September* 187[illegible]

From

Surgeon
INSPECTOR-GENERAL EDWARD BALFOUR,
*~~Inspector General of Hospitals~~,*
*Indian Medical Department,*
*Fort Saint George,*

To

The Secretary to Government
Political Department
Fort Saint George.

SIR,

My letter No. 363 dated 11th August last, and the attached report, I had the honor to submit to the Right Honorable the Governor in Council all the information which had then obtained, regarding the disease attended with great thirst, from which the people were suffering in the Tinnevelly and adjoining districts.

2. I have now to furnish a further report from Surgeon Pickard, and one from Hospital Assistant V. Ramasawmy, No. 256, and a report from Hospital Assistant P. Patrick, of Vaisha, No. 475, describing the cases of sickness which occurred in the Sheyduram and Sattankoolam Talugs of Tinnevelly. Hospital Assistant V. Ramasawmy says, he had under his medical care 76 cases of the thirst-attacking disease, mostly mild and some requiring little or no treatment, but he does not give the dates at which he saw these ailments. The symptoms [illegible] he describes

as attending the disease are those of fever with a very hot skin. I gather from his remarks that the people attributed the disease to the use of unripe Cumbu (pennisetum spicatum) which had been cut before fully ripened, and a scant rainfall, and the Hospital Assistant also indicates as causes, scarcity of water with severe heat, as he found a peculiar taste in almost every tank and well, even in the bed of the river adjacent to each village, impregnated with saline matters, bitter and unfit for drinking purposes. The treatment he adopted was such as is usual in fever attended with severe heat of skin. He reports the occurrence of 13 deaths from diarrhœa and dysentery, brought on from using water, and not taking any nourishing food.

3. Surgeon Pickard made a house to house visitation of Ettapuram along with Mr. Bird. He describes it as a poor dependent village, its sanitary condition as indeed at a low ebb, and the wells emitting dreadful stench with thick black scum, and round their walls constantly stirred up and rendered more liquid by the crowds of persons, the water percolating into the wells, the well-water brackish, and the whole country for miles around with a parched up and withered appearance. He found fever due to other ailments, many cases which the people believe to be of this new disease but that there has been very severe sickness in that locality is proved by the fact that of 52 cases, 13 had died – 35 per cent – between 9th July and 8th August of the current year. Surgeon Pickard recognizes that there has been a large amount of sickness and increased mortality in a poor, ill-fed, and badly housed community, but is of opinion that the diseases have been various, and that there has not been any epidemic prevailing. He is inclined to attribute the sickness of the people to the use of the unripe Cumbu grain, used while too recently gathered. He looks to better food and to an abundant rainfall as a remedy for the existing condition, and, whilst the people are being supplied with rice, milk, &c., from the Chattrum fund — recommends that all suspected cases of Punnir Kudi novoo should be fed from that fund, he recommends that a medical subordinate should perambulate the district and induce the villagers to remedy the defective sanitation.

4. In my former letter, I mentioned that the examination which had been made of the sample of the grain received from Dindigul, failed to detect any difference in it from that found in the Madras Market, the reports now sent, point

to new cumboo as one possible cause of the unusual sickness. But the state of the drinking water and the condition of the wells, are almost sufficient to produce severe diseases, and I have, in anticipation of Approval, directed the Deputy Surgeon General of the Southern Districts, to detail a Warrant Medical Officer to report on the sanitary condition of the villages in that tract of country, and to carry with him medicines suitable for the kind of ailments with which he will meet.

5. I recommend that while so employed, the Apothecary be allowed the marching batta of his rank, and be compensated for the Rs. 30 per mensem which he would lose by leaving his fixed appointment, or, if more acceptable, an allowance of 50 per cent. of his salary, which would be Rs. 75 per month.

I have the honor to be
Sir,
Your most obedient Servt.

[signature]
Dpty Surgeon General
Madras Medical Dept.
Coorg & N. Dists.

for the Surgeon General
Madras Medical Dept.

CR

-20,002—12-8-65.

No. 3183.
Revenue 1874. Department.

From

Surgeon-General E. BALFOUR,
~~Inspector-General of Hospitals;~~
Indian Medical Department,
Fort Saint George,

To

The Secretary to Government
Revenue Dept
Fort St. George

Dated 15th September Encls

Despatched —do— "

Received 16 "

No. 425

*Subject.*

Submits further report on the "water-drinking" disease lately prevalent in the Tinnevelly district, with recommendations

No. 1271 - 6 October 1874

Write Order

No. 1271.

Communicated to the Board of Revenue & to the Sanitary Commr.

2. The Surgeon General's action in directing a warrant medical officer being sent to itinerate in those parts of the country where this novel disease has appeared is approved: and further orders on the subject will be passed in the Public Department

a Gen

6 Oct 74

To Bd Revenue 26 Oct
" Sanitary Commissioner 5
" Surgeon Genl Indian Med Dept 5
" Public Department 5

15

6 Oct 74

49-50.

Copy Sanitary Report