M.R.O. 14—10,000—21-4-22.

MADRAS RECORD OFFICE.

Government of Madras.

Revenue **DEPARTMENT.**

G.O. No. 1100 — Press ~~Mis.~~

34-35

Dated 4 – 7 – 1869.

Not to be folded or roughly handled

Proceedings of the Madras Government, Revenue Department, 4th July 1860.

No. 34. Read the following Proceedings of the Madras Government in the Public Department, dated 27th June 1860, No. 939.

Communicating letters from the Collector of Coimbatore and the Superintending Surgeon Southern Division on the Sanitary state and Drainage of Ootacamund. (Vide Public Proceedings, 27th June 1860, Nos. 228-229.)

No. 35. ORDER THEREON, 4th July 1860, No. 1,100.

Ordered to be recorded.

(Signed) J. D. BOURDILLON,
Secretary to Government.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read again letters from the Principal Inspector General, Medical Department, dated 28th April and 25th May 1860, Nos. 71 and 77, and recorded in the Proceedings of Government of the 2nd and 29th ultimo.

Read also the following letter from E. B. THOMAS, Esq., Collector of Coimbatore, to T. PYCROFT, Esq., Chief Secretary to Government, Fort Saint George, dated 9th June 1860, No. 24.

I have before me 2 papers, 18th April No. 200, and 4th May No. 237, from Dr. Davidson, on which perhaps, as copies were sent me, I am expected to offer some remarks. I will do so as briefly as possible. Not in want of deference to the Superintending Surgeon, but because I believe the subject has been already fully discussed, and nearly exhausted.

2. In his 1st paper of 18th April, Dr. Davidson remarks, chiefly on 2 points, the unconsumed sewage, and the lake itself as a positive evil.

3. As regards the sewage being flushed into the lake, I have a few words to say in self-defence. Rome was not built in a day: The sewage of London, the centre of civilization and wealth, and intelligence, is still turned into the Thames, as that of Ootacamund into the lake.

4. Some 8 years back, I found a growing daily evil, to be overcome, at Ootacamund—the whole population of the Bazaar *must resort somewhere*, within moderate* distance, every morning; being surrounded on all sides by European houses, and lands, they *unavoidably* resorted to such shelter and privacy as could be found† at hand; the nuisance was great—the fracas‡ and complaints, constant—the necessity for some remedy, urgent. After demur and consideration, I made the 3 public Latrinæ§ now objected to, 2 for males, 1 for females—they stopped the former complaints at once, were decent and private, not 1 European in 10 knew *what* "the long thatched buildings" were. I have often been *asked*. Of course I meant it only as an immediate, *temporary*, and easy remedy, for a pressing evil. Had I, in *those* days *moved* the sewage question, and proposed impracticable and costly remedies, I should have met a quick answer from Madras, and little encouragement. Sir Charles Trevelyan had not then visited the Hills, nor were the Hills so frequented or valued, nor Medical Officers on Tour, and on the look out.

* *Especially in wet weather.*

† *The nearest small "sholahs," mostly private ones.*

‡ *I have had to fine an European for firing snipe shot, at a sedentary cooly.*

§ *On the border of the Lake, near the Market place but well removed.*

5. The time has happily come, for improvements, which no one will hail *more* than myself; but, with all deference, the "sewage" is, *everywhere*, a *difficult* and *costly* question, easier to write on, than to remedy. To "deodorize," and "utilize," are excellent in theory, and in "Liebeg," whom (as being fond of practical agriculture), I have long ago read, but after conducting the sewage to any given point, (a problem not readily effected, though easily imagined), I much doubt, whether the prejudices of our Native Gardeners, would *ever* be persuaded into "utilizing" as proposed by Dr. Davidson and others; nor would the European community, *I think*, like to purchase vegetables *so* produced; *I* certainly should *not*.

6. I maintain, till a *better, practicable*, alternative is shown, that the deep part of the lake, is the best way of disposing of the sewage, in fact that any other, would be so *offensive*, so *costly*, and so *difficult*, as to be almost *impracticable*. Just below the willow bund, there is about 40 feet of water, if the sewage could be led into *it*, I am confident nothing more would be ever seen, smelt, or known of it; $\frac{5}{6}$ths flows off in solution, the remainder $\frac{1}{6}$ of deposit would be not worth consideration. I have seen the lake run out perfectly dry, and not a vestige to be found of the "deposits," though the necessaries had been in existence and use for several years. The lake water is used by none below the willow bund. "Candal" and other localities, have other, purer, water, and as to the

Depth.

lake water polluting the *plains* or villages 30 miles *below*, it would be chimerical, if any such existed on its line, but there *are* none; with every deference for Dr. Davidson's benevolent intentions and views, I cannot but think that the evils deprecated, are really, in such a climate, theoretical and imaginary; while the remedies proposed, would, if carried out, be *worse* than the imagined and anticipated diseases.

7. Till a better method is found, I would leave the Latrinæ just where they are, (most convenient for those for whom they are intended.) I would turn a larger stream of water through them, (*easily* done;) and I would have an *under* sluice in the willow bund, through which the *upper* lake *may be flushed into the lower*, every monsoon; or, if necessary, every heavy rain fall, and I think it would be half a century, 'ere even the *upper* lake became in any way *offensive*, the lower, *never*. I regret to have written so much, but the subject *is*, as Dr. Davidson rightly says, important, and while I admit an unavoidable *evil*, I desire, as much as any one, to remedy it, *practicably* and speedily.

Just such as are used in channels, to clear them from accumulations (and called Pókkoos) (in Engineers terms.)

8. In the 2nd paper of "additional remarks," 4th May, No 237, Dr. Davidson proposes to remedy the cold and damp, (natural I should say to the region in which Ootacamund is placed,) by draining all the swamps, and throwing the lake itself into a potato garden. To this I would remark, that with all deference I cannot think or believe that the few natural bogs* existing about Ootacamund, ever were or will be, practically unhealthy; the bogs of Ireland are not found so; the healthiest and finest families of children at Ootacamund, live around and close to them, they are most useful as peat mosses, and for potato gardens, they are *undesirable*. Some *are so* used, but no *old*† *resident* of the hills ever buys *these* potatoes. All *so* reared, are watery, unwholesome, and won't *keep*. Natives *grow* them it is true, but only to *sell*; and because they hire these swamps (from private owners,) cheap. In paragraph 8, Dr. Davidson regrets the "low round hills about the station are not covered with European grains," none would grow there, the Doctor has not seen them *tried*; I *have*; these round hills are of such poor rocky soil, that no Burgher will touch them, and no European, but *once*. Wheat and Barley *are* grown, and well by the Native agriculturists, but it is with the aid of much manure, and in valleys and levels, where the yearly rains have not washed away all fertile soil; even trees, unless carefully attended to, won't *flourish* in such exposed barren situations, though they have been largely tried. I may appeal to Mr. W. McIvor, Mr. Dawson, Mr. James, and other practical agricultural and old residents, for the truth of my remarks.

* *All of which have a pair* slope *and are never stagnant.*

† *Ask Mr. Dawson, Davison or Lascelles.*

ORDER THEREON, 27th June 1860, No. 939.

Resolved that the foregoing letter from the Collector of Coimbatore, and also, those from the Superintending Surgeon, Southern Division, dated 18th April and 4th May last, laid before Government by the Principal Inspector General, Medical Department, be communicated to the Ootacamund Improvement Committee for consideration—and, likewise, to the Revenue Department.

(True Extract.

Chief Secretary.

To the Ootacamund Improvement Committee, with Nos. 649 and 778.
" Revenue Department, do. do.

Exd. F. Cartledge.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read the following letter form GEO. PEARSE, Esq., M. D., Director General, Medical Department, to the Chief Secretary to Government, Fort Saint George, dated 28th April 1860, No. 71.

I have the honor to transmit herewith copy of a letter from the Superintending Surgeon Southern Division, containing certain remarks on drainage and water supply of Utakamund, which Government may perhaps think it desirable to furnish to the local Committee, lately appointed to consider and report upon these subjects.

From W. G. DAVIDSON, Esq., Superintending Surgeon, Southern Division, to the Secretary to the Director General, Medical Department, Fort Saint George, dated Utakamund, 18th April 1860, No. 200.

Since my arrival at Utakamund, I have been riding much about, to observe this place, in all directions; and the state of this sanatarium as to drainage appears to me, to be very unsatisfactory, and likely at no distant period, seriously to affect this delightful European climate; I therefore beg to submit the following remarks:—

The great evil then appears to consist in the fact, that all the sewage of this place—containing a population of 12,000 persons, and daily increasing—instead of being utilised, and used as manure, as nature and the most enlightened nations use it, is collected in the lake, where it is daily accumulating; which lake is, in fact, a universal *cess-pool* to this station.

The space occupied by Utakamund consists of some dozen round hills, and intervening narrow valleys; on the slopes or summits of which, the buildings are placed; all these valleys [illegible] the lowest of all the valleys, all the drainage gravitates *necessarily* towards the lake. There is only one valley, that in which Mr. Dawson's Hotel [illegible] placed, which does not either open directly into the lake or above it—it opening into the lake-valley *below* the lake; but being much cultivated, its sewage will be utilised in part, but much filth remains *unused* at the large village "Kandal" of Hindoos and Roman Catholic Christians low down in it.

On a slope at the upper end of the lake and quite close to it, is placed the thriving and important Native village or town called the "General Bazaar," composed of strongly constructed houses, built of brick and chunam and tiled, and in regular streets, so close to the lake that its large dung-hills are washed by it. Its sewage of course passes into the lake; so generally admitted indeed, is it, that the lake should be the general reservoir for the filth of the station, that by the orders of even Mr. Thomas, the excellent and high principled Collector of the district, the public privies have their contents flushed into the lake by a stream of water passing through them—doubtless, a very effectual way of cleansing the *privies*. When much rain falls, the unconsumed sewage from all the mansions on the hills will, of course, pass into the lake.

The lake is formed simply by a dam or bund, thrown across the lower end of its valley, and the depth of the lake is regulated by the height of the dam, the superfluous water passing over the dam into the low country to the Bowany River and Cauvery, not in quantity or power, at present sufficient, to turn a flour-mill, built there for the purpose.

I observe, as might be expected, that the water at the upper end of the lake is always more or less muddy; which however the Natives use in food; but that as it approaches to the bund, it becomes clear, that is, the insoluble portion of the filth, subsides to the bottom, while what is soluble, continues chemically dissolved in the water and is carried off.

(1st evil.) Now the first evil resulting from this is, that the streams which we receive here, in the utmost purity, from the mountains above, we transmit to the people in the plains below, saturated* with what has been abundantly proved in England to be a poison; and this evil will be increasing with the size and

* *Vide celebrated Vegetable Chemist Liebeg's opinion in page 2 of this Report.*

importance of this station and will be perpetual; and as it is preventible, it is, I submit, unjustifiable; for the unconsumed water should pass down to the plains, if possible, as pure as we receive it.

(2nd.) The next evil will result from the presence of a mass of filth, daily accumulating, in the very centre of the station, within the fashionable, but not much used, drive; which will in time, like the Thames in miniature, or the Madras Black Town, exhale pestilential and offensive fumes, and impair this fine climate, and be a nuisance.

(3rd.) Another evil resulting from the valley being occupied by a deep body of water is, that the valleys just above it, at nearly the same level as the surface of the lake, cannot be drained and are swampy; to remedy this evil, it has been proposed, either to heighten or to lower the surface of the lake, a couple of feet, by adding to or diminishing the height of the bund; but it will be obvious, that this would have the effect, not of removing the swamps, but merely of changing their level; for the valleys are all sloping, and those near the level of the lake, wherever that level may be, will be swampy. In the neighbourhood of lakes *everywhere* there are swamps.

(4th.) But another great evil is that the 50 or 60 acres of valley-land, in the centre of the station, covered by the lake which might be most productive as gardens, are now wholly unproductive not only might be productive, but while so might consume and effectually thus remove from the possibility of doing harm, all the spare manure and filth of the place by converting it into vegetables and cattle.

The climate of the hills is as foreign to Natives of the plains as that of Europe is, it denies to them their usual air and all articles of their usual food. Every thing, I observe, has to be brought up from the low country and every thing is double in price; while the quantity of food they require is greater from the diminished temperature. Potatoes, however, a more nutritive article of diet than their usual food, rice, they have, fortunately, taken a liking to; and extensively use instead. Moreover, it is highly gratifying to see, that they very extensively in all these valleys of Utakamund, cultivate patches of potatoe ground; indeed it has been repeatedly remarked to me by gentlemen, long resident on the Hills, that "Natives are never happy here till they have a potatoe garden, and then having the means of filling their bellies they are content to remain." This should be encouraged, and the more such cultivation is extended, within Utakamund, the more is manure valued, and the more completely is filth removed; in good European farms all filth is utilised. The great Vegetable Chemist Liebeg writes as follows: "The importation of urine or of solid excrements, from a foreign land is quite equivalent to the "importation of corn and cattle. All these matters, in a certain time, assume the form of corn, "flesh, and bones; they pass into the bodies of men, and again assume the same form which "they originally possessed." "This striking remark cannot fail" says Professor Fownes, late of University College "to be appreciated, in the course of time, when, instead of *polluting our* "*noble rivers*, destroying the fish, and *breeding pestilence* in our towns, the contents of our "sewers will be transferred to the land, exalting the fertility of that which is now under culture, "and redeeming that which has hitherto been considered as hopelessly sterile."

But all the above evils would be removed by converting the space now covered by the lake, into gardens, potatoe and vegetable gardens of every kind. That portion of the sewage, which is not already consumed in gardens, would by the 50 or 60 acres additional of garden cultivation, afforded by removing the lake, be wholly used up. Manure of every kind would be at premium, and be valued, and sought after, as it is in some places in Europe and in China; it would not be lying in heaps as it is, in the General bazaar, when required in the gardens hard by.

I observed that though a large supply of excellent European vegetables, of every kind, is presented at the market, it is only *once* a week;* and that it is by no means sufficient for the population; and the only vegetable, *always* available at the Hotel, where I reside, is good potatoes. There should be a daily, or tri-weekly market of vegetables; which would increase the demand, and encourage cultivators, and so *keep the place clean*.

*And they are dear still.

If a lake or reservoir of water, is required, it should be in a valley, so elevated, that the drainage of the station would not enter it, and thus be kept perfectly clean, to be used, in any way, as required. The highly intelligent Superintendent of the horticultural gardens here, Mr. McIvor, complains, that he has not sufficient water; and states that if he had, the capability of this climate, as to vegetation, being, he states, greater than any in Europe, his garden would be one of the best in the world. The present lake, from its low locality is useless for all such purposes, and instead of being an ornament, will by and bye, be a nuisance, to be avoided; all its water should be allowed to flow off by an opening made in the dam; and the space so vacated, be allotted for vegetable gardens of all descriptions; which would soon exhaust the rich soil left by the lake and afford abundance of a new *staple article* of diet for Natives, namely, potatoes; besides a great increase of vegetables for all, and add to the general cleanliness.

The condition in which Native public and private servants are here is undoubtedly trying. The climate is ungenial to them. While the pay of public servants is the same as in the plains, their food here, as stated already, costs twice as much, and they have, besides, to provide themselves with warm clothing; and they are naturally much and often discontented. The production of a staple article of diet, at the same time very cheap, and acceptable, to them on these hills, appears to be a very desirable event independently of its beneficial effect on the sanitary state of the locality.

The great importance of the subject of this letter, has induced me thus to bring the matter to the notice of higher authority which, I trust also, will be admitted as an excuse for its length. I have given to it the most patient consideration.

(True Copy.)

(Signed) W. R. CORNISH,
Secretary Director General
Medical Departmer[illegible].

ORDER THEREON, 2nd May 1860, No. 649.

Referred to the Collector and Magistrate of Coimbatore, in reference to paragraph 8 of the Proceedings of Government, 16th March last, No. 381.

(True Extract.)

(Sig[illegible] J. Lycroft)

Chief Secretary.

To the Collector and Magistrate of Coimbatore.

Exd. F. Cartledge.

Copy in a letter to Govt
dated 25th May 1860 No 77.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read the following letter from GEO. PEARSE, Esq., M. D., Principal Inspector General, Medical Department, to the Chief Secretary to Government, Fort Saint George, dated 25th May 1860, No. 77.

Adverting to my letter, No. 71 of the 28th ultimo, I have the honor to transmit for the information of Government a further communication from the Deputy Inspector General of Hospitals, Southern Division, on the subject of drainage, &c., at Utakamund.

From W. G. DAVIDSON, Esq., Superintending Surgeon, Southern Division, to the Secretary to the Director General, Medical Department, dated Utakamund, 4th May 1860, No. 237.

In continuation of my letter, No. 201, dated 18th ultimo, on the sanitary state and drainage of Utakamund, I beg leave to submit the following additional remarks.

2. In this very fine climate, the only objection to it one hears or reads of is "its most cold air," "cold sharpness," "moist damp air," "humid cold air." This complaint, unapplicable to the two other Stations of the Nilgíris, is here made, chiefly by invalids and sendentary people.

3. The cause of this rawness of air is, no doubt, in a great measure, its greater height, than either Kúnúr or Kotagherry; but its cold dampness must, in some degree, be owing to a perpetually evaporating surface, 3 miles long, in the very centre of the Utakamund basin, afforded by the lake, producing unquestionably, both cold and damp air, which *pro tanto* must be injurious, in this way, independently of its being besides a reservoir for all the filth of the station.

4. The valleys of Utakamund, as a general rule, are swampy or boggy, in consequence of water from springs in the hills above constantly trickling down through them; and they, too, present thus a wet evaporating surface; but this is easily remedied and has been here remedied, to a great extent, by the very simple measure of digging a trench in each valley, sufficiently deep, to allow the water to collect and run off, which means, the bog is converted immediately into excellent dry soil; which is seen, in numberless places at this moment, to yield excellent well-drilled crops of potatoes.

5. This process of draining the swamps will, no doubt, go on increasing, till all the valleys of Utakamund are, as in very many parts they are already converted into fine potatoe-fields or gardens.

6. The substitution of this health-giving cultivation, absorbing as it does, the injurious carbonic acid gas of these swamps, and removing evaporating surfaces, must be valuable in this way, independently of its converting into most productive gardens these fenny valleys. If these drains were covered over, as the extensive drains in the farms in Great Britain are, it would, no doubt, be better, but this will be by and by.

7. At present the great sanitary object would appear to be the conversion of these valleys, including the one occupied by the lake, into fertile gardens, the direct tendency and effect of such cultivation being universally known to be, to keep the atmosphere pure and dry, thus absorbing and utilising all noxious gases.

8. Comparing the low round hills, too, which are here in the possession of gentlemen at Utakamund with those occupied by the Natives of the hills in other parts, it is painful to observe, that while the latter are in many places, to a considerable extent, cultivated, the former are almost uniformly utter waste land; in some instances indeed they are here planted with trees, but in no instance are crops of European grain attempted to be grown in Utakamund as might be done with great success, and if so, the proper mode of cultivating wheat, oats, barley, &c., of which they appear to have little idea, would be thus shown to the Natives of these mountains and the great dearness of produce of every kind, now so much felt, and which is daily increasing here, would thus be prevented, besides the beneficial effects on the atmosphere of such cultivation of this highly and justly prized sanitarium.

(True Copy.)

(Signed) W. R. CORNISH,
Secretary Principal Inspector General,
Medical Department.

Copy in a Letter to Capt. F. 25th January 1861 No 245

ORDER THEREON, 29th May 1860, No. 778.

Communicated to the Collector and Magistrate of Coimbatore in continuation of Proceedings, 2nd instant, No. 649.

(True Extract.)

(Sigd) F. Pigott

Chief Secretary.

P 1323/60

To the Collector and Magistrate of Coimbatore.

Exd. F. Cartledge.

Copy in a Letter to Engd
dd 25th January 1861 Rec'd 16-

Transmits Sanitary Statement
Committee's 2d July 60 (No 1575.
Reports for the Quarter ending 30 June 60

No 1100.

To be recorded.

Fort St George
4th July
1860

No 34 & 35.

Revenue 1860 Depart.
Pro: of Govt for July

No 1323

Proceedings of the Madras
Govt in the Public Dept.

Dated 27th } June 1860
Rec'd 30th } No 939

2 Encls.

No 1100. 4th July 60.

Communicating letters
from the Collr of Coimbatore
and the Superintending
Surgeon Southern Divn on
the Sanitary State and
drainage of Attakammd.