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Revenue DEPARTMENT

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Proceedings of the Madras Government, Revenue Department,
5th May 1877.

Famine Relief.

No. 114. Read the following letter from Surgeon-General C. A. GORDON, M.D., C.B., Honorary Physician to the Queen, to the Secretary to Government, Revenue Department, dated Fort St. George, 20th April 1877, No. 118-77 :—

With reference to Proceedings of the Madras Government, No. 1,385, dated 10th April 1877, I have the honor to inform you that Surgeon-General Smith, Indian Medical Department, and myself together inspected the paupers at the Monegar Choultry and Red Hills Camps with a view to form a joint opinion as to the present condition of those paupers and whether the diet they are now receiving is sufficient to keep them in health.

I have now the honor to forward herewith our reports in regard to these subjects for submission to His Grace the Governor in Council.

Report on the State of the Paupers in the Relief Camp, Red Hills, agreeably to G.O., No. 1,385, d[illegible]*th April* 1877.

1. On the 14th of April 1877 we visited t[illegible]p at the Red Hills. At that time it contained 1,584 pauper men, 1,802 women, and 1,545 chi[illegible]ren, making a total of 4,931 persons. Of these, the numbers sick in hospital were 27 men, 23 wom[illegible]n, and 49 children, or a total of 99. The camp was opened on the 11th of January last, from w[illegible]ch time till the present the average numbers of persons in it have been 2,728 adults including both sexes and 1,482 children ; the total deaths 374 of the former and 407 of the latter.

2. The classes of persons represented in this camp seemed similar to those in the Monegar camp. Besides those, however, we were informed that considerable numbers are brought in from the main road, they being unable to continue their journey farther towards the place to which they may be proceeding ; the surrounding villages send in their paupers when reduced to the last stage of exhaustion ; deserted children are also picked up by the Police and brought in often in an advanced stage of exhaustion or disease. We were struck with what seemed to us a larger proportion of young persons, that is, boys and girls, among the inmates than was the case in the Monegar Relief Camp.

3. Many of the more recent arrivals are emaciated and weak, their food having, according to accounts of some of them, consisted for some time back of raggi, that is, the grains of at least two species of Eleusine and cooked rice, and these in small quantities. As at the Monegar Camp however, so here, there is a class of persons evidently originally in respectable positions as small farmers whose means have failed them as a result of the prevailing drought and famine and who for the time being, are forced to seek such relief as the camp affords. A considerable proportion of these seem to have been reduced to a low state of physique before they applied for admission into camp. It does not appear that out-door relief is given at this camp. Indeed, from the nature of its locality, far from any considerable town, there would probably be comparatively little demand for such relief.

4. In several important respects the paupers at the Red Hills enjoy great advantages over those in the Monegar Relief Camp. The site of the camp itself has the advantages of elevation, free exposure to the breeze, absence of surrounding buildings ; the paupers are permitted to wander away from their huts and to be out of doors all day, thus having the tonic advantages arising therefrom. In addition to this they are, it is said, able to pick up mollusks of the Genera Ampullaria and Unio, or fish in the adjoining lake, to pluck an occasional leaf or root from the herbage, scanty though it be ; to supplement their allowance of food by small donations made to them by villagers and passers-bye, whose means of giving charity are not yet exhausted. That they manage also to obtain little additions to their regular food is rendered clear by the existence in the near vicinity of the camp of a bazaar among the commodities in which we noted mutton, salted fish, rice, chillies, pawn, salt, brinjal, garlic, soap-nut, dholl, beans, green gram, onions, turmeric, cakes of several kinds, firewood, and cheroots.

5. There is no crêche as in the camp at Monegar. Children are often brought in by their parents and left ; others, as already stated, are brought in by the Police, having been found deserted. Many of those seen by us were emaciated and so reduced that we could scarcely expect them to live for any considerable length of time ; others were in better physical condition. We were informed, as a result of experience gained in the camp, that of the children who at the time of admission into it suffer from any form of dropsy none ultimately survive ; all such perish sooner or later. Only two infants appear to have been born in camp—both small, wasted, and undeveloped. One is already dead ; the second, born eleven days ago, still lives, but is wizzened and weak. The children in hospital do not receive meat juice, but in [illegible]s stead milk of good quality, and meat soup, the latter occasionally containing a litt[illegible] arrack. We were informed that they

derive benefit from this combination. The spirits issued are given under the designation of medicine, not as ordinary extras to diet, in this respect being according to the same principle as is followed at the Monegar Relief Camp.

6. The general arrangements of the camp were similar to those at the Monegar Choultry, including sleeping huts, hospital huts, and cooking sheds. There were also covered sheds under which during the heat of the day the paupers may sit or recline, it being a rule to exclude them from their dormitories from early morning till evening with the exception of meal hours.

7. The conservancy arrangements are also similar to those at Monegar Choultry, but the comparative scarcity of surface soil over the laterite rock renders it a matter of greater difficulty than there to maintain "sweetness" although that is done effectually. It does not appear that means of ablution of any kind are provided for the paupers in this camp. This circumstance is undoubtedly a defect in a sanitary point of view. The water-supply obtained from the lake, which is also the source of supply for Madras, is very good and abundant. No danger whatever exists of the lake itself becoming contaminated, all precautions being taken to prevent such a result.

8. Of the inmates there are 475 men, and 448 women employed in labor of various kinds in connection with Government wo[illegible]d with the camp. These receive accommodation, but no rations. They are paid at th[illegible]nas per man, 1 anna and 4 pies per woman, and 10 pies per child; maistries or o[illegible]as. We were informed that for 2 annas these men were able to purchase 1 lb 12 ounces of r[illegible]e, and in addition curry-stuff, dholl, salted-fish, green vegetables, betel and tobacco sufficient one day's consumption. Here then, it seems fair to assume, we have a list of the various articles of diet deemed most essential by the ordinary native laborer to meet his actual requirements.

9. The scale of diet and quality of its ingredients are precisely similar to those of the ration issued at the Monegar Camp. Seven different descriptions of rice were shown to us, all being of the kind known as "ship rice" including one sample from Burma. The vegetables being issued for the day were sweet potatoes. We observed, however, that some of the paupers had from other sources provided themselves with a small quantity of what they termed *Umbaree Ke Bajee*, that is, the leaves of the *Hibiscus Cannabinus*. We were informed that the paupers in this camp make use of the water in which their daily allowance of rice is boiled to only a very small extent; the greater part of it is wasted.

10. Cooking is performed *en masse* as at the Monegar Relief Camp, that is, the rice is boiled in a series of large copper vessels, each capable of holding 50 measures, or equal to one meal at a time for 100 persons. The first meal of the day is issued at 7 A.M., but not less than three hours are generally required for its entire distribution, so that this is not complete until about 10 o'clock. The second meal is begun to be issued at 4-30 P.M., and its distribution generally completed about 6 o'clock.

11. So far all these arrangements are extremely satisfactory. It is true also that space almost to any extent exists around the camp for any additional accommodation that might be wanted. Considering, however, the present success attending this camp and the strikingly superior physical condition of its inmates as compared with those in the Monegar camp, we deem it right to express our views that it is advisable to leave well alone and to avoid any further extension of the camp. If another is built within a reasonable distance, the interval between them should be at least a mile or two.*

12. But, notwithstanding the great natural advantages of this camp as compared to the one in Monegar and also the apparent superior physique of the occupants in the mass, 34 cases of cholera are reported to have occurred among the inmates; 30 of them actually among the paupers; the remaining 4 in persons brought in. In all these, however, there seems fair reason to believe that those attacked had been in the stage of incubation of the disease when admitted. Small-pox has not spread within the camp, although 34 cases are recorded since it was opened for its present purpose, these, or the great majority, being doubtless in the persons of paupers arriving after having received the infection. No case of famine fever was pointed out to us, nor could we learn that any had occurred. The occurrences in camps of these two forms of epidemic is the more extraordinary when we take into account its healthful conditions, so superior as they are to those of Monegar Camp, from which cholera at least is said to have been entirely absent.

13. As at Monegar Relief Camp the following paupers were taken promiscuously as they happened to be grouped together, men, women, and children, and with the results of examination noted in respect to each, viz.:—

(1.) *Eradoo.*—In 10 days. Greatly emaciated; tongue clean, conjunctiva pale; does no work.

*Note by Surgeon-General Smith.—I would say three or four miles; otherwise they will meet and mix.

(2.) *Verasawmy.*—In 1 month. Looks strong and well; is in good condition; does no work but is willing; tongue and eyelids pale.

(3.) *Vencatay.*—In 1 month. In good physical condition; tongue and eyelids slightly pale; has done no work; says he is willing to labor.

(4.) *Latchiga.*—In 2 months. In good condition; tongue healthy; conjunctiva pale; has done no work; is willing to labor.

(5.) *Sealah.*—In 2 months. Has had only the regular diet; tongue and eyelids healthy; is in good physical condition and willing to work.

(6.) *Poonen.*—In 2 months. Tongue and eyelids healthy; in good physical condition; has only had the regular diet.

(7.) *Yellagha.*—In 3 weeks. Tongue and eyelids healthy; physical condition good.

(8.) *Yankatessa.*—In 1 month. Tongue healthy; eyelids pale; physical condition good.

(9.) *Changee.*—In one month. Tongue slightly abraded: eyelids healthy.

(10.) *Conay.*—In 6 weeks. Tongue and eyelids healthy.

The above were men.

(11.) *Permala*—aged about 10 years. [illegible] father and mother also in the relief camp; tongue slightly red; eyelids healthy; physical condition good.

(12.) *Yarraodo*—aged about 8 years.—In a long time, probably two or three months. The mother also in camp; father dead; tongue and eyes in fair condition.

(13.) *Veerasawmy*—about 4 years.—In 2 months. Is a child of No. 6. Face and feet œdematous; tongue pale; eyelids slightly so; abdomen natural; condition good.

(14.) *Menchee*—about 6 years.—In a month. Tongue and eyes healthy; is in an emaciated condition.

(15.) *Poongla*—About 10 years.—In 10 days. Tongue and eyelids pale; physical condition good.

(16.) *Sandurmuree*—about 10 years.—Period in uncertain. Tongue and eyelids pale; condition good.

The above are children.

(17.) *Maree.*—In 10 days. Tongue and eyes natural; condition good.

(18.) *Venkatah.*—In 3 months. Tongue pale and slightly abraded; eyes a little pale; physical condition good.

(19.) *Meerchee.*—In 10 days. Tongue and eyes healthy.

(20.) *Chillie.*—In 2 months. Tongue and eyelids healthy; physical condition good.

(21.) *Menchee.*—In one month. Tongue slightly pale; eyes natural; physical condition good.

(22.) *Soobhee.*—In 3 months. Tongue red; papillæ showing; physical condition good.

(23.) *Polay.*—In 2 months. Tongue and eyelids pale; physical condition good.

(24.) *Mungay.*—In 2 months. Tongue slightly abraded; eyelids natural; physical state good.

(25.) *Luchmen.*—In 10 days. Tongue natural; eyelids pale; physical condition good.

The above numbers from 17 inclusive represent women.

Following the plan pursued in regard to the inmates of the relief camp at Monegar, we summarize the results of the above observations thus, viz, as to the condition of the tongue. Among 10 adult males examined the state of the tongue was natural in 7, pale in 2, and abraded in 1: of 6 children it was natural in 2, pale in 3, and abraded in 1: and of 9 women it was natural in 4, pale in 2, abraded in 2, and pale with patches of abrasion in 1. Out of the same 10 men the physical condition was good in 7, bad in 1, and in 2 it was omitted to be noted; in the children, good in 4, impaired in 1, and unrecorded in 1; in the women, good in 8, unregarded in the case of one.

14. The following enumeration of cases of persons who have been for the longest period in the camp contains a record of the conditions observed in regard to the condition of this class, viz:—

(*a*) Women—

(1.) *Ammoye.*—In 3 months. Tongue clean; eyes good; skin rough; is in good condition.

(2.) *Mingay.*—In 3 months. Tongue and eyes good; in good condition; has a child 2 years old at the breast; it also gets rice, and is in pretty good condition.

(3.) *Quray.*—An old woman. In 4 months. Tongue and eyes natural; is in good condition although spare in person.

(4.) *Poolee.*—In 4 months. An old woman; tongue and eyes natural; she is much emaciated.

(5.) *Wullee.*—In 3 months. Tongue a little abraded; conjunctiva pale; condition good.

(6.) *Lutchey.*—In 4 months. Tongue and eyes natural.

(7.) *Lutchee.*—In 4 months. Is much emaciated; tongue slightly red; conjunctiva pale.

(8.) *Lutchmee.*—In 3 months. Is much emaciated; tongue natural; eyes pale; has lost her husband, 2 children, and a sister by starvation. She herself was picked up lying helpless, and admitted into the relief camp. Is now somewhat improved in state.

(9.) *Lutchmee.*—In 5 months. Eyes and tongue clean; has famine eruption on the skin; is in tolerable condition; has a child about 3 years old; its abdomen is prominent; the limbs emaciated.

(10.) *Lutchmee.*—In 5 months in various camps. Tongue and eyes good; has famine eruption; is in tolerable condition: has a child of about 3 years old; its abdomen is prominent; its limbs

(11.) *Yencalee.*—In 2 months. Tongue slightly abraded; conjunctiva pale; physical condition good.

(*b*) Men—

(12.) *Luchmagoodo.*—In about 3 months. Tongue and eyes natural; he is somewhat emaciated.

(13.) *Sooangan.*—In 5 months. Tongue and conjunctiva pale; condition good.

(14.) *Nagadoo.*—In camp about 5 months. Tongue natural; eyes pale; condition good.

(15.) *Yendadoo.*—In 5 months. Tongue and eyes natural; condition good.

(16.) *Gungado.*—In 5 months. Tongue and eyes natural; condition good.

(17.) *Veersin.*—In 5 months. Tongue and eyes pale; condition tolerable.

(18.) *Erosen.*—In 3 months. An old man; tongue and eyes natural; in good condition.

(19.) *Valaydum.*—An old man; in 3 months. Tongue and eyes natural; is in tolerable condition.

(20.) *Mutchligadoo*—In 4 months. Tongue and eyes natural; condition good.

(21.) *Challay.*—An old man; in 3 months. Tongue and eyes natural; is in good condition.

(22.) *Vencatasoo.*—In 4 months. Tongue and eyes pale; condition good.

(23.) *Eroodoo.*—An old man; tongue red; eyes pale; is emaciated.

(24.) *Pegana.*—In 3 months. Tongue and eyes pale; is much emaciated.

(25.) *Chensoo.*—In 3 months. Eyes and tongue natural; has improved in health since admission. Has got various articles by begging. His store consists of one pie in cash, some dried chillies, coriander, onions, salt, and tamarind. These he carries tied in a corner of his cloth.

In summarising these cases we find that among 11 women the state of the tongue was healthy in 8, and more or less abraded in 3; in 14 men it was natural in 9, pale in 4, and abraded in 1. Of the same persons the physical condition in regard to women was good in 5 instances, impaired in 2, bad in 3, and unrecorded in 1; as regards men, good in 9, impaired in 4, and bad in 1.

15. We observed that in the cases examined the extent of abrasion and reddening of the tongue was less in degree than among the paupers of the Monegar camp, as it was less frequent in numerical occurrence. We also noted the circumstance that in several instances the physical condition of individuals was to all appearance unimpaired, although the tongue was pale or abraded to some degree. Another peculiarity is observable, namely, that the health standard of those earliest admitted appears for the most part better than that of those who have come into camp more recently, and it is among the latter apparently that the deranged condition of the tongue above noted is chiefly found to exist. A considerable number of the adults who have been longest in the camp look strong and fit for work.

16. It was stated to us that, when asked the question, some of them express themselves as fit and willing to work but only so long as work is not available for them; when offered work they decline. Some of the applicants for admittance into camps are to all appearance well and

strong, not at all suffering from the effects of famine. One such man was presented to us while we were going our rounds. Others, we are informed, sell their tickets, and some, it is said, having got one or two meals gratis in camp, disappear. In a considerable number of instances they are said to give assumed names at the camp, concealing their own.

17. No doubt, the differences observed in the physical condition of the occupants of the Red Hills Camp as compared with those at Monegar are in some measure accounted for by the different circumstances of the two classes already recorded. It seems to us, however, that those circumstances are in themselves insufficient to account for the great differences that do appear to exist; and we consider it of some importance that further observations in regard to this point should be made.*

18. *Hospital huts*, large and airy, are provided respectively for men, for women and children, and for contagious diseases, the latter at sufficient distance from the general camp. One hut for ordinary sick, capable of accommodating upwards of 100 patients, but not yet taken into occupation, appears to us to be too large, so great a number of sick persons in one apartment being objectionable, however airy that apartment may be.

19. Among the sick the prevailing diseases were diarrhœa and dysentery. It was stated, however, that many cases of famine diarrhœa simulated dysentery inasmuch as they were attended by bloody evacuations, yet that in others actual dysentery intervened and destroyed the patient. At the time of our visit several patients were obviously beyond recovery, and it was remarked of them, as of the victims of famine generally, that they lay placidly upon their mats, taking notice of nothing and uttering no sound. Among the principal diseases being treated there were 6 of dropsy in adults and 11 in children; 19 of famine diarrhœa in adults and 5 in children; 5 of simple starvation in adults, and 17 in children.

20. The sick in hospital are permitted to have one of two scales of diet, viz:—

(1.) *Congee diet.*—Consisting of broken rice 16 ounces, milk 40 ounces, and sugar 1 ounce, divided into three meals.

(2.) *Soup diet.*—Consisting of mutton 8 ounces, pepper ½ ounce, and salt 1 ounce.

Children under 12 years of age receive half of these quantities; above 12 they are treated as adults.

21. It appears that during the first three weeks after the camp was occupied detailed statistics of its inmates had not been established; from that time, however, they have been regularly kept. The subjoined return contains all particulars on this head furnished to us, namely:—

HOSPITAL RELIEF CAMP, RED HILLS.

Return of Strength in Hospital, Mortality, and Ratio per Mille of Mortality.

Week ending	Adults.			Children.		
	Average Strength.	Deaths.	Ratio per Mille.	Average Strength.	Deaths.	Ratio per Mille.
29th December 1876	No record	5	..	No record	10	..
5th January 1877	..	12	..	..	21	..
12th „ „	..	8	..	..	20	..
19th „ „	976	25	25·61	156	7	0·92
26th „ „	1,549	25	12·61	1,232	8	6·49
2nd February „	1,994	20	17·05	1,306	19	14·54
9th „ „	2,771	34	14·76	1,613	59	36·57
16th „ „	3,207	30	9·35	1,930	36	18·65
23rd „ „	3,067	27	8·81	1,754	40	23·37
2nd March „	3,207	35	10·91	1,846	22	11·91
9th „ „	3,068	38	12·38	1,562	39	24·96
16th „ „	2,986	30	10·05	1,281	32	24·98
23rd „ „	3,101	26	8·38	1,472	33	22·42
30th „ „	3,412	21	6·15	1,596	23	14·41
6th April „	3,407	38	11·15	1,641	38	23·15
Total ..	32,745	374	147·51	17,989	407	222·37
Average strength and weekly ratio per mille	27·28	..	12·29	1,499	..	18·53

* Note by Surgeon-General Smith.—Might we not say that one factor in the question is the more healthy locality of the Red Hills, and another the better construction and ventilation of the sheds.

These I include in the "general conditions."—C. A. G.

The bodies of the dead in camp are interred, precaution being taken against injury to the living arising now or hereafter from this circumstance. The general results given above indicate that 374 adults and 407 children have died since the first establishment of the camp, that is, a ratio per 1,000 per week of 12·29 of the former, and 18·53 of the latter. It is observed, however, that these numbers included the classes brought to the camp in the last stage of exhaustion and who have died shortly after admission. With regard to the adults, the return does not indicate any fixed ratio of deaths for a continuous period. In the case of children, however, it is different; the weekly death-rate has in the mass undergone a steady increase according as the duration of the famine has been protracted, and this circumstance according to our view has a very important significance at the present time in regard to the direct and remote effects of existing conditions upon the general population. With reference to the rates of mortality in this camp, the Commissioner of Police informs us as with regard to the Monegar Camp so with the Red Hills "the mortality among the adults was appalling, but the state of the fresh admissions during the past three weeks has been getting worse, and I suspect mortality will go up again there as the distress increases and becomes more felt northward. I observe that while in my return for 7th April the remaining sick at Red Hills were 73, for this week (14th April) they were 98." We could of course enter at length into a comparison of the statistics as given with regard to this camp and that in Madras. We consider [illegible] the figures sufficiently tell their own tale, it would be a comparatively profitless [illegible] this report by giving particulars which are obvious to all who care to refer [illegible] statistical tables themselves.

CONCLUSIONS.

1. *With regard to the present health of the Paupers in the Relief Camp at the Red Hills—*

(*a.*) We consider that those who [illegible]e been for a considerable period in camp are to all appearance in good health.

(*b.*) Those more recently admitted exhibited a more or less abraded tongue, and in some instances other indications of deranged health. With respect to this class we are of opinion that grounds exist for anticipating that, in the event of their circumstances not being quickly ameliorated, their condition will rapidly become worse, that considerable mortality will occur among them, and that those who survive will be in a condition such as will unfit them to resume labor.

(*c.*) With regard to children and young persons we entertain very grave apprehensions. The particulars already given justify a belief that both these classes will hereafter deteriorate in health even to a greater extent than has been the case up to the present time, and a very large number perish if conditions remain as they now are.

2. *As to whether the diet they are now receiving is sufficient to keep them in health.*

(*a.*) It is beyond question that a large number of persons, particularly those who were admitted into the Red Hills Camp shortly after it was first established, have retained their health and are at the present time in good physical condition. That this is the case is no doubt to a large extent indicative that their diet has been sufficient to keep them in health. We have seen, however, that many persons have been able to supplement it in various ways, although in none apparently to any great extent.

(*b.*) In respect to paupers more recently admitted and whose conditions have been recorded in the preceding paragraphs, we consider that the present diet is insufficient for any other purpose than simply to keep them alive for the time being, but insufficient either to restore their original physique or supply them with a reserve to enable them to resume labor when the time arrives for them to do so.

(*c.*) In the case of women who are suckling children we consider the present scale of diet insufficient for their double requirements.

(*d.*) For the young we consider that the diet is *unsuitable* in kind. No doubt it would be practicable to give them more appropriate diet were they taken into hospital; this measure is however obviously impracticable by reason of their great numbers, and the immense establishments including *personnel* that would become necessary.

(*e.*) For these three classes, viz. (*b*, *c*, and *d*), we consider the most suitable diet to be that which we have recommended in respect to the paupers in the Monegar Relief Camp.

To it accordingly we beg to refer.

(Signed) C. A. GORDON, M.D.,
Surgeon-General, British Medl. Service, Madras Presidency.

(Signed) GEORGE SMITH, M.D.,
Surgeon-General, Indn. Medl. Dept., Madras Presidency.

MADRAS, 20*th April* 1877.

Report on an Inspection of Paupers in the Monegar Choultry Relief Camp made in accordance with G.O., No. 1,385, *dated* 10*th April* 1877.

1. On the 12th April 1877 we made a careful inspection of the paupers in the relief camp of the Monegar Choultry. The establishment was opened for its present purpose on the 4th of December 1876, and has been fully occupied since that date. The inmates at the time of our visit numbered 1,063 men, 1,037 women, and 1,201 children, making a total of 3,301 persons. Of these, there were sick 101 men, 42 women, and 38 children.

2. We personally examined and inquired into the physical condition of a number of them taken precisely in the order in which they were arranged within the camp; we then similarly examined a number of those who had been longest in the camp; took a general survey of the whole, including adults and children, and those sick in hospital.

3. The site of the camp is tolerably open and somewhat elevated above the adjoining parts of the town. The surface consists of a layer of sand, it is said, of very considerable thickness. The neighbourhood, however, is dirty; its soil apparently impregnated with the accumulated filth of generations; on one side, and at an inconsiderable distance, the position is bounded by gardens, the conservancy of which is defective, and a range of native huts, the condition of which is objectionable; on two others, thickly-crowded habi[illegible] extend at a small distance, the condition of the houses and enclosures being offensive [illegible] that is, the east side, the vicinity is tolerably open. In the still hours of morning, how[illegible] any offensive odour was perceptible everywhere in the locality. These conditions must necessarily tend to impair the health-standard of the persons exposed to them, and naturally sugge[illegible] the propriety of the numbers so exposed being reduced as far as other circumstances permit.

4. The water-supply, good and abundant, is [illegible]tained partly from wells, partly from a tank in camp, excavated by the paupers themselves, the [illegible]ater of which is said to be good. No separate arrangements for ablution exist. The paupers how[illegible]er, who are able to work, are marched once a week to the beach and made to bathe within the l[illegible]e of surf.

5. It has been found necessary to issue con[illegible]on cloths to many of the paupers in camp, particularly to women, to the aged of both sexe[illegible], and to children. In some instances such cloths are of cotton material, in others of woollen, the average cost of each being one rupee. Empty rice bags are similarly utilised, some being [illegible]orn after the manner of a *poncho*.

6. Sanitary inspections of the inmates are regularly made; such as are ill are immediately sent to hospital. The condition of the camp generally is also carefully supervised. Conservancy is easily and effectively maintained. The nature of the surface soil facilitates this. An extensive open shed or pen serves as a latrine; the excreta are instantly removed before they have had time to be absorbed; they are placed in closed carts and removed three times a day. The several duties under this head are performed by hired labor from without. Toties or sweepers are employed in the proportion of one to every hundred inmates of the camp. Urine tubs are placed in the several dormitories occupied by the paupers for use by night being withdrawn during the day-time. The camp is surrounded by a double fence of bamboo with an intervening layer of prickly-pear branches to prevent as far as possible clandestine egress and ingress. A fire engine is on the premises in case of need. One hut only has as yet been destroyed by conflagration.

7. The occupants of the camp include several distinct classes of paupers, each of which has its own characteristics, although it may be said of the mass that they have only applied for admission to the camp when absolutely driven to it by either actual or prospective want, many of them having remained at their homes as long as it was possible for them to do so. Among these classes there are (1) those who came to the camp at an early period of the famine and before the pressure of want had actually reduced their physique to a material extent; (2) those, whether immigrants or residents, who were admitted at a later period, having from one cause or another remained at their homes and borne the brunt of the famine so far. Of these, one section are able, either by the small money store they have not yet exhausted, by the proceeds of labor, or it may be small presents from friends outside, to procure for themselves food and condiments which, small as their quantity may be, yet have a considerable influence upon the physical condition of the recipients; (3) another class, and the more numerous, come in in a state of lowered physique, and have since their admission had no provision whatever save the daily ration issued to them.

8. The paupers are accommodated in spacious huts of bamboo frame-work and leaves arranged in the most suitable manner that the nature of the position will permit. In general arrangement they face east and west; they are placed in successive parallel ranges; the means of perflation are deficient in individual huts, and the distance between the huts insufficient; in a number of instances not more than 20 feet. The cost of each hut is at the rate of Rupees 1-8-0 per occupant.

9. The hospital wards for males and females respectively contained only patients affected with diseases directly caused by famine. The cases were for the most part of dysentery and famine diarrhœa, accompanied by very great emaciation of the person, and in a considerable number dropsies and œdematous swellings of the limbs. The convalescent ward was occupied by

persons recovering from dysentery and from diarrhœa. Almost without an exception, however, the appearance presented by the patients hardly justified the term convalescent, so emaciated and ill they looked.

10. With respect to the diseases observed, it is stated that when the famine diarrhœa is treated in its early stage, and its subject has not suffered for a lengthened period from want of food, recovery usually takes place. When, on the other hand, the affection occurs in those who for a considerable time have suffered from the use of deficient or unwholesome food, its progress becomes unmanageable, especially in the old and very young. It is also stated that a large proportion of patients affected with this disease suffer also from the presence of intestinal round worms.

11. The following scale of diet for the sick, devised by the medical attendant in the camp, seems well adapted for its purpose, namely :—

Articles.	Full. lbs.	Full. oz.	Full. drs.	Spoon. lbs.	Spoon. oz.	Spoon. drs.	Spoon. grs.	Remarks.
Rice	1	..	..	..	6	..	..	
Meat with bone ..	..	..	..	..	..	..	..	‡ For ½ a pint of curry.
Ghee	..	..	6	..	..	2	9	
Salt	..	..	8	18	..	4	9	§ For 1 pint of pepper-water, curry and rice in the day; pepperwater and rice in the evening.
Onions	..	..	5	9	..	2	18	
Garlic	..	..	2	..	..	1	..	
Chillies	..	..	3	9	..	1	8	§ Sugee congee, sago congee, and mutton soup given to weakly patients and children on spoon diet.
Pepper	..	..	1	9	..	..	18	
Coriander	..	..	..	18	..	..	..	
Mustard	..	..	..	12	..	..	6	
Cummin seed ..	..	..	..	12	..	..	6	
Vendeum*	..	..	..	12	..	..	6	
Tamarind	..	..	9	9	..	5	4	
Turmeric	..	..	..	24	..	..	..	
Vegetables	..	3	..	..	..	..	..	
Dholl	..	1	..	..	..	..	..	
Green-gram ..	..	..	..	..	..	9	9	
Curry pillit ..	..	..	..	..	..	..	4	Half of the quantity for children.

* Native name for Dill seed.

† A fragrant leaf, not identified, used to flavor curry.

12. The death-rates in camp are shown in the table given below, those of adults and children being shown separately. It is observed, however, that from information given to us the numbers there shown are more approximate than actual :—

No. of Week.	Weeks.	Adults. Average Strength per Week.	Adults. Actual Deaths per Week.	Adults. Percentage of Deaths per Week.	Children. Average Strength per Week.	Children. Actual Deaths per Week.	Children. Percentage of Deaths per Week.
1	Week ending 9th Dec. 1876.	1,636	10	0·61	1,064	3	0·28
2	„ 16th „	1,736	16	0·92	1,244	10	0·80
3	„ 23rd „	1,756	35	1·99	1,154	14	1·21
4	„ 30th „	2,163	41	1·91	1,459	9	0·61
5	„ 6th Jan. 1877.	2,163	47	2·17	1,589	13	0·81
6	„ 13th „	1,529	43	2·79	1,471	3	0·20
7	„ 20th „	1,079	66	6·23	1,068	32	2·99
8	„ 27th „	1,137	51	4·48	1,045	30	2·87
9	„ 3rd Feb. „	1,305	39	2·98	1,109	33	2·97
10	„ 10th „	1,292	31	2·45	890	40	4·49
11	„ 17th „	1,065	23	2·15	1,081	44	4·05
12	„ 24th „	1,215	29	2·23	795	34	4·27
13	„ 3rd Mar. „	1,023	36	3·52	731	21	2·87
14	„ 10th „	1,346	21	2·30	893	15	1·67
15	„ 17th „	1,416	32	2·27	599	11	1·83
16	„ 24th „	1,461	35	2·39	1,050	4	0·38
17	„ 31st „	1,945	32	1·64	1,096	5	0·45
18	„ 7th Apr. „	2,940	25	0·85	1,276	8	0·62
	Total ..	28,214	622	43·88	19,617	329	33·37
	Average Strength and Weekly Ratio per Mille.	1,567	..	24·37	1,089	..	18·53

The manner of disposal of the dead is by cremation.

So far as this return leads to a conclusion, it points to a steady decrease in the rates of mortality in the more recent periods as compared with the earlier stages of the famine. This we are unable to account for to our satisfaction. It seems to us to indicate the existence of a factor in the history of the existing scarcity that it would be interesting to make out. In reference to the mortality-rates shown, they include all classes of persons, nor has it been found practicable to eliminate the cases of those who have been brought to the camp in a moribund state. We are informed that such were of more frequent occurrence in the earlier periods of the famine than they have been more recently, and doubtless the circumstance has its value in explaining the difference in the death-rate alluded to.

13. On this subject the views expressed by the Commissioner of Police, by their value in regard to the present inquiry, deserve to carry great weight. According to him, in December 1876, "it became necessary to encamp all villagers who had left the mofussil for relief here. Of them, many had been starving or only partially fed for weeks, and the total deaths among them" to the date of this report "shows to what extent they suffered, but the people are no longer flocking into the town in large numbers, and the admissions into the camp are much reduced. How many of them will die we have yet to see. In the circumstances it seems to me that the death-rate in the town camp must naturally [illegible] in the earlier stages of the famine. In the earlier periods of the famine the subjects of it obtained all sorts of unwholesome kinds of food, while latterly the masses are believed to trust less than they did at first to chance relief, and to come in while yet their condition is less impaired than it was at first. It is stated that many of those first admitted had for some time previous existed in crowds on the beach, living on grains of rice sifted from the sea-sand, into which it had fallen in small quantities from damaged bags in course of being landed. Others had to subsist upon charitable donations received from their fellow natives, such donations consisting of rice or millet gruel. No wonder then that mortality among them was very great. For some time a total clearance of this class of paupers has taken place ; all have been admitted into the relief camp. According to the views of another official consulted, the decreased mortality in the more recent periods may be accounted for to some extent by the fact that within the last two months several relief camps have been established in the adjoining districts of Chingleput, North Arcot, and Vellore, to which paupers in those neighbourhoods have been removed. Also to the fact that about the same time a system of village relief inspection had been organised in all distressed districts, heads of villages being provided with funds and being instructed to afford relief to all persons in danger of starvation. By these means, it is added, many, who would otherwise have found their way to the camps near Madras in an advanced stage of distress, have been provided for nearer home. These explanations appear to us sufficient, and, being so, indicate the important fact that great saving of life has already resulted from the establishment of relief camps in the places enumerated.

14. There has been a remarkable absence among the paupers, not only of diseases prevailing in the vicinity of their camp as epidemics, but of others that usually accompany scarcity of food and famine. Thus, with the exception of 2 cases in the persons of hired servants, no case of cholera has occurred among the inmates of the camp, yet the disease is said to have prevailed extensively all around the camp. Small-pox, although it has occurred among the paupers, had apparently not done so in large proportion as compared to what took place outside. Diarrhœa does not appear to be particularly prevalent among the inmates generally, nor was any case of famine fever presented to us.

15. The *crèche* was in a hut similar to, but larger than, the ordinary huts for adults. The children were placed upon slightly-raised earthen platforms, arranged in three rows, there being 63 in all of these platforms. The children are in a good many instances without parents, many of them having been abandoned. In other instances, and they the majority, they are attended by their own mothers. According to the information furnished to us, out of an average number of 72 of them, 18 deaths occurred during last month. The children here are looked after by trained native women-nurses. This part of the establishment is not a hospital, all the children who become ill being sent out of it for treatment; they however receive an allowance of milk as long as they continue in this nursery. One woman had adopted a deserted child, and at the time of our visit was nursing it together with her own. She receives no extra allowance of food herself. We were informed that several such instances occur in the establishment.

16. We took the opportunity of examining a considerable number of persons, including both sexes, in the department connected with the camp devoted to out-door relief, to enable us to compare the condition of the actual inmates with that presented by them. According to information given us, 3,274 persons had the previous day received there a dole of cooked rice, equivalent to 12 ounces of raw for adults or half that quantity, namely, 6 in the case of children. The persons so relieved take their several portions to their homes, where they are said to add condiments and other articles according to their means and earnings. An examination of their tongues showed that those organs were for the most part pae, but not abraded.

17. The following cases furnish a sufficient illustration of the state of health and physique of the several classes of persons in the camp. As already observed, the cases were taken exactly as the individuals were arranged for inspection, the particulars regarding each being noted at the time of inspection, namely :—

(1.) *Yelle.*—In 5 days. Has an infant at the breast ; receives the same rations as a woman not nursing. Has flabby cheeks ; œdema under the eyes ; gums spongy ; tongue pale and flabby.

(2.) *Peliatha.*—In 10 days. Has eroded tongue ; is emaciated ; the gums ulcerated.

(3.) *Chellie.*—In 2 months. Has puffy face ; cracked tongue.

(4.) *Luchmeea.*—In one month. Conjunctiva pale ; is in tolerable condition.

(5.) *Pooneah.*—In one month. In tolerable condition.

(6.) *Comee.*—In 4 weeks. Gums ulcerated ; very emaciated.

(7.) *Devana.*—In 10 days. Conjunctiva pale ; face puffy ; tongue flabby ; indented by the teeth.

(8.) *Poonnee.*—In one [illegible] pale ; tongue red at the edges ; flabby, and indented by the te[illegible]t the breast ; gets no additional food.

(9.) *Ponga.*—About 4 years [illegible] of *Comee* (No. 6). In 4 weeks. Tongue pale, furred in the centre ; the [illegible]d and abraded ; the conjunctiva congested ; the muscles soft and flabby.

(10.) *Ponga.*—About 2 years old ; child of *Comee* (No. 6). Tongue as above noted ; conjunctiva pale ; abdomen enlarged ; limbs emaciated.

(11.) *Ragadoo.*—About 5 years old. In upwards of 2 months. His mother has small-pox and is in hospital ; he receives half rations. Tongue pale at the back ; papillæ large ; face puffy ; conjunctiva pale ; yet general condition pretty good.

(12.) *Vurdha.*—In 10 days. Has an infant at the breast ; gums clean ; tongue pale and furred, somewhat abraded in parts and cracked ; legs œdematous, and pit on pressure.

(13.) *Minha.*—In 10 days. Has a child at the breast, it being entirely fed by her ; has 5 children with her and her husband also in the camp ; walked a distance of 100 miles to Madras for admittance ; took 10 days to do it in, and subsisted by begging on the way ; her tongue is pale and flabby ; the conjunctiva pale ; her skin lustreless ; one of her children presents an enlarged abdomen.

(14.) *Poonga.*—Aged about 6. In 3 months. Has an eruption on the back considered characteristic of famine (by Taylor.) Face and eyelids puffy ; tongue pale ; legs emaciated.

(15.) *Minchee.*—In 8 days. Tongue pale ; in parts abraded ; its papillæ enlarged.

(16.) *Ilandum.*—In 10 days. Has a peculiarly pale tongue ; back covered with so-called famine eruption ; gums slightly affected.

(17.) *Chellie.*—In 20 days. Tongue pale and flabby ; skin presenting famine-eruption ; in fairly good condition, one-half of her family left at home ; she and the rest came here ; her child pretty well in condition.

(18.) *Thoyee.*—In 10 days. Tongue pretty good.

(19.) *Coomee.*—In 10 days. Tongue glazed, indented at the sides ; conjunctiva anæmic ; slight œdema of the legs.

(20.) *Luchmee.*—In 6 weeks. Has an infant at the breast. Tongue pale and flabby. Her child gets extra milk, but is wasing. Her husband died in the Relief Camp.

(21.) *Coopachee.*—In 20 days. The conjunctiva pale ; the tongue natural ; skin glossy ; she has a small store of money on her person.

The general result in respect to the above numbers show that 2 tongues were healthy, 8 pale, 4 abraded, and 5 pale and abraded ; in 2 the condition was not recorded. On the 16th April we continued our inspection. In 31 cases of persons then examined, who had been in the camp one week, the state of the tongue was healthy in 5, pale in 21, abraded in 3, and both pale and abraded in 2. Following up the inquiry in 51 cases of ordinary sick in the camp hospital, the tongue was healthy in 8, pale in 22, abraded in 1, and both pale and abraded in 9.

18. The following cases are selected at random among persons who have been longest in the camp with a view to illustrate the physical condition of the class of persons referred to, viz.—

(1.) *Yanketagadoo.*—In 2 months. An old man. State of the tongue and general aspect good.

(2.) *Pomen.*—In 3 months. Tongue a little reddened ; general appearance good ; has earned a little money by work in camp.

(3.) *Morinan.*—Has been in 3 months. Is in tolerable condition. Tongue somewhat thickened ; face a little puffy.

(4.) *Annarmanta.*—In three months. An old man ; feet œdamatous ; a ryot ; had a small holding with 2 bullocks and 2 cows, all of which died. He thus was driven to the relief camp.

(5.) *Vencatasawmy.*—In 3 months. Looks well. Has had working pay equal to a quarter anna per diem, with which he purchases dholl and tripe.

(6.) *Chellen.*—An old man. In 3 months. Has had no work and no food except the ordinary ration of the camp. Is strong.

(7.) *Cheeagan.*—In 3 months. Has been at work on the tank in camp and received the usual rate of pay. He looks well.

(8.) *Norinan.*—In 3 months. Has done no work here ; looks tolerably well. Is a ryot, had 4 bullocks, of which 2 died. [illegible] wife and 2 children with him here. One of the children has died. He c[illegible]m through failure of the water on his holding.

(9.) *Kernan.*—In 3 months. Looks very well. Was sent away from the camp to seek for work, but returned on the plea that he could get none.

(10.) *Maren.*—In 3 months. Has had no food except his ordinary ration. Looks well in health.

(11.) *Vencatagadoo.*—In 3 months. Looks well and fit for work. Breaks out of camp and works outside, earning 2 annas per diem.

(12.) *Chellen.*—In 2 months. Tongue a little abraded. He looks well and fit for work. He works in the tank connected with the camp, and receives working pay.

These numbers are small. If, however, it be considered safe to draw a deduction from them, it indicates that, of 12 men taken at random from among the inhabitants of the camp, 10 were in a state of apparent good health, 2 in more or less impaired health, but none actually bad. On the 16th of April the inquiry was continued. Of 55 men who were then subjected to examination, 23 appeared to be healthy, 29 in more or less impaired health, and 3 in bad health. We are aware that of those who have all the appearance of health, several may be unfit to undertake continuous labor hereafter by reason of their reserve stock of power being reduced to a low ebb. Regarding the persons in impaired and in bad health, we believe that, unless in the mean time their physical condition be improved, the death of many is inevitable ; it may be after the existing famine pressure has ceased, yet, nevertheless, as a direct result arising therefrom.

19. With regard to the food of the paupers in the relief camp, we give in the subjoined table a statement of the actual ingredients of a ration for an adult for one day, and, for the purposes of ready comparison, place side by side with it dietary tables in use for the ordinary paupers in the Monegar Choultry to which the camp is attached, and for non-laboring native rice-eating prisoners, viz :—

Ingredients of a daily ration per adult.	Paupers in the Relief Camp.				Paupers in the Monegar Choultry.			Non-laboring Native Prisoners.		
	lbs.	oz.	drs.	grs.	lbs.	oz.	drs.	lbs.	oz.	drs.
Rice	1	8	..	..	1	8	..	1	5	..
Vegetables	..	..	15	8	..	4	..	..	3	3
Dholl	..	1	15	10	..	..	..	..	1	10
Mutton including bones (once a week)	..	..	6	16	..	4	..	..	2	7
Salt	..	..	11	20	..	..	6½	..	..	13
Tamarind	..	..	10	14	..	..	4	..	..	6
Ghee	..	..	..	6	..	..	1½	..	..	6
Chillies	..	..	2	10	..	..	2	..	..	..
Coriander	..	..	1	14	..	..	½	..	..	..
Garlic	..	..	..	18	..	..	½	..	..	24 grs.
Turmeric	..	..	..	16	..	..	½	..	..	..
Onions	..	..	1	14	..	..	½	..	..	6
Curry-powder	..	..	..	4	..	..	½	..	..	6
Tyre or Buttermilk	..	..	..	..	..	..	..	..	8	..
Pepper	..	..	..	..	..	..	⅛	..	..	..

In the above calculations the grains have reference to avoirdupois weight.

Children under 12 years of age receive one-half the above quantities in the relief camp. Women having infants at the breast receive the ordinary ration, and no mutton or other meat is issued to the paupers in the relief camp once a week; to those in Monegar Choultry it is given thrice a week. The quantity allowed to prisoners is estimated in the return given *as if for every day*. In reality mutton, or an equivalent quantity of fish, is only given to them 3 times a week. Butter-milk is issued to prisoners 4 times a week—see Madras Medical Code, Vol. I., Sec. iii, page 64. In the above calculations in connection with the diet of paupers in the relief camp fractional parts of grains are not taken into account. Infants and children in some instances receive a supplementary allowance of milk. Those without mothers are entirely dependent upon such an allowance. The rice is what is known as "ship rice;" its quality is good, nor does it contain an unusual amount of husk or impurities. The vegetables issued consisted of calabash gourd (*cucurbita*—garden variety). It is stated that others are issued alternately, viz., bringal (*solanum melongena*), sweet potatoes (*convolvulus batutas*), and roselle (*hibiscus sabadariffa*). These are the only vegetables issued. It is estimated that, assuming the selling price of rice to be five measures per rupee, and that of dholl six measures, the daily cost per man of the above ration is 2 annas and 4 pies.

20. No money is given to [illegible]rally. About 240 of them, however, are said to be from time to time employed [illegible] kind or another within or connected with the camp; these receive half an anna [illegible] with which they purchase condiments of various kinds; a few others have a small store of coppers and there are some, although their number is small, who seem clandestinely to leave the camp for employment, and return with whatever they earn.

21. Cooking is performed *en masse*. Two meals per diem are given to the inmates; the first at 7 A.M., the second at 4 P.M. It has been suggested as a possible improvement on the present plan, or at all events as deserving a trial, that half a measure of grain should be issued to individuals, and an anna per day in addition. In this way it is believed, if a bazaar were within reach, they could purchase for themselves such articles as they desire, avoid monotony, and make their own arrangements for cooking their meals. The ordinary beverage is water drawn partly from wells, partly from a tank excavated by the paupers themselves, the supply containing a considerable proportion of common salt, but considered excellent. A few drink the water in which the rice has been boiled.

CONCLUSIONS.

Having entered at some length into the preceding details in regard to the conditions observed by us in respect to the paupers in the relief camp at the Monegar Choultry, we arrive at the following conclusions from the facts observed and here recorded, viz.:—

1. *As to the present condition of the paupers*:

(*a*). In the mass the physique of the inmates is inferior.* The ulceration of the mouth already recorded indicates the existence of morbific changes in the lining membrane of the intestines, which we believe will sooner or later render impossible absorption and assimilation of food, induce diarrhœa, and through it death of those so affected if permitted to advance.

(*b*). In a considerable proportion of instances the prominent abdomen, the œdema of eyelids and feet, point to a cachectic condition of body such as are the concomitants of starvation, insufficient or improper food, and which, from the experience of the past, we are justified in believing will, if unchecked, ultimately terminate life.

(*c*). Some of those admitted to the relief camp in the early period of the famine, that is, prior to a date six weeks ago or thereabout, have held their own, although we are unable to say they have actually gained in condition. Some of these, to all appearance, are fit for work; some of them do actually perform work now, and several expressed themselves willing to take any labor they could obtain. We were informed at the time of visit that a considerable number of this class were held ready to be sent away to relief works when these became available for them.

(*d*). There is a considerable number, who, although not actually suffering from disease, seem so reduced in physique that their reserve stock of power is exhausted. Of these some appear to be on the borders of illness and unlikely to be fit for labor if permitted to remain in their present state.

(*e*). Although a considerable proportion of infants and children appear to be in a tolerable condition, and some actually well, there is another class, and it is numerous, in which, to judge from their impaired physical condition and cachectic state, we doubt if anything will enable them ultimately to survive.

* Note by Surgeon-General Smith.—All are more or less anæmic; many are cachectic as well as anæmic.

2. *As to whether the diet the paupers are now receiving is sufficient to maintain them in health*:

(*a*). We consider that with respect to paupers admitted into the relief camp during the early part of the existing famine the particular ration of food sanctioned has so far enabled a number of them to hold their own. Even with this class, however, we doubt whether the state of health in which they now are is likely to continue much longer under existing conditions of diet, &c.

(*b*). In the cases of persons presenting the deranged state of the tongue, gums, and general health already detailed, we consider the present scale of diet altogether insufficient; this insufficiency, in our opinion, being partly in its quantities and partly in the nature of its constituents.

(*c*). With regard to paupers more recently admitted, and who have been for a considerable time previous exposed to the severity of famine, we consider the present ration to be insufficient to maintain health. In the cases of such persons the natural reserve of power, possessed in greater or less degree by all men, had been diminished to an extent varying [illegible]ty with which scarcity or want had affected them; a considerable [illegible] have become affected with the characteristic derangement of [illegible] indicated by the signs already noted, and the functions of di[illegible]ation in them are proportionally impaired.

(*d*). For the women who are now nursing infants at the breast, the present scale of diet is insufficient to maintain them in health. In their particular case it is insufficient even to a greater degree than in that of men; with the former, not only does it become necessary to support the physical power of the individual as with the latter, but over and above this material has to be s[illegible]ed for transformation into food on which growth and health on the part of the nur[illegible]ng infant are dependent.

It is an important question in laying down a diet scale what are the purposes to be fulfilled by it in respect to the person partaking of it, th[illegible] is, whether he shall be maintained only at a point of mere existence without a reserve of tissu[illegible] and power to enable him when the time comes to undertake ordinary labor, or whether he shall [illegible] preserved in a condition sufficient to maintain this reserve and enable him without detriment [illegible] his physique to resume hereafter his ordinary occupations.

For the first-mentioned purpose the scale now in use seems to be sufficient in respect to those who have only suffered from the effects of ordinary poverty or scarcity.* For such, however, as have been lowered by the pressure of want and famine, it is deemed to be altogether insufficient. Our opinion is that, in order to maintain the health of all according to the standard we have indicated, a rate of diet considerably above the present is necessary.†

In respect to all classes now in camp, we consider the scale laid down for ordinary non-laboring prisoners to be the most suitable with a few trivial modifications as noted below, viz.:—

	lbs.	oz.	drs.
Rice	1	8	0
Vegetables	0	4	0
Dholl	0	2	0
Mutton excluding bone or equivalent in fish (three times per week)	0	3	0
Salt	0	1	0
Tamarind	0	0	8
Ghee (clarified butter) or oil	0	0	8
Curry-powder	0	0	7
Onions	0	0	8
Garlic	0	0	4

Surgeon-General Smith recommends on non-meat days 6 ounces of butter-milk.

* Note by Surgeon-General Smith.—Add, al[illegible]ugh the dietary is defective as regards certain necessary elements of food.

† Note by Surgeon-General Smith.—We deem it also necessary that the dietary indicated shall avoid sameness, and be constructed so that existing pathological tendencies in the pauper population of the camp be, if possible, checked.

We consider that all women suckling their children ought, for purposes of health, to have the above ration daily.

That children under the age of 12 should have one-half of it ; above that, the entire ration.

C. A. GORDON, Surgeon-General, A.M.D.,
Surgeon-General, British Medl. Service, Madras Presidency.

GEORGE SMITH, M.D.,
Surgeon-General, Indian Medical Department, Madras Presidency.

MADRAS,
19th April 1877.

No. 115.

ORDER THEREON, 5th May 1877, No. 1,648.

Miscellaneous.

THE Government have read the joint reports of Surgeons-General Gordon and Smith with much interest and direct that the scale of diet recommended by them in their report on the Monegar Choultry Camp be adopted at all relief camps, and that the apparent res[illegible] alteration now ordered be reported briefly every fortnight. Care must, however, be [illegible] far as may be, no persons capable of working on a relief work are allowed to rem[illegible]

2. The reports will be c[illegible] Collectors, to the Commissioner of Police, and to Dr. Cornish for information.

(Extract.)

(Signed) J. H. GARSTIN,
Additional Secretary to Government.

To the Surgeon-General, British Medical Service.
,, the Board of Revenue.
,, the Sanitary Commissioner for Madras.
,, the Commissioner of Police, Madras.
,, the Financial Department.
,, the Accountant-General.
,, all Collectors.
,, the Surgeon-General, Indian Medical Department.

Exd. J. W. Eischer.

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Govt. of (1877) Madras.

REVENUE.

To

THE SURGEON-GENERAL,
BRITISH MEDICAL SERVICE,
&c., &c., &c.

Dated May, 5th.

Rod.

Encl.

1648
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No. 118.
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OFFICE OF THE SURGEON GENERAL,
BRITISH MEDICAL SERVICE, MADRAS
PRESIDENCY, FORT ST. GEORGE,
20th April, 1877.

From

SURG. GEN. C. A. GORDON, M.D., C.B.,
Honorary Physician to the Queen,

To

THE SECRETARY TO GOVERNMENT,
Revenue Department.

Sir,

With reference to Proceedings of the Madras Government, No. 1,385, dated 19th April, 1877, I have the honor to inform you that Surgeon General Smith, I. M. D., and myself together inspected the paupers at the Monegar Choultry and Red Hills Camps, with a view to form a joint opinion as to the present condition of those paupers, and whether the diet they are now receiving is sufficient to keep them in health.

I have now the honor to forward herewith our reports in regard to these subjects, for submission to His Grace the Governor in Council.

I have the honour to be,
Sir,
Your most obedient Servant,
C. A. GORDON,
Surg. Gen., Army Medical Dept.

Report on the state of the Paupers in the Relief Camp, Red Hills, agreeably to G. O. No. 1,385, *dated* 10*th April*, 1877.

I. On the 14th of April, 1877, we visited the Relief Camp at the Red Hills. At that time it contained 1,584 pauper men, 1,802 women, and 1,545 children making a total of 4,931 persons. Of these, the numbers sick in hospital were 27 men, 23 women, and 49 children, or a total of 99. The camp was opened on the 11th of January last from which time till the present the average numbers of persons in it have been 2,728 adults including both sexes and 1,482 children, the total deaths 374 of the former and 407 of the latter.

II. The classes of persons represented in this camp seemed similar to those in the Monegar camp. Besides those however, we were informed that considerable numbers are brought in from the main road, they being unable to continue their journey farther towards the place to which they may be proceeding; the surrounding villages send in their paupers when reduced to the last stage of exhaustion; deserted children are also picked up by the Police and brought in, often in an advanced stage of exhaustion or disease. We were struck with what seemed to us a larger proportion of young persons, that is boys and girls among the inmates, than was the case in the Monegar Relief Camp.

III. Many of the more recent arrivals are emaciated and weak; their food having, according to accounts of some of them consisted for some time back of ragi, that is the grains of at least two species of Eleusine and cooked rice, and these in small quantities. As at the Monegar Camp however, so here there is a class of persons evidently originally in *respectable positions*, as small farmers whose means have failed them as a result of the prevailing drought and famine, and who, for the time being, are forced to seek such relief as the camp affords. A considerable proportion of these seem to have been *reduced* to a *low state of physique* before they applied for admission into camp. It does not appear that out-door relief is given at this camp. Indeed, from the nature of its locality, far from any considerable town, there would probably be comparatively little demand for such relief.

IV. In several important respects the paupers at the Red Hills enjoy great advantages over those in the Monegar Relief Camp. The site of the camp itself has the advantages of elevation, free exposure to the breeze, absence of surrounding buildings; the paupers are permitted to wander away from their huts and to be out of

doors all day, thus having the tonic advantages arising therefrom. In addition to this they are, it is said, able to pick up mollusks of the Genera Ampullaria and Unio, or fish in the adjoining lake, to pluck an occasional leaf or root from the herbage, scanty though it be; to supplement their allowance of food by small donations made to them by villagers and passers bye, whose means of giving charity are not yet exhausted. That they manage also to obtain little additions to their regular food is rendered clear by the existence in the near vicinity of the camp of a bazaar among the commodities in which we noted mutton, salted fish, rice, chillies, pawn, salt, bringal, garlic, soapnut, dhall, beans, green gram, onions, turmeric, cakes of several kinds, firewood and cheroots.

V. There is no crêche as in the camp at Monegar. Children are often brought in by their parents and left; others as already stated are brought in by the Police, having been found deserted. Many of those seen by us were emaciated, and so reduced that we could scarcely expect them to live for any considerable length of time; others were in better physical condition. We were informed, as a result of experience gained in the camp, that of the children who at the time of admission into it suffer from any form of dropsy nine ultimately survive; all such perish sooner or later. Only two infants appear to have been born in camp—both small, wasted, and undeveloped. One is already dead, the second, born eleven days ago still lives, but is wizzened and weak. The children in hospital do not receive meat juice but in its stead, milk of good quality, and meat soup, the latter occasionally containing a little arrack. We were informed that they derive benefit from this combination. The spirits issued are given under the designation of medicine not as ordinary extras to diet; in this respect being according to the same principle as is followed at the Monegar Relief Camp.

VI. The general arrangements of the camp were similar to those at the Monegar Choultry, including sleeping huts, hospital huts, and cooking sheds. There were also covered sheds under which during the heat of the day the paupers may sit or recline, it being a rule to exclude them from their dormitories from early morning till evening, with the exception of meal hours.

VII. The conservancy arrangements are also similar to those at Monegar Choultry, but the comparative scarcity of surface soil over the laterite rock renders it a matter of greater difficulty than there to maintain "sweetness" although that is done effectually. It does not appear that means of ablution of any kind are provided for the paupers in this camp. This circumstance is undoubtedly a defect in a sanitary point of

view. The water supply obtained from the lake, which is also the source of supply for Madras, is very good and abundant. No danger whatever exists of the lake itself becoming contaminated; all precautions being taken to prevent such a result.

VIII. Of the inmates there are 475 men, and 448 women employed in labour of various kinds in connection with Government works, and with the camp. These receive accommodation, but no rations. They are paid at the rate of 2 annas per man, 1 anna and 4 pies per woman, and 10 pies per child; maistries or overseers get 3 annas. We were informed that for 2 annas these men were able to purchase 1lb. 12 ounces of rice, and in addition curry-stuff, dhall, salted-fish green vegetables, betel and tobacco sufficient for one day's consumption. Here then, it seems fair to assume we have a list of the various articles of diet deemed most essential by the ordinary native labourer to meet his actual requirements.

IX. The scale of diet and quality of its ingredients are precisely similar to those of the ration issued at the Monegar Camp. Seven different descriptions of rice were shown to us, all being of the kind known as "ship rice" including one sample from Burmah. The vegetables being issued for the day were sweet potatoes. We observed however, that some of the paupers had, from other sources provided themselves with a small quantity of what they termed *Umbaree Ke Bajee* that is, the leaves of the *Hibiscus Cannabinus*. We were informed that the paupers in this camp make use of the water in which their daily allowance of rice is boiled to only a very small extent; the greater part of it is wasted.

X. Cooking is performed en masse as at the Monegar Relief Camp, that is, the rice is boiled in a series of large copper vessels, each capable of holding 50 measures, or equal to one meal at a time for 100 persons. The first meal of the day is issued at 7 A. M. but not less than three hours are generally required for its entire distribution, so that this is not complete until about 10 o'clock. The second meal is begun to be issued at 4-30 P. M. and its distribution generally completed about 6 o'clock.

XI. So far, all these arrangements are extremely satisfactory. It is true also that space almost to any extent exists around the camp for any additional accommodation that might be wanted. Considering however, the present success attending this Camp and the strikingly superior physical condition of its inmates as compared with those in the Monegar Camp, we deem it right to express our views that it is advisable to leave well alone, and to avoid any further extension of the camp. If another is built within a reasonable distance, the interval between them should be at least a mile or two.*

XII. But notwithstanding the great natural advantages of this Camp as compared to the one in Monegar and also the apparent superior physique of the occupants in the mass, 34 cases of cholera are reported to have occurred among the inmates; 30 of them actually among the paupers, the remaining 4 in persons brought in. In all these however, there seems fair reason to believe that those attacked had been in the stage of inculcationof the disease when admitted. Small-pox has not spread within the camp, although 34 cases are recorded since it was opened for its present purpose, these, or the great majority being doubtless in the persons of paupers arriving after having received the infection. No case of famine fever was pointed out to us, nor could we learn that any had occurred. The occurrences in camps of these two forms of epidemic is the more extraordinary when we take into account its healthful conditions, so superior as they are to those of Monegar camp, from which cholera at least is said to have been entirely absent.

XIII. As at Monegar Relief Camp, the following paupers were taken promiscuously as they happened to be grouped together, men, women, and children, and with the results of examination noted in respect to each, viz:—

1. *Eradoo.*—In 10 days, greatly emaciated. Tongue clean, conjunctiva pale; does no work.

2. *Verasawmy.*—In one month. Looks strong and well. Is in good condition. Does no work but is willing. Tongue and eyelids pale.

3. *Vencatay.*—In one month. In good physical condition. Tongue and eyelids slightly pale. Has done no work. Says he is willing to labour.

4. *Latchiga.*—In 2 months. In good condition. Tongue healthy; conjunctiva pale. Has done no work. Is willing to labour.

5. *Sealah.*—In 2 months. Has had only the regular diet. Tongue and eyelids healthy. Is in good physical condition and willing to work.

6. *Poonen.*—In 2 months. Tongue and eyelids healthy. In good physical condition. Has only had the regular diet.

7. *Yellagha.*—In 3 weeks. Tongue and eyelids healthy. Physical condition good.

8. *Yankatessa.*—In one month. Tongue healthy, eyelids pale. Physical condition good.

* Note by Surgeon General Smith. I would say 3 or 4 miles, otherwise they will meet and mix.

9. *Changee.*—In one month. Tongue slightly abraded, eyelids healthy.

10. *Connay.*—In 6 weeks. Tongue and eyelids healthy.

The above were men.

11. *Permala.*—Aged about 10 years. In 10 days. Father and mother also in the Relief camp. Tongue slightly red. Eyelids healthy. Physical condition good.

12. *Yarraodo.*—Aged about 8 years. In a long time, probably two or three months. The mother also in camp; father dead. Tongue and eyes in fair condition.

13. *Verasawmy.*—About 4 years. In 2 months. Is a child of No. 6. Face and feet ædematous; tongue pale; eyelids slightly so. Abdomen natural, condition good.

14. *Menchee.*—About 6 years. In a month. Tongue and eyes healthy. Is in an emaciated condition.

15. *Poongla.*—About 10 years. In 10 days. Tongue and eyelids pale; physical condition good.

16. *Sandurmuree.*—About 10 years. Period in, uncertain. Tongue and eyelids pale; condition good.

The above are children.

17. *Maree.*—In 10 days. Tongue and eyes natural; condition good.

18. *Venkatch*—In 3 months. Tongue pale and slightly abraded; eyes a little pale; physical condition good.

19. *Meerchee*—In 10 days. Tongue and eyes healthy.

20. *Chillie*—In 2 months. Tongue and eyelids healthy; physical condition good.

21. *Menchee.*—In one month. Tongue slightly pale; eyes natural; physical condition good.

22. *Soobhee.*—In 3 months. Tongue red, papillæ showing; physical condition good.

23. *Polay.*—In 2 months. Tongue and eyelids pale; physical condition good.

24. *Mungay.*—In 2 months. Tongue slightly abraded; eyelids natural; physical state good.

25. *Luchmee.*—In 10 days. Tongue natural; eyelids pale; physical condition good.

The above numbers from 17 inclusive represent women.

Following the plan pursued in regard to the inmates of the Relief Camp at Monegar we summarize the results of the above observations thus viz. As to the condition of the tongue.) Among 10 adult males

examined the state of the tongue was natural in 7, pale in 2, and abraded in 1: of 6 children it was natural in 2, pale in 3, and abraded in 1: and of 9 women it was natural in 4, pale in 2, abraded in 2 and pale with patches of abrasion in 1. Out of the same 10 men the physical condition was good in 7, bad in 1, and in 2 it was omitted to be noted; in the children, good in 4, impaired in 1, and unrecorded in 1; in the women, good in 8, unrecorded in the case of one.

XIV. The following enumeration of cases of persons who have been for the longest period in the camp contains a record of the conditions observed in regard to the condition of this class, viz.

(a. Women.

1. [illegible]*ye.*—In 3 months; tongue clean; eyes good; skin rough; is in good condition.

2. *Mingay.*—In 3 months; tongue and eyes good; in good condition. Has a child 2 years old at the breast; it also gets rice and is in pretty good condition.

3. *Qway.*—An old woman. In 4 months; tongue and eyes natural, is in good condition although spare in person.

4. *Polee.*—In 4 months an old woman; tongue and eyes natural; she is much emaciated.

5. *Willee.*—In 3 months; tongue a little abraded; conjunctiva pale; condition good.

6. *Luchey.*—In 4 months; tongue and eyes natural.

7. *Luchee.*—In 4 months. Is much emaciated; tongue slightly red; conjunctiva pale.

8. *Lutchmee.*—In 3 months. Is much emaciated. Tongue natural; eyes pale. Has lost her husband, 2 children and a sister by starvation. She herself was picked up lying helpless, and admitted into the Relief Camp. Is now somewhat improved in state.

9. *Luchmee.*—In 5 months; eyes and tongue clean; has famine eruption on the skin; is in tolerable condition. Has a child about 3 years old; its abdomen is prominent; the limbs emaciated.

10. *Lutchmee.* In 5 months, in various camps; tongue and eyes good; has famine eruption; is in tolerable condition. Has a child of about 3 years old; its abdomen is prominent; its limbs wasted.

11. *Encalee.* In 2 months; tongue slightly abraded; conjunctiva pale; physical condition good.

(b. Men.

12. *Luchmagoodo*—In about 3 months: tongue and eyes natural; he is somewhat emaciated.

13. *Soangan*—In 5 months; tongue and conjunctiva pale condition good.

14. *Nagadoo*—In camp about 5 months; tongue natural; eyes pale; condition good.

15. *Venadoo*—In 5 months; tongue and eyes natural; condition good.

16. *Gungado*—In 5 months; tongue and eyes natural; condition good.

17. *Veersin*.—In 5 months; tongue and eyes pale; condition tolerable.

18. *Erosen*—In 3 months; an old man; tongue and eyes natural; in good condition.

19. *Velaydum*—An old man; in 3 months; tongue and eyes natural; is in tolerable condition.

20. *Mutchligadoo*—In 4 months; [illegible]yes natural; condition good.

21. *Challay*.—An old man. In 3 months; tongue and eyes natural; is in good condition.

22. *Vencataso*.—In 4 months; tongue and eyes, pale; condition good.

23. *Eroodoo*.—An old man. Tongue red; eyes pale; is emaciated.

24. *Pegana*.—In 3 months. Tongue and eyes pale; is much emaciated.

25. *Chensoo*.—In 3 months; eyes and tongue natural; has improved in health since admission. Has got various articles by begging. His store consits of one pie in cash, some dried chillies, coriander, onions, salt and tamarind. These he carries tied in a corner of his cloth.

In summarising these cases we find that among 11 women the state of the tongue was healthy in 8, and more or less abraded in 3; in 14 men, it wa natural in 9, pale in 4, and abraded in 1. Of the same persons the physical condition in regard to women was good in 5 instances, impaired in 2, bad in 3, and unrecorded in 1, as regards men, good in 9, impaired in 4, and bad in 1.

XV. We observed that in the cases exmined, the extent of abrasion and reddening of the tonge was less in degree than among the paupers of the Monegar camp, as it was less frequent in numerical occurrace. We also noted the circumstance that in several irtances the physical condition of individuals was to all appearance unimpaired, although the tongue was pale, or abraded to some degree. Another peculiarity is observable, namely, that the health standard of those earest admitted appears for the most part better than that of those who have come into camp more recently, andt is among the latter apparently that the deranged condtion of the tongue above noted is chiefly found to exit. A considerable number of the adults who have been longest in the camp look strong and fit for work.

XVI. It was stated to us that, when asked the question, some of them express themselves as fit and willing to work, but only so long as work is not available for them; when offered work they decline. Some of the applicants for admittance into camps are to all appearance well and strong, not at all suffering from the effects of famine. One such man was presented to us while we were going our rounds. Others we are informed sell their tickets, and some it is said, having got one or two meals gratis in camp, disappear. In a considerable number of instances they are said to give assumed names at the camp, concealing their own.

XVII. No doubt, the differences observed in the physical condition of the occupants of the Red Hills Camp as compared with those at Monegar are in some measure accounted for by the different circumstances of the two classes already recorded. It seems to us however, that those circumstances are in themselves insufficient to account for the great differences that do appear to exist; and we consider it of some importance that further observations in regard to this point should be made.*

XVIII. *Hospital huts*, large and airy are provided respectively for men, for women and children, and for contagious diseases, the latter at sufficient distance from the general camp. One hut for ordinary sick, capable of accommodating upwards of 100 patients but not yet taken into occupation appears to us to be too large, so great a number of sick persons in one apartment being objectionable, however airy that apartment may be.

XIX. Among the sick the prevailing diseases were diarrhœa and dysentery. It was stated however, that many cases of famine diarrhœa simulated dysentery inasmuch as they were attended by bloody evacuations, yet that in others actual dysentery supervened and destroyed the patient. At the time of our visit several patients were obviously beyond recovery, and it was remarked of them as of the victims of famine generally, that they lay placidly upon their mats, taking notice of nothing and uttering no sound. Among the principal diseases being treated there were 6 of dropsy in adults and 11 in children; 19 of famine diarrhœa in adults and 5 in children; 5 of simple starvation in adults, and 17 in children.

XX. The sick in hospital are permitted to have one of two scales of diet *viz*:—

*Note by Surgeon General Smith. Might we not say that one factor in the question is the more healthy locality of the Red Hills, and another the better construction and ventilation of the sheds.

These I include in the "general conditions."—C. A. G.

1. *Congee diet.*—Consisting of broken rice 16 ounces, milk 40 ounces, and sugar 1 ounce, divided into three meals.

2. *Soup diet.*—Consisting of mutton 8 ounces, pepper one-sixteenth ounce, and salt 1 ounce.

Children under 12 years of age receive half of these quantities; above 12 they are treated as adults.

XXI. It appears that during the first three weeks after the camp was occupied, detailed statistics of its inmates had not been established; from that time however, they have been regularly kept. The subjoined return contains all particulars on this head furnished to us namely:—

HOSPITAL RELIEF CAMP, RED HI[illegible]

Return of strength in Hospital, mortality, and ratio per mille of mortality.

Week ending.	Adults.			Children.		
	Average strength.	Deaths.	Ratio per mille.	Average strength.	Deaths.	Ratio per mille.
29th December, 1876.	No record	5	...	No record	10	...
5th January, 1877.	...	12	...	...	21	...
12th Do. "	...	8	...	...	20	...
19th Do. "	976	25	25·61	156	7	0·92
26th Do. "	1,549	25	12·61	1,232	8	6·49
2nd February, "	1,994	20	17·05	1,306	19	14·54
9th Do. "	2,771	34	14·78	1,613	59	36·57
16th Do. "	3,207	30	9·35	1,930	36	18·65
23rd Do. "	3,067	27	8·81	1,754	40	23·37
2nd March, "	3,207	35	10·91	1,846	22	11·91
9th Do. "	3,068	38	12·38	1,562	39	24·96
16th Do. "	2,986	30	10·05	1,231	32	24·98
23rd Do. "	3,101	26	8·38	1,472	33	22·42
30th Do. "	3,412	21	6·15	1,596	23	14·41
6th April, "	3,407	38	11·15	1,641	38	23·15
Total	32,745	374	147·51	17,989	407	222·37
Average strength and weekly ratio per mille	27·28	...	12·29	1,499	...	18·53

The bodies of the dead in camp are interred, precaution being taken against injury to the living arising now or hereafter from this circumstance. The general results given above indicate that 374 adults and 407 children have died since the first establishment of the camp, that is a ratio per 1,000 per week of 12·29 of the former, and 18·53 of the latter. It is observed however, that these numbers included the classes brought to the Camp in the last stage of exhaustion and who have died shortly after admission. With regard to the adults the return does not indicate any fixed ratio of deaths for a continuous period. In the case of children however, it is different; the weekly death rate has in the mass undergone a steady increase according as the duration of the famine has been protracted, and this circumstance according to our view has a very important significance at the present time in regard to the direct and remote effects of existing conditions upon the

general population. With reference to the rates of mortality in this camp the Commissioner of Police informs us as with regard to the Monegar Camp so with the Red Hills "the mortality among the adults was appaling, but the state of the fresh admissions during the past three weeks has been getting worse and I suspect mortality will go up again there as the distress increases and becomes more felt northward. I observe that while in my return for 7th April the remaining sick at Red Hills were 73, for this week, (14th April) they were 98." We could of course enter at length into a comparison of the statistics as given with regard to this camp and that in Madras. We consider however, that as the figures sufficiently tell their own tale, it would be a comparatively profitless task to lengthen this report by giving particulars which are obvious to all who care to refer minutely to the statistical tables themselves.

CONCLUSIONS.

1. *With regard to the present health of the Paupers in the Relief Camp at the Red Hills.*

(*a.*) We consider that those who have been for a considerable period in camp are to all appearance in good health.

(*b.*) Those more recently admitted exhibited a more or less abraded tongue, and in some instances other indications of deranged health. With respect to this class we are of opinion that grounds exist for anticipating that in the event of their circumstances not being quickly ameliorated, their condition will rapidly become worse, that considerable mortality will occur among them, and that those who survive will be in a condition such as will unfit them to resume labour.

(*c.*) With regard to children and young persons we entertain very grave apprehensions. The particulars already given justify a belief that both these classes will hereafter deteriorate in health even to a greater extent than has been the case up to the present time, and a very large number perish if conditions remain as they now are.

2. *As to whether the diet they are now receiving is sufficient to keep them in health.*

(*a.*) It is beyond question that a large number of persons, particularly those who were admitted into the Red Hills camp shortly after it was first established have retained their health and are at the present time in good physical condition. That this is the case, is no doubt to a large extent indicative that their diet has been sufficient to keep them in health. We have seen however, that many persons have been able to supplement it in various ways, although in none apparently to any great extent.

(*b.*) In respect to paupers more recently admitted and whose conditions have been recorded in the preceding paragraphs, we consider that the present diet is insufficient for any other purpose than simply to keep them alive for the time being, but insufficient either to restore their original physique or supply them with a reserve to enable them to resume labour when the time arrives for them to do so.

(*c.*) In the case of women who are suckling children we consider the present scale of diet insufficient for their double requirements.

(*d.*) For the young, we consider that the diet is *unsuitable* in kind. No doubt it would be practicable to give them more appropriate diet were they taken into hospital; this measure is however obviously impracticable by reason of their great numbers, and the immense establishments including *personnel* that would become necessary.

(*e.*) For these three classes, *viz.* (*b, c,* and *d,*) we consider the most suitable diet to be that which we have recommended in respect to the paupers in the Monegar Relief camp.

To it accordingly we beg to refer.

(Signed) C. A. GORDON, M.D.,
Surgeon General, &c
British Medical Service, Madras Presy.

(Signed) GEORGE SMITH, M.D.,
Surgeon General,
Indian Medical Dept., Madras Presy.

MADRAS, *20th April*, 1877.

Report on an Inspection of Paupers in the Monegar Choultry Relief Camp, made in accordance with G. O. No. 1,385, *dated* 10*th April*, 1877.

I. On the 12th April, 1877, we made a careful inspection of the paupers in the relief camp of the Monegar Choultry. The establishment was opened for its present purpose on the 4th of December 1876, as a camp has been fully occupied since that date. The inhabitants at the time of our visit numbered 1,063 men, 1,037 women and 1,201 children, making a total of 3,301 persons. Of these, there were sick 101 men, 42 women and 38 children.

II. We personally examined and inquired into the physical condition of a number of them taken precisely in the order in which they were arranged within the camp; we then similarly examined a number of those who had been longest in the camp; took a general survey of the whole, including adults and children, and those sick in hospital.

III. The site of the camp is tolerably open and somewhat elevated above the adjoining parts of the town. The surface consists of a layer of sand, it is said, of very considerable thickness. The neighbourhood, however, is dirty, its soil apparently impregnated with the accumulated filth of generations; on one side, and at an inconsiderable distance, the position is bounded by gardens, the conservancy of which is defective, and a range of native huts, the condition of which is objectionable; on two others, thickly-crowded habitations extend at a small distance, the condition of the houses and enclosures being offensive; on the fourth, that is the east side, the vicinity is tolerably open. In the still hours of morning however, a heavy offensive odour was perceptible everywhere in the locality. These conditions must necessarily tend to impair the health-standard of the persons exposed to them, and naturally suggest the propriety of the numbers so exposed being reduced as far as other circumstances permit.

IV. The water-supply, good and abundant, is obtained partly from wells, partly from a tank in camp, excavated by the paupers themselves, the water of which is said to be good. No separate arrangements for ablution exist. The paupers however, who are

able to work, are marched once a week to the beach and made to bathe within the line of surf.

V. It has been found necessary to issue common cloths to many of the paupers in camp, particularly to women, to the aged of both sexes, and to children. In some instances such cloths are of cotton material, in others of woollen; the average cost of each being one rupee. Empty rice bags are similarly utilised, some being worn after the manner of a *poncho*.

VI. Sanitary inspections of the inmates are regularly made; such as are ill are immediately sent to hospital. The condition of the camp generally is also carefully supervised. Conservancy is easily and effectively maintained. The nature of the surface soil facilitates this. An extensive open shed or pen serves as latrine; the excreta are instantly removed before they have had time to be absorbed, they are placed in closed carts and removed three times a day. The several duties under this head are performed by hired labour from without. Toties or sweepers are employed in the proportion of one to every hundred inmates of the camp. Urine tubs are placed in the several dormitories occupied by the paupers, for use by night; being withdrawn during the daytime. The camp is surrounded by a double fence of bamboo, with an intervening layer of prickly-pear branches to prevent as far as possible clandestine egress and ingress. A fire engine is on the premises in case of need. One hut only has as yet been destroyed by conflagration.

VII. The occupants of the camp include several distinct classes of paupers, each of which has its own characteristics, although it may be said of the mass that they have only applied for admission to the camp when absolutely driven to it by either actual or prospective want, many of them having remained at their homes as long as it was possible for them to do so. Among these classes there are (1) those who came to the camp at an early period of the famine and before the pressure of want had actually reduced their physique to a material extent; (2) those, whether immigrants or residents, who were admitted at a later period, having from one cause or another remained at their homes and borne the brunt of the famine so far. Of these, one section are able, either by the small money store they have not yet exhausted, by the proceeds of labour, or it may be small presents from friends outside, to procure for themselves food and condiments which, small as their quantity may be, yet have a considerable influence upon the physical condition of the recipients; (3) another class, and the more numerous, come in in a state of lowered physique, and have since their admission had no provision whatever save the daily ration issued to them.

VIII. The paupers are accommodated in spacious huts of bamboo frame-work and leaves arranged in the most suitable manner that the nature of the position will permit. In general arrangement they face east and west; they are placed in successive parallel ranges; the means of perflation are deficient in individual huts, and the distance between the huts insufficient; in a number of instances not more than 20 feet. The cost of each hut is at the rate of Rupee 1-8 per occupant.

IX. The hospital wards for males and females respectively, contained only patients affected with diseases directly caused by famine. The cases were for the most part, of dysentery and famine diarrhœa, accompanied by very great emaciation of the person, and in a consid[illegible]e number, dropsies and œdematous swellings of the limbs. The convalescent ward was occupied by persons recovering from dysentery and from diarrhœa. Almost without an exception, however, the appearance presented by the patients hardly justified the term convalescent, so emaciated and ill they looked.

X. With respect to the diseases observed, it is stated that when the famine diarrhœa is treated in its early stage, and its subject has not suffered for a lengthened period from want of food, recovery usually takes place. When, on the other hand, the affection occurs in those who for a considerable time have suffered from the use of deficient or unwholesome food, its progress becomes unmanageable, especially in the old and very young. It is also stated that a large proportion of patients affected with this disease suffer also from the presence of intestinal round worms.

XI. The following scale of diet for the sick, devised by the medical attendant in the camp, seems well adapted for its purpose, namely:—

Articles.	Full.				Spoon.				Remarks.
	lbs.	oz.	drs.	grs.	lbs.	oz.	drs.	grs.	
Rice	1	8				6			
Meat with bone		3							‡ For ½ a pint of curry.
Ghee			6	18			2	9	
Salt			3	18			4	9	§ For 1 pint of pepper-water, curry and rice in the day; pepper-water and rice in the evening. Sugee congee, sago congee, and mutton soup given to weakly patients and children on spoon diet.
Onions			5	9			2	18	
Garlic			2				1		
Chillies			3	9			1	8	
Pepper			1	9	‡			18	
Coriander				18					
Mustard				12				6	
Cummin Seed				12				6	
Vendeum*				12				6	
Tamarind			9	9			5	4	
Turmeric				24					
Vegetables		3							
Dholl		1							Half of the quantity for children.
Green Gram							9	9	
Curry pilly†				9				4	

* Native name for Dill seed.

† A fragrant leaf, not identified, used to flavour curry.

XII. The death-rates in camp are shewn in the table given below, those of adults and children being shewn separately. It is observed, however, that from information given to us the numbers there shown are more approximate than actual :—

No. of Weeks.	Weeks.	Adults.			Children.		
		Average strength per week.	Actual deaths per week.	Percentage of deaths per week.	Average strength per week.	Actual deaths per week.	Percentage of deaths per week.
1	Week ending 9th Dec., 1876	1,636	10	0·61	1,004	3	0·28
2	,, 16th ,,	1,736	16	0·92	1,211	10	0·80
3	,, 23rd ,,	1,756	35	1·99	1,154	14	1·21
4	,, 30th ,,	2,143	41	1·91	1,439	9	0·61
5	,, 6th Jan., 1877	2,163	47	2·17	1,559	13	0·81
6	,, 13th ,,	1,539	43	2·79	1,471	3	0·20
7	,, 20th ,,	1,059	66	6·23	1,008	32	2·99
8	,, 27th ,,	1,137	51	4·48	1,045	30	2·87
9	,, 3d Feb. ,,	1,305	39	2·98	1,109	33	2·97
10	,, 10th ,,	1,262	31	2·45	890	40	4·49
11	,, 17th ,,	1,065	23	2·15	1,084	44	4·05
12	,, 24th ,,	1,295	29	2·23	795	34	4·27
13	,, 3d Mar. ,,	1,020	36	3·52	731	21	2·87
14	,, 10th ,,	1,846	31	2·30	833	15	1·67
15	,, 17th ,,	1,406	32	2·27	599	11	1·83
16	,, 24th ,,	1,461	35	2·39	1,050	4	0·38
17	,, 31st ,,	1,945	32	1·64	1,096	5	0·45
18	,, 7th Apr.	2,940	25	0·85	1,276	8	0·62
	Total...	28,214	622	43·88	19,017	329	33·37
	Average strength and Weekly ratio per mille...	1,567	...	24·37	1,039	...	18·53

The manner of disposal of the dead is by cremation.

So far as this return leads to a conclusion, it points to a steady decrease in the rates of mortality in the more recent periods as compared with the earlier stages of the famine. This we are unable to account for to our satisfaction. It seems to us to indicate the existence of a factor in the history of the existing scarcity, that it would be interesting to make out. In reference to the mortality-rates shewn, they include all classes of persons, nor has it been found practicable to eliminate the cases of those who have been brought to the camp in a moribund state. We are informed that such were of more frequent occurrence in the earlier periods of the famine than they have been more recently, and doubtless the circumstance has its value in explaining the difference in the death-rate alluded to.

XIII. On this subject the views expressed by the Commissioner of Police by their value in regard to the present inquiry, deserve to carry great weight. According to him, in December 1876, "it became necessary to encamp all villagers who had left the mofussil for relief here. Of them, many had been starving or only partially fed for weeks, and the total deaths among them," to the date of this report, "shows to

what extent they suffered: but the people are no longer flocking into the town in large numbers, and the admissions into the camp are much reduced. How many of them will die we have yet to see, but under the circumstances it seems to me that the death-rate in the town camp must naturally be less now than in the earlier stages of the famine. In the earlier periods of the famine, the subjects of it obtained all sorts of unwholesome kinds of food, while latterly the masses are believed to trust less than they did at first to chance relief, and to come in while yet their condition is less impaired than it was at first. It is stated that many of those first admitted had for some time previous existed in crowds on the beach, living on grains of rice sifted from the sea-sand, into which it had fallen in small quantities from damaged bags in course of being landed. Others had to subsist upon charitable donations received from their fellow natives, such donations consisting of rice or millet gruel. No wonder then that mortality among them was very great. For sometime a total clearance of this class of paupers has taken place; all have been admitted into the relief camp. According to the views of another official consulted, the decreased mortality in the more recent periods may be accounted for to some extent by the fact, that within the last two months several relief camps have been established in the adjoining districts of Chingleput, North Arcot and Vellore, to which paupers in those neighbourhoods have been removed. Also to the fact, that about the same time a system of village relief inspection had been organised in all distressed districts, heads of villages being provided with funds and being instructed to afford relief to all persons in danger of starvation. By these means, it is added, many who would otherwise have found their way to the camps near Madras in an advanced stage of distress, have been provided for nearer home. These explanations appear to us sufficient, and being so, indicate the important fact that great saving of life has already resulted from the establishment of relief camps in the places enumerated.

XIV. There has been a remarkable absence among the paupers, not only of diseases prevailing in the vicinity of their camp as epidemics, but of others that usually accompany scarcity of food and famine. Thus, with the exception of 2 cases in the persons of hired servants, no case of cholera has occurred among the inmates of the camp, yet the disease is said to have prevailed extensively all around the camp. Small-pox, although it has occurred among the paupers, has apparently not done so in large proportion as compared to what took place outside. Diarrhœa does not appear to be particularly prevalent among the inmates

generally; nor was any case of famine-fever presented to us.

XV. The crêche was in a hut similar to, but larger than the ordinary huts for adults. The children were placed upon slightly raised earthen platforms, arranged in three rows, there being 63 in all of these platforms. The children are in a good many instances without parents, many of them having been abandoned. In other instances, and they the majority, they are attended by their own mothers. According to the information furnished to us, out of an average number of 72 of them, 18 deaths occurred during last month. The children here are looked after by trained native women-nurses. This part of the establishment is not a hospital; all the children who become ailing are sent out of it for treatment; they however receive an allowance of milk as long as they continue in this nursery. One woman had adopted a deserted child, and at the time of our visit was nursing it together with her own. She receives no extra allowance of food herself. We were informed that several such instances occur in the establishment.

XVI. We took the opportunity of examining a considerable number of persons, including both sexes, in the department connected with the camp devoted to out-door relief, to enable us to compare the condition of the actual inmates with that presented by them. According to information given us, 3,274 persons had, the previous day, received there a dole of cooked rice, equivalent to 12 ounces of raw for adults, or half that quantity, namely, 6 in the case of children. The persons so relieved take their several portions to their homes, where they are said to add condiments and other articles according to their means and earnings. An examination of their tongues shewed that those organs were for the most part pale, but not abraded.

XVII. The following cases furnish a sufficient illustration of the state of health and physique of the several classes of persons in the camp. As already observed, the cases were taken exactly as the individuals were arranged for inspection, the particulars regarding each being noted at the time of inspection, namely,—

1. *Yelle.*—In 5 days. Has an infant at the breast; receives the same rations as a woman not nursing. Has flabby cheeks; œdema under the eyes; gums spongy; tongue pale and flabby.

2. *Peliatha.*—In 10 days. Has eroded tongue; is emaciated; the gums ulcerated.

3. *Chellie.*—In 2 months. Has puffy face; cracked tongue.

4. *Luchmeea.*—In one month. Conjunctiva pale; is in tolerable condition.

5. *Pooneah.*—In one month. In tolerable condition.

6. *Comee.*—In 4 weeks. Gums ulcerated; very emaciated.

7. *Devana.*—In 10 days. Conjunctiva pale; face puffy; tongue flabby, indented by the teeth.

8. *Poor[illegible]e.*—In one month. Conjunctiva pale, tongue red at the edges, flabby and indented by the teeth; has an infant at the breast; gets no additional food.

9. *Ponga.*—About 4 years old; a child of *Comee* (No. 6). In 4 weeks. Tongue pale, furred in the centre; the edges red and abraded; the conjunctiva congested; the muscles soft and flabby.

10. *Ponga.*—About 2 years old; child of *Comee* (No. 6). Tongue as above noted; conjunctiva pale; abdomen enlarged; limbs emaciated.

11. *Ragadoo.*—About 5 years old. In upwards of 2 months. His mother has small-pox and is in hospital; he receives half rations. Tongue pale at the back; papillæ large; face puffy; conjunctiva pale, yet general condition pretty good.

12. *Vurdha.*—In 10 days. Has an infant at the breast; gums clean; tongue pale and furred, somewhat abraded in parts and cracked; legs œdematous, and pit on pressure.

13. *Minha.*—In 10 days. Has a child at the breast, it being entirely fed by her; has 5 children with her and her husband also in the camp; walked a distance of 100 miles to Madras for admittance; took 10 days to do it in, and subsisted by begging on the way; her tongue is pale and flabby; the conjunctiva pale; her skin lustreless; one of her children presents an enlarged abdomen.

14. *Poonga.*—Aged about 6. In 3 months. Has an eruption on the back considered characteristic of famine (by Taylor). Face and eyelids puffy; tongue pale; legs emaciated.

15. *Minchee.*—In 8 days. Tongue pale; in parts abraded; its papillæ enlarged.

16. *Hasdum.*—In 10 days. Has a peculiarly pale tongue; back covered with so-called famine-eruption; gums slightly affected.

17. *Chellie.*—In 20 days. Tongue pale and flabby; skin presenting famine-eruption. In fairly good condition. One half of her family left at home; she and the rest came here. Her child pretty well in condition.

18. *Thoyce.*—In 10 days. Tongue pretty good.

19. *Coomee.*—In 10 days. Tongue glazed, indented at the sides; conjunctiva anæmic; slight œdema of the legs.

20. *Luchmea.*—In 6 weeks. Has an infant at the breast. Tongue pale and flabby. Her child gets extra milk, but is wasting. Her husband died in the Relief Camp.

21. *Coopuchee.*—In 20 days. The conjunctiva pale; the tongue natural; skin glossy. She has a small store of money on her person.

The general result in respect to the above numbers show that 2 tongues were healthy, 8 pale, 4 abraded, and 5 pale and abraded; in 2 the condition was not recorded. On the 16th April we continued our inspection. In 31 cases of persons then examined, who had been in the camp one week, the state of the tongue was healthy in 5, pale in 21, abraded in 3, and both pale and abraded in 2. Following up the inquiry in 50 cases of ordinary sick in the camp hospital, the tongue was healthy in 8, pale in 22, abraded in 11, and both pale and abraded in 9.

XVIII. The following cases are selected at random among persons who have been longest in the camp, with a view to illustrate the physical condition of the class of persons referred to, viz.,—

1. *Yanketagadoo.*—In 2 months. An old man. State of the tongue and general aspect good.

2. *Pomen.*—In 3 months. Tongue a little reddened. General appearance good. Has earned a little money by work in camp.

3. *Morinan.*—Has been in 3 months. Is in tolerable condition. Tongue somewhat thickened; face a little puffy.

4. *Annarmanta.*—In three months. An old man; feet œdematous. A ryot, had a small holding with 2 bullocks and 2 cows, all of which died. He thus was driven to the Relief Camp.

5. *Vencatasawmy.*—In 3 months. Looks well. Has had working pay equal to a quarter-anna per diem, with which he purchases dholl and tripe.

6. *Chelen.*—An old man. In 3 months. Has had no work and no food except the ordinary ration of the camp. Is strong.

7. *Cheagan.*—In 3 months. Has been at work on the tank in camp and received the usual rate of pay. He looks well.

8. *Noinan.*—In 3 months. Has done no work here; looks tolerably well. Is a ryot, had 4 bullocks, of which 1 died. Had a wife and 2 children with him here. One of the children has died. He came to pauperism through failure of the water on his holding.

9. *Kerjan.*—In 3 months. Looks very well. Was sent away from the camp to seek for work, but returned on the plea that he could get none.

10. *Moren.*—In 3 months. Has had no food except his ordinary ration. Looks well in health.

11. *Vacatagadoo*—In 3 months. Looks well and fit for work. Breaks out of camp and works outside, earning 2annas per diem.

12. *Cellen.*—In 2 months. Tongue a little abraded. He looks well and fit for work. He works in the tank connected with the camp, and receives working pay.

These numbers are small. If, however, it be considered safe to draw a deduction from them, it indicates that of 12 men taken at random from among the inhabitants of the camp, 10 were in a state of apparent good health, 2 in more or less impaired health, but none actully bad. On the 16th of April the inquiry was continued. Of 55 men who were then subjected to examination, 23 appeared to be healthy, 29 in more or less impared health, and 3 in bad health. We are aware that of those who have all the appearance of health, several may be unfit to undertake continuous labour hereafter, by reason of their reserve stock of power being reduced to a low ebb. Regarding the persons ill impaired and in bad health, we believe that unless in the meantime their physical condition be improved the death of many is inevitable; it may be after the existing famine pressure has ceased, yet, nevertheless, as a direct result arising therefrom.

XIX. WITH REGARD TO THE FOOD of the paupers in the Relief Camp, we give in the subjoined table a statement of the actual ingredients of a ration for an adult for one day, and, for the purposes of ready comparison, place side by side with it, dietary tables in use for the ordinary paupers in the Monegar Choultry to

which the camp is attached, and for non-labouring native rice-eating prisoners, viz:—

Ingredients of a daily ration per adult.	Paupers in the Relief Camp.				Paupers in the Monegar Choultry.			Non labouring Native Prisoners.		
	lbs.	oz.	drs.	grs.	lbs.	oz.	drs.	lbs.	oz.	drs.
Rice	1	8	...	...	1	8	...	1	5	...
Vegetables	...	...	15	8	...	4	...	...	3	3
Dholl	...	1	15	10	...	...	...	...	1	10
Mutton including bones (once a week)	...	...	...	...	...	...	...	...	2	7
Salt	...	...	6	16	...	4	...	...	...	13
Tamarind	...	...	11	20	...	...	6½	...	...	6
Ghee	...	...	10	14	...	...	4	...	...	6
Chillies	...	...	...	6	...	...	1¾	...	...	...
Corriander	...	...	2	10	...	...	2	...	...	...
Garlic	...	...	1	14	...	...	½	...	...	24grs.
Turmeric	...	...	...	18	...	...	½	...	...	...
Onions	...	...	...	16	...	...	¼	...	...	6
Curry-powder	...	...	1	14	...	...	½	...	...	6
Tyre or Butter-milk	...	...	...	4	...	...	...	...	8	...
Pepper	...	...	...	...	...	...	½	...	...	...

In the above calculations the grains have reference to avoirdupois weight.

Children under 12 years of age receive one-half the above quantities in the relief camp. Women having infants at the breast receive the ordinary ration, and no mutton or other meat is issued to the paupers in the relief camp once a week to those in Monega Choultry it is given thrice a week. The quantity alloted to prisoners is estimated in the return given *as if for every day*. In reality, mutton, or an equivalent qantity of fish, is only given to them 3 times a week. Butter-milk is issued to prisoners 4 times a week, see Madras Medical Code, Vol. I., Sec. iii, page 64. In the abve calculations in connection with the diet of paupers in the relief camp fractional parts of grains are not taken into account. Infants and children in some instances receive a supplementary allowance of milk. Thos without mothers are entirely dependent upon such an allowance. The rice is what is known as "ship rice," its quality is good, nor does it contain an unusual amount of husk or impurities. The vegetables issued consisd of calabash gourd (*cucurbita*—garden variety). I is stated that others are issued alternately, viz., bringal (*solanum melongena*), sweet potatoes (*convolvulus batatas*) and roselle (*hibiscus sabadariffa*). These are the oly vegetables issued. It is estimated that, assuming the selling price of rice to be five measures per rupee, nd that of dholl six measures, the daily cost per man o the above ration is 2 annas and 4 pies

XX. No money is given to the paupers generally. About 240 of them, however, are said to be from time to time employed on works of one kind

or another within or connected with the camp; these receive half-an-anna per diem, with which they purchase condiments of various kinds; a few others have a small store of coppers and there are some, although their number is small, who seem clandestinely to leave the camp for employment, and return with whatever they earn.

XXI. Cooking is performed *en masse*. Two meals per diem are given to the inmates; the first at 7 A. M., the second at 4 P.M. It has been suggested as a possible improvement on the present plan, or at all events as deserving a trial, that half a measure of grain should be issued to individuals, and an anna per day in addition. In this way it is believed, if a bazaar were within reach, they could purchase for themselves such articles as they desire, avoid monotony, and make their own arrangements for cooking their meals. The ordinary beverage is water, drawn partly from wells, partly from a tank excavated by the paupers themselves; the supply containing a considerable proportion of common salt, but considered excellent. A few drink the water in which the rice has been boiled.

CONCLUSION.

Having entered at some length into the preceding details in egard to the conditions observed by us in respect to he paupers in the Relief Camp at the Monegar Choultry, we arrive at the following conclusions from the fets observed and here recorded, viz,—

I. *As to the present condition of the paupers*:

(*a*). In the mass the physique of the inmates is inferior.* The ulceration of the mouth already recorded indicates the existence of morbific changes in the lining membrane of the intestines, which we believe will sooner or later render impossible absorption and assimilation of food, induce diarrhœa, and through it death of those so affected if permitted to advance.

(*b*). In a considerable proportion of instances the prominent abdomen, the œdema of eyelids and feet, point to a cachectic condition of body such as are the concomitants of starvation, insufficient or improper food, and which, from the experience of the past, we are justified in believing will, if unchecked, ultimately terminate life.

(*c*). Some of those admitted to the Relief Camp in the early period of the famine, that is prior to a date 6 weeks ago or thereabout, have held their own, although we are unable to say they have actually gained in condition. Some of these, to all appearance,

* *Note* by Surgeon General Smith—
All are more or less anæmic, many are cachectic as well as anæmic.

are fit for work; some of them do actually perform work now, and several expressed themselves willing to take any labour they could obtain. We were informed at the time of visit that a considerable number of this class were held ready to be sent away to relief works when these became available for them.

(*d*). There is a considerable number, who although not actually suffering from disease, seem so reduced in physique that their reserve stock of power is exhausted. Of these, some appear to be on the border of illness and unlikely to be fit for labour if permitted to remain in their present state.

(*e*). Although a considerable proportion of infants and children appear to be in a tolerable condition, and some actually well, there is another class, and it numerous, in which, to judge from their impaired physical condition and cachectic state, we doubt if anything will enable them ultimately to survive.

2. As to whether the diet the paupers are now receiving is sufficient to maintain them in health:—

(*a*.) We consider that with respect to paupers admitted into the relief camp during the early part of the existing famine, the particular ration of food sanctioned has so far enabled a number of them to hold their own. Even with this class, however, we doubt whether the state of health in which they now are, is likely to continue much longer under existing conditions of diet, &c.

(*b*.) In the cases of persons presenting the deranged state of the tongue, gums, and general health already detailed, we consider the present scale of diet altogether insufficient; this insufficiency, in our opinion, being partly in its quantities and partly in the nature of its constituents.

(*c*.) With regard to paupers more recently admitted, and who have been for a considerable time previous exposed to the severity of famine, we consider the present ration to be insufficient to maintain health. In the cases of such persons, the natural reserve of power, possessed in greater or less degree by all men, had been diminished to an extent varying with the severity with which scarcity or want had affected them; a considerable number of them have become affected with the characteristic derangement of the digestive organs, indicated by the signs already noted, and the functions of digestion and assimilation in them are proportionally impaired.

(*d*.) For the women who are now nursing infants at the breast, the present scale of diet is insufficient to maintain them in health. In their particular case it is insufficient even to a greater degree than in that of men; with the former, not only does it become necessary to support the physical powers of the individual as with the latter, but over and above this, material has to be supplied for transformation into food on which growth and health, on the part of the nursling infant, are dependent.

It is an important question in laying down a diet scale, what are the purposes to be fulfilled by it in respect to the person partaking of it—that is, whether he shall be maintained only at a point of mere existence, without a reserve of tissue and power to enable him when the time comes, to undertake ordinary labour; or whether he shall be preserved in a condition sufficient to maintain this reserve and enable him without detriment to his physique to resume hereafter his ordinary occupations.

For the first mentioned purpose the scale now in use seems to be sufficient in respect to those who have only suffered from the effects of ordinary poverty or scarcity*. For such, however, as have been lowered by the pressure of want and famine, it is deemed to be altogether insufficient. Our opinion is, that in order to maintain the health of all according to the standard we have indicated, a rate of diet considerably above the present is necessary.†

In respect to all classes now in camp, we consider the scale laid down for ordinary non-labouring pri-

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* Note by Surgeon-General Smith—Add, although the dietary is defective as regards certain necessary elements of food.

† Note by Surgeon-General Smith—We deem it also necessary that the dietary indicated shall avoid sameness, and be constructed so that existing pathological tendencies in the pauper population of the camp be, if possible, checked.

soners to be the most suitable, with a few trivial modifications as noted below, viz. :—

	lbs	oz.	drs.
Rice	1	8	0
Vegetables	0	4	0
Dholl	0	2	0
Mutton, excluding bone or equivalent in Fish (three times per week.)	0	3	0
Salt	0	1	0
Tamarind	0	0	8
Ghee (clarified butter) or oil	0	0	8
Curry-powder	0	0	7
Onions	0	0	8
Garlic	0	0	4

Surgeon-General Smith recommends on non-meat days, 6 ounces of Butter-milk.

We consider that all women suckling their children ought, for purposes of health, to have the above ration daily.

That children under the age of 12 should have one-half of it; above that, the entire ration.

C. A. GORDON, Surg.-Genl., A. M. D.,
Surgeon-General, British Medical Service, Madras Presidency,

GEORGE SMITH M. D.,
Surgeon-General, I. M. D., Madras Presidency.

MADRAS, 19*th April*, 1877.

1648
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1648/21

F. No. 2,783.

Revenue {1877} Department.

From

SURG. GENERAL C. A. GORDON, M.D., C.B.,

Honorary Physican to the Queen,

To

81

THE SECRETARY TO GOVERNMENT,

Revenue Department,

Dated FORT ST. GEORGE, *20th April,* 1877

Received 21st.

No. 118/77

Submitting reports on the state of paupers at the Monegar Choultry and Red Hills Camps.

Lawrence Asylum Press—1877.

No 114-Copy
Recd
21-7-85

Report by Sur. general Gordon [illegible]

1648/25

[illegible] instruct all officers to introduce the approved diet scale in all Relief Camps. Reporting apparent results every fortnight.

The general conclusion at which I arrive from perusal of this valuable paper is that

1648
21

F. No. 2,783.

our Lower Scales of
Relief Labour Wage
is certainly sufficient
both as regards
Earned for Work &
Family Values.

I think that the
2 Annas each wage for
an Adult male
1/2 — female
& / for a boy or girl
is sufficient at
once.

Sir R. T. Tucker

I have expressed
this opinion repeatedly
lately. The Famine Report
confirms it. We have
similar evidence from
all quarters. & that
in the Northern districts
existing rates are
only exceptional.

1648-23

some time ago that
he proposed this &
the Govt. have
adopted some Bombay.
My impression is that
in Bombay. the Lower
Scale in the Deccan is
not practically in
use. because the
P.W.D. Superintendents
almost universally
warn the higher
Govt. Wages
correspond to the
Akbar Famine
Govt. at 8 lbs
of grain for a rupee.

1648/27

F. No. 2,783.

In margin it allows
when grain is cheaper
is exactly what is wanting
in my opinion in our
lower rate. It gives
hope of maintaining
health & better &
prolonging life instead
of a slow process of
death.

Indirectly it will
probably stimulate
private trade in grain
which is greatly to be
desired. [illegible]
24-4-77.

REVENUE DEPARTMENT.

No.

1648/24

From Surgeons General Gordon and Smith

1648/25

requests that the draft
may be read & criticised
or passed, & then the
number of Govt. as
quickly as possible
so as to admit of its
going home with the
report by tomorrow's
mail.

J. A. Caul[illegible]

4/5/77

164 8/27

REVENUE DEPARTMENT.

No.

From Surgeons General Gordon and Smith

Dated April 20th 1877.

FOR ORDERS.

x G.O. 10 Apl No 1385

Drs Gordon and Smith submit the report called for by Government[x] regarding the condition of the paupers at the Monegar Choultry and Red Hills Camps and (2) whether the diet they are now receiving is sufficient to keep them in health.

They report briefly as follows:

At the Monegar Choultry Camp the mass of the inmates present symptoms which, if permitted to advance, will sooner or later end in death from diarrhœa in a considerable proportion of instances signs

of

of starvation or insufficient feeding are so noticeable as to justify the belief that, if unchecked they will terminate fatally. Some of the inmates who have resided in the Camp more than 6 Weeks, or thereabouts, are holding their own. A considerable number are unlikely to become fit to work (if permitted to remain in their present state) from reduction in physique.

The number of Children is considerable whose condition is such as to raise a doubt whether any thing will enable them ultimately to survive.

As to the sufficiency of the diet to maintain the strength of the inmates they say that though it has enabled those who have been a long time in the Camp to hold their own, they doubt whether it will suffice to do so much longer, while it is altogether insufficient for those presenting the symptoms of deranged health arising from slow starvation. It is more particularly insufficient for nursing women.

It is, however, sufficient to keep people alive who are only suffering from the ordinary effects of poverty.

Finally, they suggest a diet very nearly the same as what is given to non labouring prisoners.

With regard to the Red Hills Camp they consider that those who have been in it a considerable time are to all appearance in good health. Those more recently admitted are likely to go from bad to worse if their circumstances are not quickly ameliorated, while those of them who survive will not be able to work.

The women and children will deteriorate in health and die in large numbers if conditions remain as they now are. As regards the sufficiency of the diet it is clear it has sufficed to keep many of those first admitted in good health, but that for those now admitted with signs of starvation, it is only sufficient to keep them alive but not to restore their original powers and to enable them to resume work. For nursing Women too it is insufficient and for young children unsuitable in kind. For these 3 classes they recommend the same diet as suggested for the paupers at the Monegar Camp.

Orders are requested on the following points.

1. Shall the scale of diet proposed be adopted at the Monegar Choultry Camp?
2. at the Red Hills Camp?
3. Shall the reports be communicated to Dr. Cornish or be otherwise disposed of.
4. If the rations are to be raised at the Monegar Choultry and Red Hills Camps are they to be raised also every where else?

FOR ORDERS.

No 1. Yes
2. Yes
} For 6 weeks with report after 1 month all rendering able bodied to work at working pay

3. Print & circt to Dr Cornish at once. copy to S. of State with despatch

4. communicate to all Collectors the symptoms described & whenever they may threaten raise to this scale — sending forward to work all able — as they become so

Secy concur
WR
Do WR
E.H.
G.H.

B.L. 23/4.

I should wish to read again carefully. but send on that my colleagues may see it & we may confer in Council

B.L.

As regard No 4 Circulate with all expedition — but with the distinct instruction to raise the diet scale in every Relief Camp. The orders of Govt. should save Collectors from the ~~painful~~ invidious position of doing what it is the duty of Govt. to do or the painful position of leaving individual staff in desperation

I for R & have then papers back. Should record a minute

No 1648 Revenue Department

Proceedings of the Madras Government.

Read Reports of Doctors Gordon and Smith.

G.O. No 5 May 1877

The Government have read the joint reports of Surgeons General Gordon and Smith with much interest and direct that the scale of diet recommended by them in their report on the Monegar Choultry Camp be adopted at all relief camps, and that the apparent result of the alteration now ordered be reported briefly every fortnight. Care must however, be taken that no persons capable of working on a relief work are allowed to remain in the camps.

2. The reports will be circulated to all Collectors, to the Commissioner of Police and to Dr. Cornish for inform[ation]

WR
4/5

E.H.
5/5

So far as may be
JH

We cannot go driving the poor out into the wilderness to starve because we cannot find them work. Much evil has already been inflicted this way

1648
30

Med Copy to the Surgeon General British Medical Service on 7th
1 PC of 19 May

35 do the Board of Rev do
5 do the Sanitary Commissioner do
5 do the Commissioner of Police do
Madras
5 do the Financial Dep do
6 the Accountant General
all Collectors
5 the Surgeon Genl Med Dept

Surgeons General Gordon & Smith reports –

[illegible] for approval

The reports [illegible] to the Press

1648

I do not think that there has been any [illegible] in Famine area

BC 2/5

No [illegible] for approval of the [illegible]

J.O. D.G.S.

R 5-5-17