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Revenue (1897) Department.

PRESS SERIES.

G.O., No. 604.

DATED 21st July 1897.

[Despatch Abstract.]

Passing orders on the final report
submitted by the 3rd Member, Board of Rev.
& the Chief Engineer & Secy. to Govt. P.W.D.
Regarding Famine Relief Works, estimates
& famine tools &c.

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

Revenue (1877) Department
S Current Number



From

The Hon: Col: D. McNeil Campbell R.E.
Chief Engineer & Secretary to Government, P.W.D.
and
H.M. Winterbotham Esquire, I.C.S.
Third Member, Board of Revenue.

No. K.

Dated 5th July 1877
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Subject.

Submitting separate Notes by 3rd, Member, Board of Revenue & Chief Engineer & Secretary to Government, P.W.D. embodying the general remarks which each wishes to make in connection with the eight joint reports which they have already submitted on Famine Relief Works estimates and Famine tools&c.

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Note by
Mr: H.M. Winterbotham.

(No. II)
Assessment
Survey
With reference to the eight reports which we have submitted on the districts of Coimbatore, Salem, North Arcot, Nellore, Kistna, Chingleput, South Arcot, and Trichinopoly, the following points seem to call for further remark or explanation.

1. Establishments.

For Coimbatore (the first District we visited) we recommended the immediate entertainment of 8 temporary Surveyors with 3 lascars each, for the preparation of estimates (suitable for the employment of relief workers) for the repair of tanks and channels in charge of ^{the} Department of Public Works.

We have not made a similar recommendation for the other Districts, though the transfer of hands for famine duty has seriously weakened the ordinary Department of Public Works Staff in all of them, and though the D.P.W. contributions to the Famine Programmes are everywhere less than they should be. This inconsistency is due to our sense first of the impossibility of finding the requisite number of qualified temporary hands, and second of the waste of money which will result, should elaborate preparations for an extended drought happily prove unnecessary.

When the famine ceases, retrenchment is ~~like~~ likely to be the order of the day. The works would not generally be such as could be classed as emergent, and the estimates would not keep serviceable for an indefinite time.

2. When, however, part (often the greater part)

Men were advertised for but only 23 suitable candidates could be got and they have been appointed temporarily to take the place of subordinates transferred to famine work. D.C.

of the ordinary staff in a District has been moved away for famine duty, I cannot see any justification for not filling up the vacancies with temporary hands, short of the all sufficient one that no qualified men can be got. I am not satisfied that enquiry for competent hands has been exhaustive, and I think that orders should issue to all Executive Engineers to bring their District Staff up to the sanctioned strength so far as fit temporary hands can be found. Even if the temporary hands were not at first qualified, they would at least be in training, and on the way to become so. The difficulty of obtaining qualified extra hands is, of course, due to the fact that the demand for them only occurs at long intervals for short periods.

Considering what an enormous demand for extra hands might arise in the near future, it would seem good policy to let the existing demands make itself fully known. So far as the demand operated to induce students to set to work to qualify as Overseers, its effect must be to that extent beneficial, and if no fit hands are forthcoming, Government will at least learn the true extent of its weakness.

3.. The weakness, chiefly numerical, of our District organization in all Departments, its inability to meet any sudden extraordinary strain, and the difficulty of rapidly strengthening it, are the most discomforting features of the situation. As soon as the village officers are ^{set} ~~said~~ to work to prepare against future contingencies under Chapter VI of the Famine Code their other duties are perforce let slide.

The same remarks apply
to the P.W.D. D.C.

and it is useless to ask concerning the crops and cultivation. Their is a similar dislocation of ordinary work in every grade, up to the sorely pressed Collector, who is too often the solitary European Revenue Official in the District, on whose narrow shoulders rests the weight of the whole machine. I have no remedy to suggest. Financial exigencies compel us to keep our establishments down at a strength which is just sufficient in times of prosperity, and in times of adversity we cannot escape the penalty.

4. Famine tools. Messrs: Oakes & Co. have about 950 mamooties and ¹⁰⁰⁰ ~~thousand~~ large hammers in stock. They cannot, they say, make hammers, because no suitable steel can be procured in the local market. Messrs: Massey & Co: have about 3000 mamooties in stock, at prices varying from Rs 13 to Rs 30 per dozen, and 900 pickaxes at Rs 20 to Rs 21-8 per dozen. They could turn out steel hammers weighing 2 1/2 lbs and 3 lbs. at the rate of 100 per day, - price Rs 650 per 1000 for 2 lb hammers, and Rs 950 for 3 lbs. There do not appear to be any ^{other} local firms, who deal in tools, and who could be entrusted with a large contract. The Agent of the Madras Railway expressed himself able and willing to manufacture hammers in large numbers at the Railway Workshops. I have asked him, and the Chief Engineer of the South Indian Railway, to state what number they could turn out per diem, and at what price. ~~Col:~~ Col. Campbell has particulars of the stock, and the productive capacity of the D.P.W. Workshops. The Superintendent is put to his wits' end to meet the enormous demand. Some of the hammers now being supplied are mere lengths of bar-iron

Information is given in
my Note. D.C.

with a hole in the middle. They are fit for ~~child~~ children's use, but the iron is so soft that they will rapidly become unserviceable. Some hammers of chilled cast-iron, which he has made as an experiment, are admirably hard and cheap, but are brittle and liable to fracture if used sideways with great force. It is expedient that these should be subjected to a fair trial on a sufficiently large scale. When once a sufficient number of ~~molds~~ ^{moulds} are constructed, these hammers could be turned out rapidly at a small fraction of the cost of steel hammers. The danger of ~~fam~~ famine will be ever with us; and the population to be dealt with tends rapidly to increase. Government is bound to maintain a large stock of tools, and in the end, I believe, it will be cheapest to provide steel hammers. The comparatively large reserves, which, we have advised, should be provided for the eight Districts, would after all not suffice for more than three percent of the population. I certainly think that 50,000 ~~2lb~~ hammers, and 50,000 ~~3lb~~ hammers of steel, should be obtained from England at once.

I have already called
for this report.

D.C.

5. A report should be called for as to the patterns of tools, which have been found in ~~actual~~ actual use most ~~st~~ serviceable for famine labour. We were informed at Cuntakal that even the women preferred heavy 4 lb hammers. I think a 2 lb hammer most suitable for women and children, and a three lb hammer for men; but where hard rock, in large fragments, has to be broken, a proportion of 4 lb and 8 lb hammers would be required.

6. Nearly all the Mamooties in stock are

are of the Madras pattern, intended for a short handle parallel to the blade. The Wudders prefer this muster, but for relief workers not accustomed to their use, I should think the English form of hoe (which is the West Coast and the Bengal pattern) much better. I think the weight should not exceed 5 and 6 lbs.

7. Instruments for clearing prickly pear.

I do not know that there is any accepted pattern. From personal experience I advocate the following:-

(1) a combined prong and hook, with a four foot handle of male bamboo.

(2) a double prong something like an English pitch-fork, but with the prongs closer together.

(3) a rake with eight teeth two inches apart. Invaluable for raking up young plants by the roots.

8. Relief works.

It is difficult to make any useful fresh remarks under this head. The subject is discussed in paras 45-54 of Mr. Clogston's Report on the Famine of 1891-92. The removal of prickly pear, which forms so large a part of the Famine Programme in some districts, cannot be conveniently performed under the rules of Chapter VII of the Famine Code. If undertaken it should be on the contract system. The same remarks applies to the repair of small scattered tanks. Petty estimates for clearing out drinking-water ponds are very numerous, but where the ponds contained water, it would generally be too precious to be spared and the work

I agree.

D.C.

(I know not why) an operation which the Public Works Department contemns. In some of our great tanks large bodies of relief-workers might be employed upon it; but the work would be liable to awkward interruption by a sudden fall of rain.

In Zemindaris there is really no work but road-work available. One seems driven to Mr: Clogstoun's conclusion that " Work on roads will ~~have~~ have to be more and more resorted to to give employment to famine labor, even if the work should only be useful as forming a test of the necessity of relief."

9. So far as anxious recent study of the Famine Code can acquaint a man with the proper methods of relief administration, I think we may say that we found officers of all ranks well prepared. Some of the Dy: Collectors had continued their studies far into the night prior to our arrival, and appeared, Code in hand, prepared at all points for examination.

In some places the District Revenue staff had been diligently employed, in literal obedience to the order of Government, in drawing up Village lists showing the name, caste, ~~seets~~ sex and age of the halt, the blind, the deformed, the imbecile, the insane, the deaf-mutes, and of all others who would, in the event of famine, be likely to require gratuitously relief. It may be hoped that the labor will prove to have been thrown away.

10. Since writing the above I have read Col: Campbell's note. I am
written on

Para 5/2 up to -
(10 302
45 14)

supply of handles for pick-axes, mamooties and hammers, each is in a position to obtain (a) from his Forest Officer (b) from Contractors: at what rate per thousand; and what is the shortest period within which the number quoted (whatever it is) could be made available.

A. de Winterbom
July 3rd 1897-

Public Works Department.

(No. 711)
Approved
1/12/23
Note by the Chief Engineer.

After careful inquiry regarding rainfall, prices and general condition of the Districts, I agree with the opinions of the Collectors and the other local officials consulted that in the event of a failure of the S.W. monsoon, there will be no distress requiring the assistance of Government except perhaps in some parts of the Bellare, North Arcot, and Kistna Districts. The parts that may be affected but in which it is not anticipated there will be any acute distress are the Darsi and Podili Divisions in Bellare District, the Punganuru Zemindary and parts of the Chendragiri taluk in the North Arcot District and the upland taluks of the Kistna; the area and population of these tracts are small and no great strain will be thrown on the resources of Government should it be found necessary to adopt measures of relief. The conclusions arrived at are based mainly on the present conditions of the Districts, but all the Collectors point out that it is impossible

11

impossible to foretell what may be the effect of a considerable rise in prices.

2. The subject of prices is a very difficult one to deal with, and it is almost impossible to account for the great variations in different places. It seems not unlikely that if the S.W. monsoon fails and it becomes generally known that Government are preparing for a famine, the prices now high will rise higher and a fictitious famine be caused in districts in which there is no scarcity of food, and I am of opinion that it is a matter for careful consideration whether Government ^{intervention} is necessary in such cases.

3. By a rise in prices caused by exportation or holding up in districts where there is plenty of stock, the producers make large profits and consequently are in a better position to support their dependants, chiefly the Agricultural labourers, than they are in ordinary seasons: but if Government start relief works, it is then the object of these producers and grain merchants to make as many as possible of these dependants (whom ~~they support~~ in ordinary years they support) go to these works, the result being that they save themselves considerable expense while at the same time nearly all the Government money spent on famine relief goes into their pockets.

4. The people most likely to suffer in

in the case of a fictitious famine caused by high prices are not of the agricultural classes but professional labourers and those engaged in technical trades, and the result of restricting expenditure on ordinary works is that great distress may be caused amongst these classes. This has been pointed out to me by several of the local Engineers who owing to reduction of establishment caused by men withdrawn for famine have been obliged to stop works, the result being that the labourers employed are now without means of support, and the prices being high, they must necessarily suffer considerably. I therefore think that, before starting famine relief, it should be carefully ascertained whether the high prices are caused by actual want of food supplies or by exportation and holding up. In the former case, the intervention of Government is necessary, but in the latter case, all that seems advisable is to increase the ordinary Public Works of the District, the rates being ^{raised} revised in proportion to the price of food grain.

5. This ^{subject} ~~report~~ requires the most careful consideration, for with the present

present facilities for exporting, it is very probable that an actual failure of crops in one district will be followed by a rise in prices in many others, and if on this occurring Government has to start famine works in each district where the prices are above the scarcity rate, the expense to the State will be very great.

6. I have stated that even should there be a failure of the S.W. monsoon, the distress will not be severe, only affecting parts of three districts; but the Engineering establishments of these districts have been so reduced by withdrawals for famine in the I and III Circles that it will be impossible to find the establishment necessary to carry out relief works without stopping nearly all ordinary works which, as I have already pointed out, will cause considerable distress. I would therefore suggest that, as soon as the services of men from theappers and miners, the Salt and other Departments have been obtained, 20 of the P.W. Subordinates now on famine works in the Ceded Districts should be posted to the Districts in which it may perhaps be necessary to start relief works. I think that 10 to the Kistna and 5 to each of the other two Districts Bellare and North Arcot will suffice with the help of the Local

Fund

*I think then first
tasks should be to prepare
a number of estimates*

*Very desirable - but in
Districts - and in the
including the
for the first time
in the history of*

Fund establishment to carry on all relief works that may be required.
7. The works ^{all} in the programmes are ample to meet distress that may arise before next November: by far the greater portion of the estimates are for road repairs and I would point out that all these estimates include a large sum for cartage which is not suitable for famine relief unless the lead is under a mile in which case the metal can be carried by coolies. It may be said roughly that 1/3 of the estimates are for cartage and I think this item should be separated in future estimates, ^{otherwise} therein a wrong impression is given of the sum available for famine relief purposes.

8. The tools, more especially stone breaking hammers, are insufficient, as will be shown further on.

9. Though there is no reason to apprehend such a calamity as a failure of the N.E. monsoon, still should there be no S.W. rains considerable anxiety will be felt, and it will be necessary to be prepared for the worst.

10. In the case of ^a wide-spread famine, that is, supposing the distress in the I and III Circles to continue

continue and also spread to the eight Districts visited the great difficulties to contend with will be,
1st. the provision of the necessary

Engineering Establishment,
2nd. the finding of suitable and useful work on which to employ famine labour.

Both these difficulties can be partly met by concentrating labour on a few large works forcing the distressed persons to migrate if necessary. I cannot too strongly urge the necessity of this concentration of labour feeling assured that it will be absolutely impossible, if the famine becomes widespread, to carry on relief works on the system adopted in the Ceded Districts.

11. From the latest information received the number of coolies employed on relief works in the Ceded Districts was 305,189, and the number of works 117, giving an average of 2,600 coolies on each work.

Now supposing 20 per cent of the population of the Districts now affected and also of the eight visited to require relief the number to be provided for would be 13,50,000 in round figures and if only 2,600 coolies were employed on each work the total number of works would be 1,679 requiring at least

14 Executive Engineers, 43 Assistant Engineers and 1,679 Upper Subordinates, and the question ^{is} where are these to be

got

got from.

12. It is not at all likely that the large ~~population~~ proportion of 20 per cent of the population will ever be employed on relief works at the same time, though it is quite possible that that proportion will be reached if the present system of opening works at the doors of the distressed villages is continued as many not in actual want will resort to them. In the great famine of 1876-77 the maximum proportion of the population relieved ^{was} ~~are~~ as follows:-

Pellary	-	50.99	per cent
Kurnool	-	31.24	"
Cuddapah	-	21.86	"
Anantapur	-	22.70	"

In most of the other districts it was below 10 per cent. If it should happen that 20 per cent of the population has to be employed on relief works for any length of time it will be simply impossible to find any useful work for such a large number of persons and the expenditure on famine will then be practically gratuitous relief, ^{whether} work ^{useful} or not being exacted as a test of distress.

13. I have strongly advocated the concentration of labour on large works

works and it remains for me to show how this can be done as far as regards the ^{eight} districts visited.

14. The Madras Railway runs through the Chingleput, North Arcot, Salem and Coimbatore Districts. The masonry works have all been built to take a double line and I believe the necessary land has been taken up for the purpose, and I would suggest that in the event of a wide-spread famine the line be doubled from Arkonam to Mettupalayam (Madras to Arkonam already doubled). The earthwork for this and the preparation of ballast would occupy a very large number of persons for a considerable period, and as there is no doubt that this line will have to be doubled eventually though it may not be required for some years to come the money would not be wasted.

15. This work would afford relief to three Districts, viz., North Arcot, Salem and Coimbatore and might be supplemented by the following works:-

North Arcot.

1. Clearing silt from ^{Kaveripakkam} Cauzerpakk tank bed.
2. Clearing Kaveripakkam tank supply channel.
3. Some of the largest road works.

Salem.

Some of the largest road works

I didn't know this
BA

The E. E. has been ordered to prepare an estimate, which would probably be about two lakhs of rupees.

Coimbatore

The E. E. for irrigation has been asked to give his opinion on these two projects.

Report in 12 days is impossible and is doubtful.

1/10/11

1. Bhavani Reservoir Project.
2. Extension Kalingarayan Channel.
3. Some of the largest road works.
10. In the remaining Districts the following are the only works of any magnitude I can suggest:-

Kistna District

1. Kistna River embankments
2. Some of the larger roads.

Mellore District.

1. This is a sanctioned work. Supply channel from the Pennair River above Bangam to Mellore.
2. P. W. has been asked to get estimates ready. Moldevi drain.
3. The cost is prohibitive it has been ordered that it should not be taken up when other more useful work is available.
4. Clearing silt from the Mellore tank. X
5. Some of the larger roads.

Chingleput District.

1. Widening railway lines from Madras to Chingleput.
2. Some of the larger roads.

South Arcot District.

1. Extension of the Buckingham Canal.
2. Coleroon flood banks.
3. Some of the largest roads.

Trichinopoly District.

1. Some of the largest roads.
 2. Breaking metal at Central quarries
- But the works mentioned though sufficient to give employment to all who will require relief for many months even in the event of a

failure

failure of the N.E. monsoon following that of the S.W. will not be enough to supply 20 per cent of the population for any considerable period, and the only other work that I can suggest is the preparation of an enormous quantities of road metal at a few central quarries near railway lines in each District. Since writing the above I have had a conversation with the Chief Engineer, S. I. Railway, and he says a large amount of famine labour might be usefully employed in breaking metal for ballast along all the S. I. lines and that it would be paid for at the rates now in force.

16. If the works could be concentrated as suggested the amount of supervision required would not be very great, and probably 3 Executive Engineers, 10 Assistant Engineers and 100 Upper Subordinates would suffice for the 3 Districts visited; but the numbers now employed on supervising works in the I and III Circles will have to be increased as the system of small works in force there cannot well be altered *perhaps not* now, so that the total Engineering Establishment necessary to cope with a wide-spread famine would approximately be 14 Executive Engineers,

36 Assistant Engineers,

250 Upper Subordinates.

The

17. The necessity, therefore, of having a list submitted of officers and subordinates in other Departments and also of Military men available is apparent as the P. W. D. cannot provide such a large amount of supervision.

TOOLS.

18. The famine tools now in the Presidency are altogether inadequate in the event of a severe and wide-spread famine; these numbers were laid down by the Board of Revenue in its Resolution No. 6114 M. dated 25th October 1893 and embodied in C. O. No. 3116 M. dated 2nd December 1893.

19. The number, it is suggested should be maintained and which is based on the moderate computation that if 10 per cent of the population are employed on relief works 1 person out of every 3 will require a tool, is as follows:-

Districts	Stone-breaking hammers	Iron mallets	Pickaxes	Rammers	Crowbars	Sledgehammers	Handaxes	Billhooks	Tools for bricklaying
Coimbatore	40,000	9,000	5,000	1,000	9,000	500	500	500	500
Salem	44,000	9,000	5,000	1,000	9,000	500	500	500	500
South Arcot	44,000	9,000	5,000	1,000	9,000	500	500	500	500
North Arcot	44,000	9,000	5,000	1,000	9,000	500	500	500	500
Krishna	22,000	4,500	2,500	500	4,500	250	250	250	250
Nellore	33,000	6,900	3,750	750	6,900	375	375	375	375
Chingleput	22,000	4,500	2,500	500	4,500	250	250	250	250
Trichinopoly	22,000	4,500	2,500	500	4,500	250	250	250	250
Total	271,000	56,400	31,250	6,250	56,400	3,125	3,125	3,125	3,125

This would give total tools in round figures,

Bellary - 68,000
 Kurnool - 81,000
 Anantapur - 72,000
 Cuddapah - 1,27,000

20. For Ganjam and Vizagapatam the number of tools required might be calculated in the same manner as in the case of the Districts visited, but in the case of Bellary, Anantapur, Kurnool and Cuddapah, I think the proportion should be trebled, as regards the remaining districts no action need be taken at present. The following, therefore, represents the number of tools that I consider necessary enough to maintain in the affected Districts

Districts	Stone-breaking hammers	Iron mallets	Pickaxes	Rammers	Crowbars	Sledgehammers	Handaxes	Billhooks	Tools for bricklaying
Bellary	55,000	10,000	6,000	5,000	10,000	500	500	500	500
Kurnool	50,000	10,000	5,000	5,000	9,500	500	500	500	500
Anantapur	45,000	8,000	5,000	4,000	8,000	500	500	500	500
Cuddapah	80,000	15,000	5,000	10,000	15,000	500	500	500	500
Ganjam	35,000	8,000	3,000	7,000	8,000	500	500	500	500
Vizagapatam	55,000	15,000	5,000	6,000	10,000	500	500	500	500
Total	320,000	66,000	29,000	37,000	60,500	3,000	3,000	3,000	3,000

21. In addition I would propose that the following stock of tools of various descriptions be kept in the P.F. stores to provide for wear and tear and losses:-

Stone breaking hammers	1,00,000
Mamooties	- 50,000
Pickaxes	- 30,000
Rammers	- 30,000
Crowbars	- 50,000
Sledge hammers	- 5,000
Hand axes	- 1,000
Bill hooks	- 1,000
Prickly pear tools	- 1,000
Galvanised iron chains	- 200
Jumpers	- 1,000
Wooden cash chests	- 300

22. The following showing ^{the} total number of tools ~~are~~ considered necessary:-

Hammers	- 6,91,000
Mamooties	- 1,72,100
Pickaxes	- 99,250
Rammers	- 73,250
Crowbars	- 1,61,000
Sledge hammers	11,125
Hand axes	- 7,125
Bill hooks	- 7,125
Prickly pear tools	7,125
Iron chains	- 200
Wooden cash chests	- 300
Jumpers	1,000

23. The exact number of serviceable tools now in stock cannot be ascertained till the special returns called for

from

from the Executive Engineers have been received, but there is no doubt that a very large number will be required to be made or purchased.

24. The numbers given as necessary seem large, but when it is considered that in the 8 Districts visited it only allows one tool to 1/3 of 10 per cent of the population and to 1/3 of 30 per cent in the Ceded Districts and makes no allowance for the remaining Districts it cannot be considered excessive. The demand for stone breaking hammers is very great about 3,00,000 are now in use in the I and III Circles and indents are constantly being received for more. The division of the different description of tools required is of course somewhat arbitrary, as it is impossible to tell exactly how many of each sort will be required till the nature of the work to be done is known: but there is no doubt that a large number of stone breaking hammers will be required, and I recommend that an urgent indent for 1,00,000 be at once sent to the Secretary of State. It will perhaps be time enough to get the other tools when the result of the S.V. monsoon is known.

There

There is considerable difficulty in fixing the most suitable weight and description of each sort of tool. The indents from the famine officers vary considerably, for instance, one office states that he does not want hammers weighing over 1¹/₂ lbs, another that he wants 2 lb hammers and so on. In the case of mamooties the same difficulty is felt. There are some in the P.W. Stores weighing from 5 to 1¹/₂ lbs which latter are far too heavy and most officers say that ^{the} weight should not exceed 5 lbs. The description of mamooty has also to be decided. I would recommend that the indent on the Secretary of State for hammers should state that they are to be of steel weighing from 1¹/₂ to 3 lbs. Further inquiries will be made from the Famine Officers as to the best form and weight of mamooty.

HANDLES

26. Hearing rumours that delay had been caused by the tools being supplied without handles, I wired to the Superintending Engineer to know what were the real facts, and he answered that some slight delay had been caused by tools having to be provided with handles and that he would like handles to be provided in future. I think that issuing tools provided with handles would be a mistake; in the first place the difficulty of carriage would be much increased,

and

^x 1/3 weighing 1¹/₂
 1/3 weighing 2
 1/3 weighing 3

^x Pick axes 4,055
 Felling axes 4,368
 Crow bars 245
 Hand hammers 958
 Bill hooks 3,073
 Mamooties 16,239
 Iron rammers 322
 Quarry picks 3,768.

and in the next the provision of handles is in itself a relief work. My own experience is that there is no difficulty in making handles for tools and the opinion of most Engineers. I have consulted agrees with mine: of course if a Famine Officer indents for a large quantity of tools, say 20,000 hammers and waits till he receives them to supply handles there must be delay, but I consider with proper management all delay may be avoided. Frequent complaints are made about delay in the supply of baskets which wear out very quickly; baskets cannot be stored for any length of time as they get destroyed by insects very soon, and as their manufacture gives employment to local labour, I do not think it advisable that they should be supplied from outside.

27. The famine tools in the P.W. Workshops, Madras, were inspected by Mr. Winterbotham and myself on the 18th Instant in the presence of Mr. Moss the General Superintendent.

28. The number of tools now in store is as per ^x margin. This is altogether insufficient and the Suptg. Engineer is preparing an indent for more. Very large quantities of tools have been issued to the famine

districts

districts, the number of stone breaking hammers and rammers alone amounting to 2,09,230 and 23,531 respectively. Indents for ~~xxxxxxxx~~ hammers were received farther than they could be complied with, and the General Superintendent had to have recourse to the local bazars, and purchased some wrought iron ones at 2 annas 6 pies per lb. These are of most inferior quality, and ~~as~~ simply formed by cutting a round bar of iron into small lengths, flattening out their lengths and drilling a hole through the middle. I am of opinion these hammers will not last more than a few weeks. Hammers are also being made in the Workshops both of wrought iron and ^{chilled} ~~smelted~~ cast iron, and they can be turned out at the rate of about 2,000 a day. The former are not tipped with steel and are somewhat poor though far superior to those bought in the bazar; the cost annas 2 and pies 3 per lb.

20. The ^{chilled} ~~smelted~~ cast iron hammers cost 1 anna per lb and seem excellent and can be turned out faster than any of the other descriptions. The ^{been} famine Officers have asked by wire to report on these hammers but no answer has been received. The number of hammers required in the famine districts is so great that the Workshops cannot keep pace

with

with the demands. Enquiries ~~mm~~ have therefore been made from Messrs. Oakes & Co. and Messrs. Massey & Co. Mr. Winterbotham has received an answer from the latter firm but not from the former. Enquiry is also being made as to whether the Railway Workshops at Perambur and Megapatam will undertake to turn out hammers, and if so, how many.

30. The mamooties in store were of various weights, many of them being as much as 14 lbs which I consider useless for famine purposes, five or six lbs seem as heavy as desirable.

J. R. Campbell
Ch. Sec.
Ch. Sec. J. R. M.

No. K.

Madras, 5th July 1897.

From

The Hon: Col.D.McNeil Campbell R.E.

Chief Engineer & Secretary to Government,P.W.D.
and

H.M. Winterbotham Esquire,I.C.S.

3rd. Member,Board of Revenue.

To.

The Secretary to Government,Revenue Department.

Sir,

In continuation of our letter I. dated June 24 th., 1897
we have the honor to submit herewith a separate note by each
of us, embodying the general remarks which each wishes to
make in connection with the eight joint reports which we
have already submitted.

On the completion of our tour to the eight Districts,
arrears of work urgently required our immediate return to
our respective head-quarters, and we thought it unnecessary
to spend the time and incur the delay which the composition
of a joint report would have involved.

We have the honor to be,

Sir,

Your Most Obedient Servants.

J. McNeil Campbell

Col:R.E.

Chief Engineer & Secretary to Govt:P.W.D

H. M. Winterbotham

Third Member,Board of Revenue.

Revenue (1897) Department.

CURRENT No. 568



From

The P.W. Department

Order

544. A. 54
16.7.97

No. 7420

Dated 7th July 1897

Received 5-7-97

Registered

Enclosures -

Spare copies -

SUBJECT.

Stone brca King hammers
Forwarding note by the Chief Engineer
P.W.D. suggesting that the Agent
Manager Madras Railway Company
may be requested to manufacture
50000 — weighing $2\frac{1}{2}$ lbs each
of the pattern supplied to Mr. W. B. B.

G.O.	No.	Department.	Date.

G O.	No.	Department.	Date.

Public Works Department.
No. 7412 of 7. July 1897

2. As the P.W. Workshops are at present unable to meet the demand for hammers and consequently have to purchase inferior articles in the bazaar, I think it would be well if the Railway Branch be directed to thank the Madras Railway Company for their offer and ask them to manufacture 50,000 hammers weighing $2\frac{1}{2}$ lbs of the pattern supplied to Mr. Winterbotham as soon as possible. The cost will be Rs. 17,500.

Chief Engineer, P. W. D.

No 742 D dated
Forwarded 7 July 1897

~~over you name~~, and Kishner
(upland Saliks) - The odd &

No 7422 of 7 July 1897

Forwarded to the Revenue Department
in continuation of letter No. K.
dated 5th July 1897.

Mr. Campbell Colonel, R.E.
Secretary to Government.

From

Dated

189

FOR ORDERS.

In the first current quoted above Mr. Wankarbharn and Col. Campbell submit each a separate note on the general conclusions arrived at in their recent tour of inspection. The main points referred to in the notes are: —

I. The district staff is well acquainted with the methods of relief administration prescribed by the Government and is busy making preparations for the contingency of the failure of the S. W. monsoon and consequent extension of distress.

II. There will, however, be no distress requiring the assistance of Govt. even in the event of such a failure, except perhaps in parts of Nallare (Darsi & Pithi Northarcot (Pungamur & part of Chendragiri taluk), and Kishnu (upland taluk). The area &

The Hon. Mr. S. S. S. S.
The Hon. Mr. H. S. S. S.
The Hon. Mr. S. S. S. S.

D. 7. 1897

19-7-97

c/2/7/97

population of these tracts is, however, small and there will be no great strain on ~~the~~ ^{the re-} sources of Govt if relief measures should become necessary. But it is impossible to foretell what the effect of a sudden rise of prices may be, and relief measures may become necessary in some other tracts also in such an event.

III. This subject of prices is a difficult one to deal with, and the present rule that a rise of prices to ^{the} scarcity rates is an indication of the necessity for opening relief works often leads to waste of money. High prices may be due to ⁽¹⁾ actual want of food supplies (2) transportation (3) withholding of stock. It should be carefully ascertained to which of the above causes the rise in prices is due, and relief works should be opened only when cause no (1) is at work. When the rise is due to cause no (2) or cause no (3) the producers gain enormous profits, and the result is ~~the~~ ^{the} opening of relief works

Though what is stated in this para is true, in case (1) & (3) it is not possible to get the holders to put their stocks on the market and in case (2) only by paying a price higher than in the place to which transportation is taking place. The effect of opening relief works is to bring out stock from what ever cause they may be held back. If Govt

does not open relief the effect will simply be that those persons who have money from the money to buy it will do. The only way to prevent producers throwing their dependants on the State is not to make relief attractive.

11/7/17

is simply that the producers throw on the ~~the~~ ^{state} the support of their dependants, chiefly agricultural laborers, whom otherwise they will be bound to support themselves. Further if it becomes known that the Govt is preparing for a famine, there will be a holding up of stock, the present high prices will rise still higher, and there will be a fictitious famine even in districts in which there is no scarcity of food.

This last remark is no doubt true, but in regard to the statement about dependants it is well to note that the number of permanent farm laborers whom the ryots pay all the year round is remarkably small in the Presidency in comparison with the laborers engaged monthly or daily for the season, and that as regards the latter it is the same whether prices rise from cause no (1) or from cause no (2) or (3). Further it may be noted that the rise in prices of grain is only one of the indications

and that district officers in recommending ^(the opening of) ~~the opening of~~ ~~the opening of~~ are also guided by the consideration whether ~~employment~~ ^{employment} is available in the fields or not. Lastly it is very difficult to ascertain to what cause the rise is due, and ~~even~~ ^{even} experienced district officers often fall into error in their conclusions on this point.

IV The famine programmes of the districts visited have already been noted on, and the necessary ^{separate} orders passed on the ^{separate} reports ~~already~~ submitted. In the event of a wide spread famine (i.e. supposing that distress intensified in the ten districts now affected ~~in districts~~ and extends also to the eight districts now visited) it will be necessary to afford employment to 43.6 lakhs of people; and the present system of scattered relief works must fail, requiring as it would 14 En: Engineers, 100 asst Engineers & 1679 upper subordinates. If the works be concentrated as has already been ordered, the requirements

I agree with what is stated in the note. When prices rise to scarcity rates there will always be distress among the great numbers who cannot get their subsistence on ordinary work.

This is an enormous underestimate as even in the great famine the numbers never exceeded 12.75 lakhs.

314
14897

759

The C.E. thinks concentration of works cannot be effected in the districts already famine-stricken, but I don't see why. The Famine Committee has been told to see to this, & has not reported yet. Experience teaches us that when a famine occurs again, we must have fewer & less per works. We have already called for lists of men fit in other Dept for famine work. The L.E.C. might be asked if there are any officers he can spare. The

C.E. thinks ~~20~~ ²⁰ men now employed as famine study in the affected districts should be replaced by men from other Depts & sent to Kachar, Nalbari & Arunachal, to prepare for distress here. I agree with him.

§ The 20 men might be selected, but I would not send them to Kachar.

I don't like to know what the Consulting Engineer thinks of the proposal to double the Madras Railway for Anconim to Kachar. Does the Railway Company contemplate this work?

will be 8 En: Engineers, 16 asst Engineers, and 100 upper subordinates, but if it be found impracticable to ~~concentrate~~ ^{concentrate} the works carried on in the ten districts affected at present the requirements should be placed at 14 En: Engineers, 36 asst Engineers and 260 upper subordinates. The P.W.D. cannot possibly supply this number; ~~hence the necessity~~ ^{it is therefore} urgently necessary to have ~~match~~ ^{match} ~~off~~ ^{off} lists of officers & subordinates from other depts and also of military men available for supervision of relief works.

Large works capable of employing large numbers of laborers are: —
(i) Doubling of the Madras Railway from Anconim to Nellore & beyond. The railway works have been built for carrying a double line, and the land necessary has been acquired. The earthwork may be taken in hand in the event of a wide spread famine. This ~~is~~ ^{is} would serve the districts of N. Arunachal, Kachar & Anconim.

(ii) S.D. Ry. Large numbers might also be employed in erecting ballast all along the line; this will be paid for at the rates now in force. The work will serve N. coast, Chingleput, S. coast & Trichinopoly

(iii) The other large works available have already been reported on in the separate reports. These are enumerated in para 14 of the C.E.'s note, ^{have noted} and the information available and the action taken in regard to each on the margin.

VI. In regard to the smaller works necessary to supplement large central works. These consist ~~of~~ of: —

(i) Road works. The frequency of many districts consist chiefly of road works, and in zemindaries none but roads works are available

(ii) Clearance of brickety fern. This forms a large part of the frequency in some districts. The work cannot be carried out under the rules of Chap VII of the Code, and must necessarily

15. 11/7/17.

It is pointed out that $\frac{1}{3}$ of the cost is for cartage which cannot be done as Relief work, & that this portion of the cost will be met separately in future estimates.

It is useless as a relief work especially if done on contract.

11/7/17.

This is as last month, but very little else can be done in this direction. ^{the work has found the best form of the N.W.P. being works. It is of no use & is liable to interruption but it is excellent work.} VII In testing famine labour.

It can be done in some places. The Excc. Com. has been told to get an estimate made for clearing the Kanipakalam tanks.

vide 7, 8, 9, 10, 11 JCC.

be included on the system of petty contracts.

(iii) Clearance of silt from tank beds. The P.W.D. looks askance at this kind of work which is moreover subject to interruptions by rains.

Tools. The recommendations of the joint Commissioners in regard to tools have already been noted on in connection with their ^{separate} reports on each district visited. The Govt has decided that these recommendations may be considered as receipt of the report called for from the Famine Comm on the subject. The Famine Comm is under the impression that he need not bother himself on the subject and that it will be disposed of ^{in connection with} the recommendations of the joint Commissioners, and has made no response notwithstanding several reminders and a telegram. In these circumstances we may pass final orders now. The joint Comm's conclusions are: —

(i) The numbers at present held in stock are altogether inadequate. The numbers necessary on the lowest safe computation are as noted on the margin. The division of the numbers required among the different descriptions is somewhat arbitrary as it is impossible to say exactly how many of each sort will be required till the nature of the work is known, but there is no doubt that a very large number of stone-breaking hammers will be required. The number of serviceable tools ~~is not~~ now available is not known and reports have been called for from the Mr. Inguiera, but there is no doubt that a very large number will require to be remade or purchased.

(ii) The demand for stone-breaking hammers is enormous and the P.W. workshop has been unable to keep pace with the demand. It has therefore bought wrought-iron hammers in local hazzars which are ^{do not} useless hammers.

Description	The Right Districts needed	The Sin Districts affected	Reserve	Total tools
1 Stone-breaking hammers.	2,71,000	3,20,000	1,00,000	6,91,000
2. Manrocks	56,400	66,000	50,000	1,72,400
3. Pick-axes	31,250	29,000	30,000	90,250
4. Rammers	6,250	37,000	30,000	73,250
5. Chisels	56,400	60,500	50,000	1,66,900
6. Sledge hammers	3,125	3,000	5,000	11,125
7. Stand axes	3,125	3,000	1,000	7,125
8. Bill hooks	3,125	3,000	1,000	7,125
9. Privately paid tools	3,125	3,000	1,000	7,125
10. Galvanized iron chains				
11. Wire rope				
12. Wooden cart wheels				
			28	28
			1,000	1,000
			300	300

nothing is said as to the cost of these tools. It can not be less than from 5,00,000 to 6,00,000 of Rupees. It is matter for consideration whether this expense should be incurred till it is demonstrably

11/7/11

So far as I can make out, the Secy's estimate of the cost of the tools is below the mark. I doubt if the G.O. will let us charge it to famine relief, & we have no money to spare from Provincial funds. I am afraid therefore we must take the risk of not buying in the work. The need, however, of stone-breaking hammers is immediate, & I think we should take advantage of the Railway Company's offer & get 50,000 2 1/2 lb hammers from them, & send an urgent note to the Secy of State for 90,000 ^{steel} hammers 30,000 weighing 1 1/2 lb, 30,000 2 lb & 30,000 2 1/2 lb - as recommended by the C.C. Jy

Handwritten notes:
 I don't know what India will do but it seems sure that we cannot get more than 50,000 of the 2 1/2 lb hammers. The 1 1/2 lb hammers are supplied from the London & North Western Railway.

This is Mr. Winderbark and recommendation. See pages 24 & 25 of Col. Campbell's note 29

Enc 566 - Letter of file

This might be done - 11/7/11

It is also making wrought-iron and chilled-iron hammers at the rate of 2000 a day. The former are superior to the hazzar ones but still not much use. The chilled-iron ones are admirably hard and cheap, but are brittle and liable to fracture if used sideways. They should be subjected to trial on a sufficiently large scale before the present mode of manufacture can be finally approved. There could be made fast by the workshops but not fast enough to keep pace with the present demands, and as there are no other local supplies ^{worth} speaking of, an urgent requisition should be sent to the Govt for 50,000 2 lb hammers & 50,000 2 1/2 lb hammers.

In a communication since received from C.C. he suggests that the Madras Railway undertake to turn out 2 1/2 lb hammers at the rate of 600 to 800 a day, that the pattern supplied be suitable, and that 50,000 may be ordered from the Railway instead of the hazzar ones.

(iii) The mancoabies in use are of the modern patterns; the English form of hoe is better and should be made to weigh bet 5 & 6 lbs.

(a) Combined front shock

(b) Double prong

(C) race with eight teeth two inches apart.

(V.) a report has also been called for as to the patterns of other tools which have been found in practice most serviceable for forensic labor.

(vi) Handles. Complaints are made ~~of~~ delays owing to ^{the} tools supplied having no handles. It is a mistake to make a waste to keep handles in stock. The Res Dept should be able to arrange for this by means of the Forest Dept & local contractors, & when a famine officer intends for tools he should ~~make~~ take steps at once to have the

We must await this report
before passing order about
tools generally.

I agree. Ask W. S. to get a
report and be called for from
all corners about obtaining
samples (from 10) ✓ 111

11
hs
12/7/97
2.4H
16.7.97

When we come to report on the facing
the question of the General Suppining
of the District Estt will be one of
the things to be dealt with. My own
opinion is that we have more dangerous
low - I suppose ~~more~~ the work to be
done has more than doubled since
I entered the service & we have (with
General Staff) rather four hands to do
it with —

1. I have no doubt of the correctness of the above opinion.

We should certainly have more Divisional Officers.
An increase of the establishment of Deputy Collectors (with
a proportion of Ensigns among them) would probably
meet this need in the cheapest way.

2. As to Col. Campbell's emphatic opinion that the necessity of D. P. W. Offices should be met by concentrating the workers on large works, - I agree with him. But, the difficulty is to find the large works to concentrate upon. Those suggested by Col. Campbell, I believe, are not yet beyond the project stage. We should get suitable large works planned ready to begin upon.

I am personally an advocate of Immigration Works;
as being the ^{useful and the most} suitable for the purpose.

huddles made without waiting
for the boats.

(vii) - The same remarks apply to beetles.

The district staff ~~of~~
~~is~~ in all departments
is ^{often} weakened considerably
by drafts for famine duty,
and ~~the work of~~ ^{the work of} ~~famine duty~~
administration for the
non-affected districts ~~is~~
~~is also~~ suffers consi-
derably owing to the diffi-
culty of finding suitable
men to take the place
of men departed to famine
districts. Some endeavour
should be made to remedy
this.

I spoke to Mr. Hughes about this yesterday,
and asked him to look up the schemes for
works in Ballany, Caddo Park; Saline and
Tinsessely, and to bring them forward. I
understood him to say that he was preparing
a statement, showing the particulars of all
the Irrigation works, which have, from time
to time, been projected. . . . A.S.H.

167.97

Read C. Nos. 5580 and 5682.

G.O. (Press.) No. 604 of 2nd July 1897

The Govt. will await the reports called for by the Chief Engineer as to the patterns of tools which have been found in actual use most serviceable for farm labourer, and the exact number of serviceable tools now in stock, before passing orders on the proposals in the notes read above for the supply of farm tools to the 14 districts dealt with therein and for the maintenance of a reserve stock. As, however, the need for stone-breaking hammers is urgent, the Consulting Engineer for Railways will be requested to arrange immediately with the Madras Ry. Co. for the manufacture of 50,000 hammers of the pattern supplied on the terms specified in the letter of the Agent and Manager to Mr. Hinterbotham. An urgent indent will also be made by telegram on the Right Hon'ble the Secy of State for 90,000 steel hammers--50,000 of 1 1/2 lbs weight, 20,000 of 2 lbs, and 20,000 of 2 1/2 lbs--as recommended by the Chief Engineer.

2. As regards the chilled iron hammers now turned out by the P.V. Workshops the Govt. is of opinion that they should be subjected to trial on a sufficient

(a) Print Very sharp
(b) Despatch telegram at once using telegrams
(c) Send m. & 2nd day to
1 and 2/3 (full order)
4- (last sentence of para 5 of order
with para 1 & 2 of C. 2's note)
10 to 23. (Para 3 of order, with para
26 of C. 2's note & para 10 of m. & 2's)
RS
21-7-97

The Board of Ry. will be requested
to submit a formal indent
in quadruplicate for transmission
to the Govt.

efficiently large scale before the present method of manufacture can be finally approved. The Chief Engineer should take immediate steps to have the trials carried out.

3. The Govt. concurs in the remarks in para. 2^a of the Chief Engineer's note in regard to baskets and handles for tools, and Collectors will accordingly be called upon to report as early as possible practicable what supply of handles each is in a position to obtain and at what cost. (Para. 10 of Mr. Winterbotham's note.)

4. The attention of the Board of Revenue will be drawn to ^{the remarks in} para. 7 of the Chief Engineer's note in regard to the cost of cartage included in the estimates for road repairs. Collectors should be instructed to separate the amounts provided for ~~cartage~~ cartage from the estimates of works and to show in their programmes in future only the amounts available for expenditure on famine labour.

5. The Govt. has already accepted the suggestion referred to in para. 13 of the Chief Engineer's note to concentrate famine labour on large works, and has called upon the Board of Revenue to report the extent to which this can be done and to direct Collectors to have estimates for such works prepared immediately. (vide G.O. 314 dated 11th May 1907.) In regard to para. 13 of the Chief Engineer's note, the Govt. does not understand why it is considered that this concentration can

not be given effect to in the districts already affected; the Famine Commission will be requested to state his views on the matter and report what steps have been taken to give effect to the orders of the 11th May. The Consulting Engineer for Railways will be requested to ascertain whether the doubling of the Madras Railway referred to in para. 14 is likely to be available for famine relief this year and, if not, whether ^{the} preparations for the work could be pushed forward so as to make it available for the purpose in the near future.

6. Orders have already issued in the sense suggested in para. 17 of the ^{C.E.'s} note. The Govt. approves the suggestion in para. 6 ~~of the note~~ that 20 of the P.W. subordinates now on famine works in the Ceded districts be posted to the districts in which it may become necessary to start relief works ^{but is} ~~although it is~~ not prepared to give effect to ^{the suggestion} ~~it~~ at once. Meanwhile the Chief Engineer may warn the men whom he proposes to withdraw from the affected districts to be ready for duty elsewhere.

7. With reference to the Chief Engineer's remarks in paras. 2-5 of his note the Govt., while admitting that the knowledge that it is preparing for a famine may cause a panic and a further rise of prices, does not consider that it would be practicable to ascertain with any degree of accuracy to which of the causes

para 3 of note at page 3 of no. 604 2/7.97 A

the marginal note to above.

Bliss's note in the original
of C.G. ibid B

Para. 2 of no. 604 11-7-97 A

para 103 of the office note
under C.G. 590 D
11-10-98

Para. 19 of letter 591 E
11-10-98

Note.

re: the numerical weakness
of the district organization in all
departments and its inability to resist
any sudden strain such as famine

to Day

In para 3 of his final
note prepared in 1897 after inspection
of the districts then threatened with
scarcity, Mr. (now the Hon'ble Mr.)
Winterbottom brought prominently
to the notice of Govt that one
of the most discomforting features
of the situation was the numerical
weakness of the district organiza-
tion in all its departments, and
the Hon'ble Col. Campbell noted
that the same was the case
in regard to P.W.D. It was
then decided that the matter
should be taken up when Govt
came to report on the famine;
the matter was accordingly referred
to in the note on the reports of
the Famine Conferences; but it
was ordered that the matter
should be brought up for the
post

2. Copies of the notes recorded by the Hms and H-2 on Mr. Winterthaus's note, and on the Office note, the report of the Famine Conferences, are appended. These notes are however confined to a consideration of increasing the staff of Revenue Divisional Officers. The famine correspondence of 1917 has, as directed, been gone through for collecting information as to the Offices in respect of which numerical weakness was brought home to Govt in the famine of 1916 and 1917, and the following is the result so far as the Rev. Dept is concerned.

3. In the Rev. Dept the extra demands were mainly for men required for the posts of

- (i) Special Assistants to Collectors
- (ii) Special Famine Divisional Officers
- (iii) Special Tahsildars & Rev. Inspectors for famine work, loans &c.
- (iv) Circle Inspectors
- (v) Kitchen Superintendents
- (vi) Paymasters
- (vii) and at a later stage, Taluk Relief Officers.

4. (i) Special Assistants to Collectors

These were appointed from the Imperial Civil Service.

(ii) Sp. Famine Div. Officers

These were generally appointed from the I.C.S. and from the grades of Dy. Collectors and Tahsildars. As the grade of Tahsildar was always open to select Dy. Collectors from, no special difficulty was experienced in connection with the appointment of Special Famine Divisional Officers; but there might have been a difficulty, if, as proposed by the Hon. Sir H. Bliss, Europeans were, as a rule, appointed for famine divisions.

(iii) No special difficulty was reported to Govt in connection with the appointment of Special Tahsildars, Dy. Tahsildars and Revenue Inspectors, though Collectors must have been hard put to it to find suitable men.

(iv), (v) and (vi). In its Propo. embodied in C.O. 410, the Board specially brought to the notice of Govt the extreme difficulty in finding suitable men for the post

Note under C.O. 573 14.7.17 F

B.P. 373 d/17.5.17 G

post of paymasters (of which the pay was inadequate), Kitchen, Superintendents and Circle Inspectors. The pay of the Paymasters was raised from Rs 30 to a maximum of Rs 50, and the Board was told to select the requisite men from the lists called for from the Salt and Survey Departments--and the Collectorate staff of non-affected districts, and authority was given to it to draft men for the post of paymasters from the Presidency Office and from the Tamil districts. No information is on record in this Office as to the extent to which other Departments were inconvenienced, except the remark of the Honble de P. H. Pless under C.O. 3974 30.7.97 that the Salt Commissioner was apprehensive that the withdrawal of Salt men for famine duty was likely to affect the results of toddy sales in Coimbatore.

(vii) Taluk Relief Officers: Only European Officers were appointed to these posts-- Civil Surgeons, Salt Inspectors and Forest Inspectors, and Lieut. Butler on leave.

para 2 of C.O. ibid

G	H
P.O. <u>410</u> 31.5.97	also P.O. <u>2910</u> 10.6.97
Giving a list of pensioned milly officers	
and C.O. <u>4370</u> 20.8.97	and <u>3846</u> 24.7.97
J	K

I

~~Butler flagged~~

vide list of officers on leave under
16.8.97

leave in Coimbatore.

5. So far as information is on record in the Rev. Dept of the Govt Office, the extent to which outside assistance was resorted to in the Rev. Dept will be seen from the list in C.O. 692 19.11.98

[7 Salt Inspectors, 2 Salt Asst Inspectors, 29 Salt Sub Inspectors, 7 Salt Inspectors, 2 Salt Asst Inspectors, 29 Salt Sub Inspectors, 3 Head Surveyors and 3 Dy Surveyors in addition to seven Stock and Agricultural Inspectors and Lieut Butler. No information is available as to the officials belonging to the Rev. Department proper obtained from the non-affected districts.]

M

RS
29-3-99

*I think this must be allowed to lie
over for the present
There is much a prospect for increasing
the number of Deputy Collectors, as
Divisional Officers. I will put this
prospect forward when the scheme
is ready to put into effect.*

*A. E. H.
24.2.00*

*Original M. O.
No. 604 521-7-97*

B. Extracts from notes recorded under
G. O. No. 304 dated 21st July 1897 by
the Hon'ble Sir Henry Bliss and his
Excellency:-

When we come to report on the famine
the question of the general sufficiency
of the District Establishments will be
one of the things to be dealt with. My
own opinion is that we have run danger-
ously low. I suppose the work to be
done has more than doubled since I
entered the service and we have (in
the general staff) rather fewer hands
to do it with.

(It'd.) H. W. B.
13/7/97.

Note by His Excellency.

I have no doubt of the correctness
of the above opinion. We should certain-
ly have more Divisional Officers. An
increase of the establishments of Deputy
Collectors (with a proportion of Euro-
peans among them) would probably meet
this need in the cheapest way.

(It'd) A. E. H.
16/7/97.

miss
add
the

II

7 D
Extracts from the office note under G.O.No.590,d/ 11th October 1898. Para. 103 and marginal notes thereon by the Hon'ble Members and His Excellency.

office note.

103. A reference is solicited to para 3 of Mr. Winterbotham's note in G.O.604 dated 21st July 1897 in which he invited attention last year to the weakness of our district organization in all department ~~Sent~~ and its inability to meet any sudden strain. It was decided at the time that the subject should be dealt with when we came to report on the famine. (Vide Sir H. Bliss's and H.E.'s notes). The famine report being, under the orders of the Government of India, confined to a mere historical summary, the point has not been referred to in the draft review. It must be dealt with separately.

Note by the Hon'ble Mr. A.T.Arundel.

It would not be practicable to increase the staff of Divisional Officers as a permanent measure merely on the ground that the staff is insufficient in times of famine. But on the ground of the requirements of efficient administration in ordinary times, plus the additional requirements in times of famine, it may be feasible to effect an improvement by diminishing the size of sub-divisions and appointing more Deputy Collectors (with an increase of Europeans, vide H.E.'s note) to be in charge of heavy expenditure for new officers and increased establishments will be neces-

Heu
Hutay

Does Mr. propose to
drop the question of making
any formal representation
to the Govt. of India regarding
the numerical weakness of
our district Staff?

Even if the Govt. did
acknowledge the fact, which
they doubtless would, financial
difficulties w^d evidently be the
reply to any proposal for the
permanent augmentation
of the Civil Service or other Imperial
Services. He sh^d. he simply
told that where ever
absolutely demand increased
assistance to the district
staff we must resort
temporarily to add^l Deputy
Collectors.

J.P. 20/7

I agree that the present is not
an opportune time for
advising a large increase
in the permanent cost of
the J.C.S. & D.P.W. establishments.
The question must
be left over
in decided -

20-2-1900

India wd not & could not
listen to any such proposal
now with famine & plague
raging ~~in~~ and a possible
deficit impending. The
question must be over
till surplus years return

22.2.0

Government { 1897 } of Mad
REVENUE.

Recd. } 1897. Enclosures
Regd. } Spare copies

G.O., No. 604, 21st July 1897.

JULY.

Passing orders on the final report submitted by the Third Member, Board of Revenue
and the Chief Engineer and Secretary to Government, Public Works Department, regarding
Famine Relief works, estimates and Famine tools, &c.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

READ—letter from the Hon'ble Colonel D. McNEIL CAMPBELL, R.E., Chief Engineer and Secretary to Government, Public Works Department, and H. M. WINTERBOTHAM, Esq., I.C.S., 3rd Member, Board of Revenue, to the Secretary to Government, Revenue Department, dated Madras, 5th July 1897, No. K.

In continuation of our letter I, dated June 24th, 1897, we have the honor to submit herewith a separate note by each of us, embodying the general remarks which each wishes to make in connection with the eight joint reports which we have already submitted.

On the completion of our tour to the eight districts, arrears of work urgently required our immediate return to our respective head-quarters, and we thought it unnecessary to spend the time and incur the delay which the composition of a joint report would have involved.

Note by H. M. WINTERBOTHAM, Esq., I.C.S., Third Member of the Board of Revenue, dated 3rd July 1897.

With reference to the eight reports which we have submitted on the districts of Coimbatore, Salem, North Arcot, Nellore, Kistna, Chingleput, South Arcot and Trichinopoly, the following points seem to call for further remark or explanation.

1. *Establishments.*—For Coimbatore (the first District we visited) we recommended the immediate entertainment of 8 temporary Surveyors with 3 lascars each, for the preparation of estimates (suitable for the employment of relief workers) for the repair of tanks and channels in charge of the Department of Public Works.

We have not made a similar recommendation for the other Districts, though the transfer of hands for famine duty has seriously weakened the ordinary Staff in all of them, and though the Public Works Department contributions to the Famine Programmes are everywhere less than they should be. This inconsistency is due to our sense first of the impossibility of finding the requisite number of qualified temporary hands, and second of the waste of money which will result, should elaborate preparations for an extended drought happily prove unnecessary.

When the famine ceases, retrenchment is likely to be the order of the day. The works would not generally be such as could be classed as emergent, and the estimates would not keep serviceable for an indefinite time.

2. When, however, part (often the greater part) of the ordinary staff in a District has been moved away for famine duty, I cannot see any justification for not filling up the vacancies with temporary hands, short of the all sufficient one that no qualified men can be got. I am not satisfied that enquiry for competent hands has been exhaustive, and I think that orders should issue to all Executive Engineers to bring their District Staff up to the sanctioned strength so far as fit temporary hands can be found. Even if the temporary hands were not at first qualified, they would at least be in training, and on the way to become so. The difficulty of obtaining qualified extra hands is, of course, due to the fact that the demand for them only occurs at long intervals for short periods.

Men were advertised for but only 23 suitable candidates could be got and they have been appointed temporarily to take place of subordinates transferred to famine work.

D.C.

Considering what an enormous demand for extra hands might arise in the near future, it would seem good policy to let the existing demand make itself fully known. So far as the demand operated to induce students to set to work to qualify as Overseers, its effect must be to that extent beneficial, and if no fit hands are forthcoming, Government will at least learn the true extent of its weakness.

3. The weakness, chiefly numerical, of our District organization in all Departments, its inability to meet any sudden extraordinary strain, and the difficulty of rapidly strengthening it, are the most disconcerting features of the situation. As soon as the village officers are set to work to prepare against future contingencies under Chapter VI of the Famine Code, their other duties are perforce let slide, and it is useless to ask concerning the crops and cultivation. There is a similar dislocation of ordinary work in every grade, up to the sorely pressed Collector, who is too often the solitary European Revenue Official in the District, on whose narrow shoulders rests the weight of the whole machine. I have no remedy to suggest. Financial exigencies compel us to keep our establishments down at a strength which is just sufficient in times of prosperity, and in times of adversity we cannot escape the penalty.

The same remarks apply to the P.W.D. D.C.

4. *Famine tools.*—Messrs. Oakes & Co. have about 950 mamooties and 1,000 large hammers in stock. They cannot, they say, make hammers, because no suitable steel can be procured in the local market. Messrs. Massey & Co. have about 3,000 mamooties in stock, at prices varying from Rs. 13 to Rs. 30 per dozen, and 900 pickaxes at Rs. 20 to Rs. 21-8 per dozen. They could turn out steel hammers weighing 2 lbs. and 3 lbs. at the rate of 100 per day, price Rs. 650 per 1,000 for 2 lb. hammers, and Rs. 950 for 3 lbs. There do not appear to be any other local firms, who deal in tools, and who could be entrusted with a large contract. The Agent of the Madras Railway expressed himself able and willing to manufacture hammers in large numbers at the Railway Workshops. I have asked him and the Chief Engineer of the South Indian Railway, to state what number they could turn out per diem, and at what price. Colonel Campbell has particulars of the stock, and the productive capacity of the Public Works Department Workshops. The Superintendent is put to his wits' end to meet the enormous demand. Some of the hammers now being supplied are mere lengths of bar-iron with a hole in the middle. They are fit for children's use, but the iron is so soft that they will rapidly become unserviceable. Some hammers of chilled cast-iron, which he has made as an experiment, are admirably hard and cheap, but are brittle and liable to fracture if used sideways with great force. It is expedient that these should be subjected to a fair trial on a sufficiently large scale. When once a sufficient number of moulds are constructed, these hammers could be turned out rapidly at a small fraction of the cost of steel hammers. The danger of famine will be ever with us; and the population to be dealt with tends rapidly to increase. Government is bound to maintain a large stock of tools, and in the end I believe, it will be cheapest to provide steel hammers. The comparatively large reserves, which, we have advised, should be provided for the eight Districts, would after all not suffice for more than three per cent. of the population. I certainly think that 50,000 2 lb. hammers, and 50,000 3 lb. hammers of steel, should be obtained from England at once.

Information is given in my note. D.C.

5. A report should be called for as to the patterns of tools, which have been found in actual use most serviceable for famine labour. We were informed at Guntakal that even the women preferred heavy 4 lb. hammers. I think a 2 lb. hammer most suitable for women and children, and a 3 lb. hammer for men; but where hard rock, in large fragments, has to be broken, a proportion of 4 lb. and 8 lb. hammers would be required.

I have already called for this report. D.C.

6. Nearly all the mamooties in stock are of the Madras pattern, intended for a short handle parallel to the blade. The Wudders prefer this muster, but for relief workers not accustomed to their use, I should think the English form of hoe (which is the West Coast and the Bengal pattern) much better. I think the weight should not exceed 5 and 6 lbs.

7. *Instruments for clearing prickly pear.*—I do not know that there is any accepted pattern. From personal experience I advocate the following:—

- (1) A combined prong and hook, with a four-foot handle of male bamboo.
- (2) A double prong something like an English pitch-fork, but with the prongs closer together.
- (3) A rake with eight teeth two inches apart. Invaluable for raking up young plants by the roots.

I agree. D.C.

8. *Relief works.*—It is difficult to make any useful fresh remarks under this head. The subject is discussed in paras. 45—54 of Mr. Clogstoun's Report on the Famine of 1891-92. The removal of prickly pear, which forms so large a part of the Famine Programme in some districts, cannot be conveniently performed under the rules of Chapter VII of the Famine Code. If undertaken it should be on the contract system. The same remark applies to the

repair of small scattered tanks. Petty estimates for clearing out drinking-water ponds are very numerous, but where the ponds contained water, it would generally be too precious to be spared and the work could not be undertaken even on the contract system.

The clearance of silt from tank-beds is (I know not why) an operation which the Public Works Department contemns. In some of our great tanks large bodies of relief-workers might be employed upon it; but the work would be liable to awkward interruption by a sudden fall of rain.

In Zemindaris there is really no work but road-work available. One seems driven to Mr. Clogstoun's conclusion that "Work on roads will have to be more and more resorted to to give employment to famine labor, even if the work should only be useful as forming a test of the necessity of relief."

9. So far as anxious recent study of the Famine Code can acquaint a man with the proper methods of relief administration, I think we may say that we found officers of all ranks well prepared. Some of the Deputy Collectors had continued their studies far into the night prior to our arrival, and appeared, Code in hand, prepared at all points for examination.

In some places the District Revenue staff had been diligently employed, in literal obedience to the order of Government, in drawing up Village lists showing the name, caste, sex and age of the halt, the blind, the deformed, the imbecile, the insane, the deaf-mutes, and of all others who would, in the event of famine, be likely to require gratuitous relief. It may be hoped that the labor will prove to have been thrown away.

10. Since writing the above I have read Colonel Campbell's note. I agree with what he has written on the subject of tools paras. 18 to 24. I would call on all Collectors to report what supply of handles for pick-axes, mamooties and hammers, each is in a position to obtain (a) from his Forest Officer, (b) from Contractors: at what rate per thousand; and what is the shortest period within which the number quoted (whatever it is) could be made available.

Note by the Hon'ble Colonel D. McNEIL CAMPBELL, R.E., Chief Engineer and Secretary to Government, Public Works Department.

After careful inquiry regarding rainfall, prices and general condition of the Districts, I agree with the opinions of the Collectors and the other local officials consulted that in the event of a failure of the South-West monsoon, there will be no distress requiring the assistance of Government except perhaps in some parts of the Nellore, North Arcot and Kistna Districts. The parts that may be affected but in which it is not anticipated there will be any acute distress are the Darsi and Podili Divisions in Nellore District, the Punganuru Zemindary and parts of the Chendragiri taluk in the North Arcot District and the upland taluks of the Kistna; the area and population of these tracts are small and no great strain will be thrown on the resources of Government should it be found necessary to adopt measures of relief. The conclusions arrived at are based mainly on the present conditions of the Districts, but all the Collectors point out that it is impossible to foretell what may be the effect of a considerable rise in prices.

2. The subject of prices is a very difficult one to deal with, and it is almost impossible to account for the great variations in different places. It seems not unlikely that if the South-West monsoon fails and it becomes generally known that Government are preparing for a famine, the prices now high will rise higher and a fictitious famine be caused in districts in which there is no scarcity of food, and I am of opinion that it is a matter for careful consideration whether Government intervention is necessary in such cases.

3. By a rise in prices caused by exportation or holding up in districts where there is plenty of stock, the producers make large profits and consequently are in a better position to support their dependents, chiefly the Agricultural labourers, than they are in ordinary seasons, but if Government start relief works, it is then the object of these producers and grain merchants to make as many as possible of these dependants (whom in ordinary years they support) go to these works, the result being that they save themselves considerable expense while at the same time nearly all the Government money spent on famine relief goes into their pockets.

4. The people most likely to suffer in the case of a fictitious famine caused by high prices are not of the agricultural classes but professional labourers and those engaged in technical trades, and the result of restricting expenditure on ordinary works is that great distress may be caused amongst these classes. This has been pointed out to me by several of the local Engineers who owing to reduction of establishment caused by men withdrawn for famine have been obliged to stop works, the result being that the labourers employed are now without means of support, and the prices being high, they must necessarily suffer considerably. I therefore think that, before starting famine relief, it should be carefully ascertained

whether the high prices are caused by actual want of food supplies or by exportation and holding up. In the former case, the intervention of Government is necessary, but in the latter case, all that seems advisable is to increase the ordinary Public Works of the District, the rates being raised in proportion to the price of food grain.

5. This subject requires the most careful consideration, for with the present facilities for exporting, it is very probable that an actual failure of crops in one district will be followed by a rise in prices in many others, and if on this occurring Government has to start famine works in each district where the prices are above the scarcity rate, the expense to the State will be very great.

6. I have stated that even should there be a failure of the South-West monsoon, the distress will not be severe, only affecting parts of three districts; but the Engineering establishments of these districts have been so reduced by withdrawals for famine in the I and III Circles that it will be impossible to find the establishment necessary to carry out relief works without stopping nearly all ordinary works which, as I have already pointed out, will cause considerable distress. I would therefore suggest that, as soon as the services of men from the Sappers and Miners, the Salt and other Departments have been obtained, 20 of the Public Works Subordinates now on famine works in the Ceded Districts should be posted to the Districts in which it may perhaps be necessary to start relief works. I think that 10 to the Kistna and 5 to each of the other two Districts Nellore and North Arcot will suffice with the help of the Local Fund establishment to carry on all relief works that may be required.

I concur.

H.W.

I think their first task should be to prepare a number of estimates.

H.W.

7. The works in the programmes are ample to meet all distress that may arise before next November: by far the greater portion of the estimates are for road repairs and I would point out that all these estimates include a large sum for cartage which is not suitable for famine relief unless the lead is under a mile in which case the metal can be carried by coolies. It may be said roughly that $\frac{1}{3}$ of the estimates are for cartage and I think this item should be separated in future estimates, otherwise a wrong impression is given of the sum available for famine relief purposes.

8. The tools, more especially stone breaking hammers, are insufficient, as will be shown further on.

9. Though there is no reason to apprehend such a calamity as a failure of the North-East monsoon, still should there be no South-West rains considerable anxiety will be felt, and it will be necessary to be prepared for the worst.

10. In the case of a wide-spread famine, that is, supposing the distress in the I and III Circles to continue and also spread to the eight Districts visited the great difficulties to contend with will be, 1st, the provision of the necessary Engineering Establishment, 2nd, the finding of suitable and useful work on which to employ famine labour. Both these difficulties can be partly met by concentrating labour on a few large works forcing the distressed persons to migrate if necessary. I cannot too strongly urge the necessity of this concentration of labour feeling assured that it will be absolutely impossible, if the famine becomes widespread, to carry on relief works on the system adopted in the Ceded Districts.

11. From the latest information received the number of coolies employed on relief works in the Ceded Districts was 305,189, and the number of works 117, giving an average of 2,600 coolies on each work. Now supposing 20 per cent. of the population of the Districts now affected and also of the eight visited to require relief, the number to be provided for would be 43,50,000 in round figures and if only 2,600 coolies were employed on each work the total number of works would be 1,679 requiring at least 14 Executive Engineers, 43 Assistant Engineers, and 1,679 Upper Subordinates, and the question is where are these to be got from?

12. It is not at all likely that the large proportion of 20 per cent. of the population will ever be employed on relief works at the same time, though it is quite possible that that proportion will be reached if the present system of opening works at the doors of the distressed villages is continued as many not in actual want will resort to them. In the great famine of 1876-77 the maximum proportion of the population relieved was as follows:—

Bellary	...	...	50.99 per cent.
Kurnool	...	...	31.24 "
Cuddapah	...	...	21.86 "
Anantapur	...	...	22.70 "

In most of the other districts it was below 10 per cent. If it should happen that 20 per cent. of the population has to be employed on relief works for any length of time it will be simply impossible to find any useful work for such a large number of persons and the expenditure on famine will then be practically gratuitous relief, work whether useful or not being exacted as a test of distress.

13. I have strongly advocated the concentration of labour on large works and it remains for me to show how this can be done as far as regards the eight districts visited.

14. The Madras Railway runs through the Chingleput, North Arcot, Salem and Coimbatore Districts. The masonry works have all been built to take a double line and I believe the necessary land has been taken up for the purpose, and I would suggest that in the event of a wide-spread famine the line be doubled from Arkonam to Mettupalayam (Madras to Arkonam already doubled). The earthwork for this and the preparation of ballast would occupy a very large number of persons for a considerable period, and as there is no doubt that this line will have to be doubled eventually though it may not be required for some years to come the money would not be wasted.

15. This work would afford relief to three districts, viz., North Arcot, Salem and Coimbatore and might be supplemented by the following works:—

North Arcot.

1. Clearing silt from Kaveripakkam tank bed.
2. Clearing Kaveripakkam tank supply channel.
3. Some of the largest road works. ✓

Salem.

Some of the largest road works. ✓

Coimbatore.

1. Bhavani Reservoir Project.
2. Extension Kalingarayan Channel. ✓
3. Some of the largest road works. ✓

16. In the remaining districts the following are the only works of any magnitude I can suggest:—

Kistna District.

1. Kistna River embankments. ✓
2. Some of the larger roads. ✓

Nellore District.

1. Supply channel from the Pennair River above Sangam to Nellore.
2. Moldevi drain.
3. Clearing silt from the Nellore tank.
4. Some of the larger roads. ✓

Chingleput District.

1. Widening railway lines from Madras to Chingleput.
2. Some of the larger roads. ✓

South Arcot District.

1. Extension of the Buckingham Canal.
2. Coleroon flood banks
3. Some of the largest roads. ✓

Trichinopoly District.

1. Some of the largest roads. ✓
2. Breaking metal at Central quarry. But the works mentioned though sufficient to give employment to all who will require relief for many months even in the event of a failure of the North-East monsoon following that of the

South-West will not be enough to supply 20 per cent. of the population for any considerable period, and the only other work that I can suggest is the preparation of enormous quantities of road metal at a few central quarries near railway lines in each District. Since writing the above I have had a conversation with the Chief Engineer, South Indian Railway, and he says a large amount of famine labour might be usefully employed in breaking metal for ballast along all the South Indian lines and that it would be paid for at the rates now in force.

17. If the works could be concentrated as suggested the amount of supervision required would not be very great, and probably 8 Executive Engineers, 16 Assistant Engineers and 100 Upper Subordinates would suffice for the 8 Districts visited; but the numbers now employed on supervising works in the I and III Circles will have to be increased as the system of small works in force there cannot well be altered now, so that the total Engineering Establishment necessary to cope with a wide-spread famine would approximately be—

14 Executive Engineers.
36 Assistant Engineers.
250 Upper Subordinates.

18. The necessity, therefore, of having a list submitted of officers and subordinates in other Departments and also of Military men available is apparent as the Public Works Department cannot provide such a large amount of supervision.

Tools.

19. The famine tools now in the Presidency are altogether inadequate in the event of a severe and wide-spread famine; these numbers were laid down by the Board of Revenue in its Resolution No. 6144-M., dated 25th October 1893 and embodied in G. O. No. 3116-W., dated 2nd December 1893.

20. The number, it is suggested should be maintained and which is based on the moderate computation that if 10 per cent. of the population are employed on relief works, 1 person out of every 3 will require a tool, is as follows:—

Districts.	Stone breaking hammers.	Mamooties.	Pick axes.	Rammers.	Crowbars.	Sledge hammers.	Hand axes.	Bill hooks.	Tools for prickly pear.
Coimbatore	40,000	9,000	5,000	1,000	9,000	500	500	500	500
Salem	44,000	9,000	5,000	1,000	9,000	500	500	500	500
South Arcot	44,000	9,000	5,000	1,000	9,000	500	500	500	500
North Arcot	44,000	9,000	5,000	1,000	9,000	500	500	500	500
Kistna	22,000	4,500	2,500	500	4,500	250	250	250	250
Nellore	33,000	6,900	3,750	750	6,900	375	375	375	375
Chingleput	22,000	4,500	2,500	500	4,500	250	250	250	250
Trichinopoly	22,000	4,500	2,500	500	4,500	250	250	250	250
Total...	2,71,000	56,400	31,250	6,250	56,400	3,125	3,125	3,125	3,125

21. For Ganjam and Vizagapatam the number of tools required might be calculated in the same manner as in the case of the Districts visited, but in the case of Bellary, Anantapur, Kurnool and Cuddapah, I think the proportion should be *trebled. As regards the remaining districts no action need be taken at present. The following, therefore, represents the number of tools that I consider necessary enough to maintain in the affected Districts.

* This would give total tools in round figures,	
Bellary	88,000
Kurnool	81,000
Anantapur	72,000
Cuddapah	1,27,000

Districts.	Stone breaking hammers.	Mamooties.	Pick axes.	Rammers.	Crowbars.	Sledge hammers.	Hand axes.	Bill hooks.	Prickly pear tools.
Bellary ...	55,000	10,000	6,000	5,000	10,000	500	500	500	500
Kurnool ...	50,000	10,000	5,000	5,000	9,500	500	500	500	500
Anantapur ...	45,000	8,000	5,000	4,000	8,000	500	500	500	500
Cuddapah ...	80,000	15,000	5,000	10,000	15,000	500	500	500	500
Ganjam ...	35,000	8,000	3,000	7,000	8,000	500	500	500	500
Vizagapatam ...	55,000	15,000	5,000	6,000	10,000	500	500	500	500
Total...	3,20,000	66,000	29,000	37,000	60,500	3,000	3,000	3,000	3,000

22. In addition I would propose that the following stock of tools of various descriptions be kept in the Public Works Stores to provide for wear and tear and losses:—

Stone breaking hammers	1,00,000	Hand axes	1,000
Mamooties	50,000	Bill hooks	1,000
Pickaxes	30,000	Prickly pear tools	1,000
Rammers	30,000	Galvanised iron chains	28
Crowbars	50,000	Jumpers	1,000
Sledge hammers	5,000	Wooden cash chests	300

23 The following shows the total number of tools I consider necessary:—

Hammers	6,91,000	Handaxes	7,125
Mamooties	1,72,400	Bill hooks	7,125
Pickaxes	90,250	Prickly pear tools	7,125
Rammers	73,250	Iron chains	28
Crowbars	1,66,900	Wooden cash chests	300
Sledge hammers	11,125	Jumpers	1,000

24. The exact number of serviceable tools now in stock cannot be ascertained till the special returns called for from the Executive-Engineers have been received, but there is no doubt that a very large number will be required to be made or purchased.

25. The numbers given as necessary seem large, but when it is considered that in the 8 districts visited it only allows one tool to 1/3 of 10 per cent. of the population and to 1/3 of 30 per cent. in the Ceded Districts and makes no allowance for the remaining districts it cannot be considered excessive. The demand for stone breaking hammers is very great about 3,00,000 are now in use in the I and III Circles and indents are constantly being received for more. The division of the different description of tools required is of course somewhat arbitrary, as it is impossible to tell exactly how many of each sort will be required till the nature of the work to be done is known: but there is no doubt that a large number of stone breaking hammers will be required, and I recommend that an urgent indent for 1,00,000 be at once sent to the Secretary of State. It will perhaps be time enough to get the other tools when the result of the South-West monsoon is known.

26. There is considerable difficulty in fixing the most suitable weight and description of each sort of tool. The indents from the famine officers vary considerably, for instance, one officer states that he does not want hammers weighing over 1½ lbs. another that he wants 3 lb. hammers and so on. In the case of mamooties the same difficulty is felt. There are some in the Public Works Stores weighing from 5 to 14 lbs. which latter are far too heavy and most officers say that the weight should not exceed 5 lbs. The description of mamooty has also to be decided. I would recommend that the indent on the Secretary of State for hammers should state that they are to be of steel weighing from 1½ to 3 lbs. Further inquiries will be made from the famine Officers as to the best form and weight of mamooty.

Handles.

27. Hearing rumours that delay had been caused by the tools being supplied without handles, I wired to the Superintending Engineer to know what were the real facts, and

he answered that some slight delay had been caused by tools having to be provided with handles and that he would like handles to be provided in future. I think that issuing tools provided with handles would be a mistake; in the first place the difficulty of carriage would be much increased, and in the next the provision of handles is in itself a relief work. My own experience is that there is no difficulty in making handles for tools and the opinion of most Engineers I have consulted agrees with mine: of course if a famine Officer indents for a large quantity of tools, say 20,000 hammers and waits till he receives them to supply handles there must be delay, but I consider with proper management all delay may be avoided. Frequent complaints are made about delay in the supply of baskets which wear out very quickly; baskets cannot be stored for any length of time as they get destroyed by insects very soon, and as their manufacture gives employment to local labour, I do not think it advisable that they should be supplied from outside.

28. The famine tools in the Public Works Workshops, Madras, were inspected by Mr. Winterbotham and myself on the 18th Instant in the presence of Mr. Moss the General Superintendent.

29. The number of tools now in store is as per margin. This is altogether insufficient and the Superintending Engineer is preparing an indent for more. Very large quantities of tools have been issued to the famine districts, the number of stone breaking hammers and rammers alone amounting to 2,09,239 and 23,561 respectively. Indents for hammers were received faster than they could be complied with, and the General Superintendent had to have recourse to the local bazaars, and purchased some wrought iron ones at 2 annas 6 pies per lb. These are of most inferior quality and are simply formed by cutting around bar of iron into small lengths, flattening out their lengths and drilling a hole through the middle. I am of opinion these hammers will not last more than a few weeks. Hammers are also being made in the Workshop of wrought iron and chilled cast iron, and they can be turned out at the rate of 2,000 a day. The former are not tipped with steel and are somewhat poor though far superior to those bought in the bazaar; the cost annas 2 and pies 3 per lb.

30. The chilled cast iron hammers cost 1 anna per lb. and seem excellent and are turned out faster than any of the other descriptions. The Famine Officers have been asked by wire to report on these hammers but no answer has been received. The number of hammers required in the famine districts is so great that the Workshops cannot keep pace with the demands. Enquiries have therefore been made from Messrs. Oakes & Co. and Messrs. Massey & Co. Mr. Winterbotham has received an answer from the latter firm but not from the former. Enquiry is also being made as to whether the Railway Workshops at Perambur and Negapatam will undertake to turn out hammers, and if so, how many.

31. The mamooties in store were of various weights, many of them being as much as 14 lbs. which I consider useless for famine purposes, five or six lbs. seem as heavy as desirable.

Note by the same Officer, dated 7th July 1897.

Since the despatch of my note dated 29th June 1897, intimation has been received by Mr. Winterbotham from the Agent and Manager of the Madras Railway Company that stone breaking hammers can be made at the Railway Workshops, Perambore, for the purpose of famine relief and that they can be turned out at the rate of from 600 to 800 a day at a cost of Rs. 35 per 100. I have seen a sample hammer and it weighs 2½ lbs. and is I consider suitable for relief purposes.

2. As the Public Works Workshops are at present unable to meet the demand for hammers and consequently have to purchase inferior articles in the bazaar, I think it would be well if the Railway Branch be directed to thank the Madras Railway Company for their offer and ask them to manufacture 50,000 hammers weighing 2½ lbs. of the pattern supplied to Mr. Winterbotham as soon as possible. The cost will be Rs. 17,500.

No. 742—D, dated 7th July 1897.

Forwarded to the Revenue Department in continuation of letter No.K, dated 5th July 1897.

(Signed) D. McNEIL CAMPBELL, COLONEL, R.E.,

Secretary to Government.

ORDER—No. 604, dated 21st July 1897.

The Government will await the reports called for by the Chief Engineer as to the patterns of tools which have been found in actual use most serviceable for famine labourer and as to the exact number of serviceable tools now in stock, before passing orders on the proposals in the notes read above for the supply of famine tools to the 14 districts dealt with therein and for the maintenance, of a reserve stock. As, however, the need for stone breaking hammers is urgent, the Consulting Engineer for Railways will be requested to arrange immediately with the Madras Railway Company for the manufacture of 50,000 hammers of the pattern supplied, on the terms specified in the letter of the Agent and Manager to Mr. Winterbotham. An urgent indent will also be made by telegram on the Right Hon'ble the Secretary of State for 90,000 steel hammers:—30,000 of 1½ lbs. weight, 30,000 of 2 lbs. and 30,000 of 2½ lbs. as recommended by the Chief Engineer. The Board of Revenue will be requested to submit at once a formal indent in quadruplicate for transmission to the Secretary of State.

2. As regards the chilled iron hammers now turned out by the Public Works Workshops the Government is of opinion that they should be subjected to trial on a sufficiently large scale before the present method of manufacture can be finally approved. The Chief Engineer should take immediate steps to have the trials carried out.

3. The Government concurs in the remarks in paragraph 26 of the Chief Engineer's note in regard to baskets and handles for tools. Collectors will accordingly be called upon to report as early as practicable what supply of handles each is in a position to obtain and at what cost. (Paragraph 10 of Mr. Winterbotham's note.)

4. The attention of the Board of Revenue will be drawn to the remarks in paragraph 7 of the Chief Engineer's note as to the cost of cartage included in the estimates for road repairs. Collectors should be instructed to separate the amounts provided for cartage in the estimates of works and to show in their programmes in future only the amounts available for expenditure on famine labour.

5. The Government has already accepted the proposal referred to in paragraph 13 of the Chief Engineer's note to concentrate famine labour on large works, and has called upon the Board of Revenue to report the extent to which this can be done and to direct Collectors to have estimates for such works prepared immediately. (Vide G.O., No. 314, dated 11th May 1897.) In regard to paragraph 16 of the Chief Engineer's note, the Government does not understand why it is considered that this concentration cannot be given effect to in the districts already affected; the Famine Commissioner will be requested to state his views in the matter and to report what steps have been taken to give effect to the order of the 11th May. The Consulting Engineer for Railways will be requested to ascertain whether the doubling of the Madras Railway referred to in paragraph 14 is likely to be available for famine relief this year and, if not, whether the preparations for the work could be pushed forward so as to make it available for the purpose in the near future.

6. Orders have already been issued in the sense suggested in paragraph 17 of the Chief Engineer's note. The Government approves the suggestion in paragraph 6 that twenty of the Public Works subordinates now on famine works in the Ceded districts be posted to the districts in which it may become necessary to start relief works, but is not prepared to give effect to the suggestion at once. Meanwhile the Chief Engineer may warn the men whom he proposes to withdraw from the affected districts to be ready for duty elsewhere.

7. With reference to the Chief Engineer's remarks in paragraphs 2—5 of his note the Government while admitting that the knowledge that preparations are being made to meet a famine may cause a panic and a further rise of prices, does not con-

der that it would be practicable to ascertain with any degree of accuracy to which of the causes enumerated the rise of prices in any district is due. Further a rise to the scarcity rates is only one of the indications of distress, and in their recommendations for the opening of relief works, District officers are also guided by the consideration whether employment is still available in the fields and elsewhere or not. The number of permanent farm labourers whom the producers are bound to support all the year round is small in comparison with the number of labourers engaged weekly or daily for the season; and a rise to the scarcity rates, whatever the cause may be, combined with a failure of the sources of employment ordinarily available, must produce distress among the latter who form the vast majority of labourers.

8. The Government fully concurs in the remarks in paragraphs 1—3 of Mr. Winterbotham's note as to the insufficiency of the present scale of district establishments in all departments of the administration to meet any sudden extraordinary strain. The question is however, too large a one to be dealt with on the present occasion; the subject will be fully considered when the Government comes to review the relief operations of the year on the cessation of distress.

9. In conclusion, the Government desires to thank Mr. Winterbotham and Colonel Campbell for the efficient and satisfactory manner in which they have discharged the duties entrusted to them; the reports of these officers on the eight districts visited by them have been full and exhaustive and the results of their tour most informing and useful. The tour has also had the effect of putting on their guard, the officers of all the districts likely to be affected in case of the eventual failure of the monsoon.

(True Extract.)

(Signed) G. STOKES,
Ag. Secretary to Government.

To
The Famine Commissioner.
„ Public Works Department, (W.)
„ „ „ (I.)
„ „ „ (R.)
„ Financial Department.
„ Public Department.
„ Local and Municipal Department.
„ Board of Revenue, Revenue Settlement.
„ „ Land Revenue.
„ Collector of Coimbatore.
„ „ Salem.
„ „ Chingleput.
„ „ North Arcot.
„ „ Nellore.
„ „ Kistna.
„ „ South Arcot.
„ „ Trichinopoly.
Collectors of affected Districts.
The Hon. Col. D. McNeil Campbell, R.E.
H. M. Winterbotham, Esq., I.C.S.

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