Govt. of {1889} Madras.

REVENUE.

Issued

Recd.

Encl.

G.O., 6th September 1889,
Nos. 758, 758A.

SEPTEMBER.

Condition of the Ganjam District.

Passing orders on the reports of the Collector and his Assistants on the — for the week ending 17th August 1889.

900

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Establishment.

READ—the following papers:—

Proceedings of the Government of India in the Public Works Department (Account—Establishment), dated Simla, the 8th August 1892, No. 169 A.E.

[*Abolition of the class of apprentice accountants and recruitment of the subordinate accounts branch from accounts clerks in Executive Engineers' and Examiners' offices.*]

Read—again the following paper:—

Public Works Department Circular, No. 52, dated 7th September 1874.

Read—also the following paper:—

Note by R. G. MACDONALD, Esq., Officiating Accountant-General, Public Works Department, dated 8th July 1892, No. 1178 E.

In view of the difficulty which is frequently experienced in finding suitable men to fill vacancies that occur in the posts of divisional accountants in the several provinces and on railways, it has become necessary to review the situation and to suggest that some steps be taken to remedy the defects which exist in the arrangements now in force.

2. A class of apprentice accountants was introduced in 1872, as an experimental measure, with a view to providing for a supply of qualified men for the post of divisional accountant. This scheme appears to have worked fairly well for a time, as, in Government of India Public Works Department Resolution issued as Circular, No. 52 of 7th September 1874, the sanction of the Government of India was conveyed to the permanent retention of this class.

3. For a considerable time, however, this class of appointment has, for one reason or another, fallen into disrepute, and it has not been found possible to induce young men of the proper stamp to take up appointments, which from their nature do not qualify for pension, except as a mere stepping stone to other and more lucrative employment outside the accounts branch.

4. The consequence is that, as a means of supplying the department with qualified divisional accountants, the apprentice class is now practically useless. It was expensive as well as ineffectual.

5. It has, therefore, become necessary to suggest some other method of recruitment which shall meet the requirements of the department and which shall be free from the disabilities attached to the existing arrangements.

6. There can be little doubt that the proper place to train a divisional accountant is the office of an Executive Engineer and it is to the clerks in these offices, who are engaged in assisting the divisional accountants in the work of completing and compiling the vouchers and accounts of the division, and to clerks employed upon

[R.O. / 10 / 10,000-19-5-11.]

MADRAS RECORD OFFICE.

Block No.

Paper taken out of the Records from the charge of the Referencer,

Dept. Pub P Press / Mis. / Rout. No. 830, dated 29/8/89 191 . Rack No. / Range,

Date taken out.	For what purpose.			Initials of Referencer.	Date returned.	Initials of attender.
	Department.	C. No.	Year.			
29/8/89	Public	3361	89		21/12/11	

[*For General Distribution.*]

Circular No. 3 Public Works.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

GENERAL.

Simla, the 30th August 1889.

No officer of Government shall ask or accept pecuniary aid or subscriptions from Native Chiefs or officials of Native States towards private or semi-public objects.

The following is forwarded to the Local Governments, Administrations and Officers noted in the margin, for information, in continuation of Public Works Department Circular No. 12 P.W., dated 24th July 1885.

The Governments of Madras, Bombay, Bengal, the North-Western Provinces and Oudh and the Punjab.
The Chief Commissioners of the Central Provinces, Burma, Assam and Coorg.
The Resident at Hyderabad.
The Agents to the Governor General for Central India, Rajputana and Baluchistan.
The Accountant General, Public Works Department.
The Director General of Railways.
The Consulting Engineers to the Government of India for Railways, Calcutta, Central Division and Lucknow.
The Director General of Telegraphs.

By order,

G. H. D. WALKER,
Under-Secretary to the Govt. of India.

No. $\frac{25}{1437}$ 1460.

Extract from the Proceedings of the Government of India, in the Home Department (Public),—under date Simla, the 14th August 1889.

READ—

Home Department Resolution No. $\frac{31}{1217\text{-}42}$, dated the 11th July 1885.

RESOLUTION.

In the Resolution read in the preamble it has been laid down that no officer of Government shall ask or accept pecuniary aid or subscriptions from Native Chiefs or officials of Native States in pursuance of public objects, except with the previous sanction of the Local Government to which he may be subordinate.

An instance has recently come to the notice of the Government of India in which a public servant accepted a donation from a Native Chief towards a religious object in which he was specially interested. In the Resolution of 11th July 1885, applications for contributions to private or semi-public objects are not expressly condemned, but the objections upon which those orders are based apply with even greater force to such donations. The Governor General in Council is therefore pleased to extend the orders contained in Resolution No. $\frac{31}{1217\text{-}42}$ (Public), dated 11th July 1885, to applications for or acceptance of assistance towards private or semi-public objects.

IMPERIAL.
CIVIL WORKS.

DETAIL Schedule of requirements for Original Works and Repairs for 1890-91.

Head of classification.	Executive Division and locality.	Item No.	Project and Works.	Amount of sanctioned estimate.	Outlay. To end of 1888-89.	Outlay. Probable during 1889-90.	Requirements for 1890-91. Major works. Works in progress.	Major works. New works.	Major works. Total.	Minor works.	Total, Original works.	Repairs.	Total. Works and Repairs.	Remarks.
				RS.	RS.	RS.	RS	RS.	RS.	RS.	RS.	RS.	RS.	
			Civil Buildings.											
Postal ...	Architect.	Madras ...	1 Adding a teak plank ceiling and making other improvements in the Madras General Post office.	...	...	...	...	12,339	12,339	* 12,500	24,839	8,000	32,839	Estimate is awaited.
			2 Minor works and repairs ...	...	...	...	...	...	...	...	...	8,000	...	
			Total, Postal Buildings ...	...	...	...	...	12,339	12,339	12,500	24,839	8,000	32,839	
Telegraph.	Bellary ...	Guntakal.	3 Constructing a Telegraph office.	...	...	...	...	5,000	5,000	...	7,000	...	...	Estimate is awaited.
			4 Minor works and repairs ...	...	...	...	...	...	...	2,000	...	5,000	...	
			Total, Telegraph Buildings ...	...	...	...	...	5,000	5,000	2,000	7,000	5,000	12,000	
			Total, Civil Buildings ...	...	...	...	...	17,339	17,339	14,500	31,839	13,000	44,839	
			Communications	...	...	...	...	...	...	...	...	...	...	
			Miscellaneous public improvements.	...	...	...	...	...	...	...	...	...	...	
			Grand Total ...	...	...	...	...	17,339	17,339	14,500	31,839	13,000	44,839	

	RS.
*Madras	9,000
Mysore	3,500

19TH SEPTEMBER 1889, No. 2598 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Account.

READ—the following papers:—

From SURADA PRASAD ROY, Esq., Officiating Assistant Director-General of the Post Office of India, to the Secretary to the Government of Madras, Public Works Department, dated Calcutta, 4th September 1889, No. 4629.

In accordance with the Resolution of the Government of India in the Public Works Department, No. 422—39 A.G., dated 7th August 1873, I have the honor to give in the margin a statement of the probable requirements of this department for public works in Madras (including Mysore) for the year 1890-91, and beg that His Excellency the Governor in Council in the Department Public Works will be pleased to include the same in the Provincial schedule.

2. The amount has been included in the General schedule submitted by this office to the Government of India.

		RS.	
Major works.			
Adding a teak plank ceiling and making other improvements in the Madras General Post office	...	12,339	
			12,339
Minor works.			
Madras	... ...	... 9,000	
Mysore	... ...	... 3,500*	
			12,500
Grand Total ...			24,839

* The Mysore Anche having been incorporated with the Imperial Post, provision is necessary to provide buildings, where necessary, for locating Post offices in the Mysore territory.

Telegram from the Director-General of Telegraphs, Simla, to the Secretary to Government, Public Works Department, Madras, dated 10th September 1889.

Rupees five thousand for office at Guntakal on line Madras-Bombay and two thousand for minor works have been included in schedule 90-91 submitted to India.

ORDER—dated 19th September 1889, No. 2598 W., Public Works.

Ordered that the accompanying schedule of requirements under Imperial Civil works for 1890-91 be forwarded to the Government of India.

2. The submission of plans and estimates for the following major works, proposed for execution in the next official year, should be expedited:—

(1) Adding a teak plank ceiling and making other improvements in the Madras General Post office.

(2) Constructing a Telegraph office at Guntakal.

3. The expenditure on Postal Minor works in Mysore has been estimated at Rs. 3,500 or Rs. 2,500 in excess of the usual amount and the Director-General of the Post Office of India explains that the excess is due to the Mysore Anche having been incorporated with the Imperial Post.

GENERAL.
ACCOUNT.

Govt. of {1889} Madras.

PUBLIC WORKS.

Dated September, 19th.

Recd. *Encl.*

{G.O., 19th Sept. 1889, Nos. 2598, 2599 W.

SEPTEMBER.

Imperial Civil Works

Forwarding schedule of requirements under — for 1890-91.

GOVERNMENT OF MADRAS.

PUBLIC DEPARTMENT.

READ—the following paper:—

From A. REA, Esq., M.R.A.S., First Assistant, Archæological Survey, to the Chief Secretary to Government, dated Bangalore, 3rd July 1889, No. 272.

In continuation of my letter embodied in G.O., No. 383, of the 30th April 1889, I have the honor to forward an account of the work since accomplished.

2. Field-survey work occupies but a small proportion of the time under note, the field season having finished at the end of April. The period since then has been employed in the writing of my reports, and the completion of drawings by the staff.

3. The month of April was occupied almost entirely in the excavation of some of the mounds at Guntupalle, and the results have proved extremely interesting. Through the excellent arrangements made by the Collector, I experienced no difficulty in the prosecution of the work.

4. Mr. Duggirala Ramadasu,—the Superintendent Muktar, or superior of the Neduthavalu estate and land on which the remains at Guntupalle are situated,—called at my camp, and offered his assistance should it be necessary. He said that he should like to see my report. I would request therefore, that he might be favored with a copy.

ENCLOSURES.

I.—Buddhist remains in the mounds at Guntupalle.

The excavations begun during last season were resumed this year (1889) and completed as far as the funds at my disposal would permit. A complete excavation of this large site would be a work of some magnitude. A reference to the plan of the remains (Dr. No. 779) will show how extensive they are. The structural remains in the mounds, exclusive of the other rock-cut examples, cover an area measuring 600 feet by 150 feet; and the mounds themselves number 35, covering at least that number of buildings. They probably exceed it, for during the digging of the trench around the stûpa (No. 7), the foundation of another stûpa was brought to light on the north side, and a small square building on the west. The upper walls of these had been previously removed, so that there was no mound, or anything on the surface to show their existence. There may thus be many others over and above the mounds actually appearing. No. 1 is a large structural chaitya, which has been partially excavated, and which will afterwards be fully described. No. 2 is the remains of a large structural mandapa now demolished. It has evidently been wilfully destroyed, for the stumps of many of the columns still stand erect in places, while the broken shafts lie alongside. These are sufficient to show what the plan has been, and also to indicate its extent. It would seem to have been composed of 24 stone columns standing in six rows of four each, covering an area measuring 56 feet by 34 feet. It may possibly have had other rows of columns, but none now remain to show whether this has been the case or not. On the east and west sides however, in the centre, there are some fragments, which would make it appear there had been other two piers on each of these sides, very likely forming an entrance porch. The mandapa stands beside the chaitya, and has evidently been a hall of assembly in direct connection with it, and in a secondary degree with the whole group of stûpas and rock-cut cave temples and vihâras, in a word, for the use of the whole religious community of the group forming the monastery. Dr. Burgess found similar remains at Jaggayapêta,* and I found traces of something similar near the large stupa at Pedda Ganjâm.

* *Amarávati and Jaggayapêta stûpas*, p. 107.

Mounds No. 3, 4 and 5 are unexplored. No. 6 is the site of a stûpa, a portion of whose wall was uncovered, as referred to above. No. 7 is the stûpa which has just been excavated, and an account of which will follow in due course. No. 8 is an unexplored mound. No. 9 was partly dug on the west side. It showed a ruinous brick wall running in a straight line. The work here was stopped to allow of other, more promising of results, being carried on. Nos. 10, 11 and 12 are unexplored; No. 13 also has not been dug out, but some persons have rifled the interior for treasure. It shows as a circular stone well and is the interior wall of a stûpa. Nos. 14 to 18 are unexplored. No. 19 shows on the surface the circular foundation wall of a stûpa. Being so near the surface, I dug the centre to search for a relic casket. I found some small and curious objects. These are, a miniature stone dâgoba (Dr. No. 774, fig. 12), very similar in shape to the object often placed in front of certain village temples in these districts, and worshipped as Pota Râja; and a round object in stone with a cylindrical projection on one side and a round knob on the other (Dr. No. 774, fig. 10). Nos. 20 to 30 are unexplored, but several of them show by the circular walls appearing on the surface that they are the remains of stûpas. These will be recognized by a reference to the plan. Probably all are stûpas, but those which show it clearly are Nos. 20, 21, 23 and 30. No. 31 is the foundation of a stûpa and curiously the rain had washed away the earth and left the bottom of a small stone relic casket, standing exposed above ground in the centre of the circle (Dr. No. 773, fig. 6). The portion of the casket that remains, though smaller, is exactly similar to another complete one with relics inside, which I found in mound No. 7 outside the walls of the stûpa. It had been removed from the interior when it was dug out for treasure and being covered with earth had been forgotten. Finding it in this position, I was at first uncertain as to its being a real relic casket, but its similarity to that found in mound No. 31, and the objects inside, showed it to be one. No. 32 has the circular walls of a stûpa visible on the surface. No. 33 is undug. No. 34 is a large and high brick mound. I thought it might be a stûpa and dug a short trench along one side. The wall, however, was straight and I left off, and concentrated my attention on the chaitya which had at that time been discovered. In mound No. 34 I found a small three-stepped stone object (Dr. No. 774, fig. 11). Mound No. 35 is undug.

It will be evident that to fully explore such an extensive site would require a very large sum of money indeed. The funds available were barely sufficient to fully excavate one or at the most two mounds. It will be seen that several mounds have been tapped in these excavations. I selected what I thought the most promising, such as Nos. 1, 9 and 34, and drove in short trenches to prove their nature. The two last were hardly as I expected, but No. 1 proving to be a structural chaitya and as my funds were insufficient to explore all of them, I withdrew the laborers from the others and engaged all the available strength on No. 1.

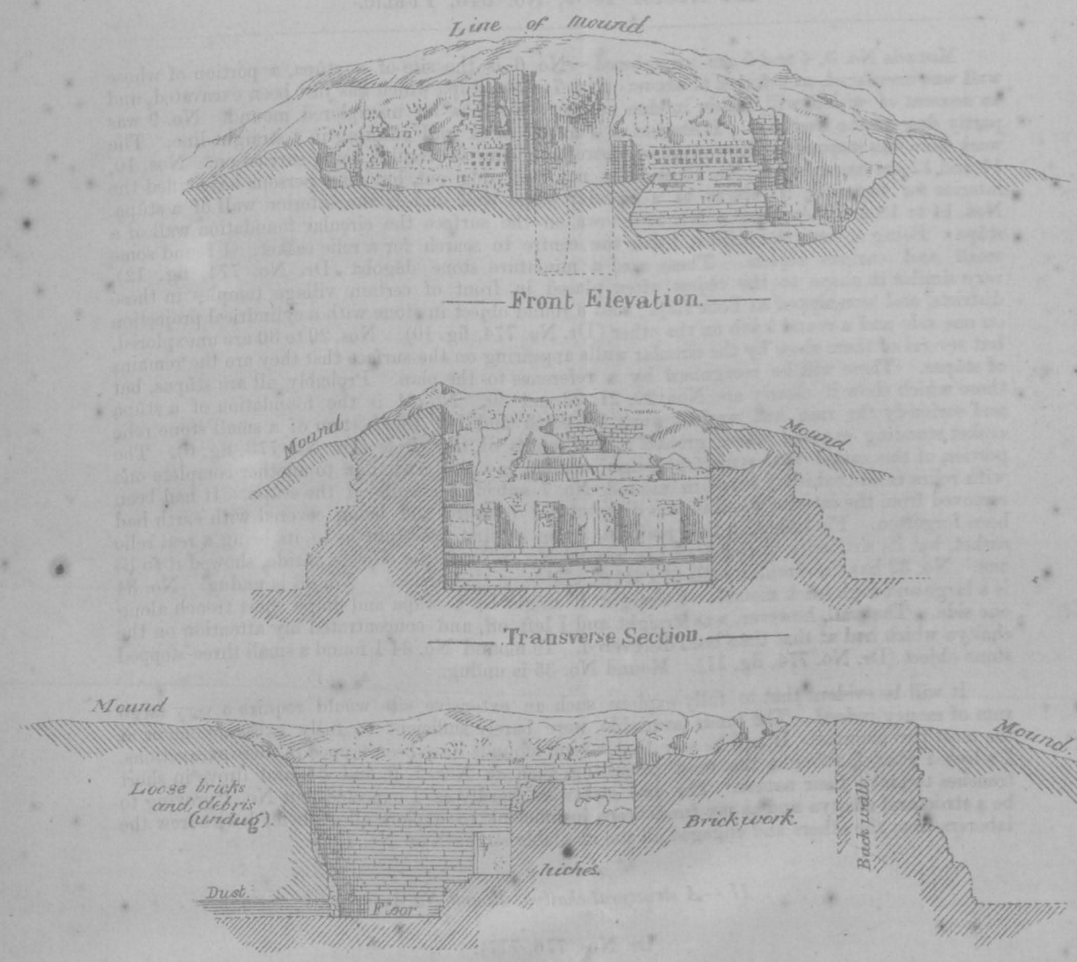
II.--A structural chaitya, Mound No. 1.

(Dr. Nos. 776, 777).

The mound in which this building stands is of somewhat oval plan with a hollow in the centre caused by people removing bricks. It was impossible at first to know whether it might not cover two adjoining stûpas or one long rectilinear building. A mass of rocks abut on the west side, and on the east is the ruined mandapa above referred to. Two trenches were dug into the south end of the mound, and these exposed what proved to be the front of a building. From the plan, so far exposed, it seemed to be a structural chaitya, and knowing the other end would be apsidal I drove in two trenches there also. The outer face of the wall there, however, is slightly ruined and some difficulty was experienced in accurately fixing it. To present destruction, therefore, I excavated a portion of the front interior and then staking off points in a line back from the walls thus exposed, sunk shafts and found the interior walls of the apse quite complete. I saw that my funds would not be sufficient for clearing the body of the building, endeavours were therefore made to have at least the two ends uncovered, so as to fix the extent of the plan. It has proved to be the fourth of its kind, and the largest structural chaitya as yet discovered in India. Of the others, one is at Sanchi;* one at Vidiyadurrapuram near Bezvâda; and another complete one now used as a Hindu temple at Chezarla. Both these latter were discovered in the course of my recent tours. The present example measures 53 feet 7 inches in internal length, and 14 feet 5 inches in breadth. The side walls are 4 feet 3 inches in thickness. The internal arrangements near the apse are peculiar, and differ from any such building yet found; a sketch is therefore appended (Pl. 1). A stair leads down each inner side of the curve, starting from the back centre. The right stair is partly ruined, but the other is complete. A wall is stretched as a chord across the building, shutting off the apse from the body of the chaitya. The stair passes under this wall at the side. Another wall joins this cross wall and the back curved wall. In front of the cross wall is a raised platform with its front hollowed as in a throne. In front of, and at a lower level than, the platform, are three niches raised above the floor (see figs. 2-3, Dr. No. 777). The niches are divided by solid brick piers. Between these three niches—which have evidently been for images or presiding priests—and the side walls, are the

* Fergusson's *Ind. and East. architecture*, pl. 41.

Structural Buddhist chaitya excavated at Guntupalle. *Plate I*



C. Munisami Nayagar. Del.

Photo-Zincographed in Central Survey Office, Madras. 1889.

APPENDIX A.

IV.—*Drawings.*

1. 12*th April* 1889.—Two marble figures found during excavation of the stûpa at Guntupalle. Scale ½. Size of sheet 27″ × 20.″ C. P. Nadamuni Nayagar (No. 772).

2. 16*th April.*—Objects found during excavation of the stûpa at Guntupalle. Scale ½. Size of sheet 27″ × 20.″ C. P. Nadamuni Nayagar (No. 773).

3. 17*th to* 20*th April.*—Chaitya roof finials in terracotta found at Peddamaddur; and 3 relic caskets found during excavation at Amarávati. Scale ½. Size of sheet 27″ × 20.″ C. P. Nadamuni Nayagar and C. Muniswami Nayagar (No. 774).

4. 15*th to* 16*th April.*—Plan and elevation of stûpa at Guntupalle. Scale $\frac{1}{10}$. Size of shee 27″ × 20″. S. M. Apparow Mudaliyar (No. 775).

5. 15*th April.*—Plan of chaitya at Guntupalle. Scale $\frac{1}{10}$. Size of sheet 27″ × 20″. C. Muniswami Nayagar (No. 776).

6. 10*th April.*—Section and elevation of chaitya at Guntupalle. Scale $\frac{1}{2\frac{1}{5}}$. Size of sheet 27″ × 20″. C. Muniswami Nayagar (No. 777).

7. 15*th to* 17*th May.*—Pottery and other objects found during excavations at Guntupalle and Amarávati. Scale ½. Size of sheet 27″ × 20″. C. P. Nadamuni Nayagar and M. Balakristna Naidu (No. 778).

8. 5*th to* 15*th April.*—Plan of mounds and stûpas at Guntupalle. Scale $\frac{1}{200}$. Size of sheet 40″ × 27″. S. M. Apparow Mudaliar (No. 779).

APPENDIX B.

Fac-similes of Inscriptions.

1. *Kamavarapukóta.*—On the interior wall of the cave on the hill; 1 foot 7 inches × 1 foot 2 inches; 5 lines of 8 letters in Telugu; (Inscription No. 399).

2. *Guntupalle.*—On a wall at the Vihâra cave on the hill; 2 feet 1 inch × 8 inches; 2 lines of 8 letters in Pali; (Inscription No. 400).

APPENDIX C.

Photographs.

1. *Guntupalle.*—View of north-east corner of structural chaitya recently excavated. Size of plate 12″ × 10″ (No. 61).

ORDER—dated 2nd August 1889, No. 646, Public.

Recorded.

(True Extract.)

J. F. PRICE,
Chief Secretary.

To the Director-General, Archæological Survey.
„ the First Assistant do.
„ the Public Works Department.
„ all Collectors of Districts.
„ R. Sewell, Esq.
„ V. A. Smith, Esq., Bengal C.S.
„ Dr. Rost, Librarian, India Office.
„ A. A. MacDonald, Esq., Deputy Keeper of the Indian Institute, Oxford.
Copy to the Secretary, Royal Asiatic Society, Madras.
„ „ „ „ Ceylon branch.
„ Madras Literary Society.
„ President, Asiatic Society, Bengal.
„ M.R.Ry. Duggirala Ramadasu Garu.

Exd. W. H. French.

Mounds No. 3, 4 and 5 are unexplored. No. 6 is the site of a stûpa, a portion of whose wall was uncovered, as referred to above. No. 7 is the stûpa which has just been excavated, and an account of which will follow in due course. No. 8 is an unexplored mound. No. 9 was partly dug on the west side. It showed a ruinous brick wall running in a straight line. The work here was stopped to allow of other, more promising of results, being carried on. Nos. 10, 11 and 12 are unexplored; No. 13 also has not been dug out, but some persons have rifled the interior for treasure. It shows as a circular stone well and is the interior wall of a stûpa. Nos. 14 to 18 are unexplored. No. 19 shows on the surface the circular foundation wall of a stûpa. Being so near the surface, I dug the centre to search for a relic casket. I found some small and curious objects. These are, a miniature stone dâgoba (Dr. No. 774, fig. 12), very similar in shape to the object often placed in front of certain village temples in these districts, and worshipped as Pota Râja; and a round object in stone with a cylindrical projection on one side and a round knob on the other (Dr. No. 774, fig. 10). Nos. 20 to 30 are unexplored, but several of them show by the circular walls appearing on the surface that they are the remains of stûpas. These will be recognized by a reference to the plan. Probably all are stûpas, but those which show it clearly are Nos. 20, 21, 23 and 30. No. 31 is the foundation of a stûpa and curiously the rain had washed away the earth and left the bottom of a small stone relic casket standing exposed above ground in the centre of the circle (Dr. No. 773, fig. 6). The portion of the casket that remains, though smaller, is exactly similar to another complete one with relics inside, which I found in mound No. 7 outside the walls of the stûpa. It had been removed from the interior when it was dug out for treasure and being covered with earth had been forgotten. Finding it in this position, I was at first uncertain as to its being a real relic casket, but its similarity to that found in mound No. 31, and the objects inside, showed it to be one. No. 32 has the circular walls of a stûpa visible on the surface. No. 33 is undug. No. 34 is a large and high brick mound. I thought it might be a stûpa and dug a short trench along one side. The wall, however, was straight and I left off, and concentrated my attention on the chaitya which had at that time been discovered. In mound No. 34 I found a small three-stepped stone object (Dr. No. 774, fig. 11). Mound No. 35 is undug.

It will be evident that to fully explore such an extensive site would require a very large sum of money indeed. The funds available were barely sufficient to fully excavate one or at the most two mounds. It will be seen that several mounds have been tapped in these excavations. I selected what I thought the most promising, such as Nos. 1, 9 and 34, and drove in short trenches to prove their nature. The two last were hardly as I expected, but No. 1 proving to be a structural chaitya and as my funds were insufficient to explore all of them, I withdrew the laborers from the others and engaged all the available strength on No. 1.

II.--A structural chaitya, Mound No. 1.

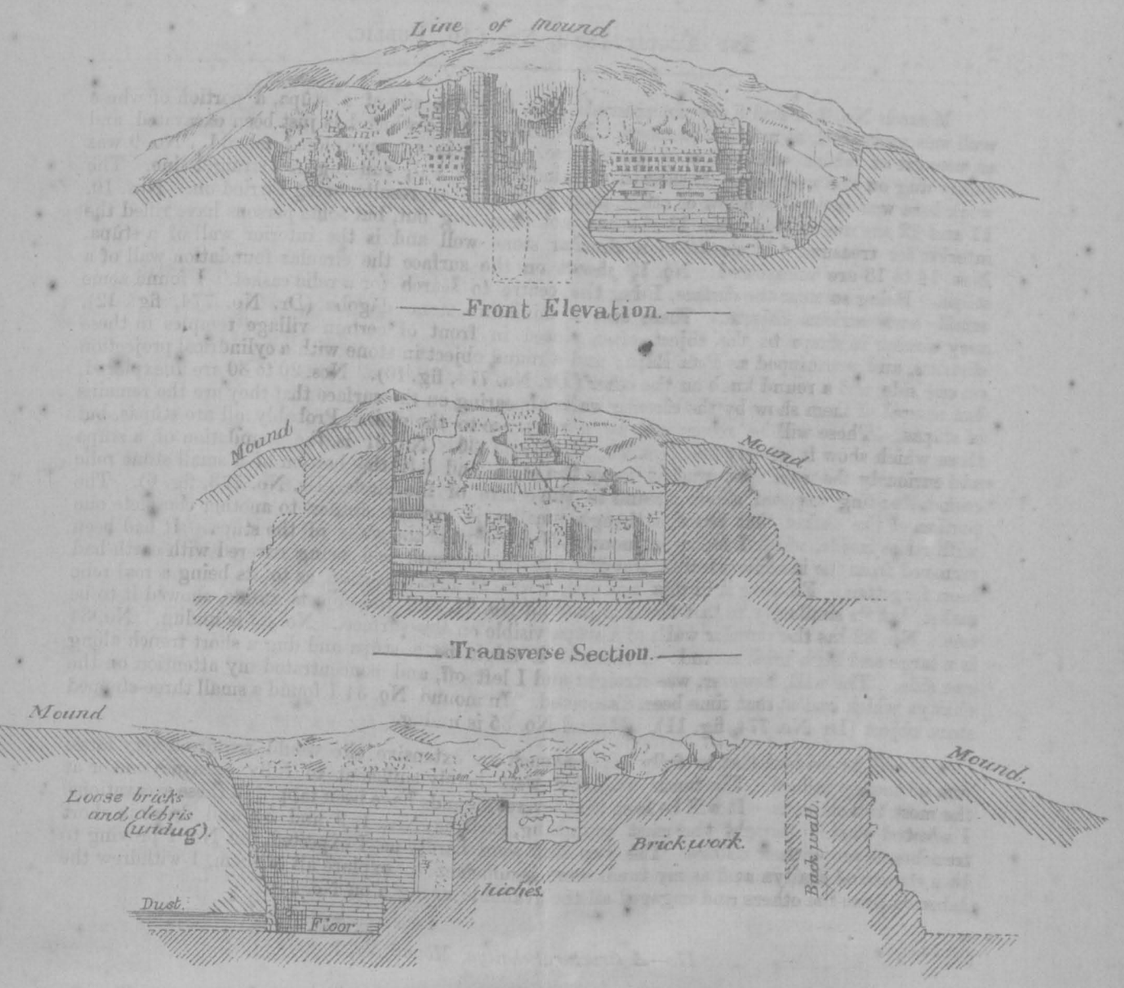
(Dr. Nos. 776, 777).

The mound in which this building stands is of somewhat oval plan with a hollow in the centre caused by people removing bricks. It was impossible at first to know whether it might not cover two adjoining stûpas or one long rectilinear building. A mass of rocks abut on the west side, and on the east is the ruined mandapa above referred to. Two trenches were dug into the south end of the mound, and these exposed what proved to be the front of a building. From the plan, so far exposed, it seemed to be a structural chaitya, and knowing the other end would be apsidal I drove in two trenches there also. The outer face of the wall there, however, is slightly ruined and some difficulty was experienced in accurately fixing it. To present destruction, therefore, I excavated a portion of the front interior and then staking off points in a line back from the walls thus exposed, sunk shafts and found the interior walls of the apse quite complete. I saw that my funds would not be sufficient for clearing the body of the building, endeavours were therefore made to have at least the two ends uncovered, so as to fix the extent of the plan. It has proved to be the fourth of its kind, and the largest structural chaitya as yet discovered in India. Of the others, one is at Sanchi;* one at Vidiyadurrapuram near Bezvâda; and another complete one now used as a Hindu temple at Chezarla. Both these latter were discovered in the course of my recent tours. The present example measures 53 feet 7 inches in internal length, and 14 feet 5 inches in breadth. The side walls are 4 feet 3 inches in thickness. The internal arrangements near the apse are peculiar, and differ from any such building yet found; a sketch is therefore appended (Pl. 1). A stair leads down each inner side of the curve, starting from the back centre. The right stair is partly ruined, but the other is complete. A wall is stretched as a chord across the building, shutting off the apse from the body of the chaitya. The stair passes under this wall at the side. Another wall joins this cross wall and the back curved wall. In front of the cross wall is a raised platform with its front hollowed as in a throne. In front of, and at a lower level than, the platform, are three niches raised above the floor (see figs. 2-3, Dr. No. 777). The niches are divided by solid brick piers. Between these three niches—which have evidently been for images or presiding priests—and the side walls, are the

* Fergusson's *Ind. and East. architecture*, pl. 41.

Structural Buddhist chaitya excavated at Guntupalle.

Plate I



C. Munisami Nayagar. Del.

Photo-Zincographed in Central Survey Office, Madras.
1889.

passages leading from the stairs. The side walls at this point are from 8 feet 6 inches to 10 feet in height above the floor line. One curious circumstance was noted in the digging. The floor was covered with a deposit of over twelve inches of dust, which had evidently accumulated after the desertion of the building, and before the roof had fallen. The *débris* above was a simple mass of broken bricks fallen from the walls and roof. Some earthenware ridge roof-finials (figs. 2 and 3, Dr. No. 778) and a large number of small earthenware saucer-shaped lamps were found. The use of these in such numbers must have given rise to the name *dipaldinne* (mound of lamps) usually applied to Buddhist mounds as mentioned by Dr. Burgess.* On the back stair was found an iron implement for mixing lime (Dr. No. 778, fig. 6) and an angle iron with spikes (*Ib.*, fig. 7). The depth at which these were lying, shows them to be genuine relics.

* *Amarâvati and Jaggayapêta stûpas, p.* 21.

At the front, almost the whole of the vertical portion of the doorway remains on the left side. On the top is seen a slight stepping out of the bricks, showing it to be the springing of the arch. The right side is a few feet shorter. The doorway is recessed back from a massive projection on each side, and has a jamb of moulded bricks forming a semi-octagonal pilaster up each ingoing. On each side of these was a statue; a fine one of Buddha (Dr. No. 772, figs. 1 and 2) on the left and another stiffly carved figure in stone on the right (Dr. No. 778, fig. 1). These stood in niches above the basement. The basement of the building has an elaborate series of moulded courses in brickwork (See Dr. No. 777, fig. 1). Great care has been taken in having a broad and secure foundation. Above it are sub-base, base, and sur-base, each with its projecting string or cornice courses. The upper base has remains of a series of T moulded bricks placed on their sides, leaving two rows of small openings. These, it is presumed, were for the reception of some of the small lamps so profusely found in the building. These lighted at night would give the chaitya a very effective appearance. The date of the building may be about 50 A.D.

III.—Further Excavationat the Stone Stûpa.

(Dr. No. 775).

The stone stûpa in mound No. 7 which was partly excavated during the previous season has now been wholly uncovered. The mound, as before remarked, is composed largely of packed stones and earth, so that the digging of the trench, which has now been carried round the building, was of a rather laborious nature. The floor line is, at one point, 13 feet below the surface of the mound. The top portion of the dome is ruined, evidently the work of treasure-seekers who had dug a hole down through the centre, and leaving it thus, numbers of the stones forming the masonry of the dome had fallen in and again filled it up. This was proved by the first season's fruitless search for a relic casket; and again by the casket itself having during the present year's operations been found standing on another portion of the top of the mound covered by a quantity of earth. The searchers had found it, but it evidently was not the object they were digging for. They had expected treasure below, and, removing the casket to the surface, the result of the subsequent digging was, that it was covered with the removed earth, and luckily forgotten.

The stûpa stands on a carved platform. My funds were insufficient to widen the trench far enough to show the full plan of its platform, but on the east side where it was fully exposed, it curves with a much greater radius and from a different centre to that of the walls of the stûpa itself (See Drawing No. 775, fig. 2). It would thus seem that more than one building had stood on this curved basement. The trench on the east side laid bare a portion of the foundation wall of an adjoining stone stûpa of about the same diameter. Adjoining it is another small square stone building. Near the surface of the mound, above the spot now occupied by the north trench, was a stone relic casket (Dr. No. 778, fig. 4). It is cylindrical in shape with moulded top and bottom, and slightly convex. The cavity was filled with earth, and at the bottom were the following relics—several pieces of a corroded copper vessel, which has evidently been cylindrical to judge from the largest portion (fig. 5-*e*), and about $2\frac{1}{8}$ inches in diameter; a large white crystal hexagonal double-pointed bead (fig. 5-*a*); a miniature gold bowl (fig. 5-*b*); and two small gold ornaments (fig. 5*c-d*) inside the gold bowl. The stone cylinder found the previous year may have been the cover of this casket. On the floor of the stûpa, the following objects were found,—a portion of the crowning stone umbrella with lotus ornament in centre (Dr. No. 773, fig. 2)—the pillar found the previous season (*Ib.* fig. 1) is seemingly the shaft which supported it—; a hemispherical stone with aperture on the apex, perhaps the dome of a miniature dâgoba (*Ib.* fig. 4); a stone dâgoba (*ib.* fig. 3); a long stone with three carved heads (*ib.* fig. 5); a piece of a circular pedestal on a square base (*Ib.* fig. 7-*a* and *b*); a portion of a stone rail-post with slots for the cross-bars (*Ib.* fig. 8); a marble slab with a figure of Buddha (Dr. No. 772, fig. 3-*b*); and the arched upper part of slab which seems to fit the above (*Ib. a*). The simplicity of construction in this stûpa and the archaic style of the marble sculptures mark it as of very early date, probably during the first century of the Christian era.

APPENDIX A.

IV.—*Drawings.*

1. 12*th April* 1889.—Two marble figures found during excavation of the stûpa at Guntupalle. Scale ½. Size of sheet 27″ × 20.″ C. P. Nadamuni Nayagar (No. 772).

2. 16*th April.*—Objects found during excavation of the stûpa at Guntupalle. Scale ¼. Size of sheet 27″ × 20.″ C. P. Nadamuni Nayagar (No. 773).

3. 17*th to* 20*th April.*—Chaitya roof finials in terracotta found at Peddamaddur; and 3 relic caskets found during excavation at Amarávati. Scale ½. Size of sheet 27″ × 20.″ C. P. Nadamuni Nayagar and C. Muniswami Nayagar (No. 774).

4. 15*th to* 16*th April.*—Plan and elevation of stûpa at Guntupalle. Scale $\frac{1}{30}$. Size of shee 27″ × 20″. S. M. Apparow Mudaliyar (No. 775).

5. 15*th April.*—Plan of chaitya at Guntupalle. Scale $\frac{1}{30}$. Size of sheet 27″ × 20″. C. Muniswami Nayagar (No. 776).

6. 10*th April.*—Section and elevation of chaitya at Guntupalle. Scale $\frac{1}{25}$. Size of sheet 27″ × 20″. C. Muniswami Nayagar (No. 777).

7. 15*th to* 17*th May.*—Pottery and other objects found during excavations at Guntupalle and Amarávati. Scale ½. Size of sheet 27″ × 20″. C. P. Nadamuni Nayagar and M. Balakristna Naidu (No. 778).

8. 5*th to* 15*th April.*—Plan of mounds and stûpas at Guntupalle. Scale $\frac{1}{200}$. Size of sheet 40″ × 27″. S. M. Apparow Mudaliar (No. 779).

APPENDIX B.

Fac-similes of Inscriptions.

1. *Kamavarapukôta.*—On the interior wall of the cave on the hill; 1 foot 7 inches × 1 foot 2 inches; 5 lines of 8 letters in Telugu; (Inscription No. 399).

2. *Guntupalle.*—On a wall at the Vihâra cave on the hill; 2 feet 1 inch × 8 inches; 2 lines of 8 letters in Pali; (Inscription No. 400).

APPENDIX C.

Photographs.

1. *Guntupalle.*—View of north-east corner of structural chaitya recently excavated. Size of plate 12″ × 10″ (No. 61).

ORDER—dated 2nd August 1889, No. 646, Public.

Recorded.

(True Extract.)

J. F. PRICE,
Chief Secretary.

To the Director-General, Archæological Survey.
„ the First Assistant do.
„ the Public Works Department.
„ all Collectors of Districts.
„ R. Sewell, Esq.
„ V. A. Smith, Esq., Bengal C.S.
„ Dr. Rost, Librarian, India Office.
„ A. A. MacDonald, Esq., Deputy Keeper of the Indian Institute, Oxford.
Copy to the Secretary, Royal Asiatic Society, Madras.
„ „ „ „ Ceylon branch.
„ Madras Literary Society.
„ President, Asiatic Society, Bengal.
„ M.R.Ry. Duggirala Ramadasu Garu.

Exd. W. H. French.

Order—dated 26th September 1889, No. 2707 W., Public Works.

The undermentioned estimates are sanctioned for execution when funds are available:—

Imperial.
Military Original Works.

	Rs.	
(1) Constructing quarters for 32 men of the Army Hospital, Native Corps, Wellington	11,170,	No. 16 W. of 1889-90.
(2) Constructing quarters for 11 men of the Army Hospital, Native Corps, at Cannanore	2,980,	„ 17 W. of „

2. The following estimates, being within the Superintending Engineer's powers of sanction, are returned to that officer for disposal:—

	Rs.
(1) Constructing quarters for 7 men of the Army Hospital, Native Corps, at Malapuram	1,670
(2) Constructing quarters for 8 men of the Army Hospital, Native Corps, at Calicut	1,900

(True Extract.)

(Signed) R. R. E. DRAKE-BROCKMAN, Lt.-Col., R.E.,
Ag. Joint Secy. to Govt., P.W.D.

To the Superintending Engineer, IV Circle, with twenty-two enclosures.
„ Examiner, Public Works Accounts, with two duplicate abstract estimates.
„ Military Department.

Exd. J. Moses.
Spare Copies

(4) 7th March 1888.—Plants tried with injections into the bulb only; in about a week the plant shows the decay commencing, then extending up the stems and right through the plant, gradually decaying the same as the others.

The fruit herewith is from plants after the ordinary dose.

The following is the result of my examination of the specimens of prickly-pear leaves, fruit and seeds, forwarded by Inspectors Rudder and Brodie, to which the "Scrub Exterminator" had been applied, viz.:—

Prickly-pear fruit per Inspector Rudder.

(1) Of ten fruits examined, only three of the fruits were mature and the whole only contained five mature seeds.
(2) Two of the mature seeds, out of the ten fruits, were apparently destroyed by the chemical.
(3) Three sound seeds, which would germinate, were found in the fruits.

Prickly-pear leaves and fruits per Inspector Brodie.

(1) Quite dead, destroyed by ordinary strength of chemical.
(2) Quite dead, destroyed after the plants had been cut and slashed.
(3) Quite dead, destroyed with double the ordinary strength of the chemical.
(4) Of ten fruits examined from plants, destroyed with ordinary strength of chemical, the outside of the pulp of seven of the fruits was only partially damaged and the seed contained in them was uninjured.

Three of the ten fruits and seeds were completely destroyed.

(Intld.) J. D.

20th April 1888.

From J. W. BRODIE, Esq., Prickly-pear Inspector, dated Murrurundi, 16th April 1888.

I beg to acknowledge the receipt of your letter, No 88-2162 F., and to state that the quantity of the mixture of the "Scrub Exterminator" applied to experiment No. 2 was 10 lb., boiled in ten (10) gallons of water and then added 20 gallons (10 lb. to 30 gallons).

2. Experiment No. 3, 14 lb. boiled in 7 gallons of water, then added 14 gallons (14 lb. to 21 gallons).

3. Experiment No. 4, about 4 lb. boiled in 4 gallons of water, then added 4 gallons (4 lb. to 8 gallons).

From E. STANLEY, Esq., Government Veterinarian, dated 23rd May 1888.

Mr. Armstrong of Rowan and Co. informs me that this agent will poison stock, if they eat scrub saturated with this material. He says stock should be kept separate, the land being operated on until it has been purified by rain.

From A. BRUCE, Esq., dated 23rd May 1888.

I think it would be well to give the information here obtained to the press by way of caution to stock-owners and others, as there is no doubt but large quantities of the Exterminator will be used.

Submitted.

(Intld.) H. W.

25th May 1888.

The Under Secretary for Mines.

Approved.

(Intld.) T. A.

26th May 1888.

Report by F. PIPER, Esq., Head of Forests Branch, Department of Lands, dated 29th March 1888.

[*Scrub Exterminator applied to eradicate prickly-pear.*]

Inspectors Rudder and Brodie have made experiments with the "Scrub Exterminator" and both report the result as satisfactory.

2. As noted on 88-1651, Mr. Rudder applied it of the full strength, viz., one lb. to three gallons of water by means of a garden syringe and subsequently at half the strength with nearly as satisfactory result. He estimates the cost of nearly one-eighth of the ordinary mode

of destruction by burning or burying. His report would have been more valuable, if he had furnished an estimate of the area over which a given quantity of the liquid of a specified strength has been applied with successful results, also particulars of the period that elapsed after the first application before the plant was killed.

3. Mr. Brodie applied it first of the full strength, but in the proportion of 240 gallons to the acre instead of 20 or 80 lb. instead of $6\frac{2}{3}$, the quantity named by the proprietors as sufficient; this would make the cost for the material alone nearly £2 10*s.* per acre, but the prickly-pear was very dense and cost £6 per acre by the ordinary mode.

4. In experiments 2, 3 and 4, the quantity used is not furnished. This is a matter that materially affects the value of the "Scrub Exterminator."

5. As Mr. Rudder states that he found the mixture in the proportion of 3 lb. to 40 gallons pretty effectual, it is probable that the larger quantity has the effect of merely accelerating the process, and is not really necessary.

6. The matter now awaits report of the Inspector of Forests respecting the vitality of the seed after the plant has been treated.

7. In the meantime, Inspectors Rudder and Brodie may perhaps be asked to supplement their reports in regard to the points noted above.

8. It may be pointed out that the success of the "Scrub Exterminator" must, in those cases, where it can be applied without danger, materially affect the question of leasing or clearing lands infested with the prickly-pear.

ORDER—dated 6th September 1889, No. 764, Revenue.

Miscellaneous.

Communicated to the Local and Municipal and Public Works Departments, to the Commissioner of Revenue Settlement and Director of the Department of Land Records and Agriculture, and to the Government Botanist.

(True Extract.)

(Signed) C. A. GALTON,
Secretary to Government.

To the Commissioner of Revenue Settlement, Land Records and Agriculture.
„ the Public Works Department.
„ the Local and Municipal Department.
„ the Government Botanist.

Exd. A. D. Xavier.

70 Copies.

of destruction by burning or burying. His report would have been more valuable, if he had furnished an estimate of the area over which a given quantity of the liquid of a specified strength has been applied with successful results, also particulars of the period that elapsed after the first application before the plant was killed.

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Exd. A. D. Xavier.

70 Copies.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

Read—the following letter from C. TAYLOR, Esq., of the Scrub Exterminator Manufacturing Company (Limited), late Taylor, Murchison and Sharpe, to the Chief Secretary to the Government of Madras, dated 30, King Street, Melbourne, 25th July 1889:—

I have been advised by the "Executive Engineer," Poona and Kirkee, to address you on the subject of the prickly-pear, and I have the honor to forward you copies of reports from the Government of New South Wales, relative to the effect of our "Exterminator" in destroying this pest.

2. The reports and circulars we enclose will give full directions for using the specific. I may also state that it will not injure the fertility of the soil.

3. A small rotary pump with hose and a fine rose attached has been found very effective here in distributing the fluid.

Enclosures.

From A. RUDDER, Esq., Forest Ranger, dated Booral, 25th January 1888.

I have the honor to submit to you the following preliminary report of experiments made by me with the "Scrub Exterminator" on the property of G. S. Waller, Esq., of Wallarobba, on the 18th and 21st instant, with the view of testing its efficacy in the destruction of the prickly-pear.

2. The experiments alluded to were made in accordance with instructions as follows:—

(1) Applied to the roots.
(2) Sprinkled over the plants.
(3) Sprinkled over the plants after they had been splashed.
(4) Injection impossible; but the stems of the plants were wounded and subjected to the mixture.

The mixture used was of the maximum strength, viz., one pound of the chemical to three gallons of water, and the implement with which it was applied, a large garden syringe.

3. On the second day after the first experiment I found in case 1 no visible effects excepting that the grass around the roots of the grass was mostly dead. In cases 2, 3 and 4 the results were very much the same, the plants drooped in places more or less, and where the mixture adhered it seemed to cut its way into the leaves, but the intervening spots appeared to retain their vitality almost unimpaired. The liquid does not lodge well on the plants owing to their smoothness, but in many cases runs off as from a duck's back. In all, I expended fifty-one gallons of the mixture, and applied it carefully myself. In one instance, on the 19th instant, I applied three pounds of the chemical to one large plant, which had several times fallen down and taken root again, and occupied about four rods of space, but even this large quantity seemed to me, judging by effects, to be insufficient for its destruction. In the cases of shrubs and weeds growing with the prickly-pear, where these were well sprinkled with the mixture, they were mostly dead.

4. In concluding this report, I regret to have to state my conviction that the "Scrub Exterminator" will not be found effective in the destruction of the prickly-pear, but to speak positively at present would be premature: it may require more time to judge of its effects. I propose, therefore, immediately after the holidays, to visit the ground again to ascertain what may be the effects of the "Exterminator" by that time and will extend experiments on the adjoining property of Mr. James Hood. If only effective, the "Exterminator" would doubtless be invaluable.

From A. RUDDER, Esq., Forest Ranger, dated Booral, 3rd February 1888.

With reference to my report of 25th ultimo in connection with experiments made with the "Scrub Exterminator" upon the prickly-pear, I have the honor to inform you that I returned here last night from Wallarobba, where the experiments in question were made, and have

much satisfaction in being able to report them a success. I found the pear mostly dead and in a rapidly decaying state.

2. I have subsequently during the last few days continued my experiments on the property of Mr. G. S. Waller, of the "Grange," with a weaker mixture than the first used, and have also experimented on the adjoining property of Mr. James Hood, but it will be some time before the results of such experiments will be developed. I will, however, visit the ground again within a fortnight and afterwards send in my final report.

From A. RUDDER, Esq., Forest Ranger, dated Peterson, 16th February 1888.

I have the honor to inform you that I have now completed my trials of the "Scrub Exterminator" in various ways, and much satisfaction in being able to report it a complete success. In my first trials I had unusual difficulties to contend with in the presence of a thick growth of weeds with the pickly-pear, together with creepers and shrubs, which greatly obstructed the full action of the mixture, so that I found it necessary to apply it again, but in much smaller quantities than at first and only in places which proved effectual in the majority of cases, but there are a few very exceptional instances where even a third application, in the case of the pear being both closer and heaped together in a mass; but the labor and cost of this third application is comparatively very trifling.

2. My latest experiments were with a mixture half the strength of that first used, which was one pound of the chemical to three gallons of water, the later trial being six gallons which I found nearly as effective as the first.

3. In dealing with the pears I found it undesirable to disturb the plant by breaking or cutting it down in any way, and the most effectual way of using the mixture to cause a fine spray to fall all over the plants down to the roots. The experiments were made very carefully by myself assisted by two of Mr. Waller's men and I did not find a slight abrasion of the skin to result in any very special inconvenience from coming in contact with the chemical, though I used up about 140 gallons of the mixture, if the hands were carefully washed afterwards; but with respect to the finger-nails it seemed to find its way down to the quick, so that they would require some sort of protection for a long job.

4. By a rough estimate I am of opinion that in the use of the "Exterminator" that labor and cost of destroying the prickly-pear with it is reduced to at least one-eighth part of what it now is by the ordinary method of cutting it down and burying it or burning it with fire and that it is of very special value in rough and stony places.

5. The grass and weeds are killed around the pear plants in applying the mixture, and when thoroughly dry a match may often be applied with advantage.

From A. RUDDER, Esq., Forest Ranger, dated Booral, 17th April 1888.

I have the honor to acknowledge the receipt of your letter of the 12th instant, in which you refer to my reports of the 3rd and 16th February last respecting experiments made with the "Scrub Exterminator" and in which you request that I will forward an estimate of the area over which a given quantity of the liquid of a specified strength has been applied with successful results, also particulars of the period that elapsed after the first application before the plant was killed. In reply to the above queries, I beg to inform you first: after careful consideration, I cannot give the estimate asked for as to the area operated upon, as the pear was mostly growing in isolated patches, nor do I think it possible to furnish any reliable data on this head under ordinary conditions as the prickly-pear according to kind varies immensely in bulk; *O. vulgaris* rarely exceeding about 3 feet in height when *O. Brasiliensis* not unfrequently attains to 14 or 15 feet or more and is of much more massive growth. Under almost any circumstances the growth and distribution of the prickly-pear over the ground is singularly irregular, scarcely any two acres of any extent being alike.

2. Under these circumstances I judged it better to form some sort of estimate of the cost and labor of destroying the prickly-pear with the "Exterminator" as compared with the previously adopted methods of cutting it down and burning or burying it, with the result arrived in my report of the 16th February, viz., that it was reduced to about one-eighth part.

3. With the view, however, of ascertaining Mr. G. S. Waller's opinions on the matter, I wrote to him and forward herewith his reply. I should remind you that most of my experiments were made on Mr. Waller's property, and I afterwards left him some of the chemical which remained for still further experiments. I think Mr. Waller's estimate of the chemical rather too favorable, but his opinion is of value since he has gone to great labor and expense in burning the prickly-pear with heavy timber, at which he has had several men almost constantly engaged for many months.

4. Mr. E. W. Doyle of "Elvedon," Gresford, destroyed what put together might make about half an acre of prickly-pear of the variety *O. Brasiliensis*; this he buried at a cost, so he informs me, of about £60. I was several times on the ground before he commenced and while engaged

at the work, and believe I could have effectually destroyed it with the chemical for about £8 (I feel confident that with the chemical I could have got rid of it for £6); this pear was of very massive growth and some of it fully 18 feet in height.

5. In respect to the period that elapsed after the first application of the "Exterminator" before the plant was killed, this was about 8 or 10 days where the first application was effectual, by which time it seemed quite dead, but, where not effectual, after a second application 5 or 6 days was required; but a good deal seemed to depend upon the weather, its action being quicker during very hot days.

6. The strength of the mixture I used was 3 and 6 gallons of water to the pound of chemical (which is in the form of a clay or stiff paste), the weaker mixture being nearly as good as the former, and its action as quick; but a still weaker mixture does not seem so effectual.

7. Before concluding this supplementary report I should inform you that I visited the scene of my experiments on the 14th instant and found, even where the plants seemed quite dead and no greenness was visible, that some of the more woody parts had in some places shot out again, so that they would require further attention—not to such an extent, however, as would very seriously impair the value of the chemical. In the ordinary method of cutting down the prickly-pear for burning and burying, a great deal of the debris is scattered about and often lies hidden away in the grass, where the least portion, even the green immature fruit, readily grows, which, owing to the almost invariable carelessness of those destroying the pear, is the cause of much further trouble and is a severe tax upon the patience of a careful inspector. This is all avoided in using the "Exterminator." I am sending a few of these immature fruit *O. Brasiliensis*, which are, in my opinion, a far more fruitful source of reproduction than the ripe seeds.

From G. S. WALLER, Esq., to A. RUDDER, Esq., Forest Ranger, dated Wallarobba, 14th April 1888.

With reference to the relative cost of destroying the prickly-pear with the chemical or under the old method by burning with wood, I may say that I had the pear on my piece of land destroyed with the chemical, the cost of which, together with the labor, would be about fifteen shillings (15*s*); if they had been burned with wood the cost would have been about £8. I would recommend a solution of, say, 8 gallons to the pound.

P.S.—On second thoughts it would be safer to use 6 gallons to the pound, however there need be no question about the chemical being the cheapest mode of destruction.

From J. W. BRODIE, Esq., Prickly-pear Inspector, dated Murrurundi, 24th March 1888.

In compliance with your instructions I have had the "Scrub Exterminator" tested on prickly pear. I am of opinion that it has proved to be a most useful agent for their destruction, that, if properly applied, will destroy any and all prickly-pear. It takes considerable time to eat its way through the old plants, but will be most efficacious on plants of a younger growth, as it acts much more quickly on them (plants not more than five years old). I may state that the place selected for operation on at J. H. Doyle's "Inverman" was chosen because it was easily accessible to and close by running water. At the same time it is one of the most heavily infected spots that could be picked, therefore it cannot be taken as a fair criterion as to expense. The prickly-pear here is supposed to be 30 years of age; it literally covers the ground and will be much harder to destroy than young growth. The owner of this land has been paying £6 per acre for eradication here and the laborers cannot make more than rations. Per central office I now forward, for your information, specimens taken from the experimented ground yesterday.

(1) On the 29th February 1888, applied the "Scrub Exterminator," recommended ordinary strong, to about a quarter of an acre and 20 lb. of mixture with 60 gallons of water (in two lots) on the prickly-pear growing in its ordinary state. Three days after the application of the stuff it commences to show along the edges and around the eyes of the plants as the moisture seems to be retained in the thorns. The plant around these portions commences to decay and wither; about 8 days after the application the plant seems to lose its vitality, and droops over, apparently dying (the fruit dropping off without being touched), increasing until the leaves dry up like a chip.

(2) 3rd March 1888.—Applied ordinary strength to one-eighth of an acre after the plant had been cut and slashed freely. Two days after the application the plant commences to wither and decay increasing daily.

(3) 6th March 1888.—Applied double the ordinary strength on one-eighth of an acre; about two days after the application, the plant commences to wither and dry up, dying away gradually.

(4) 7th March 1888.—Plants tried with injections into the bulb only; in about a week the plant shows the decay commencing, then extending up the stems and right through the plant, gradually decaying the same as the others.

The fruit herewith is from plants after the ordinary dose.

The following is the result of my examination of the specimens of prickly-pear leaves, fruit and seeds, forwarded by Inspectors Rudder and Brodie, to which the "Scrub Exterminator" had been applied, viz.:—

Prickly-pear fruit per Inspector Rudder.

(1) Of ten fruits examined, only three of the fruits were mature and the whole only contained five mature seeds.
(2) Two of the mature seeds, out of the ten fruits, were apparently destroyed by the chemical.
(3) Three sound seeds, which would germinate, were found in the fruits.

Prickly-pear leaves and fruits per Inspector Brodie.

(1) Quite dead, destroyed by ordinary strength of chemical.
(2) Quite dead, destroyed after the plants had been cut and slashed.
(3) Quite dead, destroyed with double the ordinary strength of the chemical.
(4) Of ten fruits examined from plants, destroyed with ordinary strength of chemical, the outside of the pulp of seven of the fruits was only partially damaged and the seed contained in them was uninjured.

Three of the ten fruits and seeds were completely destroyed.

20th April 1888. (Intld.) J. D.

From J. W. BRODIE, Esq., Prickly-pear Inspector, dated Murrurundi, 16th April 1888.

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2. Experiment No. 3, 14 lb. boiled in 7 gallons of water, then added 14 gallons (14 lb. to 21 gallons).

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I think it would be well to give the information here obtained to the press by way of caution to stock-owners and others, as there is no doubt but large quantities of the Exterminator will be used.

Submitted.

25th May 1888. (Intld.) H. W.

The Under Secretary for Mines.

Approved.

26th May 1888. (Intld.) T. A.

Report by F. PIPER, Esq., Head of Forests Branch, Department of Lands, dated 29th March 1888.

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4 6TH SEPTEMBER 1889, No. 764, REVENUE.

(4) 7th March 1888.—Plants tried with injections into the bulb only; in about a week the plant shows the decay commencing, then extending up the stems and right through the plant, gradually decaying the same as the others.

The fruit herewith is from plants after the ordinary dose.

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Prickly-pear fruit per Inspector Rudder.

(1) Of ten fruits examined, only three of the fruits were mature and the whole only contained five mature seeds.
(2) Two of the mature seeds, out of the ten fruits, were apparently destroyed by the chemical.
(3) Three sound seeds, which would germinate, were found in the fruits.

Prickly-pear leaves and fruits per Inspector Brodie.

(1) Quite dead, destroyed by ordinary strength of chemical.
(2) Quite dead, destroyed after the plants had been cut and slashed.
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Three of the ten fruits and seeds were completely destroyed.

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GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

READ—the following letter from C. TAYLOR, Esq., of the Scrub Exterminator Manufacturing Company (Limited), late Taylor, Murchison and Sharpe, to the Chief Secretary to the Government of Madras, dated 30, King Street, Melbourne, 25th July 1889:—

I have been advised by the "Executive Engineer," Poona and Kirkee, to address you on the subject of the prickly-pear, and I have the honor to forward you copies of reports from the Government of New South Wales, relative to the effect of our "Exterminator" in destroying this pest.

2. The reports and circulars we enclose will give full directions for using the specific. I may also state that it will not injure the fertility of the soil.

3. A small rotary pump with hose and a fine rose attached has been found very effective here in distributing the fluid.

ENCLOSURES.

From A. RUDDER, Esq., Forest Ranger, dated Booral, 25th January 1888.

I have the honor to submit to you the following preliminary report of experiments made by me with the "Scrub Exterminator" on the property of G. S. Waller, Esq., of Wallarobba, on the 18th and 21st instant, with the view of testing its efficacy in the destruction of the prickly-pear.

2. The experiments alluded to were made in accordance with instructions as follows:—

(1) Applied to the roots.
(2) Sprinkled over the plants.
(3) Sprinkled over the plants after they had been splashed.
(4) Injection impossible; but the stems of the plants were wounded and subjected to the mixture.

The mixture used was of the maximum strength, viz., one pound of the chemical to three gallons of water, and the implement with which it was applied, a large garden syringe.

3. On the second day after the first experiment I found in case 1 no visible effects excepting that the grass around the roots of the grass was mostly dead. In cases 2, 3 and 4 the results were very much the same, the plants drooped in places more or less, and where the mixture adhered it seemed to cut its way into the leaves, but the intervening spots appeared to retain their vitality almost unimpaired. The liquid does not lodge well on the plants owing to their smoothness, but in many cases runs off as from a duck's back. In all, I expended fifty-one gallons of the mixture, and applied it carefully myself. In one instance, on the 19th instant, I applied three pounds of the chemical to one large plant, which had several times fallen down and taken root again, and occupied about four rods of space, but even this large quantity seemed to me, judging by effects, to be insufficient for its destruction. In the cases of shrubs and weeds growing with the prickly-pear, where these were well sprinkled with the mixture, they were mostly dead.

4. In concluding this report, I regret to have to state my conviction that the "Scrub Exterminator" will not be found effective in the destruction of the prickly-pear, but to speak positively at present would be premature: it may require more time to judge of its effects. I propose, therefore, immediately after the holidays, to visit the ground again to ascertain what may be the effects of the "Exterminator" by that time and will extend experiments on the adjoining property of Mr. James Hood. If only effective, the "Exterminator" would doubtless be invaluable.

From A. RUDDER, Esq., Forest Ranger, dated Booral, 3rd February 1888.

With reference to my report of 25th ultimo in connection with experiments made with the "Scrub Exterminator" upon the prickly-pear, I have the honor to inform you that I returned here last night from Wallarobba, where the experiments in question were made, and have

much satisfaction in being able to report them a success. I found the pear mostly dead and in a rapidly decaying state.

2. I have subsequently during the last few days continued my experiments on the property of Mr. G. S. Waller, of the "Grange," with a weaker mixture than the first used, and have also experimented on the adjoining property of Mr. James Hood, but it will be some time before the results of such experiments will be developed. I will, however, visit the ground again within a fortnight and afterwards send in my final report.

From A. RUDDER, Esq., Forest Ranger, dated Peterson, 16th February 1888.

I have the honor to inform you that I have now completed my trials of the "Scrub Exterminator" in various ways, and much satisfaction in being able to report it a complete success. In my first trials I had unusual difficulties to contend with in the presence of a thick growth of weeds with the pickly-pear, together with creepers and shrubs, which greatly obstructed the full action of the mixture, so that I found it necessary to apply it again, but in much smaller quantities than at first and only in places which proved effectual in the majority of cases, but there are a few very exceptional instances where even a third application, in the case of the pear being both closer and heaped together in a mass; but the labor and cost of this third application is comparatively very trifling.

2. My latest experiments were with a mixture half the strength of that first used, which was one pound of the chemical to three gallons of water, the later trial being six gallons which I found nearly as effective as the first.

3. In dealing with the pears I found it undesirable to disturb the plant by breaking or cutting it down in any way, and the most effectual way of using the mixture to cause a fine spray to fall all over the plants down to the roots. The experiments were made very carefully by myself assisted by two of Mr. Waller's men and I did not find a slight abrasion of the skin to result in any very special inconvenience from coming in contact with the chemical, though I used up about 140 gallons of the mixture, if the hands were carefully washed afterwards; but with respect to the finger-nails it seemed to find its way down to the quick, so that they would require some sort of protection for a long job.

4. By a rough estimate I am of opinion that in the use of the "Exterminator" that labor and cost of destroying the prickly-pear with it is reduced to at least one-eighth part of what it now is by the ordinary method of cutting it down and burying it or burning it with fire and that it is of very special value in rough and stony places.

5. The grass and weeds are killed around the pear plants in applying the mixture, and when thoroughly dry a match may often be applied with advantage.

From A. RUDDER, Esq., Forest Ranger, dated Booral, 17th April 1888.

I have the honor to acknowledge the receipt of your letter of the 12th instant, in which you refer to my reports of the 3rd and 16th February last respecting experiments made with the "Scrub Exterminator" and in which you request that I will forward an estimate of the area over which a given quantity of the liquid of a specified strength has been applied with successful results, also particulars of the period that elapsed after the first application before the plant was killed. In reply to the above queries, I beg to inform you first: after careful consideration, I cannot give the estimate asked for as to the area operated upon, as the pear was mostly growing in isolated patches, nor do I think it possible to furnish any reliable data on this head under ordinary conditions as the prickly-pear according to kind varies immensely in bulk; *O. vulgaris* rarely exceeding about 3 feet in height when *O. Brasiliensis* not unfrequently attains to 14 or 15 feet or more and is of much more massive growth. Under almost any circumstances the growth and distribution of the prickly-pear over the ground is singularly irregular, scarcely any two acres of any extent being alike.

2. Under these circumstances I judged it better to form some sort of estimate of the cost and labor of destroying the prickly-pear with the "Exterminator" as compared with the previously adopted methods of cutting it down and burning or burying it, with the result arrived in my report of the 16th February, viz., that it was reduced to about one-eighth part.

3. With the view, however, of ascertaining Mr. G. S. Waller's opinions on the matter, I wrote to him and forward herewith his reply. I should remind you that most of my experiments were made on Mr. Waller's property, and I afterwards left him some of the chemical which remained for still further experiments. I think Mr. Waller's estimate of the chemical rather too favorable, but his opinion is of value since he has gone to great labor and expense in burning the prickly-pear with heavy timber, at which he has had several men almost constantly engaged for many months.

4. Mr. E. W. Doyle of "Elvedon," Gresford, destroyed what put together might make about half an acre of prickly-pear of the variety *O. Brasiliensis*; this he buried at a cost, so he informs me, of about £60. I was several times on the ground before he commenced and while engaged

at the work, and believe I could have effectually destroyed it with the chemical for about £8 (I feel confident that with the chemical I could have got rid of it for £6); this pear was of very massive growth and some of it fully 18 feet in height.

5. In respect to the period that elapsed after the first application of the "Exterminator" before the plant was killed, this was about 8 or 10 days where the first application was effectual, by which time it seemed quite dead, but, where not effectual, after a second application 5 or 6 days was required; but a good deal seemed to depend upon the weather, its action being quicker during very hot days.

6. The strength of the mixture I used was 3 and 6 gallons of water to the pound of chemical (which is in the form of a clay or stiff paste), the weaker mixture being nearly as good as the former, and its action as quick; but a still weaker mixture does not seem so effectual.

7. Before concluding this supplementary report I should inform you that I visited the scene of my experiments on the 14th instant and found, even where the plants seemed quite dead and no greenness was visible, that some of the more woody parts had in some places shot out again, so that they would require further attention—not to such an extent, however, as would very seriously impair the value of the chemical. In the ordinary method of cutting down the prickly-pear for burning and burying, a great deal of the debris is scattered about and often lies hidden away in the grass, where the least portion, even the green immature fruit, readily grows, which, owing to the almost invariable carelessness of those destroying the pear, is the cause of much further trouble and is a severe tax upon the patience of a careful inspector. This is all avoided in using the "Exterminator." I am sending a few of these immature fruit *O. Brasiliensis*, which are, in my opinion, a far more fruitful source of reproduction than the ripe seeds.

From G. S. WALLER, Esq., to A. RUDDER, Esq., Forest Ranger, dated Wallarobba, 14th April 1888.

With reference to the relative cost of destroying the prickly-pear with the chemical or under the old method by burning with wood, I may say that I had the pear on my piece of land destroyed with the chemical, the cost of which, together with the labor, would be about fifteen shillings (15*s*); if they had been burned with wood the cost would have been about £8. I would recommend a solution of, say, 8 gallons to the pound.

P.S.—On second thoughts it would be safer to use 6 gallons to the pound, however there need be no question about the chemical being the cheapest mode of destruction.

From J. W. BRODIE, Esq., Prickly-pear Inspector, dated Murrurundi, 24th March 1888.

In compliance with your instructions I have had the "Scrub Exterminator" tested on prickly pear. I am of opinion that it has proved to be a most useful agent for their destruction, that, if properly applied, will destroy any and all prickly-pear. It takes considerable time to eat its way through the old plants, but will be most efficacious on plants of a younger growth, as it acts much more quickly on them (plants not more than five years old). I may state that the place selected for operation on at J. H. Doyle's "Inverman" was chosen because it was easily accessible to and close by running water. At the same time it is one of the most heavily infected spots that could be picked, therefore it cannot be taken as a fair criterion as to expense. The prickly-pear here is supposed to be 30 years of age; it literally covers the ground and will be much harder to destroy than young growth. The owner of this land has been paying £6 per acre for eradication here and the laborers cannot make more than rations. Per central office I now forward, for your information, specimens taken from the experimented ground yesterday.

(1) On the 29th February 1888, applied the "Scrub Exterminator," recommended ordinary strong, to about a quarter of an acre and 20 lb. of mixture with 60 gallons of water (in two lots) on the prickly-pear growing in its ordinary state. Three days after the application of the stuff it commences to show along the edges and around the eyes of the plants as the moisture seems to be retained in the thorns. The plant around these portions commences to decay and wither; about 8 days after the application the plant seems to lose its vitality, and droops over, apparently dying (the fruit dropping off without being touched), increasing until the leaves dry up like a chip.

(2) 3rd March 1888.—Applied ordinary strength to one-eighth of an acre after the plant had been cut and slashed freely. Two days after the application the plant commences to wither and decay increasing daily.

(3) 6th March 1888.—Applied double the ordinary strength on one-eighth of an acre; about two days after the application, the plant commences to wither and dry up, dying away gradually.

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Gobt. of {1889} Madras.

REVENUE.

Issued

Recd. *Encl.*

G.O., 6th September 1889, No. 764.

SEPTEMBER.

Prickly-pear.

Reports on experiments made in New South Wales for the destruction of the — by means of the "Scrub Exterminator," manufactured by Messrs. Taylor, Murchison and Sharpe of Melbourne, communicated to certain officers and departments.

BUILDINGS AND ROADS.
MILITARY WORKS.

Govt. of {1889} Madras.

PUBLIC WORKS.

Dated September, 30th.

Recd. *Encl.*

G.O., 30th Sept. 1889, No. 2733 W.

SEPTEMBER.

Barrack accommodation in Fort St. George

Orders on letter from the Government of India requesting a report showing exactly what is required in regard to — beyond the conversion of the main guard and adjoining officers' quarters into barracks.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Military Works.

READ—the following paper :—

Telegram from the Secretary to the Government of India, Military Department, Simla, to the Secretary to the Government of Madras, Public Works Department, Ootacamund, dated 12th September 1889, No. 1819 M.W.

Your 1969 W., dated 22nd July last. Conversion Main guard with adjoining officers' quarters into barracks for single men, Fort St. George, from rupees fifty-seven hundred eighty-five provided in budget sanctioned on understanding that this is the only present expense involved.

ORDER—dated 19th September 1889, No. 2600 W., Public Works.

Communicated to the Superintending Engineer, V Circle, with reference to para. 4 of G.O., No. 1968 W., dated 22nd July 1889.

2. The work should be put in hand at once, and completed within the official year.

(True Extract.)

(Signed) R. R. E. DRAKE-BROCKMAN, Lt.-Col., R.E.,
Ag. Joint Secy. to Govt., P.W.D.

To the Superintending Engineer, V Circle.
" Examiner, Public Works Accounts.
" Military Department.

Exd. P. L. Pereira.
Spare Copies

BUILDINGS AND ROADS.
MILITARY WORKS.

Govt. of {1889} Madras.

PUBLIC WORKS.

Dated September, 19th.

Read. *Encl.*

G.O., 19th Sept. 1889, No. 2600 W.

SEPTEMBER.

Additional accommodation for British Infantry at Fort St. George

Telegram from the Government of India sanctioning conversion of the Main guard with the adjoining officers' quarters into barracks, communicated to the Superintending Engineer, V Circle, with instructions.

7733

3000—3-2-

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

READ—the following letter from J. G. HORSFALL, Esq., Collector of Ganjam, to the Secretary to Government, Revenue Department, dated Russellkonda, 23rd August 1889, E. No. 365 :—

I have the honor to submit the reports of Messrs. Foster, Horne, Carr, A. Suriyanarayana and D. Venkata Sastri for the week ending with the 17th, and that of Mr. Wedderburn for the week ending with the 10th August.

2. The season continues favorable and everywhere sufficient rain has fallen for agricultural purposes. The early dry crops, chamalu, vudalu, Indian corn, some ragi, hemp and gingelli, have been harvested and will be harvested in the next few days. The yield of the first two, however, is disappointing. Constant rain and cloud have caused the grass to grow luxuriantly and choked the crop and the ears have not filled well. The grain of the first named, chamalu, is no larger than ordinary hay seed. Paddy and ragi are both flourishing as well as sugarcane, but this latter seems to have been very sparsely cultivated this year.

3. In the Chicacole taluk the necessity for relief operations has almost ceased. Some kitchens were closed on the 15th and the others will be given up on the 23rd and 30th instant, and great reductions will also be made in the Parlákimedi taluk. The total receiving relief in the whole division was 5,990, of whom 5,144 were fed in kitchens and 846 were in receipt of money doles or raw grain. This shows a decrease compared with last week's report of 316, and the decrease will be much greater next week.

4. The cases quoted by Mr. Foster as to his Circle Inspectors and the Sérgadá case noticed by Mr. Carr are examples of the utter unreliability of our native subordinates and sufficiently indicate the necessity for constant European supervision and check. Mr. Quinless has not yet joined the district, and the want of European famine officers has been much felt. The existing officers cannot, work as they will, prevent excesses and mistakes, such as those referred to, from occurring. The Circle Inspectors require constant watching. As a rule they err on the side of excess, but this is not always the case. In three circles inspected by me the error was sadly the other way.

5. Mr. Foster as well as Mr. Horne states that he finds difficulty in getting weakly persons removed from the gratuitous relief lists to go to relief works. My experience is entirely the reverse of this. Everywhere I have found them willing to come to work provided that proper arrangements are made for paying them. They naturally object and indeed cannot go to works miles away from their homes where no provision has been made for hutting them, and this appears to me to be the secret

of the failure of both Messrs. Foster and Horne. It is not likely that weakly persons can walk three miles to a work, labour all day, and return to their homes at night, sometimes, without receiving pay for that day's work. Both at Buguda and Kirapalli I found that the gumastahs in charge had no funds and that the coolies were not being paid regularly. I have arranged that this shall not occur again, and at Kirapalli, which is a comparatively big work and somewhat remote, I have ordered the erection of sheds in which the coolies can shelter during the rain and stay, if so minded, the night. That this is what was wanted was clearly shown in my examination of some Khond villages about 3 and 4 miles distant. They were one and all in a bad way, and when urged by me to go to this work pleaded that it was too far way, that they were not accustomed to earth-work, and so on, but when told that they might build huts for themselves and families and would be paid for doing so and that they might live at the work, received the announcement with acclamation and agreed to start forthwith. It turned out, however, that there was a good work close at hand, a tank upon which half a dozen villages depended for water in the hot season, and the karnam of Guttuli, who seems to have great influence with these Khonds, assured me that every man, woman and child would come to work. I am sorry to say that I saw several of these Khonds so emaciated that there is little hope of their recovery and yet they have been receiving money doles for weeks.

6. The complaint, however, is very general that the Famine Code third-class rates are insufficient. It is remarkable that one and all quote the quantity of rice their wages will enable them to purchase, not ragi, and viewed on this light they cannot get sufficient to live upon, seeing that the wage provides for a ragi diet only. As a matter of fact the difference between the price of rice and of ragi is not so great as it looks upon paper; ragi is lighter than rice and loses somewhat in the process of being converted into flour. Then again no native eats ragi pure and simple. His ragi porridge is a combination of four-fifths ragi and one-fifth rice. It has been repeatedly thrown in my teeth that ragi only is not eaten except by persons in jail. In calculating the scale of wages according to market price of ragi no allowance has been made for loss caused by conversion of ragi into flour or for the admixture of one-fifth rice in the ragi diet.

7. Mr. Carr, on returning from Bodogodo to Sérgadá, found that in the space of two weeks the Circle Inspector of Sérgadá had admitted on his list 2,333 out of a total population of 11,562. The Sérgadá division is bad, but it was manifest that the Circle Inspector had, during Mr. Carr's temporary absence, been playing the fool, and within two days Mr. Carr was able to strike off 820 of these. With 450 villages under his charge it is obvious that the work of proper supervision and check is more than any one man can do effectively. Mr. Horne in a note just received says he cannot do without Mr. Powell, and as the area of distress in the Goomsur division is now extending to Pondakol, Ronaba and Koraba maliah tracts below the ghâts, I hesitate to move Mr. Powell away, and Mr. Carr must, until Mr. Quinless arrives, do the best he can unaided.

8. There has been a slight decrease, however, in the numbers receiving relief in the division, and but for the Sérgadá fiasco the decrease would be more apparent.

9. Mr. Horne is busy in his division. His diary, which I forward, will give Government a good idea of the nature of the work which is being performed by one and all of us. In the Vishnuchakram and Bellugunta circles just inspected by me I am glad to say that I do not find that the cutting down system has been carried to the excessive extent that was the case in Mr. Story's division; the numbers are, however, being steadily and reasonably reduced.

10. The General Deputy Collector, after completing the issue of seed-grain at Aska, started on village inspection in the Suradá division and found out a case of fraud on the part of the karnam of Kesarapalli, who was keeping to himself a portion of the money doles which he had to distribute. He has since informed me that he convicted the karnam and sentenced him to six months' rigorous imprisonment, and this will, I trust, have a deterrent effect upon others. Upon the whole there has been a reduction in numbers on relief in the Goomsur division.

11. In the Kallikót division there has been a decided increase, the numbers having risen from 1,660 to 2,586; this increase is attributed by the General Deputy Collector to the work of the Circle Inspectors, who were but recently appointed in the Kallikót division. In the Atagadá taluk, where Circle Inspectors have been longer at work, there is on the contrary a slight decrease.

12. It may now be safely affirmed that distress was at its highest on the 3rd August and that the condition of the people began to mend from that date. The figures on the 10th are misleading; the increase was really on the 3rd, but large numbers of villages in Mr. Foster's returns were omitted on that date and consequently did not appear till the following week. In other words, the number 93,000 should have been reported on the 3rd August; on the 10th there was actually a large decrease, and this week the numbers are still further reduced.

13. The price of ragi has again fallen a little; rice continues stationary.

	Rice.	Ragi.
This week	10·1	18·0
Last week	10·1	17·6
Week ending 20th August 1889	18·63	31·56

14. The following were the numbers employed on works:—

Rushikulya	2,835	Bhabunda to Pattupur ...	48
Gopálpur canal	1,146	Kallikót and Boirani ...	526
Taptapani ghât road	159	Drinking water tanks and wells	1,844
Chokapad do.	56	Minor irrigation works ...	611
Digupudi road	651	Other works	4,933
Anantagiri road	248		
Boppayapuramgedda	16	Total ...	14,327
Battili	170		
Ichápur to Jarada road	1,084		

15. On gratuitous relief there is a large decrease which should have appeared in part in last week's returns. I give the numbers below:—

	Men.	Women.	Children.	Total.
—				
	9,146	16,616	39,523	66,345
On gratuitous relief, money-doles and raw grains.	1,334	2,316	7,982	11,632
Fed in kitchens	...	...	...	77,977
Total ...				

I have every reason to believe that the decrease will continue, and that we shall on the contrary have more employed on works.

16. Imports of food-grains continue to increase, and this week reached 19,144 cwts., or over 950 tons, the largest amount yet imported in any one week. It was as follows:—

	CWTS.
By sea	9,418
From Orissa	4,425
From the Central Provinces	5,301
Total ...	19,144

17. Mr. Foster brings to notice the wretched condition in which many of the karnams and karjis are, and asks whether under the recent Government order batta cannot be paid to them on the ground that they are Government servants. I have replied in the negative, but their case is one deserving consideration; they have suffered, like others, loss of crops such of them as have service inam lands and owing to non-collection of revenue have further not received their usual russooms.

18. Owing to the absence of karnams in the villages of the Gulleri division, Mr. Horne has found it impossible to work that circle with one Inspector, and has accordingly made an additional circle, Mojagodo. It has also been found necessary to appoint a Circle Inspector for the Korada and Ronaba states; these are Agency tracts but below ghâts. For these appointments I request the sanction of Government.

		RS.
1 Circle Inspector, Mojagodo		25
1 Do. Ronaba and Korada states		25
2 Peons, on Rs. 6 each		12
Contingencies, Rs. 1½ each		3
	Total ...	65

19. I have not yet received from the Local Fund Engineer the sketch-maps required by Government, but trust that they will be ready in a day or two.

20. During the week I have inspected Korcholi, Buguda, Ballipadra, Vishnuchakram and Bellugunta circles, and give below the results of my inspection. At Korcholi I decided not to open a kitchen; the village is a small one and very few would be likely to attend it. The last four miles of road to Korcholi are in an execrable condition and positively dangerous. An estimate for the reconstruction of these four miles was sanctioned so far back as 1885, but the work has never been undertaken for want of funds. Inquiries in the adjoining villages satisfied me that there were numbers of weakly persons in want of work and numbers came in some miles to me to Korcholi asking for employment. I consider it will be a most useful work, and have accordingly telegraphed to Government for sanction to commence it. It was not entered in the list of works submitted to Government, as I was under the impression funds had been provided for it in the regular budget.

21. At Buguda the present tank work will suffice for the employment of weakly persons there for some time to come. Near Ballipadra there is the large tank of Colombo upon which several villages depend which I propose to start if needed. In the Vishnuchakram circle there is the Kharipalli tank and the Gottuli tank which I ordered to be commenced at once. Near Buguda the karnam of Tonnarada has just completed a fine tank at a cost of Rs. 1,000, and other work in the vicinity will be shortly selected. All through the tract of country inspected by me ample work has, I consider, been provided for present requirements.

22. The Rs. 30,000 sanctioned by Government for advances to weavers has already been expended, and I request that the further sum of Rs. 20,000 applied for may be sanctioned at an early date. I trust that this amount will suffice.

23. In a previous report I remarked that the population appeared to be in excess of that entered in the census register, and I have since verified this by actual counting of some villages taken at haphazard; these too, villages that have suffered severely from famine, cholera and small-pox this year. The village of Gottuli was specially selected, as I found 99 out of a supposed population of 249 entered in the relief list.

Name of village.	Population according to last census.	Population now counted.
Jaiko	277	329
Bhavasoro	224	285
Panchabhuti	930	1,206
Gottuli	249	632
Total ...	1,680	2,452

I do not believe that the difference is due to increase in population, but rather to the omission at the last census to take into account the Pariahs who live not in the village itself but invariably outside and include Khonds, Bouris, Kodalos, Panos, Dandasis, Haddis, &c. The karnam of Gottuli denied that there had been any increase in the population of their villages and asserted that the reverse was the case, and from the number of deserted houses found, this seems likely to have been the case.

24. I give hereunder statistics of the five circles inspected during the past fortnight:—

Circle.	Population.	Number registered.	Number died.	Number disappeared.
Ballipadra	13,417	1,541	24	11
Buguda	15,000	1,090	40	10
Korcholi	5,144	1,323	17	6
Vishnuchakram	10,467	864	9	3
Bellugunta	19,798	636	43	14

The statistics for Buguda, Korcholi, Vishnuchakram and Bellugunta are complete up to the 17th, those for Ballipadra to the 19th August.

—

ENCLOSURES.

From H. W. FOSTER, Esq., Acting Senior Assistant Collector, Ganjam, to the Collector of Ganjam, dated Ichápuram 19th August 1889.

I have the honor to submit the usual report for the week ending 17th instant.

2. The season continues very favorable. In Ganjam taluk, where last week I reported a deficiency of rain, 4 inches fell on 11th and 12th instant, and though more rain is still required, that is sufficient for the present needs, and there, as everywhere else in the division, all crops are thriving. A great deal of tsamala is ripe and is now being reaped, and in a few days a large area of early ragi will be ready for the sickle. Though these are not, on the whole, very extensive crops and their produce is not likely to be thrown into the market so as to have a direct effect upon prices, there is no doubt that their harvest will create great improvement in the condition of the people. These will be especially the case under the hills, where these crops are both more forward and more extensively grown than in the eastern portions of the division, and I expect to be able shortly to make large reductions in the numbers on relief in Mandasa, Budarasingi and Surangi and in the western portion of Pedda Kimedi zemindaris.

3. Large numbers of the persons on the gratuitous relief rolls are ryots and their families. annually, the taluk officers brought many of these following the precedent set by you in Gocourse followed by Circle Inspectors, and in Mohiri and its neighbourhood, where, as you lengths. For instance, the Inspector of Kukkhandi mentioned in your report to Government for population is only 19,013, prepared lists aggregating over 10,000 persons, of whom the majority were pattadars and their children. These lists of course attracted immediate attention, and the Inspector was checked and the lists were corrected before payments had been made in accordance with them. In a lesser degree the Jagannadhapur Circle Inspector committed a similar blunder, for I believe from my inquiries that no fraud was intended, but that the error arose simply from neglect of the instructions I had issued. But leaving aside these exceptional cases there are large numbers of pattadars on the relief lists whose condition three weeks ago was sufficiently miserable to justify the grant of relief, but who, now that there is such a fair promise of a good harvest, will be able without difficulty to raise private loans on the security of their land and standing crops. I have directed the particular attention of all inspecting officers to the cases of this class of persons, and large numbers have already been, and will continue gradually to be, struck off relief.

4. The case of the Khonds of the Mohiri hill villages has been engaging my attention during the week. Mr. Brown, the Berhampore taluk relief officer, who has recently made some efficient inspection in those villages, finds reason to suspect that fraud has been practised in the distribution of relief to these persons, who are easy victims, for their ignorance is such that they are hardly able to reckon the value of four annas' worth of cowries. Mr. Brown expects to be able to make out one or two cases for a Magistrate and is pursuing his inquiry. I have arranged to give relief in this tract in the shape of raw grain to be distributed at two centres—Jugudi and Dungabhadra. The hill villages are so small and scattered that relief could not be efficiently given in kitchens.

* Or 29th June. The Government Order in which the report was printed was sent to me in circulation and has been passed on.
Para. 27 of the report for week ending 22nd June.

5. In place of the closed kitchen at Kukkudakbandi I opened one in the week at Dengabhadra, which lies near the part of the Digupudi-Berhampore road on which work will shortly commence. Knowing that a kitchen was to be started that day, most of the Bouris and Dandasis left the village early in the morning, taking their children with them, so as to avoid being compelled to feed in the kitchen. All that remained, namely, 6 Bouri children and 2 Dandasis, I carried off to the kitchen and fed much to their delight and the honor of their mothers, but some 15 Bouris who came from the adjoining village of Nolihado expecting to get relief in money were absolutely intractable. Without actual violence I was unable to detach the children from their parents, and at last the whole body resolutely marched away. Four of the children were distinctly emaciated, and all were hungry.

6. On the Jarada-Ichápur road there were 1,080 coolies at the end of the week. For want of an overseer, the Engineer had not been able to commence work at the Jarada end, but I understand that an overseer has now gone to Jarada. Work will be commenced to-morrow also at Jayintipur, midway along the road, and I expect that the numbers will more than double this week.

7. Though work is offered to all, weak and strong, few but able-bodied coolies are now on the road. It is not an easy matter to induce the weakly persons fit for labor to go to the relief works. Even the expedient which I have occasionally adopted of taking them myself is not always successful. When told to go to a work and furnished with an admission ticket, they usually say they will go next day, which means that they will discuss the matter with their friends and caste people, and the discussion generally ends in all or none in the village going.

8. At Berhampore, owing to fresh importations of food-grain, prices have fallen and also at Ichápur, whither a Berhampore merchant has sent a large quantity of rice and ragi for sale. All the villages of Berhampore taluk west of the chief town draw their supplies thence at present, and the prices in these villages I find closely follow the fluctuations at the source of supply, which points to fair activity of local private trade.

From W. O. HORNE, Esq., Acting Special Assistant Agent, Ganjam, to the Collector of Ganjam, dated Khariguda, 18th August 1889, No. 625.

I have the honor to submit my report for the week ending 17th August 1889.

2. The work I have done in the week appears from the accompanying diary. Monday, Tuesday and Wednesday I spent in Mojagodo opening a new kitchen and inspecting some of Circle Inspector's work. Returning to Russellkonda on Thursday and after doing some inspection in the Kullada Circle on Friday, I came out here yesterday, as Mr. Elphinstone had sent me an urgent message that the Circle Inspector was down with cholera. I do not believe the man had cholera, though he had been attacked with the symptoms. Anyhow he is fit for his work now, which is lucky, as it is almost impossible to get men who can and will do the work. I am now inspecting his circle and find that on the whole his selections are very fair and neither too severe nor too easy.

3. Mr. Elphinstone started a kitchen near here at Kaliaguda. I think he made a mistake in the selection of the place. There are only four villages which are really within reasonable reach of it, viz., Kaliaguda itself, Bodoborosingi and Sannaborosingi and Khariguda. These are within two miles or a little over, but there are no roads about here, and it is all paddy-fields; and in heavy rain it is really hard for small children to go to it. The attendance at the kitchen is between 20 and 30, and even if all who might reasonably come did so, it would not exceed 50 or 60.

4. I think the new kitchen at Mojagodo will succeed. I began it with 13 and got it up to 60 before I left, and I think it will have increased further.
That at Gangupore, which I began with about 20, has risen also to about 60.

5. Mr. Story has started kitchens at Buguda and Ballipadra and is about to do so at Korcholi. I regret that you were not pleased with your inspection of them, but as Mr. Story must have met you there, I trust the errors of system will be rectified.

I stopped the Korcholi one.
(Intld.) J. G. H.

There are now 12 kitchens in my division.

6. Having received complaints of distress from the maliah tract below ghâts comprised in Pondakhol Mutta and Korada and Ronaba estates, I sent Mr. Elphinstone there instructing him to start relief and appoint a Circle Inspector if found necessary. I have not yet heard from him, but I have little doubt he will find it necessary to start an inspector for that tract.

7. Mr. Lever arrived at Russellkonda yesterday and he will start to-morrow for Kukuluba circle, as I have had to send a new inspector there and it is necessary to see that he is doing his work. Mr. Elphinstone inspected the circle a month ago, and reported it much less

distressed than most other places. Mr. Lever knows all that country thoroughly and will see that it is put in order.

8. Mr. Powell has now four kitchens under him, viz., Russellkonda, Gangupur, Bellugunta and Kullada. I think he manages them very well and is certainly cutting down expenses. He will recommence distribution of raw grain to Russellkonda and some eight other villages to-morrow.

This system will also be carried on in future at Aska under supervision of the Deputy Tahsildar and at Suradá under either the Deputy Tahsildar or Mr. Elphinstone.

9. As soon as I can get away from here I will pay a brief visit to Suradá, where I have not been able to get since June, and will return across by Gangupur to meet you.

10. I reported last week that the Circle Inspectors were unreasonably increasing their lists. This was really the case in almost every place I inspected. I consequently issued a circular directing them to reduce the lists by striking out all who were able to earn their living, or who had relatives who could reasonably support them, or who did not appear to be suffering from want. I had found many such were wrongly included in the lists.

I regret that in consequence some of them have rushed to the other extreme and have in many cases struck out people whom they should not. I have again warned them all to use a little sense in the matter, but to rely on the discretion of the class of man we depend upon is apparently hopeless.

11. Some of them do their work very fairly well as far as visiting their villages and inspecting, but they all err in selection on one side or the other, either admitting wholesale fat children and strong coolies or rejecting many who are in urgent need of relief.

12. The Aska Deputy Tahsildar has discovered and reported another case of embezzlement by village officers, and I will manage to try it this week. The two whom I convicted have appealed to the Sessions Court.

13. I found myself obliged to divide Galeri and Mojogodo Circles and appointed an extra Inspector in anticipation of sanction. The absence of village officers made it necessary, and the Inspectors must, except in some ten villages, each circle, make distribution themselves. Only a small circle can thus be managed efficiently by one man.

14. There are fair numbers employed on some of the tank works now: 150 at Sannaborosingi near here, over that number at Gangupur, 150 at Kettanga about 50, about 500 on two large tanks near Aska, about 200 at Surada, 80 at Kullada and 50 at Baruda also over 100 at Buguda. Two very large tank works have newly been started, one at Kirapalli, convenient for both Bellugunta and Vishnuchakram, and one at Koniareddi which can employ people of both Russellkonda and Peddakodanda circles. I have not been able to inspect either of the two last yet, but I sent the Tahsildar who relies on each.

I saw over 100 on the Kirapalle tank, and there would be many more if any provision had been made for sheltering coolies.
(Intld.) J. G. H.

reported that he was able to collect less than 50 only for a short time that will no doubt send more people to the works, but the ragi harvest will commence not very long afterwards which I fancy will draw most of them away.

15. Transplantation is approaching an end, and

16. Last time I visited the Gai works near Russellkonda, there were only about 1,100 coolies. The Sub-Engineer said he wanted more, but I know that he is very particular as to what kind of cooly he accepts and will only take people who are not merely in no way reduced but also naturally of considerable physical strength. He certainly rejects people who are not qualified for employment on civil agency works.

17. As soon as the Kullada and the Baruda tanks are finished, I will have the earthwork of the first 1½ miles of the road north of Kullada commenced. I am trying to get a maistry who can do it according to plan and estimate.

18. The season continues favorable and rain is plentiful. Paddy is looking well and transplantation is more than three parts completed. Chamalu has been cut in many places. Indian corn is ripe in nearly every village. All this does something towards alleviating distress though as yet prices do not fall at all.

19. The ragi is coming into ear now in most places and I think the regular harvest of it will begin in three weeks. A few patches have been cut, but those are exceptional. Sun is wanted for it now they say.

20. Cholera has much decreased, but continues to break out occasionally. Last Thursday or Friday 18 deaths occurred almost at once in the village of Lembhai near Baruda.

Diary for week ending 17th August 1889.

Date.	Diary.	Remarks.
Sunday, 11th ...	I rode out to Kaliaguda (9 miles) where Mr. Elphinstone had started a kitchen. I found the kitchen building nearly completed, but although Mr. Elphinstone has removed the neighbouring Haddis, Panos, Kodalos and Dondasis from the batta registers, there was an attendance of only 22. Mr. Elphinstone arrived while I was there, so I left him to attend to it and rode back to Russellkonda where I got supplies and made the necessary arrangement for opening the kitchen at Mojagodo next day.	
Monday, 12th ...	Rode out to Mojagodo. Visited the Rushikulya works on the way. 1,100 coolies employed, of whom 456 are daily. More are wanted but cannot be got owing to cultivation work. Mojagodo kitchen nearly complete. I examined the people on batta in (1) Mojagodo 37, of whom I ordered 32 to come to the kitchen. Of course they refused, and as they are all in good condition, I had no hesitation in stopping their batta; also (2) Nediapalli 28, of whom I ordered all to the kitchen. These were also in good condition; (3) Kaliponka 14, (4) Jayamongolo 7, (5) Kutinikumpa 4, (6) Goyirabadi 16, (7) Nuniadi 33. These seven villages are all within easy distance of the kitchen, and I allowed batta to be continued only to those of Sudra caste and to those who from infirmity or age could not reasonably be expected to come. In the afternoon I had the 1st meal at the kitchen with an attendance of 13 people—4 Kondhs, 4 Panos and 5 Haddis. These were mostly orphan children whom I simply took there.	
Tuesday, 13th ...	I got the kitchen building and enclosure completed and 19 attended—10 Panos, 2 Kondhs and 7 Haddis. I examined the people of Kaubondho 49, whom I reduced to 30. Nobogotcha 28, struck off 12 and added 2. Dorapongia 42, reduced to 32. Sadugam 9, reduced to 5. Dengina 11, reduced to 8. Poiggam 9, reduced to 5. Dodoralunda 34, of whom I struck off 10 and added 1. In the afternoon I got 48 people to the kitchen.	
Wednesday, 14th ...	Rode to Khariguda where tank work was going on and found it stopped, allotment being exhausted; so immediately selected another task for work and ordered an estimate. I got 59 people to the kitchen in the morning and started making separate enclosures for Kondhs, Panos and Haddis. Having decided to divide Mojagodo and Galleri circles, I procured a Circle Inspector whom I had sent for from Russellkonda, instructed him in his duties and started him. In the evening I got 60 people to the kitchen which will probably flourish now, as more people are coming at every meal.	
Thursday, 14th ...	I rode in to Russellkonda. I visited Lalasingi village, where there were I found only 4 on relief and the rest of the people in very good condition, there being crops of chamalu and Indian corn now being cut in the village. Visited also Rajakondapalli where there were 19, of whom I removed 9 and added 1; also Lalasingapalli where were 40 and not nearly in such good condition. I removed 7. Inspected the Russellkonda kitchen 172, 3 in hospital with diarrhœa and dysentery 2, pronounced almost hopeless cases. Nine caste people, wanderers originally belonging to Galleri, but who had left it 5 months ago and been to the Maliahs, were with difficulty induced to eat in the caste section.	
Friday, 15th ...	I rode out to Baruda village where there were 17 on relief. I added 2, but took off 3 for tank work which is going on there. Also examined Koraimondolo 3, Tulasapalli 3,	

Diary for week ending 17th August 1889—*cont.*

Date.	Diary.	Remarks.
Friday, 15th—*cont.*....	Bilapada 6 and added 1. Ondharokot 2, added 2. These are all suburbs of Baruda. On way back inspected Kottiboradi and Kottipalli 14, added 1, and Kullada 23, took off 8 and added 2; also the following suburbs of Kullada. Dhamjapur 7, added 3. Narayanapur 8, took off 3. Khoporagam 5. On Barnabank there were 50 coolies and on Kullada 80, and I passed a few more to go. As usual there were loud complaints about the inadequacy of 3rd-class rates. In Kullada I examined 10 applicants for weavers' advances, and allowed it to 8 of them.	
Saturday, 17th ...	Mr. Lever arrived at Russellkonda and I left for Bodoborosingi where the Circle Inspector was reported with cholera and no man available. On arrival I found him pretty well, and he has evidently not had cholera at all or only a mild choleraic attack and he is fit to do his work. I inspected Bodoborosingi, of whom took off 3. Here Mr. Elphinstone had struck off 19 for the Kaliaguda kitchen. I found of these 2 very bad, 3 bad, 7 fair and 5 good and 2 absent. The latter had actually been taken by Mr. Elphinstone to the kitchen and some had eaten, but had never gone again after his departure except those in good condition. I was compelled to replace them on the list. Dadalunda 22, passed them all. Sannaborosinghi 8, off and taken to the kitchen. Five were good, 1 bad and 1 fair; 2 were absent, was obliged to re-admit them except the good ones. I also inspected Khariguda 13, of whom I struck off 1, and Bridiho 5 passed. Bahadarastone I admitted 4. Bari 8, took off 1. The last three bhago 5 passed. Boliarasingi. villages are suburbs of Bodoborosingi. I inspected the Kaliaguda kitchen, only 25 there—5 Kondhs, 6 Kodalas, 1 out-caste Gauda and the rest Haddis. I then inspected Kaliaguda village which is close to the kitchen, 39 on relief, of whom I struck out 10. There were some Dondasis and Panos who had been struck out by Mr. Elphinstone for the kitchen. They were not in such a condition as to induce me to re-admit them to batta.	

(Signed) W. O. HORNE,
Ag. Special Asst. Agent, Ganjam.

Camp Kariguda,
18th August 1889.

From R. C. C. CARR, Esq., Additional Special Assistant Collector, Ganjam, to the Collector of Ganjam, dated Pattupur, 17th August 1889, No. 478.

I have the honor to submit my special report for the week ending with August 17.

2. On the 11th I left Bodogodo and marched by Manikyapur to Sergada, where I arrived on the 12th and remained three days. I then came on to Pattupur.

3. The numbers on gratuitous relief are still high, but the tendency everywhere should now be to decrease. In Chinna Kimedi the number in receipt of money doles is 6,333, the number fed in kitchens 625 and the total on relief 6,958. This shows an increase of 244 over last week's figures, but in the present week the paupers from some villages in Bodogodo, which have been given to the Pratapagiri Circle Inspector are included; the percentage on the population is reduced from 18·6 to 18·1.

4. In Dhárákót also there has been a reduction made. The total now amounts to 3,250 inclusive of 116 persons fed in the Mondimorayi kitchen. The percentage is thus 9·5 as against 10 last week. The Ballisira kitchen is to be opened to-day.

5. The figure given by the Bodogodo Manager for the week ending with the 15th instant is 730, including 98 persons fed in the Bodogodo kitchen against 1,358 last week. This figure must be wrong, for although I made large reductions there during my visit, the total number on relief there must still amount to about 900. Explanation of this error will be given next week.

6. In Sérgadá the number in receipt of money doles on the 12th instant amounted to 2,333. This figure was so obviously excessive that I at once set to work to check the lists in several villages, and in the course of two days was able to strike off 803 names out of a total of 1,420, included in 13 villages. The Deputy Tahsildar of Aska has been directed to inspect the remaining 22 villages and, if possible, to make a similar reduction. The figure for Sérgadá may be taken as 1,530 for money doles, and 50 for cooked food, making 1,580 in all, or 13·6 per cent. of the total population.

7. The Sérgadá circle is unfortunately in dire confusion. The Circle Inspector was left to his own devices for two weeks in spite of orders from me to the Deputy Tahsildar, Aska, telling that officer to check his work. During this time the Inspector sent no accounts, and on pretence of touring through the villages of his circle, spent his time in giving relief to every one entered by the karnams. This was presumably done without any inspection at all, for strong men and women, able-bodied children, and well-to-do Brahmins all came in for their share of the Government money. More than half of the whole number have now been inspected, and it is most important that the remainder should be checked at once. The Inspector has of course been dismissed, and has in addition been fined Rs. 5, so that for his two weeks' so-called work he will not get much remuneration. This is the second Inspector who has been dismissed from the Sérgadá circle, and it is to be hoped that the next will prove more fit for the post. The circle only contains 35 inhabited villages with a total population of 11,562, and the work should be comparatively easy.

8. The total figures for the division are 11,643 for money-doles, and 889 for cooked food, making a total of 12,532 or 12·9 per cent. of the total population against 13 per cent. last week. This shows a slight reduction on the previous week's figures, but in these the actual total for the Sérgadá circle was not given. The falling off is chiefly caused by constant village inspection, but the figures for kitchens have also fallen greatly, viz., from 1,066 to 889. The numbers attending the Mondimorayi kitchen fell from 195 to 116; this is apparently due to some headmen of neighbouring villages having decided that no one can attend a kitchen without being excommunicated. It is almost impossible to collect any evidence against these men, or a criminal prosecution would seem to be the proper remedy.

9. The meeting of headmen of the better castes held at Mondimorayi have decided that none of the lower castes can raise valid objections to cooked food, and that provided a certain sect of Ooriya Brahmins cook, all Sudras can also be fed. This proviso is already complied with, and orders have accordingly been issued to stop money-doles to all Sudras in villages within 2½ miles of a kitchen in Dhárákót, after they have been found on inspection to be capable of walking so far daily. Similar orders have been issued in Sérgadá.

I think this is going too far. Compel all non-caste people to come in.

(Intld.) J. G. H.

10. In Chinna Kimedi the meeting decided that none but Pariahs could eat in our kitchens. From this decision the manager and one other Brahmin dissented. Separate cook-houses will, however, be constructed and endeavors made to induce more caste people to attend. At Pattupur there are already 50 Sudras being fed daily. At Bodogodo a meeting will be held shortly.

11. Village inspection in various circles during the week has convinced me that a more thorough check is required on the Relief Inspectors. Their fear has doubtless been that they would incur censure for excluding persons deserving assistance, but this fear has driven them to the other extreme, and large reductions in the lists can be effected without much hardship to the present recipients. To do this unaided is, however, impossible. The Chinna Kimedi manager has heavy office and treasury work which prevents him from touring to any great extent; the Dhárákót manager has nearly the same work; the Bodogodo manager is useless; and the Deputy Tahsildar, Aska, can only be called upon to inspect Sérgadá, when his magisterial and other duties allow him to leave his head-quarters. Mr. Quinless, who was expected here two weeks ago, has not arrived, and with my own office work, I am quite unable to devote more than 3 or 4 whole days a week to out-door inspection.

I have asked Horne to send you Powell, but this of course means robbing Peter to pay Paul.

(Intld.) J. G. H.

12. During the past week I inspected 35 villages containing 1,861 paupers: 1,012 names were struck off and only 18 entered, leaving a balance of 867 out of a total population of 10,286, or 8·4 per cent. This is approximately the percentage to which the figure for the whole division should be reduced, and in another month still further reductions will be called for. There are, however, about 450 villages under my charge with a population of more than 96,000, and I must again ask for European assistance. Chinna Kimedi with its 7,000 paupers has now to be left in charge of an already overworked manager, and a taluk relief officer is urgently required. During the next two days I intend inspecting as many villages as possible in the Pudamari circle where the percentage is very high, but after that, other important work takes me to Dhárákót. Orders on paper are practically useless in such cases and personal inspection is the only method of ensuring an efficient check.

13. There are 1,453 persons on relief works in the division, excluding the numbers on the Digupudi road; of these about 1,300 are weakly. The Sérgadá tank has proved most successful, and 658 coolies are employed on this alone. Another similar work is to be opened in the neighbourhood.

14. One death from starvation has been reported from Dhárákót and is being inquired into; four deaths from cholera are reported from Chinna Kimedi and 24 from Dhárákót. There have been no deaths in the kitchens during the week.

15. Prices have at last exhibited a decided downward tendency. At Pattupur rice is obtainable at 10·6 and ragi at 17·25 seers to the rupee, against 10·41 and 14·70 of the previous week. At Mondimorayi ragi has fallen from 14·25 to 15·60. At Bodogodo prices are stationary. Over 100 bags of rice have been brought from Berhampore for use in the Chinna Kimedi kitchens and for grain payments, the price including bandy-hire, being somewhat more than 11 seers for the rupee. This has no doubt affected the markets generally, and merchants are now importing rice of their own accord. The following statement shows the prices of this and the previous weeks:—

		Last week.		This week.	
		Rice.	Ragi.	Rice.	Ragi.
Chinna Kimedi ...	Pattupur	10·41	14·7	10·6	17·25
	Vismagiri	8·92	13·35	10·5	15·
	Kunkurada	9·66	14·7	9·75	16·5
	Pudamari	9·28	14·02	10·5	16·5
Dhárákót ...	Mondimorayi	10·5	14·25	10·5	15·83
	Bodogodo	9·64	17·32	9·64	17·32

16. Very little rain has fallen during the week, but there is ample water for cultivation. There was rain in the Bodogodo hills on the 13th and a heavy fresh came down the Sérgadá river. There is plenty of water in the Godáhad also, but so far the rain water has proved sufficient for the wet crops, which are mostly in excellent condition.

17. In Chinna Kimedi the dry crops have not yet been reaped, but all down the Manicky-apur valley and round Bodogodo, chamalu has been extensively harvested, gingelly is being cut, and the early ragi will be ripe in a few days. The condition of the people in the last-named tracts, which are practically Maliahs, is on the whole good; a few children and old people here and there show signs of want of food, but the ryots themselves do not appear to have suffered much. This is probably due to their being more accustomed to subsist on jungle products, a custom that has stood them in good stead during the months of scarcity.

18. The usual statements are attached.

From M.R.Ry. A. SURYANARAYANA NAIDU Garu, General Deputy Collector, Goomsur,
to the Collector of Ganjam, dated Camp Gangapur, 18th August 1889, No. 760.

I have the honor to submit my special report for the week ending with 17th August 1889.

2. During the week under report I have completed the issue of seed-grain to the ryots from the Aska centre.

3. On the 15th instant I inspected the kitchen at Aska where 159 persons (mostly children) were fed. I also inspected the drinking-water tanks at Kalusundapur, Sunamba and Lalasasanam; 505 persons were employed on these works. Of these, 450 persons were in weak condition.

4. During the week, I inspected the villages of (1) Nimmina, (2) Kondravally, (3) Kesarapalli, (4) Munigadi, (5) Bontapilli, (6) Singipur, (7) Palakasonda and (8) Bori in Payalapada Muttah, Goomsur taluk.

5. Young crops of paddy, ragi and sugar-cane are in fair condition; samalu has been harvested. The average outturn is 6 annas. Paddy has been transplanted in irrigated lands; but it is not done so yet in some of the rainfed lands, though the plants in seed beds have grown big enough. The want of rain in this muttah for the past ten days has retarded the transplanting operations. Fodder is procurable, and the cattle are in good condition.

I think this is underestimated.
(Intld.) J. G. H.

6. I have examined the persons on gratuitous relief in the eight villages above named, with an aggregate population of 3,973. There were 542 persons on relief at the end of June last. Of these 245 were subsequently struck off, 18 died and 279 remained at the date of my inspection. Of the latter number I struck off 27 and added 5, making the total 257 or about 6½ per cent. of the population.

7. The 18 deaths referred to were attributed by the karnams to the following causes—3 men, 2 women and 3 children died of cholera, 1 man, 2 women and 5 children of fever and 1 man and 1 child from diarrhœa.

8. While I was examining the persons in the village of Kesarapalli, it came to my notice that the karnam of the village was short paying the money-doles. Some of the recipients informed me that they got only annas 8 per man, annas 5 per woman and annas 4 per child, for the current week, instead of the proper amount of annas 8-2, annas 6-5 and annas 4-1, respectively.

9. The same fact was discovered in the other villages under the charge of this karnam, but the poor ignorant people could not adduce any evidence and they say that the karnam was in the habit of sending for them to his village and paying them one by one at his house, that they did not know what they had properly to get and that they were therefore satisfied with what the karnam paid them for each week.

10. I have, however, got evidence in seven cases of short payments in the village of Kesarapalli and at once put the karnam on his trial. The result will be reported to you shortly.

11. The following statement shows the numbers receiving money-doles in the division for the past three weeks :—

Taluk.	On the last day of the week ending with 27th July 1889.	On the last day of the week ending with 3rd August 1889.	On the last day of the week ending with 10th August 1889.
Goomsur	11,954	15,224	12,028
Suradá	7,588	7,385	7,681
Aska	1,975	1,921	1,497
Under Aska Circle Inspector... ...			
	21,517	24,530	21,206

The figures for the current week, or the numbers fed at the several kitchens, are not yet received from the taluk officers.

12. The following table shows the numbers employed on relief works :—

Taluk.	On drinking-water tanks.		On minor irrigation works.	
	This week.	Last week.	This week.	Last week.
Goomsur	517	124	46	
Suradá *	not reported.			
Aska	432	...	...	

* Always give numbers according to last report received.

(Intld.) J. G. H.

13. Of the number 696 employed in Goomsur during the week, 611 are weakly persons and of 505 in Aska, 450 are persons in weak condition.

14. Cholera still continues here and there in the division; the total number of deaths reported during the week was 90.

15. The prices of food-grains during the week are as follows :—

Station.	Rice in seers.	Ragi in seers.
Russellkonda	10	16
Suradá	10	16
Aska	10	16

There is no alteration in prices during the week. Food-grains are generally procurable in markets.

Numbers on Drinking-water tanks and on the Minor irrigation works.

Taluks.	On the drinking-water tanks	On the minor irrigation works.	
	Last week.	Last week.	This week.
Chinna Kimedi ...	214	175	168
Dhárákót	510	...	...
Bodogodo	71	37	...
Sérgadá	658	...	...
Total ...	1,453	212	168

Numbers on Gratuitous relief.

Taluks.		On the last day of the week ending with 3rd Aug. 1889.	On the last day of the week ending with 10th Aug. 1889.	On the last day of the week ending with 17th Aug. 1889.	Percentage.
Chinna Kimedi	Money doles ...	6,08	5,996	6,333	
	Cooked food ...	71	685	625	
	Total ...	6,75	6,681	6,958	18·1
Dhárákót ...	Money doles ...	2,64	3,278	3,134	
	Cooked food ...	20	197	116	
	Total ...	2,84	3,475	3,250	9·5
Bodogodo ...	Money doles ..	1,45	1,243	646	
	Cooked food ...	...	109	98	
	Total ...	1,45	1,352	744	5
Sérgadá ...	Money doles ...	1,02	1,020	1,530	
	Cooked food ...	9	75	50	
	Total ...	1,11	1,095	1,580	13·6
	Grand Total ...	12,16	12,603	12,532	12·9

From M.R.Ry. DARBHA VENKATASASTRIGAR, General Deputy Collector, Chatrapur, to the Collector of Ganjam, dated Boirani, 18th August 1889.

I have the honor to submit my report on the state of the Kallikót and Atagadá taluks for the week ending 17th August 1889.

Rainfall.—The total rainfall at Kallikót is 55 cents. 3 inches less than the last week. Towards Boirani some rain fell on the 13th and 14th, and towards Pulsara 50 cents. of rain fell on the 14th. There has been a slight fall throughout the two taluks, but not so much as in last week.

Agricultural operations.—Transplantation of paddy is nearly over. I have seen several villages about Boirani. Paddy fields are growing luxuriantly. At some places they have grown a cubit high.

A sum of Rs. 870 has been advanced for taccavi during the week. The whole sum as yet advanced is Rs. 18,790-6-0. During the inspection of some villages in the Boirani muttah, I have noticed that taccavi had not been fairly distributed; some villages regularly paying rent had been refused the same, while others falling into arrears of rent successively for two or three years had been granted; excessive taccavi had also been granted in some instances. I shall make all the above the subject of a separate report.

Prices.

	Present week.			Past week.		
	Boiled rice.	Raw rice.	Ragi.	Boiled rice.	Raw rice.	Ragi.
	1ST. 2ND.	1ST. 2ND.		1ST. 2ND.	1ST. 2ND.	
Kallikót	10½ 12	9½ 10½	18	11 12½	10 11	19
Boirani	10 11½	9¼ 10¼	16¾	10 11	9¼ 10¼	16½
Pasi	10 11½	9¼ 10	16	10 11⅛	9¼ 10	16
Pulsara	10½ 11½	9¼ 10½	14	11 12	9½ 11	15

There has been a slight fall at Kallikót and Pulsara both in rice and in ragi, stationary at Pasi and a slight rise at Boirani in second sort boiled rice and ragi, the other heads obtaining the same price as in last week.

Gratuitous relief.—The number on gratuitous relief remaining on the last day of the past week in Kallikót taluk was—

	Men.	Women.	Children.	Total.
	206	268	1,186	1,660
Struck off by the Kallikót Circle Inspector in last week	...	...	2	2
Do. during the week	4	5	29	38
Do. by Bengunaupada Inspector ...	2	0	4	6
Do. by the Manager	...	...	2	2
Total ...	6	5	37	48
Difference ...	200	263	1,149	1,612
Added by Kallikót Inspector during past week	51	84	350	485
Do. by Manager	27	40	169	236
Do. by Kallikót Inspector during the week	6	18	41	65
Do. by Bengunaupada Inspector ...	13	32	143	188
Total ...	297	437	1,852	2,586

The number remaining as per last week's return in the Atagadá taluk was—

	Men.	Women.	Children.	Total.
	426	833	3,032	4,291
Struck off by Atagadá Inspector in last week	12	19	75	106
Do. by Pulsara Inspector	15	11	70	96
Do. by Pandripadu do. do. ...	12	27	56	95
Do. by Boirani Inspector in the week	12	15	71	98

	Men.	Women.	Children.	Total.
Struck off by Kollada Inspector in the week.	13	18	242	273
Do. by Atagadá do. do. ...	12	19	75	106
Do. by myself do. do. ...	3	6	38	47
Total ...	79	115	627	821
Difference ...	347	718	2,405	3,470
Added by Pandripadu Inspector in last week	4	13	42	59
Do. by Pulsara do. ...	16	27	85	128
Do. by Atagadá do. ...	8	22	62	92
Do. by Boirani Inspector in this week.	7	14	70	91
Do. by Kollada do. do.	13	25	50	88
Do. by Atagadá do. do.	8	22	62	92
Do. by myself do. do.	1	6	43	50
Total ...	404	847	2,819	4,070

The numbers remaining at the end of the week are—

	Men.	Women.	Children.	Total.
Kallikót	297	437	1,852	2,586
Atagadá	404	847	2,819	4,070
Total	701	1,284	4,671	6,656

showing an increase over the past week of—

Men	...	...	...	69
Women	...	...	...	183
Children	...	...	...	453
			Total ...	705

The above figures show that there has been an increase of 926 paupers in the Kallikót taluk and a decrease of 221 paupers in the Atagadá taluk during the week. The increase in the former taluk is solely due not to increase of famine but to the inspection of the villages by circle inspectors appointed at the beginning of this month. Till their entertainment, there had been no systematic inspection of villages for famine relief, which had been given only to those who had presented themselves at Kallikót before the estate ristadar, and whose fortune it had been to be admitted to relief by the revenue inspectors. I asked the manager to itinerate the whole of this month the villages in the Kallikót taluk, keeping Atagadá for myself. I shall also spend about a fortnight in that taluk, commencing from 25th instant.

Boirani k[itchen].

	Men.	Women.	Children.	Total.
Balance as per last week's return ...	9	25	146	180
Deductions during the week	1	6	4	11
	8	19	142	169
Additions	...	4	4	8
Total ...	8	23	146	177

Last week's figures under men and women changed places owing to wrong information furnished by the manager. The mistake is now rectified and the figures are correctly given. I have placed 2 men and 7 women in the kitchen cooly work in the village as they are pretty healthy.

Weavers.—During the week, 4 weavers of Kudiali, 3 of Boirani and 2 of Salya have been advanced Rs. 90 for 9 looms. This added to previous advances comes to Rs. 2,180.

Cloths returned by weavers during the week—

Name of village.	No. of cloths.	Value. RS.	A.	P.
Kudala	114	156	15	6
Bengunaupada	119	146	8	0
Danapuram	24	37	12	6
Total ...	257	341	4	0

By a mistake in counting, 135 cloths, instead of 134, were shown in last week's return opposite to Boirani. The price is the same (Rs. 177-5-0). Correction requested.

A weaver at Boirani, who was advanced Rs. 10 in July, has returned the advance, as in his estimation the valuation of his cloths was too low.

As recently instructed, all the cloths are being secured at Kallikót.

Name of muttah.	Relief works.			
	Drinking-water tanks.	Minor Irrigation works.	Other works.	Total.
Chatra	...	36	...	36
Kollada	...	180	...	180
Boridakhandi	...	...	200	290
Pulsara	90	250	...	250
... ...	...			
Total ...	90	466	200	756

Coolies employed on transplantation being excluded, a great falling off in this week is visible when compared with the previous one.

Mortality.—The manager reports that 4 cholera deaths have been registered during the week, but that none of them refer to the current week. I learn that cholera is raging at Payik Jemna, about 5 miles from Boirani. I am going there to-morrow morning on my way to Pulsara. Government have ordered that all Bavuris, Pandasis and other low-caste people living within a radius of 2½ miles from a kitchen, should be drafted to it and that village relief should be discontinued if they decline to go there, unless absolutely necessary. Cholera and small-pox have changed hands in Boirani circle, the latter superseding the former. I have inspected several villages in the circle and, without exception, small-pox is raging everywhere, though very few succumbed to it. When I was inspecting Putara lately, a female child died in my presence. Nearly half of the paupers I have examined have been attacked with it. Boirani is at present free from the epidemic. The medical subordinate here advises me not to get into the kitchen

Of course persons suffering from small-pox should not be admitted to the kitchen, but I do not consider any further restriction necessary.

(Intld.) J. G. H. any from the villages subject to small-pox. I consider his advice is prudent. I have instructed the Boirani circle inspector to continue money-doles to low castes pending receipt of your orders.

In this connection I beg to bring to notice that, on 16th instant, I went to a village called Sano Ponkalabadi. It has two streets, one for the caste people and the other for Bavuris. There are about 30 huts in the Bavuri street arranged in two rows. They have kept their street so clean that I was surprised to hear it is a Bavuri street when I was passing through it. The members are all fairly healthy, and there is a little or no small-pox. The street of the caste people is quite dirty and is about 100 yards from it, and nearly half the street is suffering from the pestilence. The advantages accruing from sanitation and the evils arising from its opposite presented themselves before me in adverse colors.

From F. E. K. WEDDERBURN, Esq., Acting Principal Assistant Collector, Ganjam, to the Collector of Ganjam, dated Heramboodalum, 14th August 1889, No. 101 F.

I have the honor to submit my report for week ending 10th August.

2. The rain during the past week has fortunately been light:—

	Up to 3rd.	During week.	Total.
Chicacole	17·57	·66	18·23
Narsannapet	22·16	1·04	23·20
Tekkali	19·91	2·15	22·06
Parlákimedi	26·03	Returns not received.	

3. Paddy transplantation is now far advanced over the whole of the Sub-division. Samai, othalu and light ragi are still being harvested. These crops have suffered to some extent by excess of rain, especially where they have been grown on low-lying grounds.

4. Many of the tanks are now filled to within a few inches of the top of the bunds and any further heavy rain will be disastrous. A fairly long spell of fine weather is wanted to bring on the late ragi crops which now cover almost all the cultivated high ground in the division. There is abundant water for paddy cultivation.

5. The returns of cholera for this week are less than for last week:—

Chicacole	... ...	28
Narsannapet	... ...	17
Tekkali	... ...	9
Parlákimedi	... ...	... Returns not received.

6. Diarrhœa prevails among the cattle in Tekkali and 152 deaths are reported; disease is reported from some villages in Chicacole division.

7. I have been at Chicacole all last week endeavouring to make way against the arrears which have accumulated owing to constant and [illegible] touring during the last two months.

8. I have, however, inspected some villages in Chicacole taluk where money-doles were being distributed, and have satisfied myself that no [illegible] doles need be given in the Chicacole taluk, except in a few places in the northern and western khandams. Out of the 202 doles given in villages shown in my last week's report, I have inspected 157 persons. Of these 157, only 40 will remain on or after 15th August; and I have issued orders to stop all doles from that date in the southern khandam. As mentioned in my last report, the doles in Chicacole town will also cease on the 15th.

9. Of the five kitchens in Chicacole taluk, three—Chicacole, Narsannapet, Calingapatam—will close on 15th August; provision has been made in each of these places to meet any cases of privation which may subsequently occur by the money received from private subscription at the disposal of local authorities. The two remaining kitchens in Chicacole taluk, Munagavalsa and Jalmur, have been inspected by me after the close of the week for which this report is due; but to complete the account of the taluk, I may add that after rejecting from each kitchen as many as I was able, there still remain a sufficient number of persons in a dilapidated condition to justify the retention of these kitchens for a short time more.

10. I propose to retain Munagavalsa till 23rd August and Jalmur till 30th August.

11. I am now engaged on a tour of inspection of Parlákimedi kitchens. I have ordered one of these, Karajada, to be closed on 15th, and when my inspection is completed, I shall report upon the remaining seven.

12. In Tekkali two kitchens will be abolished on 15th August, Kottagraharam and Naupada, the rest may safely remain open till the end of the month, by which time I shall have revisited them again.

13. There is no doubt that the condition of even in the worst villages, is improving in spite of the high prices, and the harvest of samalu and light ragi is increasing the stock of food available for the lowest classes.

14. The numbers fed at the kitchens are given below:—

Chicacole—			
Chicacole	... ...	306	
Calingapatam	... ...	117	
Munagavalsa	... ...	84	
			507
Add doles in villages	... ...	216	
In Chicacole	... ...	182	
			398
			905
Jalmur (made up of 100 fed on cooked food and 70 receiving grain doles).	... ...	170	
Narsannapet	... ...	100	
			270
Tekkali—			
Tekkali	... ...	646	
Kassibugga	... ...	171	
Kottagraharam	... ...	155	
Nandigám	... ...	463	
Naupada	... ...	120	
Thalagam	... ...	264	
Kotabommali	... ...	332	
Jarjangi	... ...	146	
Gopálpur	... ...	424	
Patatekkali	... ...	261	
			2,982
Add money doles in four villages ...	... ...	...	103
			3,085

Parlákimedi—			
Sárvakót		210	
Haddubangi		120	
Varanasi		252	
Kótúr		162	
Hiramundalum		292	
Karajada		116	
Kottapilli		218	
Parlákimedi		85	
			1,455
Add money dole			275
			1,730
			5,990

against 6,306 previous week.

Major Relief works.—Number employed on 10th August—

Anantagiri road	150
Boppayipuram gedda	15
	165

Bathili road—no returns.

Minor Relief works.—In Tekkali, 215 persons were employed in completing tank work. The Palasa road was to have been begun on 10th; but no report has as yet been received.

Prices are almost stationary.

	Rice.		Ragi.	
	Last week.	This week.	Last week.	This week.
	SEERS.	SEERS.	SEERS.	SEERS.
Chicacole		10	19	19
Narsannapet	10	12	21	19½ (rise)
Tekkali	12	9	17	17
Parlákimedi	9	...	19½	...
	10½			

No imports or exports are reported.

ORDER—dated 6th September 1889, No. 758, Revenue.

Miscellaneous.

The Government is glad to learn that relief operations will soon cease in the sub-division; elsewhere there does not seem to be much improvement. The circle inspectors are evidently not to be trusted to exercise discretion in admissions to relief and the closest supervision must be exercised. Mr. Quinless is reported to have joined on the 26th August, and the requisite assistance can now be given to Mr. Carr.

2. Provision ought to have been made for shelter on the more distant works; the absence of it doubtless accounts for the reluctance of the people to resort to them and for the comparatively small number employed.

3. With reference to the Collector's remarks in para. 6, permission is accorded to calculate one-fifth of the grain portion of the wages of those employed on works at the price of rice instead of that of ragi. The fact that ragi is lighter than rice should make no difference as the Code provides for the grant of the value of a certain *weight* of grain. Mr. Carr's allusion in his report for the week ending 10th August to a "seer of 72 tolas for ragi" seems to show that the calculation of the grain allowance is made by measure and not by weight which is of course wrong. The Collector will see that any mistake of this nature is at once rectified and report what the practice is.

4. The order regarding the grant of batta to Government servants does not apply to village officers; no aid can be afforded to them, but of course they are eligible for gratuitous relief, like others, if they are starving. The scheme for the revision of village establishment should be submitted without further delay.

5. Sanction is accorded for the establishments specified in para. 18.

6. The application for a further grant of Rs. 20,000 for advances to weavers alluded to in para. 22 cannot be traced. The Collector will be directed by wire to quote the number and date of the application referred to and the total amount advanced and recovered up to date.

(True Extract.)

(Signed) C. A. GALTON,
Secretary to Government.

To the Collector of Ganjam.
„ the Commissioner of Revenue Settlement, &c.
„ the Financial Department.
„ the Accountant-General.
„ the Public Works Department.
„ the Surgeon-General.
„ the Editors' Table.

Endorsement No. 758A, Revenue.

Copy to the Government of India, Revenue and Agricultural Department.

(Signed) C. A. GALTON,
Secretary to Government.

Exd. P. L. Pereira.
120 Copies.

accounts duties in the Examiner's office, who have spent the period laid down in Public Works Department Circular, No. 14 P.W. of 1889, in divisions, that we must look for the supply of suitable men for the posts requiring to be filled by trained accountants.

7. It is, however, necessary that men should be selected to fill these clerkships, in the first instance, who have attained to some recognized scale of education and who are willing to accept general service.

8. The appointments of clerks on the provincial scales rest with officers other than the Examiner of Public Works Accounts of the province, and it is only by enlisting the co-operation of the Local Government or Administration in the matter that such a selection can be exercised.

9. I would venture to suggest, therefore, that Local Governments and Administrations be asked to consent to reserve a certain number of posts in the clerical establishment of the provinces, to which only men who have passed the entrance test for the subordinate accounts branch and who are likely to qualify for accountantships and are willing to accept general service, shall be appointed.

10. In view of the advantages that would result from the supply of competent divisional accountants being assured, there would probably be little difficulty in obtaining the desired co-operation, and, if it were decided that the posts to be reserved for men who have passed the entrance test should be limited to about 4 per cent. on the number of accountants employed in the province, the desired object would be obtained.

11. It is desirable that these clerks should be thoroughly trained by the divisional accountants, and, to ensure this being done, a bonus might be given as heretofore of from Rs. 50 to Rs. 100 to each accountant who turned out a properly trained assistant. It might also be as well to recognize that these clerks should be available for transfer to the Examiner's office for a period of some six months or so after their divisional training had lasted for 18 months or more so as to complete their qualifications for accountantships. Similarly it might be admitted that clerks might be transferred from the Examiner's to a divisional office to give them the necessary experience.

Order.—Ordered that the above note be forwarded to the Local Governments, Administrations and officers noted on the margin for consideration and favour of opinion on an early date.

The Governments of Madras and Bombay, Public Works Department, General and Railway Branches.
The Governments of Bengal, the North-Western Provinces and Oudh, and the Punjab.
The Chief Commissioners of the Central Provinces and Assam.
The Resident at Hyderabad.
The Agents to the Governor-General for Central India, Rajputana and Beluchistan.
The Director-General of Railways.

Ordered, also, that a copy be forwarded to the Military Department for favour of opinion as to the extension of the proposals to the Military Works Department.

(Signed) R. G. MACDONALD,
Offg. Depy. Secy. to the Govt. of India.

Office-note from the Examiner, Public Works Accounts, dated Madras, 30th August 1892, No. 142 A.

[Your office-note No. 246, dated 24th August 1892.]

In my opinion, the acceptance of the proposals of the Accountant-General, Public Works Department, for the recruitment of the subordinate accounts branch will involve no difficulty in this Presidency.

2. In reference to my own office, full provision has already been made for this, for, in my correspondence with the Accountant-General on the subject of the reorganization of my office, I stated that the "Rs. 50 clerks will usually be recruited from

candidates who have qualified for appointment as accountants" (para. 33 of my letter, No. 659 S.A., dated 11th May 1892).

3. And as regards Executive Engineers' offices the limit of appointments proposed to be reserved in the clerical staff for such advancement is so small that the Accountant-General's proposals may at once be adopted here without injury to any one, for, as I understand them, it is *not* intended that a clerk who had passed the required test should, on first appointment, be pitchforked into the highest post in a divisional office; he would in the order of events rise from the lowest salary and take his chance of advancement to the accountant grade as opportunity arose. No one could complain at this, for the chance is open to all.

4. "Four per cent. on the number of accountants employed in the province" (para. 10 of the Accountant-General's note), that is, on 49 in Madras, would be 2; and in each of the two divisions that I have yet been able to inspect, viz., Coimbatore and Nellore—I cannot say how many more there may be in other divisions—there is already one clerk who has passed the required test and who may hope to rise in due time to the accountant grade.

5. Practically, therefore, what the Accountant-General proposes is at present the case in this Presidency, and it only requires an order of Government to guarantee that it will always continue.

6. In answer to your para. 5, I may say that I understand that there has always been a difficulty in Madras, as elsewhere, in finding men of experience to fill the position of divisional accountant, and there is strong reason to believe that there is great weakness in the *clerical* portion of divisional offices as far as accounts work is concerned.

7. The introduction in the recently sanctioned scale of accountants of seven assistant accountants under training in divisional offices was intended to meet the first difficulty; but, beyond the orders in Government of India Public Works Department Circular, No. 14 of 1889, which have not yet been acted on in this Presidency, the second has hitherto been untouched, although it is of as much importance as the other.

8. The number of divisional accountants, who have been obliged to take leave, has, however, been so great that it has been necessary to put the majority of assistant accountants in effective charge before they had gained the necessary experience. This is a decided defect, as it places the Executive Engineer at a disadvantage, inasmuch as it makes him dependent on an untried accountant for the accounts work of his office (see para. 14).

9. I am in complete agreement with the principle enunciated in para. 6 of the Accountant-General's note as a remedy for the first difficulty, and I think it may be accepted as an axiom that any thing that tends to increased efficiency in divisional offices, either as regards clerks or accountants, is greatly to the interests of Executive officers; but, as far as this Presidency is concerned, I think the limit of two clerks for 30 offices is not sufficient, either as a source of recruitment for the subordinate accounts establishment, or as a means of improving the condition of the clerical staff in divisional offices.

10. It has been my intention for some time past to submit proposals for a reconstruction of Executive Engineers' offices on the lines that, on my representation, were introduced in the Central Provinces and which worked there with satisfactory results; but I decided to wait until, by inspection of some offices, I had gained some experience of their requirements in this Presidency. At present I have been able to inspect only two offices and I should have still further deferred an expression of opinion on the subject but that my views on it have been requested in connection with the Accountant-General's proposals. I may, however, add that I ascertained informally both at Coimbatore and Nellore that a scheme, such as that sketched in this note, would be favorably received by the clerks engaged on accounts work.

11. At present the whole of the clerical staff in each circle is on one list for promotion; but this establishment includes men who are engaged on two distinct sets of duties, viz., clerical and accounts, and I think it will be admitted that a good

copyist, or record-keeper, or head clerk, does not generally possess the qualifications necessary in an accounts clerk and *vice versâ*. It follows, therefore, that the promotion of a man from accounts work to clerical duties and of another from clerical work to accounts duties, and so on, all down the list, cannot be conducive to efficient work in either section of an Executive Engineer's office.

12. My inspection of the Coimbatore office furnished evidence of the inefficiency of the accounts section from this cause, while at Nellore it was found that the transfer of the record-keeper to another office, on promotion, and the appointment to his post of an untrained man had thrown the office into considerable confusion. I have therefore come to the conclusion that, as in the Central Provinces, so here, it is most desirable to recognize the distinction between the two separate sets of duties that make up the work of an Executive Engineer's office and to make efficient provision for it.

13. If, indeed, there be any room for the need of increased efficiency in either set of duties, I incline to the opinion that, from a divisional officer's standpoint, it is absolutely necessary that the accounts staff of his office should, in an especial manner, be thoroughly efficient. An Executive Engineer is not a professional accountant, nor has he the time to scrutinize the details of the account work done in his office, and it is, therefore, imperative that the men employed on this work should be utterly reliable; on the other hand it must be remembered that his local adviser on accounts matters, viz., the divisional accountant, no matter how efficient he may be personally, possesses only a limited physical capacity for individual work and supervision and that, unless he is assisted by intelligent and reliable clerks, there is great danger of irregularities escaping notice which might eventually place the Executive Engineer is an unenviable position.

14. It is, I submit, far more to an Executive Engineer's interest than an Examiner's that expenditure should be rigidly scrutinized before payment; that all irregularities as to rates, excesses, estimates, appropriations, &c., should be promptly brought to his notice; and that the accounts of his expenditure should be placed before him at the earliest possible date and in the most lucid form; but this cannot be done with an inefficient accounts staff.

15. The scheme to which I have alluded in para. 10 was this, the clerks engaged in divisional offices on accounts work were separated from all the other clerks in such offices; they were placed on a distinct roster for promotion; and the really qualified amongst them had the prospect of being drafted into the Examiner's office. I confidently submit that, until something similar is introduced in this Presidency, the work in neither section of divisional offices will be efficiently performed.

16. The practice which I understand is almost general in this province of allowing the divisional accountant to utilize the services of any and every clerk in the office on accounts works cannot be too strongly deprecated except on occasions of inordinate pressure, and, on this point, I would here emphasize the remarks made in para. 52 of my recent inspection report on the Coimbatore office:—

"The accountant impresses every clerk in the office including the head clerk and the store-keeper into account work of one kind or another. This is a mistake. Work is thus promiscuously distributed by the accountant amongst all the clerks in the office, six in number, the majority of whom have no fitness for account work, and that which is everybody's business is nobody's business. In my opinion the best results will not be obtained until some portion of the office is told off specifically and exclusively for account work."

It is unfair to the head clerk and his assistants as it diverts them from their more legitimate duties and it is prejudicial to good work in either section of the office.

17. Whereas the proposal made above will be a safeguard against square men being placed in round holes and will thus secure efficiency in each section of an Executive Engineer's office.

18. As regards promotion, the clerical staff would look, as at present, to Superintending Engineers' offices and the Secretariat and their prospects would be improved, in that a smaller number of men would be eligible for such advancement; while the

accounts staff would have the prospect of being drafted either (*a*) into the Examiner's office as clerks on their having passed the test qualifying for admission into the subordinate accounts establishment (see para. 2 of this note), or (*b*) into the accountant grade, on electing for general service, in addition to having passed the prescribed test.

19. It may sometimes happen that a man, who is admirably adapted as a divisional accounts clerk, is unsuited either for work in the Central office or for the duties of an accountant, and it is, therefore, necessary to stipulate that in either case the appointment would be on probation for three months, during which period the clerk would preserve a lien on his former appointment.

20. In this way the prospects of every clerk, performing either clerical or accounts duties, in a divisional office, would be considerably improved, but one essential to the working of such a scheme is that the clerks engaged on account work—I restrict my opinion to these as coming more within the scope of the subject under discussion and I therefore say nothing here about the other clerks—should be adequately paid. In the two offices that I have inspected the following was found to be the salaries paid to men engaged exclusively on such work:—

Coimbatore	Rs. 20—2—30 and Rs. 15.
Nellore	„ 30—2—40 „ „ 20—2—30.

and the work done by them was to a great extent slipshod and unreliable, while the men were of very limited intelligence. These salaries, I submit, are not sufficient for responsible work, nor sufficiently attractive to men of the right stamp, and I would propose that the pay of accounts clerks in divisional offices be fixed at Rs. 50, 40, 30, and 20.

21. It is only in the largest and heaviest divisions that more than two clerks will be needed, while in some divisions only one thoroughly efficient clerk ought to be sufficient, and in each case the pay should be regulated by the character and extent of the work to be done. I hold it economical, in the end, to pay liberally, as a man will have the more to lose if he falls in his work and this will be a strong incentive to him to give the best possible return for his pay; whereas, if a man is poorly paid, he is content to put in a dull, half-hearted mediocrity of work, and it is moreover unjust to punish a man who has been inadequately paid. On salaries, such as those proposed above, it will, I think, be possible to arrange a scale for each circle which shall be sufficiently attractive to really useful men and the prospect of rising to the accountant grade will be a very healthy stimulant.

22. If an accounts clerk failed to qualify for advancement beyond Rs. 50, he would have himself to blame; he should not look for advancement on the clerical establishment any more than an accounts officer looks to the executive branch for promotion.

23. Such a scheme with a larger field for advancement as sketched in paras. 15 to 20 would supply divisional offices with a better stamp of accounts clerks, and this would be a distinct gain to Executive Engineers for the reasons stated in para. 13. Nothing in it would diminish present patronage or weaken Executive Engineers' control over their office establishments (as feared in para. 3 of your note), for appointments and promotions would continue to be made as at present—

(i) with this difference, that the two sets of clerks, both for purposes of appointment and promotion, would be kept distinct from each other; and

(ii) with this reservation, that, in the event of the Examiner, or his deputy, finding, at an inspection, that a particular accounts clerk was unfit for his work, the Examiner's recommendation for a re-adjustment of his position would be carried out.

In proposing this reservation, I am actuated solely by the desire to *aid* Executive Engineers in the accounts work of their offices and I would give effect to it in the same way that I now take steps for the reduction or removal of an accountant who has not fulfilled the trust reposed in him as the righthand man of an Executive Engineer in accounts matters.

24. Another essential to the successful issue of such a scheme is that sufficient provision be made for absentees, for it is *here* that inefficiency cripples the divisional

GENERAL.
ESTABLISHMENT.

Govt. of {1892} Madras.

PUBLIC WORKS.

Dated September, 7th.

Read.

Encl.

G.O., 7th Sept. 1892, Nos. 2502, 2503 W.

SEPTEMBER.

Recruitment of the Subordinate Accounts Branch

Forwarding to the Government of India copy of Proceedings passing orders on the question of — from accounts clerks in Executive Engineers' and Examiners' offices.

3000