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GOVERNMENT OF TAMIL NADU

P.W.D DEPARTMENT

VOL. I

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GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

18th September 1878, No. 3,674 W.

Re-organisation of the Public Works Department.

Read the following :—

Letter from the Government of India, No. 308 E.G., dated 20th February 1877.

MINUTE BY THE HON. SIR W. ROBINSON, K.C.S.I., dated 17th July 1878.

No statement of the principles and objects of this proposed re-organisation of Public Works Establishments—the second or third which extravagance and failure of administration have suggested since its constitution—accompanies these papers; but I gather the object to be to secure more departmental supervision and inspection of subordinate establishment and their works throughout the country, to systematise and strengthen district administration and control, and to concentrate finance management. A small saving of some two to three per cent. on the existing cost of establishments is deduced; but, viewed by the light of the past, it is unlikely to be maintained under the conditions proposed.

2. The annual task to be performed by this department may be gathered from the expenditure of a fairly normal year. Taking the figures of 1875-76 (Administration Report), in which the grants were somewhat larger than is usually the case—agricultural ordinary grants have since fallen off,—we find that it was distributed as shown in the margin; we had a total grant of 102¼ lakhs. The proportion of this sum which was spent on establishment was, in round numbers, 21¼ lakhs, while the actual work performed under this supervision, &c., by the establishment for that money was worth, say, 77 lakhs—including the large profits of contractors and builders. In other words, between one-fifth and one-fourth of all grants was spent on supervision, management, &c., and yet neither efficiency nor honesty was absolutely secured.

		Rs.
Military		8,32,744
Irrigation Capital—		
Capital, Extraordinary..	6,10,082	
,, Ordinary ...	4,33,685	
		10,43,767
Irrigation, Revenue—		
Extension and Repairs.	7,87,227	
Agricultural Ordinary...	18,05,030	
		25,92,257
Provincial—		
Lump Grant	21,89,016	
Local Fund	35,80,062	
Repairs	16,180	
		57,85,278
		102,54,046

3. It would unduly swell my observations were I to endeavour to sketch the nature of the works so managed. But I may remark that even under Military and Irrigation Capital Account Works, which alone deserve to be classed as Imperial, a large mass of engagements were of an unimportant and minor character. However, even assuming for the nonce that the whole of these works were of sufficient importance to palliate the expenditure on establishment of some Rupees 4,60,000 (at 25 per cent. of the grant) for an expenditure under 14 lakhs, there can be no doubt that an establishment costing, say, 16½ lakhs for the expenditure of, say, 65½ lakhs, on such works as constitute Provincial and Local Fund Works or Revenue Repairs, &c., and Agricultural Ordinary Works was utterly extra-

vagant under any consideration. For probably three-fourths of the expenditure on Communications, &c., under Provincial and Local Funds consisted of mileage grants for the mere raking in of ruts and laying the metal of ordinary annual repairs; while the other works of the simplest character, such as constructing taluk offices, Police lines, and the like, and Local Fund Dispensaries, require only such scientific skill as may be commanded at very reasonable cost. The existing outlay on establishment, &c., in their interest is, therefore, clumsy and extravagant in the extreme. The same observations apply to Agricultural Ordinary Works, such as channels, tank-sluices and escapes—which, barring sufficiency, the people have been constructing for themselves with admirable ability—embankments and the like, which require no skill of higher pretensions. Honesty of estimate and expenditure is not the characteristic of large subordinate establishments in this country; though it is the usual plea for constituting them.

4. On the whole, I but record the conviction, which has now possessed all minds outside the department, that the cost of Department of Public Works Establishment is out of proportion with the work they have to do; and that the time has fully come when it is the absolute duty of the Government to moderate their expenditure in this respect, in accordance with the requirements of works to be done, and with the interest of the country and of the public fisc alike. It is time that departmental constitution and management should follow obvious public consideration and the expenditure thereon be kept within reasonable limits.

5. Taking, then, the normal annual grants for Public Works under all heads at 100 lakhs a-year, one-fourth of this sum may be accepted as Imperial properly so called, viz., "Military" and "Irrigation Capital Account" Works; and I am satisfied that 20 per cent. of this outlay should cover the establishment charges for all Imperial Public Works, say, 5 lakhs a-year. A larger charge than this is unfair to the Imperial [illegible]

6. All other works should be classed as Provincial and Local, which is their proper character, and the sooner the wise measure of decentralization is extended to all these items, the better. Now as respects these minor works, permanent establishment charges should be more than fully met, under any thing like reasonable and efficient administration, at from 10 to 15 per cent. of the outlay, or say (taking the higher rate) 11 lakhs, making a total of 16 lakhs for all establishment charges in this department. It is utterly, I venture to hold, inequitable that the State should charge Municipal bodies one-fourth of their whole grant for local Public Works, for the most extravagant supervision that was ever devised; and that the Provincial Government should waste on extravagant establishment from 30 to 40 per cent. of the Provincial Grant entrusted to their administration by the Imperial Government; as is now occurring. I consider that 17½ lakhs to 18 should be an outside charge for Department of Public Works Establishment.

7. The Committee, which sat in 1869-70, recommended useful reforms, and I cannot be a party to any illusory re-organisation, which fails to start on the basis of an equitable and reasonable appropriation of expenditure between supervision and management and works. This is not the character of the one before me. I hold that the Government are bound to determine the maximum expenditure on establishment with reference to the funds at disposal for works, and to arrest existing waste of both money and power.

8. These exist, as it appears to me, waste of money and power in almost every branch of the establishment, and perhaps not least at the head of the existing organisation. As a matter of fact, we have the administration of this department of execution and expenditure—one specially needing concentrated control and management as respects its finance and direction—broken up into three separate and more or less independent branches, including the Railway branch, whose Consulting Engineer has recently been added to the Government Office Secretariat. Each department has its own Chief Engineer, each of whom again is his own Secretary to Government in respect of his own work, and so much of that of the General District Establishments as relate to his share of the administration. It is, of course, with the Executive Departments, General and Irrigation, that we have

chiefly here to do. In these relations every District Engineer in the country serves two masters and two secretaries to Government.

9. Each Chief Engineer and Department of Public Works Secretary to Government again has a Deputy Chief Engineer employed in the main as Under-Secretary or Assistant—one (Colonel Farewell) occupying the place and drawing the salary of a Superintending Officer—with, in practice, a distinct office establishment. From an administrative point of view, we have thus a cumbersome and inconvenient organisation in the offices. Each of the Chief and Deputy Chief Engineer is, I conceive, understood to control and inspect, from time to time, the larger works connected with his respective branch of the department; but as Secretaries to Government, all these officers are attached through the greater part of their time to the Government Office, and the Chief Engineers at least are in residence around the Government at Ooty, and absent from their offices of verification and control for a great part of the year. They are thus hampered as respects system, control, inspection and the like by the ministerial duties of the Government Secretariat. When one of these officers is required as Chief Engineer to be afield amongst his District Officers in the ordinary course of duty, or under special emergency, the Secretariat duties of the absentee devolve *pro tem.* on an Under-Secretary, and the *portfolio* of the particular branch of the department is, so far as Council is concerned, brought in by the head of separate branch, who is more or less unfamiliar with the threads of the department supervised by his brother Chief Engineer, and is probably discouraged by the etiquette of the service from advising Government independently on any subject, which he may be permitted by his co-ordinate Chief Engineer to introduce to their notice.

10. As heads of their respective branches, these officers no doubt have a reasonable amount of work to do, though I should doubt whether—shorn of irrigation—the General Chief Engineer himself has as much to do as an officer of that position and emolument might overtake. Be this as it may, the triple and separate Secretariat to Government (with its Deputy Chief Engineers as Under-Secretaries, &c.,) is, I believe, absolute waste of power and of public money and time. The arrangement is not only detrimental to public interest by the traverse of primary duties of these heads of the department, which is involved in personal attendance on Government and prolonged absence from their offices and duties of inspection, &c.; but it is at variance with one of the first principles of administration in this country, viz., that the work of every department shall pass into independent hands when it appears in the Secretariat of Government.

11. Writing from five years' experience of the Madras Council Chamber, I do not hesitate to say that taking one week with another throughout the month, all the three Chief Engineers and Public Works Secretaries to Government together do not occupy Council for one hour a week—the Consulting Engineer for Railways very rarely appears at all—all the year through, although various of the matters which are brought into Council in this department had better be left to the Executives of the Department. This occurs for the very obvious reason that very little, indeed,—certainly not one-tenth—of the work of a Department of this kind is such as is or can be conveniently transacted in Council or in the Government Secretariat, or, in fact, by personal communication with the Members of Government at all. Submitted with a Chief Engineer's report or countersignature, by far the greater bulk of the business of this department would be better and more systematically done by a single officer of the Secretariat, who might be of moderate standing and appointed *ad hoc*. We would then have undivided attention to Secretariat duties, while the heads of the various branches would give their undivided attention to the control of their officers. Great projects of public utility are in the main, or should always be, discussed by Council deliberately on the estimates and responsible official reports, and it does not require an officer of exalted standing to lay the well-considered report of a Chief Engineer, with enclosures, before Government. I believe that it were much better even now, were all estimates and reports submitted with a final review of the Chief Engineer—as such —to Government, through a Secretary of subordinate rank for their calm consid-

eration. But what occurs now is this, Colonel Foond, as Chief Engineer, circulates a more or less informal Note about any matter in his department, and then, as Secretary to Government, drafts Government Orders practically to himself as Chief Engineer; Colonel Mullins in like manner, as Chief Engineer of Irrigation, submits a memorandum practically to himself, and, as Secretary to Government, circulates the draft of a Government Order in echo of his memorandum for the initials of the Members of Government,—in a manner which differs from, while it scarcely improves upon, the formal and precise character of independent reports which come before Government for disposal under the signature of responsible heads of other departments, with a Note by the Secretary, who takes a fresher view of the subject. Business in Department of Public Works necessarily assumes, as it seems to me, a less formal and careful character; and possibly members themselves are tempted to endorse the Chief Engineer's disposal of matters in the Secretariat, more readily than occurs in respect to any other department of the administration. Be this as it may, the precious time of these Chief Engineers is practically still taken up by a second review of matters before them; and it is still further occupied by a mass of trivial routine and by the attendance on Government on the Hills and elsewhere, which necessarily attaches to a Secretariat, and is, I think, unworthy of officers in their position; and otherwise objectionable.

12. But a still graver objection in principle—and therefore also in practical consequences—attaches to the position of these permanent heads of departments serving as *quasi*-Secretaries in the Government Office. Move up the permanent head of any department—much less three such heads of as many branches of the same department as permanent Secretaries (each in respect to his own branch of the work)—to a more or less shifting cabinet of three in number, and bringing, as he must, a very potential voice to their deliberations, and I will not express what I think follows; but what I will affirm is this:—the Secretaries necessarily cease to be simply ministerial officers of that cabinet, and any really effective and independent control by the members of Government over the various branches of the administration, which its chiefs represent in Council is seriously enfeebled and embarrassed. It is, I believe, absolutely impossible for the "member in charge" of the Department of Public Works to work with two or three Chief Engineers, as if they were really ministerial officers of his Secretariat or for the Government effectively to exercise that certain control which it does exercise over all other departments of the general administration not so favored; financial control and retrenchment are almost impossible under the circumstances. As a matter of fact, the presence of three Chief Engineers and two Deputy Chief Engineers of the Department of Public Works in the Government Secretariat is no more reasonable than would be that of the Bishop and his Archdeacon, or of the 1st Member of the Board of Revenue or Director of Revenue Settlement, each in charge, as Secretaries to Government, of their respective departments, under the equally applicable plea that there are technicalities in their departmental duties which require to be explained personally to the Members of Government in Council and that their departmental business requires specially to be guided by themselves through the State Cabinet. No more complete traverse of the most ordinary principles of administration and control could be devised, as it appears to me, than that which exists in the Secretariat of the Government of Madras at this moment in respect to the Department of Public Works; and I refuse to believe that any further re-organisation can be usefully or effectually taken in hand which does not remove the existing embarrassment of Government in respect to its overwhelming Department of Public Works Secretariat; which does not unburden each Chief Engineer, together with their Deputies, of the Secretariat office-work, which now harasses and trammels their proper functions as the heads of a department, by claims on them as *quasi*-ministerial officers of the Government Secretariat, and which fails to place those officers of highest standing in a position which shall enable them to exercise useful personal control, inspection, and uninterrupted scrutiny of the projects, estimates, and works of their subordinates. The Commission which sat in 1869-70 to consider the re-organisation of Department of Public Works reported unfavorable of the conditions

now under consideration, although there was then but one Secretary to Government, Colonel Orr, who undertook, I believe, no duty or responsibility which properly belongs to a Chief Engineer, in addition to his Secretariat functions.

13. It is obvious that the presence of responsible heads of all these branches of one department in the Secretariat of Government is in no way necessary with a view to personal communication with the Members of Government on matters of importance. The head of any branch of the Department of Public Works organisation can be sent for or otherwise communicated with, as it occurs in other departments, at any moment without being further burdened with ministerial office duties. In fact, removed from the ministerial and Secretariat subordination and uncertainties, the head of a department is in a better position to offer influential and reliable advice. I need scarcely add that I attach the utmost importance to this measure of reform of existing conditions, because, apart from other considerations, I hold that the unembarrassed attention of the head of a department to its internal working is the keystone of efficiency, and where it is traversed, the defect has to be supplied by otherwise needlessly numerous and costly subordinate inspectorate arrangements.

14. The project of re-organisation before me apparently retains the position of the three Engineers and the Deputies in the Government Secretariat untouched, and seeks to supplement consequent and inevitable deficiencies as respects inspection and other primary duties of their offices, by relying on Superintending Engineers to effect these duties in part at least. This cumbersome expedient cannot heal defective and costly conditions at the top of the department, for the whole thing is, I hold, top-heavy and inconsistent at its head. This Government has already proposed to the Government of India a sound re-organisation of the Secretariat and the appointment of a separate Secretary to Government in the D.P.W. Department; and I should recommend that we adhere firmly to the economical and administrative changes which we have decided to be indispensable in our present proposals. By relieving the Chief Engineers and their deputies of Secretariate inconveniences, the needful increased supervisory control will, in a great measure, be provided and reductions made feasible.

15. The pivot of all administration in this Presidency is the District; and the direction to be observed in its improvement as respects the Department of Public Works lies, therefore, in, so far as possible, centralising and consolidating control and responsibility in the hands of the District Engineers in respect to every matter relating to the Department of Public Works within each district. The next step, after wholesome adjustment at the head, in due re-organisation, therefore, lies in effective adjustment in the district establishment. Ingenuity could scarcely contrive a more complete system of confusion as respects any civil branch of administration in this Presidency than one which should place between seventy and eighty of the Collectors' subordinates of all classes and castes all over the country in an executive position of more or less independence of the Collectors; that should allow them to draw funds from, and render accounts to, the Accountant-General without intervention of the Collector; to supply themselves with lump grants under every head of expenditure to be laid out more or less at discretion for the time being, while it should leave the Collector—outside some progress report forms and other minor arrangements, which do not appear to give their immediate sufficient effective control—to wander abroad and find out, if he can, what his subordinates are about, and so on. Yet this is not altogether an exaggerated picture of the confusion which exists at this moment in respect to the establishment of the Department of Public Works and of the position of the District Engineer, unless he be a man of peculiar energy, method, and command. The district system was revived on the recommendation of the Commission which sat in 1869-70 some years ago, but it has been imperfectly carried out as yet in detail.

16. In re-organisation, therefore, the District Engineer's position must be consolidated, strengthened, and energised. He must be placed as completely at the head of the whole district and in control of its Department of Public Works establishments as the Collector is as respects the Civil establishments. He should be the only officer in direct account with the Controller or in communication with superior

authority, and so on. And this is quite as feasible in this department as it is in the other departments of the Administration; for, as a rule, Civil Districts are not in size—proposals have already been submitted for the reduction of excessive areas—beyond the capacity of one District Engineer. It may, however, be convenient to admit sub-divisions of the districts of Godavari and Kistna—and possibly Tanjore—as they will stand even after the sub-division proposed some months back. At the outside, however, twenty-five or twenty-six—providing for the new districts—officers of the grade of District Engineers are required for the Presidency—exclusive, of course, of any required to fill equivalent appointments in the general administration—and no District should be sub-divided if it possibly can be avoided. I look upon the maintenance of the district organisation as of the utmost importance, and I hope that the time may not be far off when, with proper means, raised for the maintenance and improvement of irrigation works, &c., and with the grant for "agricultural ordinary" works properly distributed in each district as a local fund, every district may become more or less self-supporting, as respects Department of Public Works establishments from local funds aided by the per-centages under Imperial and Provincial for work supervised. If district establishments were localised and placed under district officers and Municipal bodies, we should soon find that they would be organised and managed more in accordance with the works to be overtaken and money available, and far less expensively than now.

17. Under the District Engineer a moderate number of Assistant Engineers, nowhere exceeding two (2) per district, would be required, who, with as many Upper Subordinates and Taluq Overseers as may be necessary, should constitute a district establishment. In small districts, such as Canara and Trichinopoly, and almost without exception in the new auxiliary districts, one District Engineer with the requisite subordinate establishment should amply suffice. The District Engineer is an Executive Officer in so far as he is responsible to see work efficiently executed by his subordinates and contractors.

18. Having set the Chief Engineers and their Deputies free from Secretariat obstructions to their more appropriate duties and placed them in their proper positions in relation to the work of the subordinates, and having consolidated effective district establishments, the Superintending Grade—now five in number—may, I think, be reasonably reduced. The Committee of 1869-70 recommended, I believe, two Superintending Engineers. Three would amply suffice under the proposed re-organisation. This grade should be absolutely non-executive; they have simply to see that the executives in the districts within their respective ranges do their duty, to inquire into shortcomings and fiascos, and otherwise provide for the investigation of important projects within their respective spheres of duty. An over-strong Inspectorate does more harm than good, weakens real responsibility, where it should be sternly insisted on, viz., in the district, and otherwise clogs the wheels of administration.

19. The four* northern districts with Nellore should constitute one range with Rajahmundry as head-quarters. The Chief Engineer and his Deputies might retain the Presidency District, Chingleput, and Bangalore under their more immediate observation and occasionally visit the Hills. The southern districts would constitute one Range with Tanjore or Trichinopoly as head-quarters; and the Ceded Districts with North Arcot, Salem, and Coimbatore should constitute a third range. Malabar and Canara should be visited occasionally by special deputation of a Deputy Chief Engineer, for, as a rule, there is little doing in either district, which requires frequent State inspection or report. The ranges which I propose are large, but not unmanageable as respects works requiring an inspector's observation; for it is simply futile to attempt to organise a State Inspectorate which should bring Local Fund and Agricultural "Ordinary"

*Ganjam.	Kistna.	
Vizagapatam.	Nellore.	
Godavari.		
†South Arcot.	Madura and	
Tanjore.	Tinnevelly.	
Trichinopoly.	Head-quarters, Vellore.	

works and the like within the reach of the personal observation of a highly-paid State Inspector. Nor is it needful; for a good District Engineer is practically an infinitely better Inspector of such works than any Superintending Engineer could be, even if it were possible to afford eight or ten officers of this grade.

20. Such is roughly the cast of the re-organisation which I would recommend as regards Superintending or as they should be called Inspecting Engineers. But it may be useful to review the actual working of the thing at this moment. We have, as already observed, a staff of (5) five Superintending Engineers—with requisite salary attached; but there is actually not one of these officers doing the duty of his office. One (Colonel Farewell) is a Deputy Chief Engineer and Under-Secretary to Government, and mainly engaged in office-work, and the four others are District Engineers without any inspecting duty whatever attached to their functions, although, I believe, they draw the pay of the grade. The thing is without parallel in any other department of the Administration and probably accounts for much of the existing confusion.

21. On the whole, I am satisfied that the matter has to be taken in a firm and somewhat drastic form, and I would not now re-organise the department without that searching scrutiny and retrenchment which are now unavoidable. At length the Government of India and Northern Administrations have realised—as we have long done in this Presidency—that the establishments of the Department of Public Works as now constituted throughout India are beyond the needs of the country and costly and extravagant beyond the nature of the work ordinarily to be performed; and they are, I believe, re-organising with large retrenchments. We should follow the example, I think, somewhat on the principles I have ventured to sketch.

22. The undue preponderance of costly (and possibly not altogether reliable) European subordinate executives in the department requires the earnest attention of Government, and reflects, I think, on the superior departmental management. There are but two Natives in any position (both low) amongst the 100 and odd men above the rank of upper subordinates in the Department. Encouragement has not really been given to the higher classes to qualify for employment in the Department of Public Works.

23. The effective re-organisation of the District Engineer system should enable reduction in Account Department by limiting the number of officers in account with the Controller.

24. Sound re-organisation will affect the constitution of the service and adjustment of grades in some degree throughout the department, but it will be found that the semi-military spirit which underlies the organisation of a purely Civil Executive Department militates against both financial and administrative adjustment, and should, I hold, disappear.

To sum up I recommend—

(1) that large reductions of establishment and cost be effected;
(2) that the Government Secretariat be re-organised and an Under-Secretary be appointed in charge of Department of Public Works correspondence;
(3) that Chief Engineers be relieved from all Secretariat duty;
(4) that the Department of Public Works Inspectorate (five Superintending Engineers) be reduced to three with fixed ranges of inspection;
(5) that District Establishments be re-organised on a reasonably thrifty but efficient scale;
(6) that the cost of the Account Department be reduced; and,
(7) that the department be re-graded with reference to requirements of the service to be performed and not with reference to the ill-suited existing gradation.

(Signed) W. ROBINSON.

MINUTE BY THE HON. SIR W. ROBINSON, K.C.S.I., dated 14th September 1878.

I HAVE examined these statements of the proposed re-distribution of the Department of Public Works service with great care, and regret that I am still unable to endorse the proposals as embodying those measures of economical executive Administration and financial control which are urgently needed in the department of Public Works in this Presidency in regard to which I hold that the opportunity afforded at this time should be effectively availed of.

2. The saving—chiefly in subordinate and office establishment—which the Controller's able revision and apportionment has effected, simply demonstrates, as I believe, that if the same drastic manipulation were carried up into the more costly grades of the establishment, the expenditure under this head might be reduced to 17½ to 18 lakhs a-year—an all-sufficient per-centage of the moderate annual allotment under all heads of expenditure which have to be worked out; and I believe, as I have already indicated, that the only effective mode of dealing with this question is for Government to decide what they will spend on establishment, and leave it to the heads of the department—including our able Controller—to submit proposals for the distribution of that sum amongst an efficient and economical establishment under each branch of service.

3. Under the proposals before me—judging from the "Distribution Statement" the whole executive establishment is practically to be maintained—more especially the upper grades. The savings are made, as I gather, in office establishments and other small appendices to the upper distribution, &c. I refuse, myself, to believe that the pyramid—over-weighted above—will fail gradually to recover its natural slope or that the reductions will be long maintained under the proposed arrangements.

4. I again record my conviction as regards the unsuitable and inconvenient position held by the Chief Engineers of all executive branches of this service in the Government Secretariat. The course which has characterised this very redistribution arrangement now before me shows how the true functions of the heads of departments may be made to give place to mere ministerial conditions. I look in vain amongst these papers for the recorded views of such important functionaries as heads of departments of the D. P. W. on the proposed redistribution and for those of the Board of Revenue (as Controllers of Local Fund Expenditure). These functionaries have not advised the Government as heads of Department—the Board of Revenue have had no opportunity to do so—but apparently have taken their orders as Secretaries; and I confess that I think that this is a serious defect in a matter of this kind.

5. But it is perhaps mainly as a matter of financial control that the conditions which it is proposed to continue fail, as it seems to me, to commend themselves. It will not, I conceive, be asserted that the financial control of Government and its Secretariat is or has ever been practically effective throughout the department; and yet the main duty of the Government and its advisers in respect to an executive and expending Department lies in this direction—the position of Government is mainly that of the Treasury in respect to financial control—and yet for these duties the Government have practically to look to executive heads of administrative branches of this department, and, as I believe, must look in vain under the ordinary condition of such a system—or rather traverse of system and principle of administration. Let the Government ask the Controller whether he finds that he is exercising that effective control through this Government, which his functions indicate, to his satisfaction; ask the Board of Revenue whether they find that they practically enjoy the financial position which their responsibilities claim; ask Collectors whether their functions in this respect or in some other respects are what sound local administration requires; on these points I have only to invite the attention of my honorable colleagues to the Controller's letters, dated 18th April 1878, No. 14 W, dated 17th April 1878, No. 10 W, dated 12th August 1878, No. 222 W.—all as yet undisposed of—and to ask whether they disclose a state of things which this Government can accept as proper in itself or of which they are

justified in hazarding their possible continuance. I confess that these letters read to me like an unanswered impeachment of the general conduct of Government. Be this as it may, they certainly are letters such as it should not be possible for an officer in that position to address to this Government, or to submit, as I conceive, in the course of business to the Government of India for perusal.

6. I have on my table the Board's Proceedings, dated 23rd August, on the subject of the Kowtaram road, one of many items found in the Controller's return of objectionable items of expenditure, and I have heard that the district of Salem as well as others are more or less out of order in respect to financial discipline.

7. I have no fault to find with the able officers who hold and have held the position of Chief Engineers and Secretaries to Government. The interest and proclivities of an executive and expending Department and of the Managers of its *personnel*, are not and never can be altogether at one with those of financial control and strict discipline in this respect. What I press so earnestly on attention is but the natural outcome of the conditions, executive and personal, of the traverse of a sound and acknowledged administrative principle. It is precisely what would have occurred in the department of which I was long the executive head, had I, as Inspector-General of Police, passed ten years in the Government Secretariat in charge of the finance and administration of my own department—precisely what would occur were the Commissary-General, the Inspector-General of Jails, or the head of any other executive and expending Department called to the same position. I am—as I long have been—most earnest on this matter, because I believe,—a belief to which five years' experience as a Member of Government has given the strength of a creed,—that the very keystone of the financial position lies in reverting to sound principle in this direction; because I believe that the *fons et origo* of our difficulties of control are inherent in the traverse of principle which existing conditions—to be perpetuated under this redistribution of functions now before me—present.

8. I have already indicated how, as it seems to me, the needless Secretariat pre-occupation of the Chief Engineers necessarily leads to excessive expenditure in the next higher grade of the establishment, viz., the Inspecting or Superintending Staff; and the Appendix marked A to the proposals before me appear to evidence the fact. We are practically to have five minor Chief Engineers, with proportionate offices, in executive charge of four or five districts each, which are again sub-divided into thirty-eight ranges (divisions) or independent districts, with their officers in account with the Controller, &c. Now as it seems to me, the real functions of the Inspecting Officers are lost in those of the *quasi*-responsible Deputy Chief Engineers (Superintending Engineers) of Circles, and the little gain which resulted from the re-organisation of 1872—consequent on the labors of the Commission, which sat in 1869-70—in replacing the District Engineer, in some measure, in his proper position as the pivot of executive organisation and local administration is foregone. We are simply reverting—under some change of nomenclature—to the condition of Deputy Chief Engineers of Circles (Superintending Engineers) with the Range-officer organisation, pure and simple; somewhat reduced as regards numerical distribution and more extended in territorial charge, but still incompatible with the fundamental principle of our civil administration. The thing has already been condemned as unsuited to our administrative conditions, and has been in abeyance as respects Superintending Engineers for years; and I regret to find myself, therefore, wholly unable to support what appears to me a serious traverse of sound administration as respects both executive control and financial administration, and the duty of independent inspection in regard to this Presidency.

	Districts.	*Ranges.
1st Circle	4	9
2nd do.	4	7
3rd do.	†4	8
4th do.	‡5	7
5th do.	4	7
	21	38

* Plus the Bangalore Cantonment.
† Includes the Nilgiri Taluk.
‡ Excluding the Consulting Architect.

9. What we want in this Presidency is real financial control in the Government Office by an officer, who shall be relieved in the main from executive responsibilities and other disturbing influences, which necessarily attach to executive heads of departments. We then want the heads of the various branches of the administration freed to devote their whole time to their executive and controlling duties, and under these we require sound and concentrated district organization—with a moderate staff of Inspecting Engineers, who shall see that the district work is done and to assist occasionally in elaborating the very few works of larger importance, which —with the means at our disposal—we can possibly hope to undertake from year to year in any district. The distribution before me, with what practically constitutes seven Chief Engineerships of grades and thirty-eight District Engineerships with their office establishments, &c., does not in the main present those conditions, and I am unable to accept it as meeting the requirements of the country financially or otherwise.

10. It is difficult to deal with Appendix B of the proposals; because the average expenditure in the proposed ranges (divisions) and the establishment designed for each division is not shown, other statistical information and local advice are wanting: and the somewhat bald statements before me do not give any reasons for the proposals submitted. Territorial considerations, however, appear in the main to have guided the distribution, and I think that in various respects these adjustments even are defective.

11. I observe that the Godavari District is broken up into three or four independent ranges. I should be willing, as already stated, to give two officers of the grade and emoluments of District Engineers to this district. But I find a third range constituted out of the taluks of Rajahmundry, Yernagudium, and Ellore, and also that Dumagudium is to constitute a fourth range of this district. Now the taluk of Ellore with its high level canal and other territorial conditions belongs to the Western Delta (a proposed very moderate range of three taluks for a high grade officer) and the other two dry taluks even if we add Dumagudium, where we are now spending 2 Rupees on establishment for every rupee of work performed, is nothing but what an assistant to the District Engineer of the Northern Range could more than overtake; but in the proposals before me, we have, I gather, two independent ranges in place of one assistantship, which, I think, should amply suffice for all that is doing in the two ranges proposed.

12. The same observation applies to the range distribution of the Kistna District. The Pulnad Taluk and Bezwada should be added to the Eastern Delta Districts. The proposed charge of the Western Delta is composed of two taluks,—a wholly inadequate range for an officer in the position and enjoying the emoluments of a District Engineer. Now I am satisfied that the ordinary expenditure in the dry taluks of Vinnacondah, Nuzvaudly, &c., will at once indicate suitable employment for an assistant on moderate salary to the District Engineer in charge of the Western Delta, or in view to the possible constitution of a new district of Ongole, one or two taluks might be joined to the Ongole Range of Nellore.

13. As respects Nellore and in view to the possible constitution of a new district of Ongole, I would pass two divisions. I will not remark on the proposed distribution of taluks, which, I think, is defective and not what the local officers would recommend as it is a minor matter of detail; but the distribution should, I think, provide for Cumbum and Markapur of Kurnool, which suitably belong to this executive charge.

14. As respects Cuddapah there is no sufficient ground for breaking up the district administration and constituting two districts in that tract. And the four dry taluks of Kadiri, Madanapally, Royschoty, and Vollpaud constitute a charge on which the District Engineer of Cuddapah might generally employ his assistant.

15. Nor do I find sufficient grounds for breaking up the district administration of North Arcot. The District Engineer would find his main occupation in the southern and Palar Valley taluks, while his assistant would be suitably employed in the Zemindari tracts and dry taluks of the north. Two districts are not required.

16. The same observations apply to the district of South Arcot. What is there doing or likely to be doing in the (in the main) dry taluks of Villapuram, Tindivanum, and Trinomaliay—or even if we add to the charge, as ought to be done, the taluk of Kallakurchy, which would justify the constitution of a separate District Engineership for these tracts? What that an assistant to the District Engineer of the district could not look after under direction of the superior officer?

17. I am very doubtful whether the district administration of Coimbatore need be broken up as proposed, and I am satisfied that a District Engineer for Malabar with an assistant mainly employed by him in what is proposed to constitute the Northern Range would quite suffice for this district under the financial exigencies of the case.

18. I entirely object to breaking up the district administration of Madura and Tinnevelly. There is absolutely nothing in the proposed new district of Dindigul which can justify its separation from the district of Madura and constitute as a separate division or district under a superior officer; and as respects the proposed Satur (Tinnevelly) Range (Division), I conceive that it would be difficult to show that it would constitute a reasonable charge even for an assistant to the District Engineer of Tinnevelly.

19. I am not competent to examine in detail the Appendices C and D ("General Abstract of Office Establishment and Accountants"), but it is obvious that the constitution of five new offices for as many Deputy Chief Engineers (Superintending Engineers) of Circles instead of officers for inspection, and certainly of six or eight needless Range Offices, prevent retrenchment in the manner which strict adherence, so far as possible, to the District Engineer system and further reduction of the offices in account with the Controller, would provide.

20. *Appendix F* ("Comparative Statement of Per-centage of Establishment") is, I hold, more or less delusive; it is merely comparing ourselves with ourselves with the usual result; and we have no reason to assume that the standard of comparison put forward ("per-centages of India's Establishment") is one framed in accordance with strictly economical necessities of the work to be performed and of the requirements of the country and its ability to support such establishment as a whole. I have reason to believe that the same excess of establishment charges in the Department of Public Works is engaging the attention of thoughtful men throughout India. Be this as it may, we have simply to do with our own conditions and expenditure, and with reference to these I hold that our establishment is susceptible of very material reduction of cost by sound organisation and more efficient financial control, and that it is our duty to submit to such retrenchments whatever may occur in other parts of India.

21. *Appendix F* ("Per-centages of Establishment as compared with grants for works, &c.,") is a very momentous statement. It shows that between one-fourth and one-third of all our Public Works expenditure in India is absorbed by establishment; that on the average of three years (1874—77) our expenditure on establishments in Madras has exceeded one-fourth of the whole grant; and that for the current year it will considerably exceed one-third of the whole grant. All the excess above one-fourth having to be supplemented, I believe, from the Provincial Grant under this head. Now under existing financial exigencies of the Empire, we cannot claim to have our grant maintained, and as it is, the demand on Local Funds is such as excites much hostile criticism throughout the Presidency; for our extravagance, as it appears to them, and weakness of financial control is unavoidably laid before a large body of the Native Members of our Local Boards all over the country. We must, therefore, set our house in order, and it can only be done by drastic re-organization and effective financial control, such as I earnestly invite my honorable colleagues to consider at this time.

22. In fine, I must record my conviction that the retention in its strictest form of the District-system (with due inspection only) is the very sheet-anchor of any suitable organization and future development in this department for the Madras Presidency. We must decentralise administration and establishment charges on districts in the same manner as the Government of India has decentralised on local

administrations throughout India. Every endeavour must be made to bring each District into self-supporting and self-administering condition—both as administrative and financial grounds; and it will, I believe, by no means be difficult so to do. Already rapidly developing Local Funds contribute very largely in several districts towards the cost of the whole District Establishment. We may confidently look for them for [illegible] to [illegible] lakhs towards establishment expenditure in future. If the annual grant of 10 to 12 lakhs under "Agricultural Ordinary" be equitably distributed as a Local Fund to the districts to which this local grant for ordinary communal irrigation works properly belongs (instead of being held at unrestricted disposal as now) we have a further Local Fund of some 12 lakhs and upwards from which establishment charges to the extent of 2½ to 3 lakhs may be met. An Irrigation Cess for the maintenance and improvement of our communal and district systems of tanks is an obvious necessity (subject, of course, to its being strictly constituted a Local District Fund, and the whole "agricultural ordinary" grant being limited) for (Madras-wise) customary tenant-labor is a dwindling and demoralized source with which the State has nothing whatever to do, and against which it has no claim. Such a tank cess at even one anna per rupee of our communal land revenue of 100 lakhs (in round numbers) would produce upwards of 6 lakhs, with a provision for establishment of 1½ lakhs and upwards. Our grant under Provincial Department of Public Works (12 lakhs), if properly assigned to district administration, provides 3 lakhs for establishment; and Imperial contribution for State works would go to make up a sum which would probably provide for the needful local establishments for all Districts, and leave a margin, with proper retrenchment and financial control, for lowering all our demands on Local Funds, whether existing or prospective, as the task now will be. Of course, the establishment charges for sanctioned works would remain Imperial as the works are neither Provincial, local nor communal. [illegible]

22. I do not offer these rough calculations as authoritative figures, for I have neither the means at hand, nor the time to work out the details; but I look forward with confidence to the time when Government may say to each district:—"We must find the ways and means for maintaining your own Public Works Establishments, and pay from them according to your local needs—with sufficient margin to meet needful charges for inspection and general administration—in such a manner that the whole shall square—with such aid as you are entitled to under the rule from Provincial and Imperial Sources—with your own financial condition.

24. I entirely agree with the Public Works Secretary, dated 18th September 1878, [illegible] all objections to these papers, except in so far as he evidently mistakes the condition of "customary labor" in paragraph 3(a). The Secretary of State decided too far back as 1858 what works are to be left to the Revenue Department,—or, as I should now put it, to the Collectors and Local Fund Boards in co-operation with District Engineers, with power to levy a moderate communal tank repair cess as above suggested.

25. In regard to clause (i), I would suggest that the officers of the Department of Public Works in communication with the Collector and Local Fund Board of each district, should report precisely what District Establishment is required in their respective districts to execute all works of a local character, including bookrepairs, &c., and the ways and means to maintain such establishments from District Funds.

26. I have endeavoured, with reference to paragraph 4, to suggest how the finance of the department can be promptly brought under more efficient control with much benefit, as I believe, to executive administration and retrenchment of useless expenditure, but I have no objection to seek the further advice suggested.

27. I have to apologise to my honorable colleagues for the discursive and incomplete form in which I am obliged to submit my observations on the papers before me. The papers only came to my hands after late Council yesterday (Friday), and they have to be circulated emergently with reference to the proposed final discussion of the scheme on Monday at noon. Time for more mature examination and concise discussion has been wanting.

W. ROBINSON.

OOTACAMUND, 18th September 1878, No. 3674 W.

THE undue strain brought upon the Provincial finances by the present excessive cost of the Public Works Department has long been a source of anxiety to Government, and was the subject of much deliberation in the year 1876, when the pressure of business, which devolved on the Government owing to the famine, caused the matter to be temporarily laid aside.

2. The subject having again come under consideration, His Grace the Governor in Council considers it unnecessary to defer any longer that thorough re-organisation of the Public Works Establishment, which experience has shown to be absolutely essential both to secure greater efficiency in the department, and to prevent further financial embarrassment to the Government.

3. In carrying out these changes, His Grace the Governor in Council believes, that by utilising to the utmost the establishment and agencies that are available to the Government, it is possible, without abandoning any of the general principles on which the business of the department has heretofore been conducted, to secure a great increase of administrative efficiency and at a diminished cost.

4. As regards the Public Works Secretariat, the division of the administrative work of the department will, at present, continue as laid down in Chapter III, Section 1, of the Public Works Code, which fully prescribes the responsibilities of the Chief Engineers and Secretaries in charge of the several branches and the duties which Government look to them to have thoroughly performed.

5. All correspondence from the Superintending Engineers will be addressed to the Chief Engineer of the Branch concerned, who will dispose of every thing within his own powers on his own responsibility. The Chief Engineer will submit to Government only such matters as either may be beyond his own powers, or may appear to be of sufficient general interest to require an expression of the views of Government thereon.

6. Each Chief Engineer will be allowed an Officer as Assistant Chief Engineer Secretary, to be ordinarily of the rank of an Executive Engineer, to conduct, under the authority and responsibility of the Chief Engineer and Secretary, the current duties of the Secretariat during the absence of the Chief Engineer on his circuit of inspection.

7. The question of the best method of compiling engineering statistics, and of collecting professional data and information, and the agency to be employed for this purpose in connection with the Secretariat Office will be reported on by the Chief Engineer and the Examiner for the consideration of Government.

8. The Examiner of Public Works Accounts, as Chief Financial Officer of the Department, is to be regarded as the financial adviser to the Public Works Secretaries, and their communications will be chiefly of a personal nature as members of the same office; all formal correspondence between them being, as far as possible, avoided. All questions connected with finance and account will be noted upon by the Examiner previous to being dealt with finally by the Secretary concerned, in order that Government, before passing orders on the case, may have before them not only the aspect of the case from a financial point of view, but also the bearing of all the financial rules and regulations relevant to the subject.

9. All Gazette Notifications and Government Orders, which affect the pay or service of Public Works Officers, will be referred to the Examiner before issue, to ensure that the proposed Notifications or Orders are in no way opposed to any rule or regulation of the Government of India, and provide for all necessary formalities.

10. The respective responsibilities of the Chief Engineer and the Examiner in controlling the expenditure of the department is very clearly defined in the Public Works Code III, i. 24 and III, vii, 14. Briefly, it is the duty of the Examiner to bring all items of objectionable expenditure to the notice of the Chief Engineer, and it is the duty of the Chief Engineer to summarily put a stop to all irregular expenditure directly his attention is called to it. His Grace the Governor in Council trusts that every effort will be made to reduce the number of items of objectionable expenditure that month by month are now brought to the notice of Government.

11. To enable the Chief Engineers and the Examiner to satisfactorily carry out a proper control over the expenditure of the department, it is to be considered an essential principle that all expenditure whatever, chargeable to the Imperial and Provincial Public Works grants, is to be sanctioned in the Public Works Department. No other department of the Government will take any steps that will commit the Government to expenditure in the Public Works Department, until the responsible officers of that department have had an opportunity of deciding whether the state of the Public Works grants will admit of the expenditure being incurred.

12. As regards Local Fund Works, His Grace the Governor in Council is of opinion that heretofore there has been an absence of that professional supervision and control by the Chief Engineer which are essential to the satisfactory execution of Public Works.

13. The principle involved in the administration of Local Fund Works is to leave all financial arrangements and the initiation of works in the hands of the Local Fund Boards, and to leave the engineering of, and the accounting for, such works in those of professional Officers under definite professional control. The Chief Engineer will, therefore, consider himself as directly responsible for the professional control of Public Works carried out from Local Funds as for those carried out from any other Public Works Grant. Designs for Local Fund works, the cost of which exceed Rupees 5,000, will be submitted to the Chief Engineer for professional check, and the formal sanction to the estimate for such works, after the approval of the Board of Revenue has been conveyed, in ordinary course, to the project, will be given in the Public Works Department, the necessary funds for the execution of the work being provided in the Financial Department. Proposals for transfers of Local Fund appropriations for Public Works, which exceed the powers of the Board of Revenue, will be dealt with by Government in the Public Works Department.

14. For purposes of supervision, the Presidency will be divided into five Circles, each under charge of a Superintending Engineer or of an Executive Engineer of the 1st Grade acting as such. The head-quarters and territorial limits of each of these Circles are shown in Appendix A.

To the office of each Superintending Engineer will be attached an Assistant Engineer to act as Assistant to the Superintending Engineer, and to carry out, under his authority and responsibility, the current duties of the office during the absence of the Superintending Engineer on duty.

15. For purposes of construction, each Circle will be divided into Executive Divisions, each of which will ordinarily be in charge of an Executive Engineer or some other professional officer of the Engineer Establishment. The names of the divisions, altogether 39 in number, are shown in Appendix B. The question of the exact territorial limits to be assigned to each Executive Division is referred to the Chief Engineers for early report in communication with the Collectors and the Local Public Works Officers, the importance being borne in mind, of making the limits of the Public Works Executive Divisions, as far as possible, coterminous with those of the Local Fund Circles.

16. The duties, powers, and responsibilities of the Superintending Engineers and of the Executive Engineers will be found very fully described in Chapter III, Sections ii and iii of the Public Works Code.

17. The numbers of the Engineer Officers attached to the Presidency being sufficient for the proposed new charges, no change is at present intended in the strength of the Engineer Establishment, except that, with the sanction of the Government of India, two 2nd Grade and four 3rd Grade Assistant Engineers will be substituted for the present sanctioned number (seven) of 3rd Grade Assistant Engineers, the monthly charges involved in each case being nearly the same.

18. With regard to the Upper Subordinate, the Lower Subordinate, and the Petty Establishments, no final arrangements will be decided upon until the Superintending Engineers have acquired some practical knowledge of the requirements of their several Circles.

His Grace the Governor in Council believes, however, that the numbers and cost of the Overseers, the Lower Subordinate and the Petty Establishment, especially of the Overseers, will be found to be in excess of permanent requirements under the new arrangements, and that it is advisable with a view to securing greater elasticity in the Public Works Establishments to employ temporary hands to a far greater extent than has hitherto been the case.

19. The Superintending Engineers will, as soon as possible after taking charge, review the Subordinate and Petty Establishments of their Circles, and will submit, for the information of Government, statements in Public Works Form No. 77, showing the minimum number of permanent men they wish to retain, and the extent to which they propose to employ temporary establishments.

20. On savings being effected in the cost of the Subordinate and Petty Establishments, His Grace the Governor in Council will be prepared to consider the advisability of appointing to each Circle a small permanent establishment of qualified Surveyors.

21. As regards Office Establishments and the Establishment of Accountants, the reduction in the number of the Public Works offices will lead to a considerable reduction in the numbers of the Accountants and Clerks employed, and in the aggregate cost of these two establishments. The scale of Accountants and Clerks now sanctioned, which is intimately to be worked up to in each office, is shown in Appendices C and D.

22. The aggregate effect financially of all these changes is shown in Appendix E, containing a comparative statement of all the Public Works Establishments, existing and proposed. The net result is a saving of about Rupees 1,15,000, exclusive of the further saving that is expected in the cost of the Subordinate and Petty Establishments.

23. In Appendix F will be found a statement of the relative cost of the several establishments and of the aggregate cost of the Public Works Establishment as a per-centage of the grants for works and repairs compared with similar charges obtaining throughout India; these figures being derived from the review by the Accountant-General, Public Works Department, of the Public Works Budget Estimates for the year 1878-79. From this statement the cost of the Upper Subordinate Establishment appears relatively high, while that of the Engineer and Accountant Establishment is very moderate. The charge for traveling allowances in this Presidency appears to be so exceptional, that His Grace the Governor in Council desires that a special report may be submitted to Government by the Examiner on the subject.

24. The Chief Engineer will at once submit, for the approval of Government, a list of the officers he recommends for the charge of the several Circles and Divisions. On approval, these appointments will be notified in the Gazette in order to give the whole staff the earliest possible advice of the arrangements decided upon.

25. In order to give effect to these orders with the least possible inconvenience to all concerned, the Chief Engineer will at once take steps to relieve from their present charges the five officers selected for the charge of the five Circles of supervision, other officers being appointed to act temporarily as District Engineers

in their places. On relief, they will immediately proceed to the head-quarters of their Circle, and there take over charge of the District Engineer's Office.

26. On their taking charge as Superintending Engineers of the present District Engineer's Office at the head-quarters of their Circles, the present District Engineers in the Circle will proceed to take charge as Executive Engineers of the present Range Offices at the head-quarters of the Divisions to which they are appointed. The records of the District Engineers' Offices other than that at the head-quarters of the Circle, together with one or two Clerks from each District Office (as may be locally arranged by the Superintending Engineer), will be transferred to the head-quarters of the Circle, and the Clerks so transferred, together with the whole establishment of the District Office at head-quarters, will form the *provisional* establishment of the Superintending Engineer's Office.

27. In a similar manner, the records and the establishment of the present Range Offices will be distributed to the new Divisional Offices, and the Clerks so transferred will form the *provisional* establishment of the Divisional Offices. Nominal rolls, showing the distribution of the existing establishments amongst the various offices in the Circle will be submitted as early as possible by Superintending Engineers to the Examiner, to admit of the salary bills being duly audited. All subsequent transfers of the establishment will be similarly advised.

28. The scale of office establishment to be ultimately worked up to, as shown in Appendices C and D, consists, it will be noticed, of fewer Clerks and Accountants with slightly increased salaries, the whole classified in accordance with the Public Works Code, Chapter I, Section I, 10—12. No immediate reductions, appointments, or promotions will be carried into effect in order to make the existing establishments agree with the new sanctioned scale. This latter will be arrived at gradually as vacancies occur.

29. In the Office Establishments, on the occurrence of a vacancy, it will be open to the Superintending Engineer concerned to utilize one-half of the salary thus made available in making promotions of properly qualified persons to the various salaries of the sanctioned grades to which they may be appointed. The other half of the salary will inure to Government as a saving. Without the special sanction of Government, no new appointments will be made until the arrears have been completely absorbed. The Examiner will be held responsible for reporting for the orders of Government, any case of the kind that may occur.

30. The above remarks do not apply to the Office Establishments of the Secretariat, of the Presidency Engineer, and of the Consulting Architect to Government, in which no change has been made beyond classifying the present Office Establishments. In all these cases, the Clerks will draw the minimum salary of their grades together with such a number of increments as may make their total salary at least equal to what they are drawing at present.

31. In order to keep the whole body of officers alive to their duties and responsibilities under the new arrangements, His Grace the Governor in Council desires to impress upon the Public Works Code Committee the desirability of completing the Public Works Code at the earliest possible date. The Chief and Superintending Engineers and the Examiner will bring to the notice of the Public Works Code Committee any clauses in the Code they may deem inapplicable to the present circumstances of the department, and these, if found necessary, will be modified in ordinary course by the issue of standing orders.

32. With these modifications, His Grace the Governor in Council looks to the Chief Engineers and to the Examiner, in their several branches of the Department, to see that the whole of the Public Works Code as issued is correctly observed by, and that the laws of Government and of all officers connected is no longer vexed by a general want of method and system throughout the Department and by numerous references on minor points of principle or practice which will be finally done for all clearly laid down in the Public Works Code for general information.

33. The Manual for the business in the Public Works Secretariat and the book of Specifications, the former of which has been a long time in type, should also be taken up and completed by the Public Works Code Committee.

(True Extract.)

(Signed) E. A. FOORD, Colonel, R.E.,
Secretary to Government, P.W.D.

To All District Engineers.
To the Chief Engineer for Irrigation.
" Chief Engineer, Public Works Department.
" Consulting Engineer for Railways.
" Consulting Architect to Government.
" Examiner, Public Works Accounts.
" Financial, &c., Departments.
" Revenue Department.
" Military Department.
" Revenue (Famine) Department.

PUBLIC WORKS DEPARTMENT.

Re-organisation of the Public Works Department.

No. 3,675 W.

From

THE SECRETARY TO THE GOVERNMENT OF MADRAS,
Public Works Department,

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,
Public Works Department.

SIR,—I am directed to forward, for the information of the Government of India, the accompanying copy of G.O., No. 3,674 W, dated 18th September 1878, introducing certain changes in the organisation of the Public Works Department in this Presidency,—changes which have been found absolutely necessary to secure efficiency and economy in the Department.

2. I am to say that, broadly speaking, the changes that have been introduced have taken the form of a closer assimilation of the system in Madras to that obtaining in the Provinces under the immediate control of the Government of India. The Presidency of Madras has now been divided into five Circles of Supervision and into thirty-nine Executive Divisions, each of which is to be held by a Professional Officer of the Engineer Establishment. To each Executive Division will be further attached a competent Accountant of the 3rd or 4th Grade.

3. As regards the Public Works Secretariat, in deference to the suggestion of the Government of India as expressed in their letter, No. 308 E.G., dated 20th February 1877, no change has yet been introduced. But I am to state that the further two years' experience of the present system, even with the suggested appointment of Deputies to aid the Chief Engineer and Secretary, has in no way altered the opinion of His Grace the Governor in Council, as to the grave inconvenience to the Government that results from employing the responsible Executive Head of the Public Works Department as Secretary to Government in his own Department.

4. This Government still earnestly desires to see the change carried out to which they requested sanction in their letter, No. 1,920, dated 28th July 1876, and thus to have the separate and distinct functions of the Chief Engineer and Secretary to Government held by separate Officers. I am, therefore, again to urge upon the attention of the Government of India the arguments adduced in the letter above referred to, and to request the favorable consideration of the application therein submitted, as His Grace the Governor in Council is convinced, that it is only by a practical recognition of the principles which govern the administration in every other Department of Government that the Public Works Department will, without inconvenience, be maintained in an equally efficient state.

5. In the strength of the Engineer Establishment no change is essential, but it would be desirable to substitute two 2nd Grade and four 3rd Grade Assistant

Engineers for the present sanctioned number (seven) of 3rd Grade Assistant Engineers. The present sanction of 3rd Grade Assistant Engineers is seldom availed of, the Engineer Establishment being practically recruited either from the officers of the Royal Engineers or from passed students from the Civil Engineering College at Cooper's Hill, both of whom, with rare exceptions, join the Department in a higher Grade than that of 3rd Grade Assistant Engineer. To this slight modification, securing as it does a saving of about Rupees 600 per annum, His Grace the Governor in Council conceives that no objection will probably be raised.

6. In the Subordinate and Petty Establishments no immediate change is proposed; but whatever alterations are eventually carried out will be in the direction of economy. The nett result of the changes now introduced, as shown in the Appendices to the Government Order accompanying this letter, will ultimately be a saving in the aggregate cost of the Public Works Establishments of about Rupees 1,15,000 per annum, the whole of which will thus become available for additional works.

7. In considering these reductions, it is to be borne in mind that the exact amount of the saving will be, to some extent, dependent on the decision which may ultimately be arrived at with regard to the maintenance establishment of the Buckingham Canal. The length of navigable mileage open to traffic on this Canal has now reached 250 miles, and the completion of the work at the Kistna Delta will open through-navigation from Cocanada and Rájahmundry to Madras and southward to Sadras, a total length of about 430 miles. It is, therefore, in the opinion of this Government, absolutely necessary to form the whole of the Buckingham Canal into a separate Executive charge.

8. Should it eventually be found that the present Public Works Establishment is insufficient to provide efficiently for this additional charge, the sanction of the Supreme Government for one additional Executive Engineer will have to be applied for. Even in this case, the increase of expenditure will probably be more nominal than real, as it is confidently expected that the increased traffic receipts on the canal will more than cover the increased maintenance charges.

9. On this subject, the Government of India will hereafter be separately addressed. At present I am to say that whatever decision is arrived at with regard to the maintenance establishment of the Buckingham Canal, the changes already carried out in the Public Works Department of this Presidency cannot otherwise but lead to a substantial saving in the aggregate cost of the Public Works Establishment, and as these changes will also, it is expected, result in a great increase of efficiency, they cannot as a whole, His Grace the Governor in Council confidently believes, fail to commend themselves to the Government of India.

10. In conclusion, I am to beg that a very early reply may be given to the proposals put forward by this Government with regard to the appointment of a separate Public Works Secretary, as this measure is considered by this Government as essential to the permanent success of the scheme of re-organization now introduced.

I have the honor to be,
Sir,
Your most obedient servant,

(Signed) E. A. FOORD, Colonel, R.E.,
Secretary to Government, P.W.D.

OOTACAMUND,
15th September 1878.

RE-ORGANISATION OF THE
PUBLIC WORKS DEPARTMENT.

Govt. of (1878) Madras.

PUBLIC WORKS.

APPENDIX A.

TERRITORIAL LIMITS OF CIRCLES.

Circles.

No. 1.—To comprise the Districts of Ganjam, Vizagapatam, Gódávari, and Kistna, with Head Quarters at Bezwáda.

" 2.— " the Districts of Nellore, Cuddapah, Kurnool, and Bellary, with Head Quarters at Pellary.

" 3.— " the Districts of Chingleput, North and South Arcot, with the Presidency, the Military Cantonment of Bangalore, and the Buckingham Canal, with Head Quarters at Madras.

" 4.— " the Districts of Salem, Coimbatore, Nilgiri, Malabar, and Canara, with Head Quarters at Coimbatore.

" 5.— " the Districts of Trichinopoly, Tanjore, Madura, and Tinnevelly, with Head Quarters at Trichinopoly.

(Signed) R. A. FOORD, Colonel, R.E.,
Chief Engr. and Secy. to Govt., P.W.D.

GUINDY,
18th September 1878.

APPENDIX B.

List of P.W.D. Divisions.

	Class.
1st Circle.	
1. Ganjam	II.
2. Vizagapatam	II.
3. Gódávari, Eastern and Centre Delta	I.
4. Gódávari, Western Delta	I.
5. Rájahmundry	II.
6. Kistna, Eastern Delta	I.
7. Kistna, Western do.	I.
8. Guntoor	III.
2nd Circle.	
9. Nellore	I.
10. Ongole	III.
11. Cuddapah	III.
12. Madhanapalle	III.
13. Kurnool	II.
14. Bellary	I.
15. Anantapur	III.
3rd Circle.	
16. Presidency	Special.
17. Consulting Architect	do.
18. Bangalore	III.
19. Chingleput	I.
20. Vellore	I.
21. Chevér	III.
22. Cuddalore	I.
23. Tindivanam	III.
24. Buckingham Canal	III.
4th Circle.	
25. Salem	III.
26. [illegible]	III.
27. Coimbatore	II.
28. Calicut	II.
29. Wynád	II.
30. Nilgiri	II.
31. Canara	III.
5th Circle.	
32. Trichinopoly	II.
33. Tánjore	I.
34. Negapatam	I.
35. Dindigul	III.
36. Madura	III.
37. Tinnevelly	II.
38. Salár	III.

(Signed) E. A. FOORD, Colonel, R.E.,
Chief Engr. and Secy. to Govt., P.W.D.

Ootacamund,
18th September 1878.

APPENDIX C.

No. 1.

Executive Branch.

General Abstract of Office Establishment.

Offices.	Appendix C.	Amount.	Total.
		Rs. A. P.	Rs. A. P.
Chief Engineer and Secretary, including Lithographic Establishment	No. 2	43,002 0 0	43,002 0 0
Consulting Engineer for Irrigation	„ 3	10,416 0 0	10,416 0 0
Five Superintending Engineers, at Rs. 4,962	„ 4	24,810 0 0	24,810 0 0
Eleven 1st-Class Executive Divisions, at „ 3,276	„ 5	36,036 0 0	
Ten 2nd-Class Executive Divisions, at „ 3,056	„ 6	30,560 0 0	
Sixteen 3rd-Class Executive Divisions, at „ 2,646	„ 7	42,336 0 0	
Consulting Architect	„ 8	3,036 0 0	
Presidency Engineer	„ 9	6,168 0 0	
Fifty Sub-divisional Offices, at Rs. 372	„ 10	18,600 0 0	1,36,336 0 0
Grand Total	...	...	2,14,764 0 0

(Signed) E. A. FOORD, Colonel, R.E.,
Chief Engr. and Secy. to Govt., P.W.D.

Ootacamund,
18th September 1878.

(Signed) L. CONWAY-GORDON,
Assistant, P.W. Accounts.

APPENDIX C.

No. 2.

OFFICE ESTABLISHMENT.

Chief Engineer and Secretary.

No.	Description.	Class.	Grade.	Salary. Minimum.	Salary. Maximum.	Salary. Average.	Amount.	Total.
	Clerks.			Rs.	Rs.	Rs.	Rs. a. p.	Rs. a. p.
1	Chief Assistant ...	...	...	...	...	550	550 0 0	
1	Clerk	I	1st	300	400	350	350 0 0	
1	Do.	,,	3rd	200	250	225	225 0 0	
2	Do.	II	2nd	120	160	140	280 0 0	
1	Do.	III	1st	80	105	90	90 0 0	
3	Do.	,,	2nd	60	80	70	210 0 0	
6	Do.	,,	3rd	50	60	55	330 0 0	
2	Do.	IV	1st	40	50	45	90 0 0	
2	Do.	,,	2nd	30	40	35	70 0 0	
5	Do.	,,	3rd	20	30	25	125 0 0	
24								2,320 0 0
2	Draughtsmen	1st	...	50	70	60	120 0 0	
1	Do.	2nd	...	33	50	42½	42 8 0	
3								162 8 0
2	Machine or Duftries	...	...	...	...	10 to 15	37 0 0	
2	Duftaries or Head Messengers	...	...	...	...	9 to 10	19 0 0	
13	Messengers	...	...	...	...	7	77 0 0	
17								133 0 0
	Total Office Establishment ...	...	...	...	...	...	...	2,615 8 0
	Lithographic Establishment (See detail given below)	...	...	...	...	968	968 0 0	968 0 0
	Total Monthly charge.	...	...	...	...	...	...	3,583 8 0
	Annual Charge	...	...	...	...	...	...	43,002 0 0

OOTACAMUND,
18th September 1878.

(Signed) E. A. FOORD, Colonel, R.E.,
Chief Engr. and Secy. to Govt., P.W.D.

(Signed) L. CONWAY-GORDON,
Examiner, P.W. Accounts.

Detail of Lithographic Establishment.

		Salary. Rs.
1	Superintendent and Manager	250
4	Draughtsmen, 1st Grade, Rs. 70 to 120	360
2	Do. 2nd ,, ,, 40 each	80
7	Do. 3rd ,, ,, 10 to 30	141
15	Pressmen, 5 to 20	134
1	Sweeper	3
	Total ...	968

APPENDIX C.

No. 3.

OFFICE ESTABLISHMENT.

Chief Engineer and Joint Secretary, Irrigation Branch.

No.	Description.	Class.	Grade.	Salary. Minimum.	Salary. Maximum.	Salary. Average.	Amount.	Total.
	Clerks.			Rs.	Rs.	Rs.	Rs.	Rs.
2	Clerks	II	2nd	120	160	140	280	
1	Do.	III	2nd	60	80	70	70	
1	Do.	,,	3rd	50	60	55	55	
3	Do.	IV	2nd	30	40	35	105	
4	Do.	,,	3rd	20	30	25	100	
11								610
2	Draughtsmen ...	1st		50	70	60	120	
3	Do. ...	2nd		33	50	42½	85	
4								205
						8 to 10	26	
1	Machine or Duftries ...					6 to 7	27	
4	Messengers							53
7								868
	Total Monthly charge ...							10,416
	Annual Charge ...							

OOTACAMUND,
18th September 1878.

(Signed) E. A. FOORD, Colonel, R.E.,
Chief Engr. and Secy. to Govt., P.W.D.

(Signed) L. CONWAY-GORDON,
Examiner, P.W. Accounts.

APPENDIX C.

No. 4.

Office Establishment.

Superintending Engineer.

No.	Description.	Class.	Grade.	Salary. Maximum.	Salary. Minimum.	Salary. Average.	Amount.	Total.
	Clerks.			Rs.	Rs.	Rs.	Rs. a. p.	Rs. a. p.
1	Clerk	II	2nd	100	120	110	110 0 0	
1	Do.	III	2nd	60	80	70	70 0 0	
1	Do.	IV	1st	40	50	45	45 0 0	
1	Do.	"	2nd	30	40	35	35 0 0	
1	Do.	"	3rd	20	30	25	25 0 0	
5								285 0 0
1	Draughtsman	1st		50	70	60	60 0 0	
1	Do.	3rd		20	30	25	25 0 0	
2								85 0 0
1	Messenger					8	8 0 0	
3	Do.					6	18 0 0	
4								102 0 0
	Total Monthly charge							20 0 0
	Annual Charge							413 8 0
	For five Superintending Engineers Offices							4,962 0 0
								24,810 0 0

Ootacamund,
18th September 1878.

(Signed) E. A. FOORD, Colonel, R.E.,
Chief Engr. and Secy. to Govt., P.W.D.

(Signed) L. CONWAY-GORDON,
Assistant, P. W. Accounts.

APPENDIX C.

No. 5.

Office Establishment.

Executive Engineer, 1st-Class Division.

No.	Description.	Class.	Grade.	Salary. Maximum.	Salary. Minimum.	Salary. Average.	Amount.	Total.
	Clerks.			Rs.	Rs.	Rs.	Rs.	Rs.
1	Clerk	III.	2nd	60	80	70	70	
1	Do.	IV.	1st	40	50	45	45	
1	Do.	"	2nd	30	40	35	35	
1	Do.	"	3rd	20	30	25	25	
4								175
1	Draughtsman	1st	...	50	70	60	60	
1	Do.	3rd	...	20	30	25	25	
2								85
1	Messenger					7	7	
1	Do.					6	6	
2								13
	Total Monthly charge							273
	Annual Charge							3,276
	For eleven 1st-Class Divisional Offices							36,036

Ootacamund,
18th September 1878.

(Signed) E. A. FOORD, Colonel, R.E.,
Chief Engr. and Secy. to Govt., P.W.D.

(Signed) L. CONWAY-GORDON,
Assistant, P. W. Accounts.

APPENDIX C.

No. 6.

OFFICE ESTABLISHMENT.

Executive Engineer, 2nd-Class Division.

No.	Description.	Class.	Grade.	Salary. Maximum.	Salary. Minimum.	Salary. Average.	Amount.	Total.
	Clerks.			Rs.	Rs.	Rs.	Rs.	Rs.
1	Clerk	III	2nd	60	60	70	70	
1	Do.	IV	2nd	50	40	25	25	
2	Do.	"	3rd	20	30	25	50	155
4								
1	Draughtsman	1st		50	70	60	60	
1	Do.	3rd		20	30	25	25	85
2								
1	Messenger					7	7	
1	Do.					6	6	13
2								
	Total Monthly charge							253
	Annual Charge							3,036
	For ten 2nd-Class Divisional Offices							30,360

OOTACAMUND,
18th September 1878.

(Signed) E. A. FOORD, Colonel, R.E.,
Chief Engr. and Secy. to Govt., P.W.D.

(Signed) L. CONWAY GORDON,
Assistant, P. W. Accounts.

APPENDIX C.

No. 7.

OFFICE ESTABLISHMENT.

Executive Engineer, 3rd-Class Division.

No.	Description.	Class.	Grade.	Salary. Minimum.	Salary. Maximum.	Salary. Average.	Amount.	Total.
	Clerks.			Rs.	Rs.	Rs.	Rs. A. P.	Rs. A. P.
1	Clerk	III	3rd	50	60	55	55 0 0	
1	Do.	IV	2nd	30	40	35	35 0 0	
2	Do.	"	3rd	20	30	25	50 0 0	140 0 0
4								
1	Draughtsman	2nd		35	50	42½	42 8 0	
1	Do.	3rd		20	30	25	25 0 0	67 8 0
2						7	7 0 0	
						6	6 0 0	13 0 0
1	Messenger							
1	Do.							
2								
	Total Monthly Charge							220 8 0
	Annual charge							2,646 0 0
	For sixteen 3rd-Class Divisional Offices							42,336 0 0

OOTACAMUND,
18th September 1878.

(Signed) E. A. FOORD, Colonel, R.E.,
Chief Engr. and Secy. to Govt., P.W.D.

(Signed) L. CONWAY GORDON,
Assistant, P. W. Accounts.

APPENDIX C.

No. 8.

Office Establishment.

Consulting Architect to Government.

No.	Description.	Class.	Grade.	Salary. Minimum.	Salary. Maximum.	Salary. Average.	Amount.	Total.
	Clerks.			Rs.	Rs.	Rs.	Rs.	Rs.
1	Clerk	IV	1st	40	50	45	45	45
1	Draughtsman and Extra Writer	Special	...	...	...	140	140	
2	Do. do.	...	3rd	...	...	25	50	
4								235
1	Messenger	...	...	...	...	7	7	
1	Do.	...	...	...	...	6	6	
2								13
	Total Monthly Charge							248
	Annual Charge ...							2,976

Office of the Consulting Architect to Government,
18th September 1878.

(Signed) E. A. FOORD, Colonel, R.E.,
Chief Engr. and Secy. to Govt., P.W.D.

(Signed) L. CONWAY GORDON,
Examiner, P. W. Accounts.

APPENDIX C.

No. 9.

Office Establishment.

Executive Engineer, Presidency.

No.	Description.	Class.	Grade.	Salary. Minimum.	Salary. Maximum.	Salary. Average.	Amount.	Total.
	Clerks.			Rs.	Rs.	Rs.	Rs.	Rs.
1	Clerk	III	2nd	60	80	70	70	70
1	Do.	...	3rd	50	60	55	55	
1	Do.	IV	1st	40	50	45	45	
2	Do.	...	2nd	30	40	35	70	
2	Do.	...	3rd	20	30	25	50	
7								290
2	Draughtsmen	...	1st	50	70	60	120	
2	Do.	...	2nd	...	35	50	42½	85
4								205
1	Messenger	...	...	...	...	...	7	7
2	Do.	...	...	...	...	...	6	12
3								19
	Total Monthly Charge	...	...	...	...	...	...	514
	Annual Charge	...	...	...	...	...	...	6,168

Office of the Executive Engineer, Presidency,
18th September 1878.

(Signed) E. A. FOORD, Colonel, R.E.,
Chief Engr. and Secy. to Govt., P.W.D.

(Signed) L. CONWAY GORDON,
Examiner, P. W. Accounts.

APPENDIX C.

No. 10.

Office Establishment.

Sub-Divisional Office.

No.	Description.	Class.	Grade.	Salary.			Amount.	Total.
				Maximum.	Minimum.	Average.		
1	Clerk	IV	2nd	Rs. 30	Rs. 20	Rs. 25	Rs. 25	Rs. a. p. 25
1	Messenger					6	6	6
	Total Monthly Charge ...							31
	Annual Charge							372
	Five 50 Sub-divisional Offices ...							18,600

Cuttack,
19th September 1878.

(Signed) E. A. FOORD, Colonel, R.E.,
Chief Engr. and Secy. to Govt., P.W.D.

(Signed) L. CONWAY GORDON,
Examiner, P.W. Accounts.

APPENDIX C.

No. 11.

Petty Establishment.

Particulars.		No.	Annual Cost.
			Rs.
Lascars.			
5 Superintending Engineers, each four men, at Rs. 6		20	1,440
38 Divisional Officers, each three men,	do.	114	8,208
Consulting Architect, two men,	do.	2	144
50 Sub-Divisional Officers, each three men,	do.	226	16,272
226 Detached Officers, each one* man,	do.	3	216
Examiner's Office, three men,			
	Total Lascars ...	515	37,080
Petty Establishment—Present Charges, Budget 1878-79		...	50,565
	Grand Total, Petty Establishment ...	...	87,645

* Two to be allowed wherever the Superintending Engineer considers it necessary, under any peculiar circumstances of the case.

Cuttack,
14th September 1878.

(Signed) E. A. FOORD, Colonel, R.E.,
Chief Engr. and Secy. to Govt., P.W.D.

(Signed) L. CONWAY GORDON,
Examiner, P.W. Accounts.

APPENDIX C.

No. 13.

Fixed Circle.

District-wise Statement of Office Establishment.

Offices.	Class of Division.	Classes.										Departments.			Messengers.		
		I	II Class, 3rd Grade, 100—120.	III Class, 2nd Grade, 60—80.	III Class, 3rd Grade, 50—60.	IV Class, 1st Grade, 40—50.	IV Class, 2nd Grade, 30—40.	IV Class, 3rd Grade, 20—30.	Total.	1st Class, 50—70.	2nd Class, 35—50.	3rd Class, 20—30.	Total.	At Rupees 8.	At Rupees 7.	At Rupees 6.	Total.
Superintending Engineer's Office ...	...	1	...	...	...	...	...	...	1	...	...	...	...	1	...	...	1
Ganjam Division	2nd Class	...	1	1	...	1	1	1	5	1	1	1	3	...	1	1	2
Vizagapatam do.	2nd	...	1	1	...	...	1	3	6	1	1	1	3	...	1	1	2
Godavari, E. and C. Delta Division...	1st	...	1	1	...	1	1	1	5	1	1	1	3	...	1	1	2
Do. Western Delta do.	1st	...	1	1	...	1	1	1	5	1	1	1	3	...	1	1	2
Kistna E. Delta do.	2nd	...	1	1	...	1	1	1	5	1	1	1	3	...	1	1	2
Hydrabad	1st	...	1	1	...	1	1	1	5	1	1	1	3	...	1	1	2
Do. W. Delta do.	1st	...	1	1	...	1	1	1	5	1	1	1	3	...	1	1	2
Guntoor do.	3rd	...	1	1	...	1	1	1	5	1	1	1	3	...	1	1	2
*Total ...	...	1	8	1	1	6	9	13	37	8	2	8	18	1	11	8	20

* This forms the combined establishment of Office Establishment for the Circle, which the Superintending Engineer has power to transfer from one Office to another according to the exigencies of the Service, (vide P. W. Code I., ii., 18), all such transfers being noted in the Remarks.

Ootacamund,
18th September 1874.

(Signed) L. CONWAY-GORDON,
Examiner, P. W. Accounts.

APPENDIX C.

No. 15.

Treas. Circ. (2)

Establishment of Office Establishment.

Offices.	Class of Division.	Classes								Departments.			Messengers.		
		I	II	III	IV	IV Class, 2nd Grade, 20—30.	IV Class, 1st Grade, 30—40.	III Class, 2nd Grade, 40—50.	III Class, 3rd Grade, 50—60.	2nd Class, 35—50.	1st Class, 50—70.	Special on 145.	At Rupees 8.	At Rupees 7.	At Rupees 6
Superintending Engineer's Office		1	1	—	1	1	1	1	1	1	1	1	1	1	1
Western Division	1st Class	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Kaira do.	2nd "	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Ahmedabad do.	2nd "	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Surat do.	2nd "	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Broach do.	2nd "	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Ahmednagar do.	2nd "	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Khandesh do.	2nd "	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Nasik do.	2nd "	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Poona do.	2nd "	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Sholapur do.	2nd "	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Southern Division	1st Class	1	1	—	1	1	1	1	1	1	1	1	1	1	1
Belgaum do.	2nd "	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Dharwar do.	2nd "	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Kanara do.	2nd "	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Kolaba do.	2nd "	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Ratnagiri do.	2nd "	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Northern Division	1st Class	1	1	—	1	1	1	1	1	1	1	1	1	1	1
Ahmedabad do.	2nd "	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Kaira

APPENDIX C.

No. 11.

Fifth Circle.

Distribution Statement of Office Establishment.

Offices.	Class of Division.	Clerks.							Draughtsmen.				Messengers.			
		II Class, 3rd Grade, 100—120.	III Class, 2nd Grade, 60—80.	III Class, 3rd Grade, 40—60.	IV Class, 1st Grade, 40—50.	IV Class, 2nd Grade, 30—40.	IV Class, 3rd Grade, 20—30.	Total.	1st Class, 50—70.	2nd Class, 35—50.	3rd Class, 20—35.	Total.	At Rupees 8.	At Rupees 7.	At Rupees 6.	Total.
Superintending Engineer's Office.	...	1	1	...	1	1	1	5	1	1	...	2	1	...	3	4
Trichinopoly Division	2nd Class	...	1	...	...	1	2	4	1	...	1	2	...	1	1	2
Tánjore do.	1st do.	...	1	...	1	1	1	4	1	...	1	2	...	1	1	2
Negapatam do.	1st do.	...	1	...	1	1	1	4	1	...	1	2	...	1	1	2
Dindigul do.	3rd do.	...	...	1	...	1	2	4	...	1	1	2	...	1	1	2
Madura do.	3rd do.	...	...	1	...	1	2	4	...	1	1	2	...	1	1	2
Tinnevelly do.	2nd do.	...	1	...	...	1	2	4	1	...	1	2	...	1	1	2
Sátúr do.	3rd do.	...	...	1	...	1	2	4	...	1	1	2	...	1	1	2
* Total ...	...	1	5	3	3	8	13	33	5	4	7	16	1	7	10	18

* This forms the sanctioned scale of Office Establishments for the Circle, within which the Superintending Engineer has power to transfer from one office to another according to the exigencies of the service (See P.W.D. Code I., ii. 18)—all such transfers being advised to the Examiner.

OOTACAMUND,
18th September 1878.

(Signed) L. CONWAY-GORDON,
Examiner, P. W. Accounts.

APPENDIX C.

No. 11.

Fifth Circle.

Distribution Statement of Office Establishment.

Offices.	Class of Division.	Clerks.							Draughtsmen.				Messengers.			
		II Class, 3rd Grade, 100—120.	III Class, 2nd Grade, 60—80.	III Class, 3rd Grade, 40—60.	IV Class, 1st Grade, 40—50.	IV Class, 2nd Grade, 30—40.	IV Class, 3rd Grade, 20—30.	Total.	1st Class, 50—70.	2nd Class, 35—50.	3rd Class, 20—35.	Total.	At Rupees 8.	At Rupees 7.	At Rupees 6.	Total.
Superintending Engineer's Office.	...	1	1	...	1	1	1	5	1	1	...	2	1	...	3	4
Trichinopoly Division	2nd Class	...	1	...	...	1	2	4	1	...	1	2	...	1	1	2
Tánjore do.	1st do.	...	1	...	1	1	1	4	1	...	1	2	...	1	1	2
Negapatam do.	1st do.	...	1	...	1	1	1	4	1	...	1	2	...	1	1	2
Dindigul do.	3rd do.	...	...	1	...	1	2	4	...	1	1	2	...	1	1	2
Madura do.	3rd do.	...	...	1	...	1	2	4	...	1	1	2	...	1	1	2
Tinnevelly do.	2nd do.	...	1	...	...	1	2	4	1	...	1	2	...	1	1	2
Sátúr do.	3rd do.	...	...	1	...	1	2	4	...	1	1	2	...	1	1	2
* Total ...	...	1	5	3	3	8	13	33	5	4	7	16	1	7	10	18

* This forms the sanctioned scale of Office Establishments for the Circle, within which the Superintending Engineer has power to transfer from one office to another according to the exigencies of the service (See P.W.D. Code I., ii. 18)—all such transfers being advised to the Examiner.

OOTACAMUND,
18th September 1878.

(Signed) L. CONWAY-GORDON,
Examiner, P. W. Accounts.

APPENDIX D.

No. 1.

Accountants.

Provincial Scale of Establishment.

No.	Description.	Grade.	Salary.			Amount.	Total.
			Minimum.	Maximum.	Average.		
			rs.	rs.	rs.	rs. L. s.	rs.
	Accountants.						
2	Accountants						
3	Do.	1st	450	450	450	450 0 0	
10	Do.	2nd	250	340	295	885 0 0	
35	Do.	3rd	150	240	200	3,600 0 0	
			90	80	120	115	2,300 0 0	
45	Do.		34	40	75	57½	2,587 0 0	7,972
95	Total Monthly Charge							7,972
	Annual Charge							95,670
	Establishment, Pay Allowing and probable to be Recruited Officers							
2	Accountants		3rd	165	240	200	1,200 0 0	
10	Do.		2nd	80	150	115	1,150 0 0	
17	Do.		1st	40	70	57½	977 0 0	
30	Total Monthly Charge						4,327 0 0	
	Annual Charge						51,210 0 0	

Calcutta,
18th September 1872.

(Signed) L. CONWAY-GORDON,
Examiner, F. W. Accounts.

APPENDIX D.

No. 2.

Office Establishment.

Examiner.

No.	Description.	Class.	Grade.	Salary.			Amount.	Total.
				Minimum.	Maximum.	Average.		
	Clerks.			rs.	rs.	rs.	rs.	rs.
1	Clerk (Head Clerk) ...	II	2nd	100	120	110	110	
1	Do.	III	1st	80	100	90	90	
2	Do. ...	,,	2nd	50	60	55	110	
8	Do.	IV	1st	40	50	45	360	
8	Do. ...	,,	2nd	30	40	35	280	
6	Do. ...	,,	3rd	20	30	25	150	
5	Do. (Apprentices) ...	,,	...	...	...	10 to 20	70	1,170
31								
	Menial Servants ...						148½	148½
	Total Monthly Charge ...						...	1,372½
	Annual Charge ...						...	15,270

Calcutta,
18th September 1872.

(Signed) L. CONWAY-GORDON,
Examiner, F. W. Accounts.

Accounts Branch.

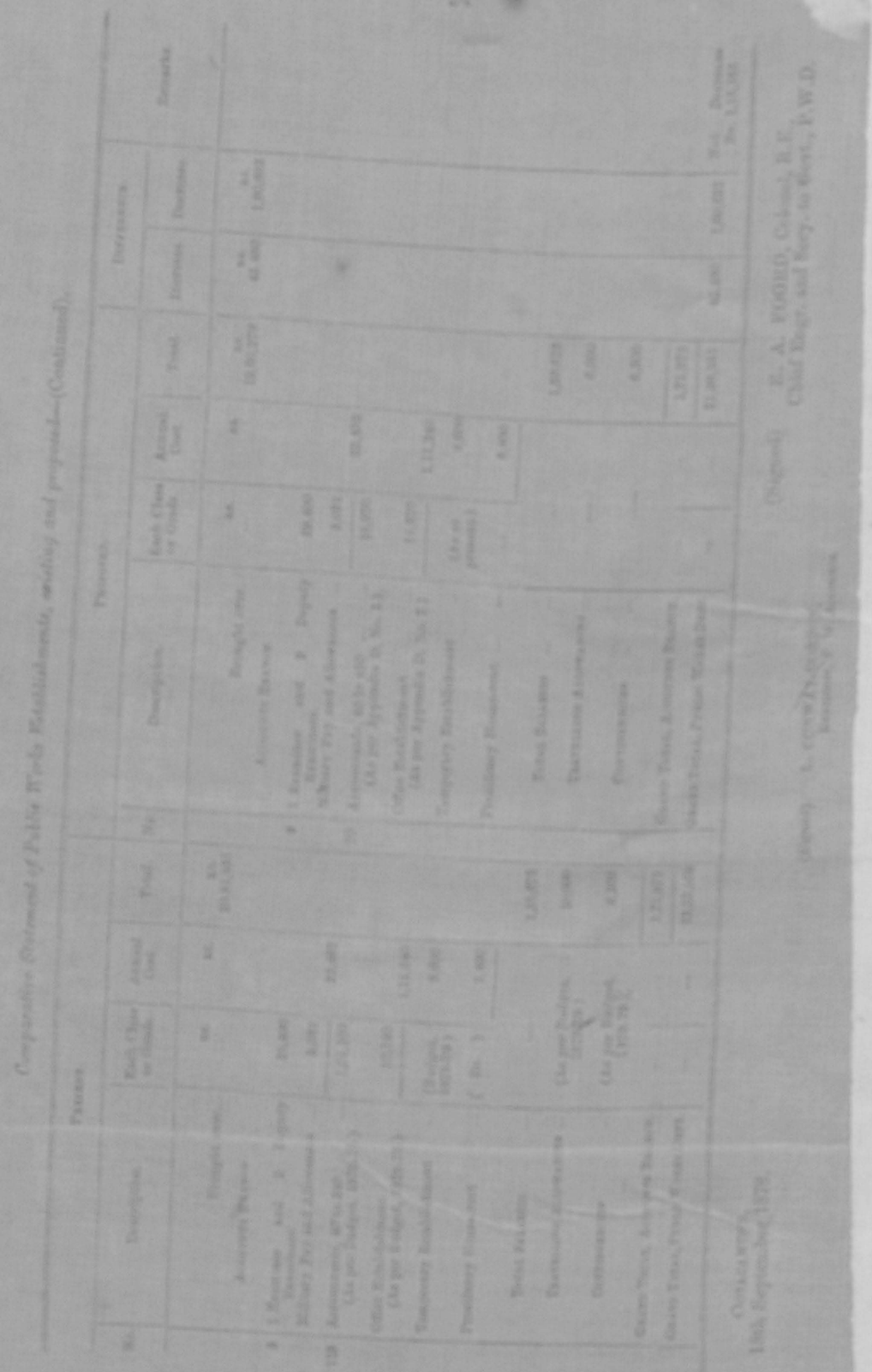
Abstract of Accountant and Office Establishment.

			rs. A. P.	rs.
45	Accountants, as per Appendix D, No. 1		95,970 0 0	95,970
31	Clerks, ... do. ... No. 2		14,040 0 0	
	Menial Servants, ... do. ... do.		1,230 0 0	15,270
76	Total			1,11,240

APPENDIX E.

Comparative Statement of Public Works Estimated, studying and proposed.

No.	Particulars	Estimate			Proposed				Remarks
		Rate Class or Quality	Amount	Total	Rate Class or Quality	Amount	Total	Increase	Decrease
1	Repairs to Buildings								
2	Repairs to Roads								
3	Repairs to Bridges								
4	Repairs to Tanks								
5	Repairs to Wells								
6	Repairs to Boundary Marks								
7	Repairs to Fences								
8	Repairs to Gardens								
9	Repairs to Plantations								
10	Repairs to Miscellaneous Items								
11	Total Repairs								
12	Establishment								
13	Tools and Plant								
14	Contingencies								
15	Total Ordinary Expenditure								
16	Extraordinary Repairs								
17	Establishment								
18	Tools and Plant								
19	Contingencies								
20	Total Extraordinary Expenditure								
21	Grand Total, Repairs								
22	Establishment								
23	Tools and Plant								
24	Contingencies								
25	Grand Total, Executive Branch								
26	Carried over								
27	Repairs to Buildings								
28	Repairs to Roads								
29	Repairs to Bridges								
30	Repairs to Tanks								
31	Repairs to Wells								
32	Repairs to Boundary Marks								
33	Repairs to Fences								
34	Repairs to Gardens								
35	Repairs to Plantations								
36	Repairs to Miscellaneous Items								
37	Total Ordinary Expenditure								
38	Establishment								
39	Tools and Plant								
40	Contingencies								
41	Total Establishment, Tools and Plant								
42	Extraordinary Establishment								
43	Repairs to Buildings								
44	Repairs to Roads								
45	Repairs to Bridges								
46	Repairs to Tanks								
47	Repairs to Wells								
48	Repairs to Boundary Marks								
49	Repairs to Fences								
50	Repairs to Gardens								
51	Repairs to Plantations								
52	Repairs to Miscellaneous Items								
53	Total Extraordinary Expenditure								
54	Establishment								
55	Tools and Plant								
56	Contingencies								
57	Total Establishment, Tools and Plant								
58	Grand Total, Executive Branch								
59	Carried over								



Comparative Statement of Public Works Establishments, working and proposed.—(Continued.)

E. A. FORD, Colonel, R.E.,
Chief Engr. and Secy. to Govt., P.W.D.

Chepauk,
The 15th September 1878.

APPENDIX F.

No. 1.

Per-centage of Establishment as compared with Grants for Works, &c.

Particulars.	Per-centages.			Remarks.
	Executive Branch.	Accounts Branch.	Total.	
Average Per-centage obtaining throughout India.	26·97	1·76	28·73	Average grant for three years, Rs. 84,93,178.
Per-centage of average grant for Madras during three years, viz., 1874-75, 1875-76, and 1876-77.	23·73	1·46	25·19	
Per-centage of Grant for Madras for the current year.	33·20	2·05	35·25	Grant for current year, Rs. 60,50,946.

APPENDIX F.

No. 2.

Comparative Statement of the Per-centages of the different Classes of Establishments.

Establishments.	Per-centage of		Remarks.
	Average throughout India.	Proposed Madras Establishment.	
	rs.	rs.	The first column shows the per-centage (average) obtaining throughout the whole of India, as obtained from the review by the Accountant-General, Public Works Department, of the Public Works Budget Estimates for the year 1875-76.
Engineer Establishment ...	40·15	35·69	
Upper Subordinate Establishment ...	12·61	15·33	
Lower do. do. ...	4·05	4·86	
Petty do. ...	4·13	4·14	
Office do. ...	12·99	10·13	
Collectors and Police, Irrigation ...	5·44	6·42	
Local allowances	1·47	0·96	
Total, Salaries ...	80·44	77·23	
Travelling allowances	8·61	13·18	
Contingencies	2·50	1·92	
Total, Executive Branch ...	91·55	92·33	
Control Establishment	1·63	1·53	
Accountants	5·26	4·53	
Office Establishment	1·02	0·72	
Local allowances	0·11	0·11	
Total, Salaries ...	8·02	6·89	
Travelling allowances	0·17	0·48	
Contingencies	0·24	0·39	
Total, Accounts Establishment ...	8·43	7·67	
Grand Total ...	100·00	100·00	

(Signed) L. CONWAY-GORDON,
Examiner, P. W. Accounts.

CHEPAUK,
18th September 1878.

APPENDIX G.

Distribution Statement.

No.	Name	Superintendents	Circles	Divisions	Sub-Divisions	For General duties	Total
		5	20	50			
2	Chief Engineer	1					1
41	Superintending Engineers	4					4
42	Executive Engineers		1	1	—	—	2
14	Assistant Engineers		1	24			25
42	Sub-Engineers		1	3	34	—	38
42	Supervisors				4	10	14
183	Overseers					14	14
						3	3
						187	187
		5	21	29	38	214	288

Overseers,
19th September 1878.

(Signed) R. A. FOORD, Colonel, R.E.,
Chief Engr. and Secy. to Govt., P. W. D.

Executive Branch.

General Abstract of Office Establt.

Offices	Abstract	Amount	Total
Chief Engineer & Secy. incly Lithographic Estt	No. 1	43002 - -	43002 - -
Chief Engineer for Irrigation	No. 2	10416 - -	10416 - -
5 Supdg. Engineers @ ..... Rs. 4962	No. 3	24810 - -	24810 - -
11 First class Executive Engineers @ - 3276	No. 4	36036 - -	
10 Second - - - - - @ - 3036	No. 5	30360 - -	
16 Third - - - - - @ - 2646	No. 6	42336 - -	
Consulting Architect	No. 7	3036 - -	
Residency Engineer	No. 8	6168 - -	
50 Subdivisional Officers @ — 372	No. 9	18600 - -	136536 - -
Grand Total Rs.			214764 - -

Conway-Gordon
Lieut.
Fort 12th 1878

Lt Colonel R.E.
Chief Engineer P.W.D.

Office Establishment.

Chief Engineer and Joint Secretary

Nos.	Description	Class	Grade	Salary Rise	Salary Fixed	Allowance	Amount Rs.	Amount A.	Amount P.	Total Rs.	Total A.	Total P.
	Clerks.											
1	Chief Assistant					550	550	-	-			
1	Clerk	I	1st	300	400	350	350	-	-			
1	"	"	2nd	200	250	225	225	-	-			
2	"	II	2nd	120	160	140	280	-	-			
1	"	III	1st	80	100	90	90	-	-			
3	"	"	2nd	60	80	70	210	-	-			
6	"	"	3rd	50	60	55	330	-	-			
2	"	IV	1st	40	50	45	90	-	-			
2	"	"	2nd	30	40	35	70	-	-			
5	"	"	3rd	20	30	25	125	-	-			
24										2320	-	-
2	Draftsmen	1st		50	70	60	120	-	-			
1	"	2nd		25	50	42½	42	8	-			
3										162	8	-
2	Orderlies or Daftries					10½ to 15	37	-	-			
2	Daffadars or Mr Messengers					9½ to 10	19	-	-			
11	Messengers					7	77	-	-			
16										133	-	-
	Total Chief Engr's Office									2615	8	-
	Lithographic Establt. as per Budget. (On Actual service)					968	968	-	-	968	-	-
	Grand Total									3583	8	-

Chief Engineer & Joint Secretary

17-9-78.

Optica Establishment.

Ch. Engineer. Irrig'n Branch & Head Secy.

Nr.	Description	Class	Grade	Salary Rs.	Rs.	Rs.	Amount Rs.	Total Rs.
	Clerks.							
2	Clerks	II	2nd	120	160	140	280 - -	
1	— "	III	2nd	60	80	70	70 - -	
1	— "	"	3rd	50	60	55	55 - -	
3	— "	IV	2nd	30	40	25	105 - -	
4	— "	"	3rd	20	30	25	100	
11								610 - -
2	Draftsmen	1st		50	70	60	120 - -	
2	"	2nd		35	50	42½	85 - -	
4								205 - -
3	Orderlies or Bullocks	Class		26 - -				
4	Messengers	Class		21 - -				
7								53 - -
	Total							868 - -

Conway Gordon
Secy

12.9.78.

Watch & Lithographic Establishment.

1	Superintendent and Manager Surv.	Rs. 250
4	Draftsmen 1st grade - Salary 70/- to 120/-	360
2	— do. — 2nd — " — " 40/- each.	80
7	— do. — 3rd — " — " 10/- to 30/-	141
15	Peons - Salary 6/- to 20/-	134
1	Sweeper	3
	Total Rs.	968

Office Establishment

Superintending Engineer—

No	Description	Class	Grade	Salary-			Amount		Total	
				Rs.	Rs.	Avg Rs	Rs.	A. P.	Rs.	A. P.
	Clerks									
1	Clerk	II	3rd	100	120	110	110	- -		
1	— " —	III	2nd	60	80	70	70	- -		
1	— " —	IV	1st	40	50	45	45	- -		
1	— " —	-	2nd	30	40	35	35	- -		
1	— " —	-	3rd	20	30	25	25	- -		
5									285	- -
1	Draftsman	1st		50	70	60	60	- -		
1	— " —	2nd		35	50	42½	42	8 -		
2									102	8 -
1	Messenger					8	8	- -		
3	— " —					6	18	- -		
4									26	- -
	Total								413	8 -

Army-Sodan
Lucknow

12.9.78

Estt 11/9

Office Establishment.

5

Ex. Engineer - 1st Class Division.

Nos	Description	Class	Grade	Salary			Amount		Total	
				Rs.	Rs.	Rs.	Rs.	A. P.	Rs.	A. P.
	Clerks.									
1	Clerk	III	2nd	60	80	70	70	- -		
1	— " —	IV	1st	40	50	45	45	- -		
1	— " —	"	2nd	30	40	35	35	- -		
1	— " —	"	3rd	20	30	25	25	- -		
4									175	- -
1	Draftsman	1st		50	70	60	60	- -		
1	— " —	2nd		20	30	25	25	- -		
2									85	- -
1	Messenger			7			7	- -		
1	— " —			6			6			
2									13	- -
	Total								273	- -

Secretary-Sindia
Govt
12-5-78

Govt 7/5

Office Establishment.

Ex. Engineer - 2nd Class Division.

No	Description	Class	Grade	Salary High Rs	Salary Low Rs	Salary Average Rs	Amount Rs.	Amount A. P.	Total Rs.	Total A. P.
	Clerks									
1	Clerk	III	2nd	60	80	70	70	- -		
1	- -	IV	2nd	30	40	35	35	- -		
2	- -	-	3rd	20	30	25	50	- -		
4									155	- -
1	Draftsman	1st		50	70	60	60	- -		
1	- -	3rd		20	30	25	25			
2									85	- -
1	Messenger					7	7	- -		
1	- -					6	6	- -		
2									13	- -
	Total								253	- -

Clerk-Foreman

12.9.78

Asst 17/9

Office Establishment.

Ex. Engineer - 3rd Class Division.

No	Description	Class	Grade	Salary ½ yr	Salary ½ yr	Amount	Total
				Rs.	Rs.	Rs. a. p.	Rs. a. p.
	Clerks						
1	Clerk	III	3rd	50	60	55 - -	
1	— "	IV	2nd	30	40	35 - -	
2	— "	-	3rd	20	30	25 - -	
4						140 - -	
1	Draftsman	2nd		35	50	42 8 -	
1	— "	3rd		20	30	25 - -	
2						67 8 -	
1	Messenger			4	6	5 - -	
1	— "					10 - -	
2							
	Total					220 8	

Chief Engineer
Kurnool

12.9.38

Office Establishment.

Consulting Architect to Government.

No.	Description	Class Grade	Salary Rs.	Rs.	Rs.	Amount Rs.	A.	P.	Total Rs.	A.	P.
	Clerks										
1	Clerk	IV	1½	40	50	45	45	-	-		
1									45	-	-
1	Draftsman Estimator	(Special)				145	145	-	-		
2	— " —	IV	1½	20	30	25	50	-	-		
3									195	-	-
1	Messenger					½	½	-	-		
1	— " —										
2									13	-	-
	Total						253	-	-		

Audit 17/9

Country Surveyor
Kaira

12.9.78

Office Establishment

Distt: Engineer - Presidency

No.	Description	Class	Grade	Salary			Amount		Total		
				Rs.	Rs.	Rs.	Rs.	A.	P.	Rs.	A. P.
	Clerks										
1	Clerk	III	2nd	60	90	70	70	-	-		
1	"		3rd	50	80	55	55	-	-		
1	"	IV	1st	40	50	45	45	-	-		
2	"		2nd	30	40	35	70	-	-		
2	"		3rd	20	30	25	50	-	-		
7										290	- -
2	Draftsmen	I		50	70	60	120	-	-		
1	"		2nd	35	50	42½	85	-	-		
4										205	- -
1	Messengers					7	7	-	-		
2	"					6	12	-	-		
3										19	- -
	Total									514	- -

Checked 17/9

Deputy Secretary
Finance

12-9-78

Office Establishment. 91

For Each Sub-divisional Officer -

Nr.	Description	Class	Grade	Salary Rs.	Rs.	Rs.	Amount. Rs.	A. P.	Total Rs.	A. P.
1	Clerk	IV	3rd	20	30	25	25	- -		
1									25	- -
1	Peadon					6	6	- -		
1									6	- -
1										

Total. Rupees 31 - -

Examined

13.5.78

Petty Establishment

Lascars Establishment

Particulars	No.	Annual cost Rs. A. P.
5 Supy Engineers - each 4 men @ Rs 288	20	1440 - -
39 Divisional Officers each 3 men @ Rs 114	114	8,208 - -
Consulting Architect - 2 men @ Rs —	2	144 - -
50 Sub Divisional Officers - each 3 men @ Rs 150	150	10,800 - -
226 Detached Officers - each 1 man @ Rs 226	226	16,272 - -
Examiner's Office - 3 men @ Rs —	3	216 - -
Total Lascars	515	37,080 - -
Petty Establ^s - Present charges - B^s 1878-79 —		50,565 - -
Grand Total Petty Establishment —		87,645 - -

Clerk-Gordon
Surv

12.5.78

Est 11/9

1st Circle. Alcohol Liver Stomach & Office Establishment

Officers	Class & Division	Date of Appointment	Date of Promotion	Date of Reduction	Date of Resignation	Date of Death	Remarks
Surg. Thos. Adams	1st	1	1	-	1	3	4
Surgeon Adams	2d	1	-	-	1	2	1 - 3 4
Surgeon Adams	2d	1	-	1	2	4	1 - 2 1 2
Asst. Surg. Eric Allen	3d	1	-	1	1	4	1 - 2 1 2
Dr. Austin Allen	4th	1	-	1	1	4	1 - 2 1 1 2
Hannah Allen	2d	1	-	-	1	2	4 1 - 2 - 1 1 2
Victor E. Allen	4th	1	-	1	1	1	4 1 - 1 2 - 1 1 2
Dr. M. Allen	4th	-	1	1	1	1	4 1 - 1 2 - 1 1 2
Quentin	2d	-	1	-	1	2	4 - 1 1 2 - 1 1 2
Hannah Allen	2d	-	-	1	-	2	4 - 1 1 2 - 1 1 2

Elmira, Penn
Sept 12 78

4

Offices	Names	Days	Hours	Amount	Remarks
Sergt. Major Officers		1	1	6	
Quartermaster Sergeant		1	1	2	
Commissary Sergeant		1	1	2	
Hospital Steward		1	1	2	
Principal Musician		1	1	2	
Saddler		1	1	2	
Wagoner		1	1	2	
Farrier		1	1	2	
Blacksmith		1	1	2	
Artificer		1	1	2	
Trumpeters		2	1	4	
Privates		70	1	140	
Total		82		164	

Commy Office
Sept 12th 78

4th Circle No 16 Distribution Statement of Office Establishment.

Offices	Class of Clerks										Draftsmen				Messengers			
		1st Class Rs 1200	2nd Class Rs 1000	3rd Class Rs 800	4th Class Rs 700	5th Class Rs 600	6th Class Rs 500	7th Class Rs 400	8th Class Rs 300	Total	1st Class Rs 70	2nd Class Rs 50	3rd Class Rs 30	Total	Rs 12	Rs 9	Rs 6	Total
Supdg. Engrs. Office		1	1	-	1	1	1	5			1	1	-	2	1	-	3	4
Salem Dn	3rd Cl.	-	-	1	-	1	2	4			-	1	1	2	-	1	1	2
Coimbatore	2nd	-	1	-	-	1	2	4			1	-	1	2	-	1	1	2
Periyakulam	3rd	-	-	1	-	1	2	4			-	1	1	2	-	1	1	2
Madura	2nd	-	1	-	-	1	2	4			1	-	1	2	-	1	1	2
Ramnad	2nd	-	1	-	-	1	2	4			1	-	1	2	-	1	1	2
Tinnevelly	2nd	-	1	-	-	1	2	4			1	-	1	2	-	1	1	2
Tanjore	3rd	-	-	1	-	1	2	4			-	1	1	2	-	1	1	2
Total		1	5	3	1	8	15	33			5	4	7	16	1	7	10	18

Sept 12th 78.

Secretary-Gordon.

5th Circuit. Distributive Statement of Office Establishment.

Offices	Clerks										Draftsmen			Messengers		
	Chief Clerk	Law Clerk	1st Class $1,200	2nd Class $1,000	3rd Class $900	4th Class $800	5th Class $720	6th Class $600	Total		1st Class $720	2nd Class $600	Total	1st Class $480	2nd Class $360	Total
Supvg Engr's Office	1	1	-	1	1	1	5		1	1	-	2	1	-	3	4
Fortification & Defences 2nd Class	-	1	-	-	1	2	4		1	-	1	2	-	1	1	2
Augusta " 1st	-	1	-	1	1	1	4		1	-	1	2	-	1	1	2
Mobile " 1st	-	1	-	1	1	1	4		1	-	1	2	-	1	1	2
Pensacola " 2d	-	-	1	-	1	2	4		-	1	1	2	-	1	1	2
Galveston " 2d	-	-	1	-	1	2	4		-	1	1	2	-	1	1	2
Jamestown " 2d	-	-	1	-	-	1	2	4	1	-	1	2	-	1	1	2
Baton Rouge " 2d	-	-	1	-	-	1	2	4	1	-	1	2	-	1	1	2

Sept 12th 78

Lt Col Gillmore
Corps of Engrs

Accountants

For Examiners and Divisional Officers.

No.	Designation	Class	Grade	Salary Min.	Salary Max.	Annual Increment	Amount Rs.	Amount a.	Amount P.	Total Rs.	Total A.	Total P.
	Accountants			Rs.	Rs.	Rs.						
2	Accountants		1st	250	450	400	800	-	-			
3	— " —		2nd	250	340	295	885	-	-			
12	— " —		3rd	160	240	200	2400	-	-			
20	— " —		4th	80	115	115	2300	-	-			
28	— " —		5th	40	75	57½	1610	-	-			
65										7995	-	-
	Total									7995	-	-
	Note. Of above, the following are wholly employed for Div. Offices.											
6	Accountants		3rd	160	240	200	1200	-	-			
16	— " —		4th	80	160	115	1840	-	-			
17	— " —		5th	40	75	57½	977	8	-			
39		Total					4017	8	-			
65	Accountants	as above					95940	-	-	95940	-	-
31	Clerks	as per Statement No. B					14040	-	-			
	Menial Servants	— " —	— " —				1260			15300	-	-
96	Total									111240	-	-

Lahore 12th 20

Accountant General

Clerks.

For Examining Office.

No.	Description	Class Grade	Salary Min.	Salary Max.	Amount	Total
			Rs.	Rs.	Rs. A. P.	Rs. A. P.
	Clerks					
1	Clerk (Head Clerk)	II	3rd	100 120	110	110 - -
1	- -	III	1st	80 100	90	90 - -
2	- -	-	3rd	50 60	55	110 - -
8	- -	IV	1st	40 50	45	360 - -
8	- -	-	2nd	30 40	35	280 - -
6	- -	-	3rd	20 30	25	150 - -
5	- - Apprentices			10 20	70 - -	
31						1170 - -
	Menial Servants				105 - -	105 - -
	Total					1275 - -

Sept 12th 1878.

Clerk-in-charge

App. F

Distribution Statement

		Secretariat	Circle	Division	Sub. division	Station	Total	Remarks
		5	10	39	50	226	330	
2	Chief Engineers	2	-	-	-	-	2	
8	Superintending Engineers	-	4	1	-	-	5	
37	Executive Engineers	-	2	1	34	-	37	
43	Assistant Engineers	1	5	4	33	-	43	
	Sub Engineers	-	-	-	-	14	14	
	Superintendents	-	-	-	3	39	42	
	Overseers	-	-	-	-	187	187	

F. 181

T Percentage of Establishment as compared with Grants for various [illegible].

Particulars	Percentage Actual Number Borne Charge	Grant	Remarks.
Percentage charging Non-gazetted India	26.99	1.76	28.75
1st & Junior Grade for Madras & Other Presidencies			
& 1874-75, 1875-76 and 1876-77	23.73	1.46	25.19 — Average Grant for Three
2nd & 3rd Grade for Madras for the Current year	33.30	2.05	35.35 Grant for current year Rs. 60.50.946

Appendix. J.

10 of 25

Comparative Statement of Percentages of Establishments

Establishments.	Percentages of Sanctioned Establishment	Proposed Establishment	Remarks.
Engineer Establishment	40.18	35.39	The first Col^n shows the percentage (among) Mining throughout the whole of India.
Supervising Subordinate	12.61	15.35	
Lowers	4.05	4.86	
Petty	4.13	4.14	
Office	12.89	10.15	
Collecting Police & Irrig^n	5.44	6.42	
Local Allowances	1.47	0.96	
Total Salaries	80.44	77.23	
Travg Allowces	8.61	13.18	
Contingencies	2.50	1.92	
Total Irrig: Branch	91.55	92.33	
Central Establishment	1.65	1.53	
Accountants	5.26	4.53	
Office Establishment	1.02	0.72	
Local Allowces	0.11	0.11	
Total Salaries	8.02	6.89	
Travg Allowces	0.17	0.48	
Contingencies	0.26	0.30	
Total Accounts Establishment	8.45	7.67	

Sept 12th 1878.

26 June 1876

Lieut Col Walker

I do not think any more distinction

Statement of the present Scientific establishment

will afford an adequate basis of discussion at

the next Special meeting of Council. It appears

to me that the Corps of any reorganization is

to take place must be arranged with reference to

the amount of total annual Expenditure

of the Works which have to be maintained.

Variation of annual Expenditure with maintenance

establishment seem more or less obvious but that

Cannot be helped & should be accepted as inevitable.

Latter must place the organization should provide

for sufficient number of Educated Engineers

and the funds distributed to the performance
permanent characteristics, to require a certain
fixed minimum establishment - It may
require an establishment much or little in
excess of this minimum for shorter or longer periods
The work to be done consists of

1 Roads
2 Buildings
3 Irrigation works
4 - Marine works.

We know we can ascertain simply about
1 & 3 to form a tolerably good idea of
what establishment is essential to carry
on satisfactorily the duties connected with
such works and to manage the regular
Expenditure appertaining thereto - The
minimum establishment might be considered

to small to believe such in the case whether
we regard the work to be done or the staff
of competent Executive Engineers
I am further of opinion that all young officers
Engineers of less than 5 years Indian service
should be sent to the executive establish-
ments in public Campaigns and the rule
of the Department. Except is manifestly
impossible of attainment if we decide that
a certain number of men equal to the duties
to be performed are necessary and then proceed
to appoint the duties of 5 or 10 officers to many
men who are clearly not equal to their per-
formance - Probationary officers Engineers
should therefore be selected for their corps

keeping with regard to the maintenance
existing roads and irrigation works &c
which suffer further maintenance of
buildings under guards will. It will suffice
then as before for each officer to
this account.
must the further establishment required
for the known deficiencies on the roads
of 1876-77 & further probable calls of the next
few years may be considered, and in this
time for which we may ask Government to
recommend for adoption & we shall have
both grounds for effecting that nothing of
with do.
I have mentioned that in my opinion the
existing number of officers Engineers is

[illegible] with reference to the maintenance
Inventive establishment and should be left
very accurately estimating per centage.
It would be unadvisable to debit the after
Cost of the Bombay Light college to the Rev. Dist
[illegible] as to divide the cost thereof
under the several Heads for doing that work.
With the numbers of Assistant Surveyors there
will appear distinctly the Statement it would be
I think impracticable to appoint 1 Assistant to
every Inventive Division - If the number to
be limited to one which is inadequate it then
will be necessary to consider in what
Division the work to be done demands chiefly
the services of the Officers are to form
that - In my opinion 5 Assistant Surveyors

are indispensable in the Broach Dist + 5
are also required for the Kaira Dist - I am
willing to try to work the Cadastral Division in
2 Inventive Divisions but I think the Kaira
must have 3 Divisions 2 for the Old
and for the new Dist as Talugs because
the completion estimates will be so heavy
that the Inventive Surveyors will not have
a moment to spare for the
[illegible] the number of Inventive must not exceed
3 to and then he can find decisive to
their effect, then I would make Salaya
one Division and transfer the other Inventive
to the Kaira. With subinventive Surveyors
in Salaya Assistant Surveyors & Assistants

and accounts

We know the number miles of roads in each District. Probably when there are the new Divisions in a District there we can approximate to the mileage each Division. We also know the number of migrations made and returned each District, but we cannot probably tell how long they should distribute to Division so a simple distribution must probably be made - Any how we should be bound to recommend the best data available.

And undoubt we should have to submit detail our recommendations from District at any rate. I can devote Wednesday to

anything I may be able to do to forward
the object in both of the Letter inclosed
in that Establishment pending the Negotiation
If that Letter suggested could be
brought about by Thursday I think
I could be prepared to go down the
Meeting with the Men and allow it to
be sufficient for the settlement of
any kind of difference
In which allowance will have to be taken
into account in estimating Cost of Erection
&c. and it might be well to maintain
Prices of I what decision has been with

[illegible] the proposals submitted by this
[illegible]. Possibly a telegram would
[illegible] time.

Yours sincerely
[illegible]

Memorandum

Local Fund Roads. The class of work which should fall to the Public Works Department.

Through Communications

All through communications, upon which the general trade of a district is dependent, should be constructed and maintained by the Public Works Department, so long as there is no special professional Agency at the disposal of Local Fund Boards.

It is presumed that such roads will be provided with masonry works, except perhaps that some of the larger rivers will not be bridged; also that the road surface will be artificially formed with broken stone or gravel, wherever the natural soil is not sufficiently hard to maintain, with a moderate expenditure of labour, a surface adapted to wheeled traffic throughout the year.

If

It may however be taken for granted that during the prevalence of, and for a few days after very heavy falls of rain District Communications cannot be kept good except at a cost which it would not be worthwhile to incur to obviate the inconvenience of temporary stoppage of traffic.

Fairly good roads require attention,

(1) to the drainage of the ground which they traverse, by means of side and catch drains on the upper side on sidelong ground, and of parallel drains on both sides when the ground is transversely level and also flat in the direction of the road.

(2) to the provision of adequate waterway for cross drainage and particularly to the prevention of any considerable accumulations of water along the line of catch drains

(3) to the formation of a proper road section with a surface formed of material adapted to the class and extent of traffic

The efficient and economical maintenance of fairly good roads, as opposed to tracks, requires.

(1) a considerable knowledge of the value and proper use of materials suited for carrying traffic.

(2) the careful exclusion of all unsuitable material and especially the prevention of the cartage of anything that is not of value proportioned to its cost.

(3) the introduction of methods for observing what material is required and using it in a way suited to its character, and at a cost which admits of no waste.

The R.D.C. should accept the responsibility of the construction of no road or portion of road unless the estimate provides adequately for its completion according to the standards, stated in writing and in detail by the Local Fund Board, to be adopted, and similarly

Similarly it should accept the responsibility of the maintenance of no road which has not a repair allowance adopted to it capable of maintaining the fixed standard. If a Local Fund Board cannot provide adequate repair allowances for all the principal roads, whether from devoting work owing to the Construction of new roads or otherwise, the responsibility for the resulting condition of the Communications should rest entirely with them.

When a Local Fund Board differs from its District Engineer as to the proper cost of a new road or of the maintenance of an existing road the question should be referred to the Chief Engineer for his opinion and his decision should be final; ie the amount which he settles to be necessary should

should be provided or the C.W.D. should not undertake the work.

The data the Chief Engineer would require would be

1. The standard fixed for the road, including width of artificial surface, explained by sections of embankments, on sidelong and on flat ground.
2. The soils traversed, and the proposed thickness of broken stone and gravel for each sort of soil.
3. The distance of cartage of stone or gravel for each mile of road
4. The cost of quarrying & cleaning (screening) gravel
   " do — do — do and breaking stone.
5. The estimated amount of traffic
6. The facilities or otherwise for obtaining water near the road in each section
7. The rates of cart hire, and

for

for men, women and children respectively.

Gradients and rainfall also would be necessary data in some Districts and for mountain roads. It might be right and necessary that the opinions of local P.W. officers should be subjected where necessary to review by the Chief Engineer, and much benefit would result from a more systematic treatment of roads, which, in common with other works, needs to be dealt with as to secure economy in every detail and the utmost practicable efficiency.

There is no necessity at 2. Village roads is

considered for the employment of the P.W.D. to construct or maintain roads in which only one or two villages are interested. Such should be capable of being looked after by the villagers concerned, under such arrangements as Local Fund Boards may consider to be convenient and suitable, and probably in many cases a mileage allowance, payable quarterly if such communications were properly cared for, would secure sufficient attention. The periodical inspection should be made by Employés of the Fund Boards and not by P.W. officers.

If desired when new roads of this class are about to be constructed, the line, after it has been marked out, might be inspected and reported on by a P.W. officer of the Engineer

Establishment

Establishment, who should in that case
draw up a report specifying any
changes considered desirable, and
stating what masonry works were considered
essential. The D.W.C should have nothing
further to do with such roads.

3. Lithographed plans with estimates for
road culverts and dams, with foundations
suited to different specified descriptions
of soils, and superstructures adapted
to different heights of roadway might
be supplied to Local Fund Boards for
the use of their Inspectors, and it would
be advantageous further to note upon
each work the approximate area the
drainage of which it might be expected
to pass with safety. Such information
would do not be very accurate, as it
could not take into account differences
of local circumstance, but it would
be better than having a mainly
without any guide at all.

4. The undersigned has had abundant
opportunities of seeing the Condition
of roads in most of the Districts of this Presidency

and he considers that there
is generally a good deal of
room for improvement.
The defects which are most
prominent are

(1.) The use and frequently
the cartage of gravel contain-
ing much earthy matter not
only of no value but positively
prejudicial to the formation
of a hard durable surface.
Screening before cartage is
essential in such cases to
economy.

(2.) The omission to provide
or use water for moistening
road materials.

(3.) The use of too thin a
layer of stone, gravel or kunker
on such soils as black cotton.
It is an absolute waste of money
to put 4 or 5 inches on such
soil. Given a limited amount
of money it is best to do the

more difficult parts of the work thoroughly, and to have the road, where the soil is naturally favorably good, unmetalled or gravelled. The road surface when any of the several kinds of earthen soils, loams and other soluble soils, should be quite impervious to water or should be kept moderated

4. The want of rammers united to the consolidation of gravel, stone and for surfacing &c &c. A good part of rammer will do well for all purposes. Rollers are a very indifferent substitute for rammers, as will be evident on comparing the pressure per inch of width of a roller with that of the wheel of a well laden cart.

(5.) Inadequate side or cross drains; and on side long ground the omission to pass drainage across the road at moderate intervals.

(6.) Steep approaches to road dams. Road dams are a very cheap and effective means of passing drainage, but they should be flat at the bottom for a length of 12 feet at least, and the gradients of the approaches should not be steeper than 1 in 15. This does not necessitate very long road dams as the gradients can extend to any necessary distance beyond the dam proper, if its wings be connected with the normal level of the road by small banks.

(7.) The want of timely attention to petty repairs whether of road surface or masonry works.

5. It is commonly supposed that no skill is needed to make and maintain roads. No doubt uneducated men may be excellent road makers and repairers, but skill is essential nevertheless to

good results, and to the making of money go a long instead of a short way. Very different treatment is necessary
1st for different classes of road
2nd for the same class of road under differing circumstances of soil and available material.
A good road maker, whether educated for other purposes as well or not, would be an extremely valuable man on any road every District.

H. Colonel RE
Chief Engineer for Irrign

Recommended
5th June 1878

To
The Chief Engineer P.W.D.

E. I. Form No. 19.

OFFICE OF THE CHIEF ENGINEER
FOR IRRIGATION,
Fort Saint George,
25 February 1873.

No. 9 E.W.

MEMORANDUM.

Enclosure.

There seems to be a general agreement of opinion that the present system of engaging Surveyors temporarily does not work well, and that the results are less satisfactory, while the cost of good work is greater than it would be were there a permanent Establishment of Surveyors.

Under the new Organization therefore, it may be advisable to attach to each Circle a moderate number of Surveyors for employment on whatever Survey work may, from time to time, be required.

5 Surveyors for the 1st Circle.
5 —do— 2d —"—
5 —do— 6th —"—
3 —do— 7th —"—
} are suggested

and probably, the 3d and 4th Circles would need as each.
Permanent Surveyors are graded in the Code.

H. Lindsay Lieut Colonel RE
Chief Engineer for Irrigation.

To
The Chief Engineer P.W.D.
Fort St. Geo.

Jerusalem Consul

Letters &c

List of Government Orders remaining unanswered for the to the end of December 187

No.	Date.	When received.	Subject.	Explanation of cause of delay in forwarding reply, and probable date when it will be forwarded.
3402	24th October 1866.	5th November 1866.	Requests to investigate & submit in the 2nd Division,	Shall be attended to if possible,
1156	1st April 1867	2d April 1867		
1492	27th May 1867	3d June 1867.		
127	20th September 1872		Calls for Estimate for the supply of posts & shutters under—	Survey said to be made. Plans & Estimate will be sent as soon as possible. Letter under reference cannot be found a copy is requested to be sent—

* Cannot be found from Office of No 127 of 1873 and have to be called for being held by person from Office. EC 10/74

List of Government Orders remaining unanswered for the end of December 1877

No.	Date.	When received.	Subject.	Explanation of cause of delay in forwarding reply, and probable date when it will be forwarded.
193.	21st January 1873	27th January 1873		
2182	20th October 1873	27th October 1873.	Reporting to submit a valuation on the Steam Vessel Sir Leonard Worth Carbonneau with leave to be granted for the purchase of such Vessel by the Government	The Commissioner Calcutta has not yet submitted a Report on the Vessel but pending valuation of the required Establishment he was employed in surveying and Planning the South Flood Bank of the Damodar River. The Establishment for the Sarvapally Project was sanctioned in G.O. No 5731 dated 5 December 1877. but Mr Armstrong has not yet finished the Flood bank Plans. The Officer is now recalled to Bengal and another Officer is required for the

				Carrowfally Project work. A young Officer could do the work & under the immediate direction of the District Engineer
2486	10th October 1873	17th October 1873	Requesting to be furnished with such observations that he may wish to offer on the subject of—	No observations to offer
3003	12th December 1873.	18th December 1873.		Will be submitted at an early date
189 A.	2nd March 1874	9th March 1874.	Requesting to be furnished a Survey showing the alternative routes already provided with Bridges in connection with—	The survey is ready & has been kept back with a view of submitting it with the Revised Estimate of the Carrowfally Project. It shall be sent separately at once

2656	6th September 1874	18th September 1874	Circular to refer to the Requirements of — as regards Breedings of —	Required information not received from Southern Division Officers
737	23rd September 1874	30th September 1874	Requesting to make any proposals as to the Restoration of —	Will be attended to as soon as possible
839	25th March 1875	2nd April 1875	To Consider and report in what localities it can be made available for —	Will be attended to shortly.
Circular 76	26th June 1876	1st July 1876	To submit a Quarterly Progress Report for —	Range Officers have been instructed to attend to this, but they have not had time to do so.
12 C	22nd July 1876	20th November 1876	To submit lists of — of importance which have been Constructed or Considerably improved since the Country came under British Rule	Do — Do —

51 Circular 51 March 73.	23rd June 1877	5th August 1877	Requesting information applied for to Range Officers not received	
155 3	5th July 1877	5th August 1877	Designs of Tanks on the various by-roads in the Division Requiring Estimates	Will be attended to as soon as possible
221 D.	6th August 1877	31st August 1877.	Requesting certain District Engineers to transmit a few of the Excavations done by them in 1876-77	
			To submit Estimates for all the Excavations carefully Measured	Will be attended to as soon as possible
38 Ct. Dy.	10th November 1877	15th November 1877	Petitioned for Telegraph Office	The required information is not forthcoming in

				Informs that the matter referred to in para 273 in his Memo dtd 17th of 29th May last is one which does not require reference to the Collector & requests not to allow further delay in disposing of the subject	District Engineer's Office. The matter will be seen to be gone into from the beginning and there is no time to undertake it now. If any thing was done on this subject Over 20 years ago, it must have been done by the Collector

District Engineer's Office, Nellore,
29th January 1878

B Shewbrick
District Engineer.

Copied

No 6. E.W.

Memorandum.

Enclosure 1.

In forwarding for the perusal of the Chief Engineer P. W. D, the list of unanswered references of the Nellore District for the month of December, the undersigned would draw attention to the great and prejudicial delay which has occurred in dealing with many references of importance, and to the necessity of a speedy improvement in the manner of carrying on the work of the Department.

No. 193 - 21st January 1873.
" 2182 - 20th Novemr. 1873.
" 3003 - 12th Decemr. 1873.
" 189-A - 2nd March 1874
" 221 S. - 6th August 1877
" 38 N.L. - 10th Novr. 1877.

These references, and many subsequent orders and reminders which have not been shown in the list, all appertain to the Pennair Anicut system. The estimate for the Survapully project, a section of that system, ought to have been

been revised now some years ago, and re-
peated calls for it have been made.—
It has been promised several times, and
in December last a special establishment
was sanctioned to allow of its being taken up; G.O. No. 570 dated 5th December 1877
but it now appears that nothing has
been done, and the officer who was de-
puted to revise the estimate has re-
turned to Bengal. Mr. O'Shaughnessy
states that without the deputation of
another officer the revision of the estimate
cannot be proceeded with. What appears
to be really necessary is the allotment
of a suitable Executive staff to the Nellore
or Southern Division. It has been in-
efficiently officered for a long time, and
the important irrigation interests have
suffered in consequence, with no doubt
other interests as well.—

2.— Besides the delay in dealing with
the work to be done in connection with
the Pennair Anicut system, all other irri-
gation work is much behind hand.—
Little or no progress has been made with

the

the systematic treatment of the numerous
tanks in the District.— So simple a matter
as ascertaining the requirements as regards
bridges of the Chennur channel, which is
but a few miles in length, has been
postponed for 3½ years, and still remains
unattended to.—

No. 2556-9 dt. September 1874

The grouping of irrigation works, which
is necessary to allow of their proper
treatment, and on which the Government
of India have laid much stress, has
apparently made no progress, though in
some other Districts a fair start has
been made.—

Circular No. 76- 26th June 1876.

No. 12/C, 22nd January 1877

Nothing has been done towards as-
certaining what works are of sufficient
present or probable future importance to
make it desirable to maintain a separate
record of them individually. In some other
Districts works of this class have been
reported on and the orders of Government
thereon taken.—

Circular No. 51 March 1873.

The capacity of tanks and their irri-
gating duty is a highly important sub-
ject in connection with the management
of tank irrigation, and especially for the
determination of the tanks to be retained

so

so as to secure the effective supply of municipal lands without wasting money on the repair of tanks which should not continue to be maintained. More than 4½ years have produced no results.

These are a few out of many matters to which the attention of District Engineers has been directed during the last 5 or 6 years and previously, but to make instructions of any real use there must be in every Executive Division officers of education (professional) and intelligence to carry out the instructions and be guided by them in carrying on their duties.

3. The undersigned considers that the least inconvenient way of supplying the wants of Nellore will be to constitute as soon as possible the two Executive Divisions which are to be formed out of the District, and to place them under a Superintending Engineer. This District and the Kistna are to constitute the 2nd Superintending Engineer's circle, and the Executive Divisions of the Kistna have been already formed. Here

There is not much to be done therefore to organize this circle, and the sooner it is done the earlier will the first step towards improvement become possible. The officer asked for by Mr. O'Shaughnessy should be competent to undertake the permanent charge of the subdivision in which the Pennair Anicut system will be situated, and then, when he has completed the revision of the estimate for the Survapully project, the local information he will have gained will be turned to account in carrying out the work remaining to be done and in managing the sub division.

4 It is to be noticed that though the pressure caused by the Famine may have rendered the administration of the regular work of the District difficult during the last 15 or 18 months, it is evident that this administration has been defective for a much longer period, and the first necessity of reform is an

efficient

efficient Executive establishment.

Office of the Chief Engr for Irrigation
Fort Sant George
16th February 1878

Lieut. Col. R.E.
Chief Engineer for Irrigation

(1)

To,
The Chief Engineer D.P.W.

1878

From
The Chief Engr. for India

Dated 16 Sept 20 } Feby 1878

Encl[s]
C. E. G. W.

Enhancement Superintending Engineer
– Kattiawar District. – towards
Personal, — Index 1877
hoping to indicate the delay in
dealing with many references
of importance during the
necessity of a steady improve-
ment in the manner of
carrying on the work of the
Dept.

Entered 24-7-78

(26)

Superintending Engineer

For seven Officers				For each Office			
4 Clerks at	100	400	- -				
3 D[o]	80	240	- -	1 Clerk at	91	91	- -
7	91	640	- -				
7 Clerks at	40	280	- -	1 D[o]	40	40	- -
14 D[o]	30	420	- -	2 D[o]	30	60	- -
7 D[o]	25	175	- -	1 D[o]	25	25	- -
7 D[o]	20	140	- -	1 D[o]	20	20	- -
7 D[o]	15	105	- -	1 D[o]	15	15	- -
7 D[o]	12	84	- -	1 D[o]	12	12	- -
1 Draftsman at	65	65	- -				
2 D[o]	60	120	- -				
4 D[o]	50	200	- -	1 Draftsman (a)	55	55	- -
7	55	385	- -				
7 Draftsmen at	50	350	- -	1 D[o]	50	50	- -
7 D[o]	45	315	- -	1 D[o]	45	45	- -
1 D[o]	40	40	- -				
1 D[o]	35	35	- -				
4 D[o]	30	120	- -	1 D[o]	33	33	- -
6	33	195	- -				
14 Coolies at	10	140	- -	2 Coolies at	10	20	- -
7 Boys at	8	56	- -	1 Boy at	8	8	- -
49 D[o]	7	343	- -	7 D[o]	7	49	- -
14 Sircars	7	98	- -	2 Sircars	7	14	- -
Total		3726	- -	24 Total		537	- -

The Head Clerk should
receive - 130 - Rs
Second Clerk to Chief
Clerk 70 - Rs
Clerk to Superintending Engr 40 Rs
Peon for Chief Draftsman

Note. One of the 7 Sup[g] Engr[s]
will be allowed 1 Draftsman
on Rs 33 less than the staff
of Office members of the other
6 Officers

Executive Engineers

For 36 Officers			For each Officer
6 Clerks	at 80	480	
7 — D'	— 70	490	
2 — D'	— 60	120	
6 — D'	— 50	300	
9 — D'	— 45	405	
6 — D'	— 40	240	
36	— 86	2035	1 Clerk at 36 — 36
13 Clerks	at 35	455	
23 — D'	— 20	690	
36	— 33	1145	1 — D' — 33 — 33
24 Clerks	at 30	720	
12 — D'	— 25	300	
36	29	1020	1 — D' — 29 — 29
36 Clerks	at 20	720	
1 Clerk	at 25	25	
3 — D'	— 19	54	
32 — D'	— 15	480	
36	16	579	1 — D' — 16 — 16
2 Draftsmen	at 50	100	
1 — D'	— 45	45	
68 — D'	— 40	2720	
1 — D'	— 25	25	
72	42	2790	2 — D' — 40 — 80
4 Moonshees	at 40	40	
1 — D'	— 9	9	
12 Peons	— 8	96	
19 — D'	— 7	133	
36	8	277	1 Peon & Moonshee — 8
36 Peons	at 7	252	
14 — D'	— 7	98	
2 — D'	— 6	12	
60 Lascars	— 7	420	
72	7	782	1 Peon at 7 — 7
			2 Peons or Lascars 7 — 14
Total		9600	11 Total — 261

Special Officers

For four Officers			For each Officer		
4 Clerks	at 40	160	1 Clerk	at 40	40
4 — D'	at 22	88	1 — D'	at 22	22
4 — D'	at 20	80	1 — D'	at 20	20
4 — D'	at 10	40	1 — D'	at 10	10
4 Draftsman	at 50	200	1 Draftsman	at 50	50
16 Lascars	at 7	112	4 Lascars	at 7	28
Total		680	9 Total		170

Sub Divisional Officers

For 73 Officers			For each Officer		
73 Clerks	at 25	1825	1 Clerk	at 25	25
146 Lascars	at 7	1022	2 Lascars	at 7	14
Total		2847	3 Total		39

Overseers

For 187 Officers			For each Officer		
187 Clerks	at 15	2805	1 Clerk	at 15	15
374 Lascars	at 6	2244	2 Lascars	at 6	12
Total		5049	3 Total		27

Lowest Subordinates

For 85 Officers			For each Officer		
76 Clerks	at 15	1140			
9 — D'	— 12	108	1 Clerk	at 15	15
85	15	1248			
80 Lascars	at 7	560			
98 — D'	— 6	588	2 Lascars	at 6	12
178	6	1148			
Total		2396	3 Total		27

Abstract showing the number and monthly cost of Establishment on each Public Works Division as it actually existed on the 1st April 1876

Divisions	Engineers	Subordinates	Establishment	Office	Remarks	Total
	No. Rs.	No. Rs.	No. Rs.	No. Rs.	No. Rs.	No. Rs.
Architect	1 100	- -	- -	- -	7 270	1 50	9 420
Bangalore	1 1063	5 349	- -	9 235	16 825	1 60	33 2102
Cabalta	1 500	1 109	3 100	1 9	10 126	1 50	17 942
Coimbatore	1 550	3 190	6 200	5 75	24 294	1 60	40 1269
Cuddapa	1 560	4 324	5 100	5 138	25 349	1 70	37 1536
Cuncada	1 550	3 200	2 60	4 89	17 174	1 80	28 1093
Godavari	2 800	4 350	5 160	6 72	24 296	1 60	50 1796
Gundegoa	1 250	1 100	2 100	2 30	29 618	1 60	42 1638
Kistna	1 [illegible]	2 [illegible]	2 [illegible]	6 [illegible]	[illegible]	1 60	[illegible]
Nagpur	1 [illegible]	3 200	1 60	1 60	7 68	1 40	18 [illegible]
Nagpur	1 500	3 200	1 65	[illegible]	10 234	1 60	24 1079
Nasik	[illegible]	2 300	2 65	2 70	12 46	1 50	21 770
Nerbudda	[illegible]	6 960	5 225	3 45	55 300	1 60	40 1887
Nilambur	1 350	1 60	5 100	6 58	10 152	1 50	22 960
Nellore	1 [illegible]	2 110	4 120	2 35	16 190	1 60	56 [illegible]
Northern	2 [illegible]	5 [illegible]	4 110	1 25	50 200	1 60	83 [illegible]
Do Nagpore	[illegible]	4 [illegible]	3 90	[illegible]	18 [illegible]	1 50	22 [illegible]
Rundipal	3 150	5 300	5 100	[illegible]	29 362	1 60	60 2512
Shevaroy	1 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1 50	15 [illegible]
Southern	1 [illegible]	1 [illegible]	1 55	[illegible]	6 98	[illegible]	9 [illegible]
Tellicherry	1 450	1 60	6 220	3 50	17 174	1 50	89 1009
Godavari Delta	[illegible]	2 [illegible]	4 160	5 24	15 100	1 60	36 662
Do & Do	4 [illegible]	5 165	4 160	9 156	32 445	2 10	56 3526
Do Do	5 1865	4 540	4 160	7 137	81 44	2 10	53 3903
Carried forward	37 [illegible]	73 [illegible]	65 2890	95 [illegible]	422 [illegible]	25 1390	699 33[illegible]

| Personer | Kr. | Öre | Kr. | Öre | Kr. | Öre

Abstract showing the number and monthly cost of Establishment of District as actually existed on the 1st April 1876.

Divisions	Officers	Subordinates	Lascars	Peons	Extra Establishment	Office Establishment	Amount	Total
Ramsaloree	1 1083	3 399	. .	9 235	16 325	1 60	30	2102
	1 1083	3 399	. .	9 235	16 325	1 60	30	2102
Bellari.								
Bellari	1 380	4 524	3 180	5 132	23 319	1 70	37	1525
Gooty	2 700	5 440	4 120	2 38	26 316	1 50	40	1621
Hospetta	. .	6 530	4 160	8 160	23 240	1 50	42	1148
Ramakonda	. .	7 770	3 60	5 40	21 239	1 50	35	1157
	3 1080	22 2224	14 440	18 367	93 1122	4 220	154	5453
Chingleput:								
Chingleput	. .	6 769	5 215	3 45	25 300	1 60	40	1319
Mount	2 1140	3 329	2 80	5 90	20 292	1 60	33	1999
Simpliss	1 400	3 320	3 135	2 30	17 225	1 60	27	1220
	3 1490	12 1418	10 430	10 175	62 917	3 180	100	4538
Coimbatore								
Canara	. .	4 300	2 65	2 70	12 146	1 60	21	711
Coimbatore	2 1070	5 479	4 110	1 25	15 200	1 60	32	2032
Calicut	. .	2 220	1 60	1 60	7 60	1 40	12	452
Seringham	. .	4 370	2 90	. .	15 173	1 60	22	665
	2 1070	15 1439	9 305	4 155	59 675	4 200	93	3854
Cudapa								
Cudapa	1 250	0 000	2 100	2 30	20 310	1 60	12	1630
Nellimpetta	1 450	5 410	4 240	1 20	29 342	1 60	41	1522
Sidout	. .	5 690	2 100	3 50	22 284	1 60	33	1014
	2 700	10 1000	8 440	6 100	79 936	3 180	116	4206
Tanjore								
Karumpoor	1 300	3 290	6 200	6 75	24 294	1 60	40	1269
Chitchitol	1 300	1 60	3 100	8 50	10 134	1 50	22	932
	2 900	4 350	9 300	11 133	34 428	2 110	62	2221

Llewellyn Jordan

Dec. 16th 1876.

Asst. Q.M.G.

Divisione	Ufficiali Superiori	Ufficiali Subalterni	Sott. Uff.li	Uffici Aggiunti	Totale

Campora

Comando														
Magazzeno	1	600	5	620	6	100	3	40	28	312	1	60	44	1762
Ammazzato	.	.	4	480	4	120	3	40	16	280	1	50	28	818
Infermeria	1	420	2	250	3	100	4	61	16	280	1	50	27	1054
Campora	2	670	4	400	8	100	7	75	25	312	1	60	44	1097
	4	1010	15	1400	17	300	17	206	82	1024	4	220	139	5550
Zimarelli														
Martinu	.	.	4	600	2	40	.	.	18	231	1	60	25	931
Schmedrez	.	.	4	409	3	100	.	.	20	252	1	60	28	821
Zimarelli	2	800	5	400	6	200	.	.	33	430	1	70	47	1980
	2	800	13	1409	11	340	.	.	71	913	3	190	100	3732
Vallinghofi														
Muraui	1	350	2	200	3	100	4	66	13	161	1	50	24	927
Vallinghofi	2	800	4	300	6	140	9	141	22	272	1	70	43	1803
Vallinghofen	1	.	2	310	3	100	1	28	10	104	1	40	17	582
	3	1150	8	890	11	340	14	235	45	537	3	160	84	3312
Visperhaus														
Visperthal	.	.	.	.	.	.	6	103	8	96	1	40	12	299
Golemda	1	450	.	.	6	100	.	.	10	104	1	40	17	774
Visperhaus	2	1000	4	450	4	120	.	.	19	246	1	60	30	1576
	3	1450	4	450	9	300	6	103	34	426	3	140	59	2949
Grand Totale	72	24620	248	26090	206	7470	216	3901	1127	17103	77	4265	2116	94909

| | | |

Statement showing proposed changes as compared with the Establishment Budget Estimate of the year 1876-77.

	Particulars	Actual Establishment	Sanctioned Establishment	Proposed Establishment	Increase	Decrease	Remarks
	Executive Branch						
	Salaries						
1 & 7	Engineer Establishment — Military	3,62,578	7,47,116				A- Chief Engineer & Secretary in Office — 32,316 actual
	Engineer Establishment — Civil	3,84,538					Chief Engineer for Railways — 9,360 "
44 - 46	Upper Subordinate Establishment		3,24,738				Executive Engineers at Rs 2,000 each — 2,16,000 Proposed
47 - 49	Lower Subordinate Establishment		1,00,378				7 Superintending Engineers at Rs 2,222 each — 15,554 "
50 - 52	Office Establishment		47,000				9 " Class Executive " " 1,778 " — 16,002 "
	50 Office Establishment — Provincial	1,21,194		2,52,172 A		92,860	10 " 2nd " " 1,400 " — 14,000 "
	Office Establishment — Civil	2,32,588	3,53,782				45 " 3rd " " 1,200 " — 54,000 actual
48 - 49			30,000	20,000		10,000	Inspecting Architect & Surveyor — 7,000 "
51 - 54			1,000	8,000			1 Principal Officer at Rs 1,000 each — 1,000 Proposed
55A	Army Establishment		4,200	4,200			Grant & Revenue Army Department — 12,672 "
55	Temporary Establishment						35 Civil Divisional establishments at Rs 320 to 520 per annum — 14,128 "
56	Travelling Allowances			4,710			42 " " for Subordinate Establishment — 31,260 "
57	Travelling Allowances — Military	3,760	4,710	7,000		4,451	197 Revenue Establishment at Rs 25 and 30 — 1,650 actual
58	Travelling Allowances — Civil	1,947	11,451				Contingencies — 3,344 "
			14,31,197		13,77,826		Public Works Store —
							Total Rupees — 2,52,172
59	Contingencies — Military	18,880	33,334	30,000	30,000	3,334	
60	Contingencies — Civil	17,814					
61 - 62	Travelling allowances			22,500	22,500		
63	Travelling allowances — Military	3,500	22,500				
64	Travelling allowances — Civil	19,000					
	Total Executive Branch						
	Accounts Branch						
	Salaries						
65	Central Establishment		33,120	33,120			
66 - 67	Accountants		1,00,000	96,000			
68 - 70	Office Establishment		9,700	10,704		3,096	
71 - 73	Temporary Establishment		4,200	4,200			
74	Holidays Monthly Rent		1,000	1,800			
75	Contingencies		1,47,020	14,5994			
76 - 77	Travelling Allowances		4,500	4,500			
	Travelling Allowances — Military			10,000		4,000	
	Travelling Allowances — Civil		14,500				
	Total Accounts Branch						
78	Conservancy						
	Grand Total as per Budget						

Increase of about 6·2 per Ann.

Saving of about 5·3 per Ann.

Saving of about 5·0 per Ann.

These items have not been dealt with by the Chief Engineer.

Saving of about 6·2 per Ann.

This item has been inserted since issue of the Budget by the undermentioned changes:

Rs
100 Salary of Chief Draftsman transferred from Delhi to Simla
100 " " Superintending Draftsman " " "
180 " " 9 Subordinate Draftsmen " " "
120 " " 10 " " " " "
120 " " 10 " " " " "
2,180 Total increase
310 Saving by the reduction in the Salary of the Accountant Gen
1,000 Net increase

The increase of Rs 1,000 + the saving of Rs 3,096 shown in the Establishment = a saving of Rs 2,096 as compared with the saving of Rs 3,700 + Rs 916 = Rs 4,096 shown in my note on the Establishment required for the Accounts Branch.

Saving of about 5·0 per Ann.

DJ

Statement (B)

Statement showing the outlay on works and Establishments for 1874-75 in the following Provinces and the per centage of Establishments to works Vide 6-4-76

Province and works	Outlay on works	Outlay on Establishments	Per centage
Imperial Ordinary	16,47,895	4,26,850	25·10
Irrigation — do	14,32,892	5,11,419	35·70
Dr Extraordinary	4,06,964	1,06,474	26·16
Provincial	21,26,859	5,92,283	41·95
Local Funds	5,30,563	1,99,948	37·47
	61,44,873	21,37,003	34·77
Imperial Ordinary	8,07,857	1,39,455	15·03
Irrigation — do	14,85,514	5,10,498	34·29
Dr Extraordinary	46,93,637	9,45,790	20·15
Provincial	51,57,171	18,73,479	36·32
Local Funds	10,46,758	3,39,297	3·32
	222,47,940	37,99,519	17.0
1873-74			
Imperial	1,53,857	39,082	25·07
Provincial	11,08,867	3,75,770	34·16
Local Funds	12,56,653	2,61,350	20·30
Irrigation Extraordinary	13,83,096	4,06,420	29·28
Dr Ordinary	5,65,868	7,29,507	128·74
	45,95,411	16,25,029	36·0
Imperial	15,01,909	3,34,450	22·28
Provincial	18,39,309	4,32,510	23·46
Local Funds	1,63,555	45,882	29·55
	25,03,773	8,15,842	23.28
Imperial Ordinary	18,025	3725	20·00
Provincial	5,24,384	1,22,239	22·874
Local Funds	4,37,741	1,23,698	27·02
Irrigation Ordinary	1,72,873	1,22,239	70·71
	11,70,023	3,71,901	31.76

5-6-76

Public Works Establishment C.

No.	Name					Total	
1							
2	Bangalore	222	39	52	-	325	60
3	Bapatlah	74	-	27	21	124	50
4	Barhampore	212	39	41	42	294	60
5	Bellary	174	39	41	21	319	79
6	Bezwada	76	-	108	-	184	50
7	Cuddalore	101	39	81	42	294	60
8	Cuddapah	101	39	121	42	318	60
9	Calicut	101	-	54	6	171	60
10	Callegal	56	-	12	-	68	40
11	Cannanore	153	-	81	-	234	60
12	Cannore	76	-	54	6	136	50
13	Chingleput	101	39	108	42	310	60
14	Chicacole	76	-	27	21	124	50
15	Chittoor	101	-	81	6	192	60
16	Combaconum	101	26	125	6	258	60
17	Coringahm	76	-	41	6	173	50
18	Cuddapah	219	39	108	6	362	60
19	Cuddapah	71	-	-	-	71	50
20	East Coast Canal	90	-	-	-	90	-
21	Ellore	76	-	27	42	185	50
22	Fort St. Mathew	101	-	27	42	170	60
23	Godavery do	245	107	41	42	435	80
24	Godavery do	103	78	108	42	411	80
25	Goldendah	51	-	27	21	104	40
26	Gunture	56	-	-	42	98	40
27	Ghooty	121	39	121	21	316	50
28	Hosket	76	-	135	27	240	50
29	Joypore	76	-	-	-	76	40
30	Kamboom	101	-	54	21	186	60
31	Kurnool	101	-	108	21	240	60
32	Kurumbanad	76	-	54	-	140	50
33	Maddanpilly	101	39	108	84	342	60
34	Madras Harbour						
35	Madura	201	39	81	42	443	70
36	Mangaroody	66	39	54	21	200	50
37	Mangalore	101	39	108	12	270	60
38	Masulipatam	209	39	81	21	350	60
		4280	738	2401	816	8315	1050

No.	Name					Total	
		4280	738	2401	816	8315	1050
39	Mayaveram	101	78	108	42	312	60
40	Mirch	170	39	54	21	298	60
41	Moori	76	39	54	21	171	50
42	Nagpoor	76	-	54	21	200	50
43	Nandial	96	39	54	21	234	60
44	Nandigamma	122	-	81	21	196	50
45	Nellore	76	-	27	21	154	50
46	Nellore Cudial	76	39	108	21	209	50
47	Nellore	76	-	54	42	216	60
48	Nellore	101	39	81	14	209	50
49	Nellykerry	123	-	81	-	161	50
50	Nellund	76	-	81	21	139	50
51	Nemkondah	76	-	54	6	173	50
52	Nemkondah	76	39	108	6	179	50
53	Nelore	76	-	81	-	204	250
54	Pondicherry	222	-	108	6	146	50
55	Pottoor	76	-	54	6	165	50
56	Rajahmundry	76	-	27	42	198	60
57	Rajahmundry	111	39	27	-	205	60
58	Salem	147	-	108	-	252	60
59	Shemandavie	101	39	81	21	254	50
60	Siddout	76	39	81	42	225	60
61	Sunadore	111	39	54	21	250	60
62	Sloor					312	60
63	Sangore	111	78	81	42	182	40
64	Tindavanum	56	-	54	42	330	70
65	Tannerby	241	39	108	42	231	60
66	Do Northern	111	39	81	-	137	40
67	Tripatore	56	-	81	-	272	70
68	Trichinopoly	163	-	108	21	104	40
69	Vandiapatchum	56	-	27	21	107	50
70	Vellore	76	-	81	-	171	60
71	Vindanhellum	111	39	54	6	321	60
72	Vizianagram	111	39	108	42	246	60
73	Wallajah	111	39	54	12	216	60
74	West Coast Canals	90	-	81	-	90	-
75	Armand	76	-	54	12	140	50
		6267	1240	5107	1601	11215	4315
	Coup: Mahabat	270				270	50

Navy Office ——— 8267 × 12 = 99.204 + 103.104 + 330 = 55.

Subsistence Office ——— 1440 × 12 = 17.280

Ordnance Office ——— 5007 × 12 = 60.084

Sub Ordnance Office ——— 1601 × 12 = 19.212 — 202.848

Stores ——— 458 × 12 = — 5496

Consulting Architect ——— 270 × 12 = — 3240

Lithographic Office ——— 12.016

Chief Engineer & Secretary ——— 21.676

Superintending Office Establishment ——— 12.060

3.46.050

Accountants ——— 4.865 × 12 ——— 52.910

Public Works Establishments

Number	Particulars	Expenditure	Remarks

Memo of explanation of the difference between the cost of Office estabt for "Construction" as provided in the Budget of 1875/76 and that ascertained to 1st April 1876.—

		Rs A P per annum	
	Total amount of Office estabt Salaries as per Budget of 1875/76	251304 - -	
Add	Increase of Strength & cost sanctioned for the Cannanur Divn Office vide G O No 1283 dated 5th May 75 Rs 42 per Mat		
	Formation of Dumagadiam as a 2d Class Divn with an Office at a monthly cost of Rs 136 vide G O No 2393 of 20 Augt 75 = 136 Rs		
	Re-arrangement of Divns of Tanjore Distt sanctioned in G O No 1679 of 14th June 75 involving an increase of Rupees 20 Rs		
	Total Rupees 198 X 12 = 2376 per Ann =		
	Office estabt of the late Coal Fund Sub Overseers now termed Lower Subordinates. Rs 23508 Rs	25884 - -	
	Total Rupees	277188 - -	
Deduct	the amount transferred to Accounts for 70 Accountants of Divisional Offices. See foot Note in page 18 of the Budget for 1876/77 Rs 47400 Rs		
	The amount provided in the Budget of 1875/76 for personal allowances &c &c at Rs 520 per month or 6240 Rs	53640 - -	
	Total Office establishment as per Budget of 1876/77 Rupees	223548 - -	
Add	Rearrangement of Executive Divns of Vizagapatam sanctioned in G. O No 138 of 20th January 1876 involving an increase of Rupees 9 a month as pointed out in this Office letter No 2737 of 9th Sept pp.	108 - -	
	For a Sub Divnl Office at Dumagudiam sanctioned in G O No 3596 of 21st Dec 75 & No 495 of 23rd Feb 76 at Rupees 39 a month	468 - -	
	Amount withdrawn from Accounts being the difference between Rs 80 the Salary of the Accountant of late South Wynaad, and Rs 50 the Salary of the New Nyrnadu Divnl Accountant consequent on the Rearrangement of the Divns in the Malabar District sanctioned in G. O No 3643 of 31st Dec 75 =	360 - -	936 - -
	Rupees	224484 - -	
Deduct	the following Items transferred to Accounts. The Salary of the Accountant Joypur Ghaut Divn at Rs 50 a month created by the Conversion of that Divnl Office estabt as an ordinary 2d Class Divn Office see G. O. No 138 of 20th Jan 1876	600 - -	
	Difference of Rs 10 a month between the former Salary (Rs 40) of the Asst Collr Golcondah Divn and his present Salary (Rs 50) the Divnl Scale of Pay estabt having been raised from 3d to 2d Class see G. O. No 138 of 20th January 1876. Rs	120 - -	720 - -
	Total of establishment charges as it stood on 1st April 1876		223548 - -

1876/77

Construction Office establishment

Detail of the sum of Rupees 2,23,548 plus Rs 216 the net increase in the charges on Construction as sanctioned by Government upto 1st April 1876 = Rs 2,23,764.

Number 1875/76	Number 1876/77		Amount 1876/77 Per Annum	Amount 1876/77 Per annum	Amount As per Budget for 1875/76	Differences More than 1875/76	Differences Less than 1875/76 by 27½ per cent.	Differences Other causes explained below	
1	1	Office establishment of the Dist. Engr. Tanjore	232	2,784	3,504	-	720	-	
1	1	" D° " D° " Nilgiris	248	2,976	4,056	-	1080	-	
1	1	" D° " D° " Presidency	477	5,724	6,564	-	840	-	
26	25	" D° " 1st Class Dist. @ Rs 111	2,775	33,300	53,352	-	18,000	2,052	This is the former cost of Conservancy Establishment which is now included & provided by an increase of Rs 42 a month.
23	27	" D° " 2nd " D° " at Rs 86	2,322	27,864	37,536	6,528 (a)	16,200	-	(a) Conservancy Establishment for Ramapadam, Colombatoor, Agricultural Farm, Karumbanadam and Varadam Bunders transferred to Dist. B as 2nd Class Bunder
7	6	" D° " 3rd " D° at Rs 56	336	4,032	8,064	-	4,000	1,152	This is the cost of Colonde Bunder transferred to 3rd Class Bunder
2	2	" D° " of Godavery Eastern & Western Delta Dist. at Rs 223 each	446	5,352	7,032	-	1,680	-	
2	2	" D° " of Bellary & Roudadroog	356	4,272	5,952	-	1,680	-	
1	1	" D° " of Cannanore	153	1,836	-	1,836	720	-	Raised from 1st Class & Travl. 445 (Appointed taking the pay of Executive Engr. Also a monthly allowance of Rs 72½ p.m.
3	3	" D° " of Madura, Tinnevelly and Trichinopoly Dist. @ 148	429	5,148	7,668	-	2,520	-	
1	1	" D° " of Kambam Dist.	111	1,332	2,052	-	720	-	
4	6	" D° " of East and West Coast Canals being 4 Sub Divisions at Rs 336 each	672	8,064	8,064	-	-	-	Establishment on Account of the Head Quarters Canals being engaged in works chargeable to Improvements & Navigation
32	36	" D° " of Sub Divisions at Rs 39 each	1,404	16,848	16,776	72	-	-	Rs 1,404 in 1875/76 included Establishment in Tanjore Dist. formerly but now distributed among the Sub Divisions in which the Establishment of Dist. Canals
1	1	" D° " Assistant Engineer Sub Dist.	420	1,404	1,404	-	-	-	
179	179	" D° " Overseers & Sub Engrs & Superintendents of the Presidency Canals							
		187 Overseers at 37 Rupees	5,703	6,924	6,924	-	-	-	
-	94	" D° " 94 Other Subordinates (Sergeants &c)	1,903	23,004	-	23,004	-	-	These are the sub ordinates of the Canals establishment
1	1	" D° " of Presidency & Vizagapatam	428	5,136	4,236	-	720	-	
1	1	" D° " Topographical Head Draftsman of the Government Office	348	11,616	11,616	-	-	-	
1	-	" D° " of Draftsman	-	-	2,112	-	-	2,112	These 3 Draftsmen were formerly allowed at Head Office but
1	-	" D° " of Draftsman	-	-	1,032	-	-	1,032	
1	-	" D° " of Surveyor	-	-	1,236	-	-	1,236	They are now borne on Dist.
-	-	Personal allowances &c	-	-	2,340	-	-	2,340	Not provided in 1875/76
		Total Rs	19,647	2,23,764	2,07,504	33,744	47,760	10,548	
						23,196			
							13,212		
		Difference Net Rs	27,140			23,548			Vide explanation on the reverse

15th July 1876.

Thomas Jordan
C

1876/77.

Direction

Office establishments

Detail of the Sum of Rupees 86,508.

	Number	Amount	
		As per Budget for 1876/77	As per Budget for 1876/77
	Per Cent.	Per Annum	£
2 First Class District Engineers' Offices at 463 each for Godavari and Kistna Districts	926	11112	
1 Office establishment of District Engineer Bellary as revised and sanctioned in G.O. No 1107 dated 29th April 1874	463	5556	22224
1 Office establishment of District Engineer Tanjore as revised and sanctioned in G.O. No 810 of 25th February 1875	463	5556	
8 Second Class District Engineers' Offices establishments for Kistapa, Chingleput Coimbatore, Kurnool, Malabar, Nilgiri, South Arcot and Kimedi at 252 each	2016	24192	24192
7 Third Class District Engineers' Offices establishments for Ganjam, Madura, North Arcot, Salem, South Canara, Vizagapatam, Trichinopoly and Wagipatam at 230 each	2219	26628	26628
1 Office establishment for Consulting Architect	270	3240	3240
Accountant for Rs 50	50	600	A
Establishment under Offices for grand numbers in the Budget for 1876/77	7207	86484	86484
	2	24	-
Totals Rupees	7207	86508	86484

15th July 1876.

A. This was my fault. In drawing out the Budget, I supposed it was only drawing Less than 1000 shown as in Column 2nd.

Thomas Jordan

Examiner P. W. Accounts

Abstract of the differences of 1875-76

between the Estab.t Budget Estimates for 1876-77.

No.	Particulars	Increase actual	Increase nominal	Decrease actual	Decrease nominal	Remarks
1	Differences owg. to the transfer of Superintendence to the Dir.r of Cultivation		1.900			
2	Building allowances					
21	Personal allowance to the late Manager of the Estate					
22	Increase of Col. Farewell's Salary as Dir.r	1.500				
24	Contingencies	2.200				
23	Travelling allowances		1.600			
	Total.	3.700	1.600			
	Net increase	2.140				
		Rs 2.838.				

Vide Page 22 of Budget Estimate

o in S. 373 dated 24. Nov.r 1875, Col Farewell was appointed as Under Secy & Charge for Residency House Rent.

The Budget Estimate for Contingencies for the year 1875-76 was Rs 14.240 - The charges audited during 1874-75 were Rs 16.006 - From the above it will be seen that the Budget for 1875-76 it appeared that the charges for Contingencies for the year would amount to about 16.300 - It therefore appeared advisable to frame the Budget for 1876-77 to much the same figure, a provision of Rs 16.480 was accordingly made -

The Budget Estimate for Travelling allow.s for the year 1875-76 was Rs 36.600 - The charges audited during the year 1874-75 were Rs 34.881 - From the above it will be seen that during the year 1875-76, it appeared that the charges for the year would not exceed Rs 29.650 - A Budget Estimate of Rs 35.000 for Travelling allowances was therefore considered ample -

The actual increase is thus only Rs 2140 ; of which Rs 1.500 may be considered certain ; and the remainder only a probable estimate -

Construction

Budget Item N°	Particulars	Increase Actual	Increase Limited	Decrease Actual	Decrease Limited	Remarks
45	An additional Engineer for the Irrigation division	9.600	-	-	-	At the
46.	Difference owing to transfers between Construction & Irrigation				1800	
47&48.	Military allowances of Officers			1.493	698	There is an estimated decrease under Military Allowances of Rs 1493 these allowances however are difficult to estimate, depending as they do on casualties caused by death or sickness -
~~Subsistence allowances~~						
57&58. 74-75	Military allowances Accountants.			1.702.		
95.	Personal allowance to the late Manager of the Salsette Depot Officer			2.040		reduction of the Supdg. Engrs Office, the Manager was allowed a personal allowance until they could be Memrs absorbed - The actual decrease of Rs 2040 is due to one of them Krishna Rão having died on the 14th Sept 1875 -
99.	Travelling allowances for Accountants.				960	
70-73 91-93 and 94	Lower Subordinates — Office Establishment — Do.	24.180. 1.704.		8.120.		
	Carried forward	35.484		13,355		

Remarks -

Commencement of the year 1875-76 an Subre Divn: of Public Wks was transferred from the Central Provinces to the Madras Presidency - With the Divn was also transferred a grant of Rs 24.000 to meet the cost of Establt. -

(See balance sheet on the preceding page)

Construction & Accounts.

In the Budget for 1875-76, a lump sum of Rs 1.60.000 was allowed for Lower Subdt. Petty Establt &c. In the Budget for 1876-77 these Establishments are enumerated - The numbers & cost of the Establt enumerated in the Budget for 1876-77 are those of the Establt actually entertained at the date the Budget was drawn up, i.e.

Lower Subordt. page 18 —	Rs 1.00.380	
Petty Establt do	Rs 57.500.	1.57.880
Lower Subdt. Office Establt	16.720	
Lascars	7.440	24.180
		1.76.060

The difference between Rs 1,76,060 and Rs 1.60,000 is Rs 16.060

No.	Particulars	Rupees actual	Rupees Granted	Remarks
		35,484	13,355	Vide
96	Wynaad allowances	741		Ibid
97	Presidency House rent	960		Ibid
98	Temporary Survey Establ.ts	11,000		Ibid
100	Contingencies	1,556		Ibid
	Total	48,185	14,911	63,358
	Less	33,274		63,658

Rs 30,284

Vide Page 22 of Budget Estimate -

Remarks.

corresponds with the difference of Rs 24,180 & Rs 8,120 shown in this statement:

increase of Rs 1704 is made up as follows:

An establishment of Rs 42 per mensem sanctioned by G.O no 3,577 dated 19.12.74 } 42 × 12 = Rs 504.

Four Subdivisions in Establishments sanctioned by G.O no 1,679 dated 2nd Novr 1875 } 100 × 12 = Rs 1200

Rs. 1704.

actual amounts drawn on acct of Wynaad Allowances showed that the Budget Grant of Rs 10,755 made for 1875-76 would be insufficient this year - The grant of Rs 1876-77 was accordingly increased - Acctt Engr were posted Utr Pres.y Divn during 1875-76 - Their Presidency house rent at Rs 40 each per mensem amounts to Rs 960.

grant for Temporary Survey Establ.ts allowed in the Budget for 1875-76 was Rs 25,000 - By some mistake, in the Budget as printed there two items appeared as Temporary Survey Establ.ts - The Chf. Engr. not only apportioned the whole as Survey Establ.ts, but applied for & obtained Rs 5000 more as this acct Vide G.O no 3,186 dated 8.11.75 - This made the Grant for Survey Establ.ts close for the 1875-76 up to Rs 30,000 - The provision for Survey Establ.ts for 1876-77 was entered at the same figure, viz: Rs 6000 more for temporary Establishments -

actual Expend.e for Contingencies (during 1875-76 as shown by the above statement) on the date the Budget was compiled, was estimated at 17,500 Rs; and the provision for Contingencies for 1876-76 was entered at much the same figure - The actual charge for Contng.s for the year 1875-76 is now known to be only Rs 16,834 -

Accounts

Item No.	Particulars	Increase Actual Rs.	Increase Actual Rs.	Decrease Actual Rs.	Decrease Actual Rs.	
103.	Salary of Controller	2.33	8.000			Note
104.	Subsistence allce of Clerks		1.680			
109 to 110	Accountants -					
119.	Temporary Do		4.280			This
121.	Travelling allowances		4.020			the
			17.980			
			16.120			
			1.794			

Vide Page 23 of Budget Statement.

102. Extra Establishment
Newly sanctioned — 1.794

Vide Page 23 of Budget Statement.

Contra

Item No.	Particulars	Increase Actual Rs.	Increase Actual Rs.	Decrease Actual Rs.	Decrease Actual Rs.	
103.	Salary of Controller	2.33	8.000			Note
104.	Subsistence allce of Clerks		1.680			
109 to 110	Accountants -					
119.	Temporary Do		4.280			This
121.	Travelling allowances		4.020			the
			17.980			
			16.120			
			1.794			

Vide Page 23 of Budget Statement.

102. Extra Establishment
Newly sanctioned — 1.794

Vide Page 23 of Budget Statement.

Contra

Particulars Remarks

was a transfer of Contrs Revs in April 1875 - The Contr now appd to Madras is of a higher grade than the Contr he relieved -

is a new Estt Rs. 1.794 sanctd in G O no 2075 dated 21st July 75 for the purpose of undertaking the preparation of the Capl & Revl accts of Irrigation works -

actual increase of Rs 4.570 was sanctd to provide for the probable heavy travelling allowances of the accts employed in preparing the Capl & Revl accts of Irrigation works -

are based on the actuals of this year 1875-76.

		No.		
Govt order no 1899	dt 5.7.75	120	Journeys at	1240 per annum
2148	dt 26.7.75	5½	"	66 "
3436	dt 3.12.75	1888	"	288 "
				No. 1.794 "

Thomas Gordon
Secy

Present	Amount	Amount total Head
Brought forward		99400
7 Overseers @ 1100 each including Engine Allowance	7700	
5 Do 2nd Grade	4500	
3 Do 3rd do	2340	
		154200

Establishments under "Construction" in the current year's budget with the details as exhibited in the budget of 1975-76

92

Dinny Slip

23.6

Secretary - I am sorry I could not get them ready before, but the amount of detail involved in statements of this sort is properly appreciated only when one prepares them oneself

Lfc
15/7

Office Establishment Rs	39,308
— Do — this buy for Engs	6000
— Do Extra attached to Supt buys	57.80
— Do Miscellaneous as per Budget	10,508
	131992
Total as shown in Budget	53,958

It is desired to compare the sum of Rs 10,508 shown above with the details as given in the Budget of 1975-76. It is requested therefore that the Examiner will be good enough to show the items in a Comparative Statement form accounting for all differences.

Similarly it is desired to contrast the sum of Rs 223508 shown as the total of Offic

Extract of Abstract

Names	1878–79	1877–78	Increase	Decrease
Amount of Expenditure during the year	27 14 4	26 5 5	1 8 11	
Amount of Receipts during the year	25 16 8	24 7 6	1 9 2	
Balance in favour of Receipts	1 17 8	1 18 11		1 3 9
Amount of Balance in favour of Receipts at the end of the year	1 17 8	1 18 11		1 3 9
Amount of Balance in favour of Expenditure at the end of the year				
Amount of Assets	3 10 0	3 9 0	1 0 0	
Amount of Liabilities	1 12 4	1 10 7	1 1 9	
Amount of Capital	1 17 8	1 18 11		1 1 3
Amount of Capital at the end of the year	1 17 8	1 18 11		1 1 3
Amount of Capital at the beginning of the year	1 18 11	1 19 7		1 0 8

	1870-71	1871-72	Increase	Decrease
Assessments				
Real Estate				
Personal Estate	$1580	$1580	do	
Income assessments	12800	16011	3211	
Collections				
Real Estate	$880	$1200	$320	
Personal Estate	1200	1500	300	
Income assessments	4200	4200		
Delinquent Taxes				
Real Estate	182.10	140		42.10
Personal Estate	1200			1200
Income assessments	5400			5400

Assessors office Sept 4th 1871

Pursuant to the provisions of Section 8 Chapter 48 of the Statutes of 1871 I hereby give notice that I have left with the Assessors of the several towns in the County of Bristol a list of the polls and estates liable to taxation in said towns as assessed by me for the year 1871 and that I shall be present at my office in Taunton on the first Monday in October next and on the following days for the purpose of correcting said list as required by law.

Dated at Taunton this 4th day of September A.D. 1871

Charles Hodges
Assessor of Taxes

Bristol ss. Taunton Sept 4th 1871

Then the above named Charles Hodges made oath to the truth of the foregoing statement by him subscribed.

Before me

Nathan Morton
Justice of the Peace

Bristol ss. Taunton Sept 4th 1871

Then the above named Nathan Morton made oath to the truth of the foregoing statement by him subscribed.

Before me

Nathan Morton
Justice of the Peace

GOVT. OF MADRAS. } 187 .

SECRETARY.

Ootacamund.

OFFICE NOTE.

To

Examiner.

In working out the details of the Reorganization from the figures given in the Budget for 1876-77 the following results of present scale are arrived at

F. W. Thos = 18th Sept 1878 = £ 36746

Present	Annually	Total under each head
Direction		
1 Ch. Engr & 1st Asst & Secy to Govt	30,000	
1 Dy. Ch. Engr & Under Secy to Govt 1 Supt & 1 Et. G.	19,200	
1 Chief Engr 2 Asst & 1 Secy Office	24,000	
1 Dy. Ch. Engr for Irrign & U. Secy to G 1 Ex. Engr 1st G	11,400	
		84,600
District Engrs		
1 Supt. Engr 1st Grade	19,200	
Do. 2 — " —	32,400	
Do. — 3 — " —	13,200	
		64,800

Public Works Establishments. Present and Proposed under certain Heads.

Present

		Annually	Total
	Rs		
Engineers 1st Class @ 2500	30,000		
do 2d do @ 2200	24,000		
Supt 1 grade @ 1600	38,400		
do 2d do @ 1350	32,400		
do 3d do @ 1100	13,200	138,000	
Do (including Under Secy. Irrign Branch and Consulting Architect)		3,20,400	3,20,400
Assistant Engineers		1,94,400	1,94,400
Engineers		51,000	51,000
Overseers		85,200	85,200
Do		13,820	13,820
Direction			
Establishments			
Secretariat		32,316	
Lithographic department		11,616	
Supt for Irrigation		11,256	
Consulting Architect		89,184	1,44,372
Construction			
Office establishments			
Secretariat		32,316	
Lithographic Dept		11,616	
Chief Engr for Irrigation		11,256	
7 Supg Engineers		35,532	90,720
Construction			
1 Consg Architect		3240	
1 Do Buckingham Canal		4608	
13 1st Class Divisional Officers @ Rs 311		48,516	
10 2d do do @ 256		30,720	
14 3d do do @ 216		36,288	
40 Asst Engrs @ Rs 70		35,280	
60 Upper Subordinates @ 46		37,536	
117 Overseers @ Rs 27		50,49	2,03,129
Officers Establishments	1,13,975		
Overseers Establishments	61,220	246,311	
		11,91,503	

Proposed (7 circles)

		Annually	Total	Increase	Decrease
1 Chief Engr 1st Class @ Rs. 2500		30000			
1 do 2d do @ 2000		24000			
1 Supt Engr 1 grade @ 1600		57,600			
3 (a) Supg Engrs 1 grade @ 1600		48,600			
3 do 2 do @ Rs 1350		40,500	186,600		
2 do 3 do @ 1100		26,400		48,600	
41 (b) Executive Engineers		3,60,600	3,60,600	40,200	
42 Asst Engineers		1,80,400	1,80,400		6000
17 Sub Engineers		60,000	60,000	9000	
51 (c) Superintendents		101,400	101,400	16200	
192 (d) Overseers do do		18,620	18620	4800	
Office Establishments					
Secretariat		32316			
Lithographic Dept		11,616			
Chief Engr for Irrigation		11,256			
7 Supg Engineers	623	35,532	90720		52,652
Construction					
1 Consg Architect		3240			
1 Do for Buckingham Canal @ Rs. 216		2592			
1 Do Buckingham Canal		4608			
13 1st Class Divisional Officers @ Rs 311		48516			
10 2d do do @ 256		30720			
14 3d do do @ 216		36288			
40 Asst Engrs @ Rs 70		35280			
60 Upper Subordinates @ 46		37536			
117 Overseers @ Rs 27		5049	2,03,129	44492	
			12,14,169	1,18,800	44492
				100134	
				18,666	

(a) Includes Under Secy - Mineral Branch.

(b) Includes Consulting Architect Under Secy - Irrigation Branch Exec Engr - Buckingham Canal & Do. Buckingham Canal &c

(c) Includes 2 Superintendents for Buckingham Canal.

(d) Includes 5 Overseers for Buckingham Canal.

Consulting Architect Establishment appointed Director of the opposite Page

Buckingham Canal Establishment

District Engr's

1 Supg. Engr 1st Grade	—	19,200
Do. 2d	"	32,400
Do. 3d	"	13,200

111
145

My dear Walker

I have devoted a little time to ascertaining what some probable distribution of the existing establishment amounted to and I send you the results. That table does not profess exemption and indeed it would probably be a waste of time to make out allotments such a table as we want because a little more than ground must be made even before any scheme can be satisfactorily elaborated - You will see that the percentages vary for districts very greatly & probably would still vary - it may happen that the distribution for Kumool & Salem & perhaps even Madras & Trichinopoly & S. Canara. Even the allotment distribution I have shown for Kumool is pencil

makes the cost too high but at any rate only
one Supervisor at most could be stuck out of their
area the percentage would not thereby be materially
reduced.

It is noticeable clear that adding in Overseers & Office establishments the divergence in per centages would be still more striking.

There is one point in connection with establishment
& office centages that I intend to bring forward
& that is that in the Godavary, Kistna, Tanjore
& South Arcot a part of the charges should be
debited against Revenue & not against
works outlay. It bears absolutely essential on the
interests of the Revenue apart from all supervision
of works outlay that the Canals should be

Clearly work after. [illegible] the cost of Commissioner
establishment (this [illegible]
Canals and Irrigation
of the Irrigation Dept. charges
headquarters establishment [illegible]
are debited against [illegible] - should
working benefit with [illegible]
[illegible] Engineer.
Irrigation Circles under Superintending
Engineers.
It would be made at a cost
taken as the [illegible]
an advance for [illegible]

Quantität Sept 36

$\frac{36}{16} \times 3$	1ère pour 6	=	6
$\frac{36}{16} \times 4$	2 = 9	=	9
	3 = 9+1	=	10
$\frac{36}{16} \times 5$	4 = 10+1	=	11

6 × 950 = 5700
9 × 900 = 7200
10 × 650 = 6500
11 × 550 = 6050
6 | 25450
6 | 4241 5/6
707

Septembre Inspirieren 44

1ère pour	15	× 450 =	6750
2 =	22	× 350 =	7700
3 =	7	× 250 =	4750

4 | 16200
11 | 4050
368

Hier wie auch schreiben die Institute
für 1. Submissionen Inspirieren
2. Quantität Septembre Inspirieren
3. Subscriptionen, Subscriptionen & Ornamen
4. Subscriptionen

Quantität Septembre an $\frac{1}{8}$ & Subscriptionen $\frac{1}{4}$ & an
Subscriptionen.

Mercatoren wurde ebenso wie 24 Stück
nun wieder abgeschrieben, und ebenso
Hier wurde abgeschrieben, und ebenso
die Quantität Septembre und
Subscriptionen $\frac{1}{4}$ & an
Hier wurde die Quantität Septembre
Hier wurde die Quantität Septembre
5/6776.

B

Letter from the Controller of Public Works Accounts to the Secretary to Government, Public Works Department - No 153W dated 26th November 1875

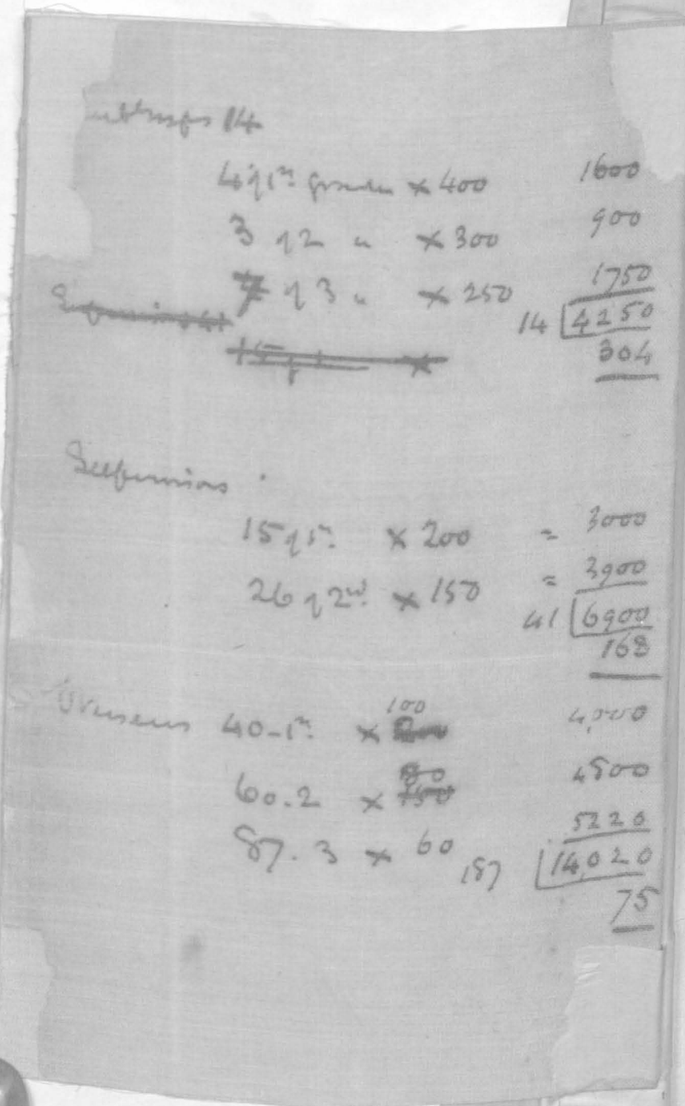
With reference to the Public Works Code Chapter XVI Section 1 Para 39 A-C, and in continuation of this Office letter No 124W of the 5th November 1875, I have the honor to forward you a Statement of the actual expenditure pre Establishment during the first half of the year 1875-76, and to request you to inform me what further information from the books of this Office you require for the preparation of your Regular Estimate for 1875-76 and your Budget Estimate for 1876-77.

2 On the Budget Estimate for 1876-77 being prepared, I should be glad to receive a copy in manuscript at the earliest possible date in order to be able to proceed with the preparation of appendix A of the Budget-

C

Proceedings of the Madras Government, Public Works Department - No. 3420 dated 2nd December 1875

The Controller will be guided by the practice of previous years. In respect to the Regular Estimate



Estimate of the current year his attention is called to his predecessor's letter No. 8031 dated 8th December 1874 recorded with G.O. No. 129 dated 16th January 1875.

The request in para 2 will be attended to.

5.

D

Memorandum No. 902 dated 22nd December 1875

The submission of the Imperial Public Works Budget for 1876-77 to the Government of India is being delayed for want of the Establishment portion the Controller of Public Works Accounts is requested to be so good as to submit the same without further delay.

E

Letter from the Controller of Public Works Accounts to the Secretary to Government Public Works Department No. 1761W dated 27th December 1875.

Government Order No. 3420 of 2nd December 1875	
——— do ——— of 14th December 1875.	No. 3533
——— do ——— of 13th December 1875	No. 858
——— do ——— of 22nd December 1875	No. 902

I have the honor to acknowledge the receipt of the Proceedings of Government as noted in the margin on the general subject of the preparation of the Imperial Budget Estimate for the year 1876-77 and in reply to remark as follows.

2 In the Imperial Budget Estimate for works, a copy of which was received with the Proceedings of

of Government under date December 18th 1875. I notice that the exact classification laid down by the Government of India has not been adhered to. The classification adopted is apparently that in force before the separation of the Irrigation works from those of the General Branch in 1871. For instance I observe that the main head Military is contrasted with 'Civil Buildings' which is only one of the subheads under the main head 'Other Services'

3 In page 2, the Expenditure under Establishment and 'Tools and Plant' should be shewn divided between Military and Other Services in order to exhibit the total Expenditure under these two main divisions.

4 In the accompanying two Statements, the figures shewn in the abstracts in Part I Sections A and B have been reclassified in accordance with existing orders, and for future guidance as to the classification of Expenditure in the preparation of these Budgets, the Proceedings of Government under date September 8th 1875 may be referred to.

5 In accordance with the request expressed in the Proceedings of Government under date 2nd December 1875, I herewith enclose a Statement of the expenditure on Establishments during the year 1876-77 estimated as completely as the records of this office will permit. The following few remarks will, I trust be sufficient to explain the results arrived at—

6 The

6

The Statement provides for the sanctioned scale of Establishment pro deduction having been made for absentees, pro additions for Supernumerary Officers in the various Grades this bringing the principle on which the Budget Estimates for Establishments have been got put in former years. The following Establishments are not provided for,

(a)

The Madras Harbor Works, the Establishment of which is, I understand, to be plotted direct to the Estimate for the Works

(b)

The Revenue Officer paid his Establishment specially appointed to compile Statements of the Revenue receipts of the Irrigation Works throughout the Presidency

7

The Budget Estimate for Establishment for the current official year provided Rupees 25,000 for Temporary and Survey Establishments, but the word 'and' having unfortunately been omitted, the description read 'Temporary Survey Establishments' and the whole amount has been appropriated by Government for Surveyors, leaving no provision at all for Temporary Establishments proper. To avoid any further mistake I have shewn in the Statement a separate provision for Survey and Temporary Establishments. Separate provision has also been made for the Special Account Establishment required for the preparation of the Capital and

8

Revenue Accounts of Irrigation works

8

The Local Fund Sub-Overseers have been provided for as Lower Subordinates, and the charges for the Divisional Accountants along with a proportionate amount of Travelling Allowance has been transferred from 'Construction' to 'Accounts'

9

The charges for petty Establishments have been separately entered in detail and in order to give Government a definite idea of the salaries assigned to the Office employés, the Clerks have been roughly divided into classes according to their salaries I also submit with this a Statement of the probable receipts that will be realized on account of the Public Works Department (Imperial) during the year 1876-77. Appendix A is under compilation and will be submitted when complete

10

In conclusion I remark in the draft Proceedings of Government under date December 4th 1875 as proposed sentence, 'The Controller's Estimate for Establishment amounts to Rupees_____' With reference to this sentence, implying that the duty of drawing up Estimates for Establishments rests with the Controller of Accounts. I must respectfully remark that in my letter No 124 W dated 2nd November 1875. I have already pointed out to Government that the

Controller

Controller from want of information is unable to draw out such Estimates correctly, and I have explained in full my reasons for considering that any Estimate for Establishment drawn out in ignorance of the works which those Establishments are intended to carry out, cannot be otherwise than delusive and unsatisfactory. I further expressed my opinion that the amount of Establishment required to construct any given Engineering work was a professional Engineering question entirely foreign to the scope of an auditor's duties

11 For these reasons, I should be sorry were Government to consider the Statement of Establishment which accompanies this letter to be an Estimate in the proper sense of the word of the Establishment required for the effective prosecution of Public Works in the Madras Presidency during the year 1876-77.

12 I am strongly of opinion that a proper Estimate for Establishment should bear some reference to the intended outlay on works. At the present time when I am called upon to prepare any Estimate for the entire Establishment throughout the Presidency, I am in absolute ignorance both as to the Irrigation works that are to be undertaken next year and as to the amount of money

it is proposed to expend upon them. I have no information as to the amount of Provincial Funds which are to be expended on Public Works, nor do I know the requisitions of Local Fund Boards as regards the construction of their Engineering Works

It is, I would respectfully submit, impossible to prepare a proper Estimate of the total charges for Establishment, based upon my knowledge of merely a ~~practical~~ fractional part of the expenditure which is to be incurred on works

13 The object of the preparation of Appendix A of the Budget is, I have always understood to secure a thorough annual review of the Establishment in the light of the works proposed to be undertaken, and this object appears imperfectly fulfilled if the Establishment is decided upon before it is known what works are to be carried out. Were the Provincial Grant for Public Works to be reduced to a material extent the reduction should in my opinion be followed by a reduction wherever feasible in the Public Works Establishment, and holding strongly views to the effect that Public Works Establishments should to a certain extent be elastic, increasing and decreasing in relation to the work to be done, I feel assured that Government will excuse me for not sending or even by putting forward the accompanying Statement

as

as a proper and reliable Estimate, from appearing to assert to the doctrine that Establishments are constant and independent of works and that consequently a correct Estimate for Establishment can be drawn out from the information available in a Controller's office.

G

Letter from the Controller of Public Works Accounts to the Secretary to Government Public Works Department No. 181 W dated 5th January 1876.

I have the honor to acknowledge the receipt of the Proceedings of Government No. 3536 under date the 24th December 1875 from which I regret to observe that Government had not thought it necessary for the representation made in my letter No. 976 W dated December 27th 1875 to alter the wording of para 3 of their orders to the effect that the Controller had submitted an Estimate for Establishment.

2 I will not here recapitulate the arguments I have before advanced in my two previous letters to shew that the Controller in ignorance of the works to be undertaken during the year is not a proper person to draw up Estimates for Establishments nor will I repeat that the statement forwarded under

under cover of my letter No. 976 W which it appears to have been accepted unaltered, was not an Estimate in the proper sense of the word.

3 I respectfully ask for the decision of Government on the general question raised in my former letter No. 924 W dated 2nd November 1875.

H

Letter from the Controller of Public Works Accounts to the Secretary to Government Public Works Department No. 260 W dated 21st February 1876.

I have the honor to submit for the consideration of Government the following remarks with regard to the charges on account of the Madras Public Works Establishment during the year 1875-76.

2 The total estimated charges for Establishment, as shewn in the Imperial Budget, were Rupees 2,24,653 or pro rata average Rupees 17,054 per mensem. The total expenditure on this account to end of November has been Rupees 14,02,132 or pro rata average Rupees 175266 per mensem. The expenditure on Establishment is therefore well within the Estimate.

3 If however, the several Budget Estimates

Estimates be referred to over which the total expenditure
pro Establishment is proposed to be divided the total
account of the Grants for Establishment will be found
to be only Rupees 16,84,714 as shewn below:

Head of Service	Budget Grant for Establishment as mentioned	Alterations since	Budget Grant for Establishment as it stands at present.
Irrigation			
Capital Extraordinary	125008	"	125008
Capital Ordinary	142,600	+ 5000	147,600
Revenue Account	424,600	"	424,600
Ordinary Agricultural	32,000	"	32,000
Imperial Public Works			
Military	15,000	"	15,000
Other Services	6000	"	6000
Provincial	155,000	+ 30,600	185,600
Local Funds	721620	+ 71286	792906
Total Rs	1777828	106886	1884714

4 There was therefore at the beginning of the year an anticipated expenditure of Rupees 3,46,825, and there is now an anticipated expenditure of Rupees 2,39,939 which is not covered by any Budget Grant. It is not clear to me from what source Government when passing the Provincial Budget Estimate intended that this Expenditure should be met

5 The result of part of the total Establishment charges not having been provided for in any Budget Grant is shewn in the following statement of the expenditure on Establishments to the end of November, as booked against each head of service

	Budget Grants	Expenditure to end of November
Irrigation		
Capital Extraordinary	125008	87,135
Capital Ordinary	147,600	120,452
Revenue Account	424,600	318,513
Ordinary Agricultural	32,000	48,660
Imperial Public Works		
Military	15,000	105,666
Other Services	6000	8577
Provincial	185,600	191,941
Local Funds	792906	521,188
Total { Grant and Expenditure	1884,714	14,02,132
Difference between the Grants and the Establishment Budget	239,939	
Total Establishment Budget	2,124,653	

6 From the above statement it will be observed that the average expenditure on nearly every Imperial head of Service is slightly in excess of the Budget Grant

Grant and that in this way the charge against Provincial Funds has been relieved more than was anticipated by the framers of the Budget Estimates. Proving however to part of the Establishment charges not having been provided for in any Budget, and to the balance unprovided for having to be met from Provincial Funds, the charge for Establishment against Provincial, even up to the end of November is already in excess of the entire Budget Grant for Establishment. At the same average Expenditure as is now going on, the grant will probably be exceeded by about Rupees 102,000 and to meet this excess an extra grant from Provincial Funds is required. This excess is however, I am glad to say far more favorable than Government could have expected, for had the anticipations of Government been realised, the excess would, as I have before stated have been nearly Rs 346,825. The more favorable result is owing to the expenditure in Irrigation having been more and the Expenditure on Establishments as a whole having been slightly less, than was estimated by Government

7 I have to enquire whether this excess of Rs 102,000 is to be treated as ordered in the latter part of Government Order No 3599 dated 22nd December 1874. It would appear to me more regular

regular to apply at once for an extra grant from Provincial Funds

8 In connection with this subject I may remark that to the end of November the total charges on Provincial Works was Rs 4,13,497 against a charge for Establishment of Rs 191,941. The charges for Establishment thus amount to the unprecedented proportion of about 46 per cent of the cost of the works, a percentage which owing to the causes stated in para 6 is also more favorable than Government could have expected.

9 In conclusion I would respectfully call the attention of Government to the remarks contained in my letters No 124 W and No 176 W dated 2nd November 1875 and 27th December 1875 respectively on the whole subject of the preparation of financial Estimates and would beg that the subject be thoroughly inquired into with a view to securing a better financial system than at present exists

30-3-76

1876-77

Directors

Office Establishments

Detail of the sum of Rupees 86,508

		Nos.	Amount	Aggregate
	Amount brought forward			
	Agreeably to Budget for 1876-77			Agreeably to Budget for 1875-76
	Per Nos. as per		Per Amount	Per Amount
2	First Class District Engineers Offices at Rs 463 each, for Godavery and Kistna Districts	926	1110	
1	Office Establishment of District Engineer Kottapalli as revised and sanctioned in G.O. No 1107 dated 29th April 1874	463	5556	22224
1	Office Establishment of District Engineer Tanjore as revised and sanctioned in G.O. No 668 of 25th February 1875	463	5556	
8	Second Class District Engineers Offices Establishments Kistrna Godavery Malabar Nellore South Arcot and Trichinopoly at Rs 352 each	2816	33792	33792
7	Third class District Engineers Offices Establishments for Ganjam Madura North Arcot Salem South Canara Trichinopoly and Vizagapatam at 317 each	2219	26628	26628
1	Office Establishment for Coroa Allowance Assistant Accountant for — Do — Do —	270 50	3240 600	3840
	Rupees	7207	86484	86484
	Excess provisioned under "Office" (for ground pay numbers) in the Budget for 1876-77	2	24	
	Total Rupees	7209	86508	86484

Fort St George
15th Feby 1876

Examined P.W. Accounts

Memo: of explanation of the difference between the cost of Office Establishments for Construction as provided in the Budget of 1875/76, and that as corrected to 1st April 1876. — 153

		Rs. A. P. For Annum
	Total amount of Office estab.t salaries as per Budget of 1875/76	2,51,304 . .
Add	Increase of strength and cost sanctioned for the Cannanur Div.n Office vide G.O. No. 1283 dated 5th May 1876 Rs 42 per month — Formation of Dumagudiam as a 2nd class Div.n with an Office at a monthly cost of Rs 136 vide G.O. No 2393 of 20th Aug.t 1875 Rs 136 . . . 92	
	Rearrangement of Div.ns of Tanjore Dist sanctioned in G.O. No 1879 of 14th June 1875 involving an increase of Rupees — 20 . . . 92	
	Total Rupees 198X12 = — 2376 per ann.m	
	Office estab.t of the late Local Fund Sub Overseers now termed Lower Subordinates — Rs. 23508 Do. — 25884	
	Total Rupees —	27,71,88
Deduct	the amount transferred to Account for 70 Account.ts of Divisional Offices. see foot note in page 18 of the Budget for 1876/77 Rs 47400 Do.	
	The amount provided in the Budget of 1875-76 for personal allowances &c.a Viz.a his Rs 520 per month or Rs 6240 Do	53640
	Total Office establishment as per Budget of 1875/77 Rupees	223548
Add	Rearrangement of Executive Div.n of Vizagapatam sanctioned in G.O. No 138 of 20th January 1876 involving an increase of Rupees 9 a month as pointed out in this office letter No 273 M. of 9th March 1876	108 . .
	For a Sub Div.n Office at Dumagudiam sanctioned in G.O. No 3696 dated 21st Dec.r 1875 and No 496 of 23rd Feb.y/76 at Rupees 39 a month	468 .
	Amount withdrawn from "Accounts" being the difference between Rs 80 the salary of the Accountant of late South Wanad and Rs 50 the salary of the new Yernadu Div.l Accountant Consequent on the re-arrangement of the D.ns in the Malabar District sanctioned in G.O. No 3643 dated 31st Dec.r 1875	360 . . 936 . .
	Rupees —	224484 . .
Deduct	The following Items transferred to "Accounts" The salary of the Accountant for Ghat Div.n at Rs 50 a month created by the conversion of that Dm.l Office Special estab.t as an ordinary 2nd class Dm.l Office - See G.O. No 138 of 20th Jan.y/76,	600 . .
	Difference of Rs 10 a month between the former salary (Rs 40) of the Acct.t Golcondah Div.n and his present salary (Rs 50) the 2nd scale of Office est.t having been paid from 3rd to 2nd class See G.O. No 138 dt 20th Jan.y 1876 Rs	120 . . . 720 . .
	Total of establishment charges as it stood on 1st April/76.	223764 . .

1876/77

Construction — Office Establishment

Detail of the sum of Rupees 2,23,548 plus Rupees 216 (the net increase to the charges under Construction as sanctioned by Government up to 1st April 1876) = Rupees 2,23,764.

Number 1875/76	Number 1876/77		Amount per Annum	Amount 1876/77 per Annum	Amount As per Budget for 1876/77 Per annum	Difference More than 1875/76	Difference Less than 1875/76 On acct of Salary of Accts transferred to Accounts	Difference Less than 1875/76 Other items requiring explanation	
1	1	Office Establishment of the Dist. Engr. Bangalore	232	2,784	3,504	-	720	-	
1	1	Do. Do. Nilgiri	248	2,976	4,056	-	1,080	-	
1	1	Do. Do. Presidency	477	5,724	6,564	-	840	-	
26	25	Do. 1st Class Divisions at Rupees 111	2,775	33,300	53,352	-	18,000	2,052	This is the former cost of Cannanore Dist. Office which is now raised (to a Special Estab.) by an increase of Rupees 42 a month.
23	27	Do. 2nd Do. at Rupees 86-0-0	2,322	27,864	37,536	6528 (a)	16,200	-	(a) Bombaconum Division abolished Damagudiem, Golconda; Jeypur Great, Bhimavaram; and Yerriada Divisions have been sanctioned as 2nd class Divisions.
7	6	Do. 3rd Do. at Rupees 56	336	4,032	8,064	-	2880	1152	This is the cost of Golconda Dist. Office formerly but now raised to a 2nd class scale.
2	2	Do. of Godavery Eastern and Western Delta Divisions at Rs 223 each	446	5,352	7,032	-	1680	-	
2	2	Do. of Bellari and Mount at Rs 178	356	4,272	5,952	-	1680	-	
1	1	Do. of Cannanur	153	1,836 (b)	-	1836 720	720	-	Raised from 1st Class to Special Estab. (b) Excluding the pay of Accountant viz. Rs 60 a month & Rs 720 per annum
3	3	Do. of Madura, Tinnevelly and Trichinopoly Divisions at 143 each	429	5,148	7,668	-	2,520	-	
1	1	Do. of Kurnham Division Canals & Special duty officers at Masulipatam, Tanjore & Tinnevelly & Lieut. Col. G. F. Law at the Pulney Hills at 98 Rupees each	111	1,332	2,142	-	720	-	
4	4	Do. of Probationers or Extra Officers in Coimbatore, Godavery, Kistna and Salem Dists. at Rupees 36 each	588	7,056	7,056	-	-	-	The 2 Clerks on Rs 31 each employed under the Officers in charge of the East and West Coast Canals being engaged on Accts duties should be transferred to Accounts.
32	36	Do. of Sub Divns at Rs 39 each	144	1,728	1,728	-	-	-	
1	1	Do. Do. of Paumben Sub Division	1404	16848	14,976	1872	-	-	4 Sub Divns added to those already existed in Tanjore & the formation of a new Sub Divn for Tungudium were sanctioned and the Sub Divns for Vizagapatam absorbed by the re-arrangement of Divns sanctioned.
189	189	Do. of 1 Sub Engr. 31 Supervisor at the Presidency and 157 Overseers at 27 Rupees each	138	1656	1656	-	-	-	
-	94	Do. of Lower Subordinate staff 21 at 11 each	5108	61236	61236	-	-	-	
1	1	Do. of Presidency P. W. Stores	1959	23508		23508			These are the late Local Fund Sub Overseers Establishments.
1	1	Do. Lithographic Press Department at the Government Office	458	5496	6216	-	720	-	
1	.	Do. of South Wainad	968	11616	11,616	-	-	-	
1	.	Do. of North Wainad			2112	-	-	2112	These 3 Divisions were formerly allowed Special Office Estab. they are now reduced to 2nd class.
1	.	Do. of Jeypur ghat			1152	-	-	1152	
		Personal allowance &c	-	-	1536	-	-	1536	
		&c at Rs 520 a month			6240	-	-	6240	Not required in 1876/77 under Contr.
		Total	18,647	223764	251304	38744 720	47700	42244	
						34464	62004		
		Difference Rupees		27,540		27,540			Vide explanation on the reverse.

15th July 1876. GD 15/7/76

Examiner, P.W. Accounts

[Or. Wks. Form No. 111.]

GOVT. OF MADRAS. } 1876. { P.W. DEPT.

CONTROLLER, P. W. ACCOUNTS.

Madras, May 16th 1876.

OFFICE NOTE.

To

A. G. the Govt.

In accordance with orders, the following statements are submitted for information.

1st. A statement of the number and cost of the Estabt. maintained in each division on April 1st 1876.

2nd. An abstract of the same

3rd. A statement showing the expenditure on works and Estabt. during the three years 1872-73, 1873-74 and 1874-75.

[N. B. Owing to the manner in which the P.W. accts were kept

KEEP-WITH.

Genl. No. dated 187 .

previous to the year 1872-73. to have set this Statement out for five years would have so delayed the completion of the Statements that I thought it more advisable to make use of the figures immediately available -

4th A copy of the Estab.t Budgets for 1875-76 and 1876-77 - (Vide page 15 of the Imperial Budget Estimate, where the items are numbered in red ink for ready reference -)

5th A statement explaining the differences between these two Budgets -

6th A Statt. showing in detail the basis on which were estimated all items in this year's Budget, not specifically sanctioned -

7th Correspondence lettered A. to J, explaining how it happened that the Controller of P.W. accts prepared the Estab.t Budget for 1876-77.

From the first of these Statements, it will be seen that the P.W. Estab.t of a Division consists of :-

1st An Executive Officer, in immediate charge of the Division, whose duty it is to draw up the plans & Estimates of all works, to arrange for their execution in all detail, to repair all public works, to superintend works & their

initial accounts, to receive
all cash advances, make all
important payments, to
pay strict attention to the
Economical application of all
labor and materials, to be
responsible for the good quality
of all work done in the Division,
& for the accuracy of all plans;
and generally to be the responsible
Executive Head of the Dept in
the Division –

2ndly Upper & Lower Subordinates,
as many as required, to superintend
works at a distance from the
Head Quarters of the Division, &
under the orders of the Exec.e Officer
to help generally in the management
of the works.

3rdly Petty Establishment
consisting of Storekeepers
Smiths &c. Native Foremen
Bricklayers, masons, Carpenters
& c.a employed on outside duties
or as Writers in the Storeyard or on the
works –

4thly Office Establ.t, of Clerks,
draftsmen, Messengers &c, to
conduct Correspondence, draw out
plans &c &c in the Divisional
and Sub-divisional Offices –

5th An Accountant, to
superintend the Compilation of the
whole accts of the Division,
Submitted for audit to the Head
Office at Madras –

The whole System evidently turns
on the Efficiency of the Executive
Officer, and this important

functionary elsewhere throughout India a professional Engineer with a liberal Education, may in this Presidency be better an Overseer on Rs 100 a month or an Exec. Engineer on Rs 940, or any body intermediate, all having exactly the same powers, the same duties, & the same responsibilities —

L.l.
c
16/5

Although not specially called for, I am having prepared a Statt of the 1st Estabts similar to that of the 1st Estabts and I am also preparing myself, so far as my means permit, a comparative Statt of the P.W. Estabts of Madras, Bombay, Bengal, & the N. W. Provinces —

[Cr. Wks. Form No. 2.]

No.

From

THE CONTROLLER,
PUBLIC WORKS ACCOUNTS,

To Major General G. W. Walker R.E.
Secretary to Government P.W.D.

FORT SAINT GEORGE, July 1876.

Office note

Sir,

I will commence by stating the postulates upon which the following Scale of Establishment proposed for the Accounts branch has been drawn up.—

(a) That the No. of Divisions is to be 35.

(b) That the position and duties of the Divisional Accountant is to be as defined in the P.W. Code, and that the pay and allowances of the Accountants generally is to be the same in Madras as elsewhere.

(c) That a 5th grade Accountant on a salary of Rupees 40 rising by annual increments of 3½ Rupees to a maximum of Rupees 70 is to be entertained.

(d) That the proportion of the strength in the various grades is to be as prescribed in the Public Works Code Chapter I section II para 6.

(e) That the redistribution of Divisions together with the introduction of a new System

of

of Accounts must inevitably lead to temporary confusion, and that consequently it will be advisable to retain in the Central Office for a year or two a stronger Establishment than would be otherwise necessary.

(f) That the establishment of Clerks is to be graded as follows.

	Minimum	Maximum	Annual Increment
Clerks - I. Class.			
1st Grade	300	400	20
2nd "	250	300	10
3rd "	200	250	10
II. Class.			
1st Grade	160	200	8
2nd "	120	160	8
3rd "	100	120	4
III. Class.			
1st Grade	80	100	4
2nd "	60	80	4
3rd "	50	60	2
IV. Class.			
1st Grade	40	50	2
2nd "	30	40	2
3rd "	20	30	2
Apprentices		20	

2. The present and proposed scale of Provincial Establishment of Accountants, I contrast below.

Minimum	Increment	Maximum		Present Controller	Present Divisional	Present Total	Proposed Central	Proposed Divisional	Proposed Total
				№ Rs	№ Rs	№ Rs	№ Rs	№ Rs	№ Rs
350	20	450	Accountants 1st Grade	. .	. .	. .	1 400	. .	1 400
250	15	340	" 2nd Grade	2 575	. .	2 575	3 900	. .	3 900
160	10	240	" 3rd Grade	. "	. "	. "	5 1080	3 600	8 1600
80	7	150	" 4th Grade	26 3690	1 90	27 2780	10 1200	10 1200	20 2400
40	3½	70	" 5th Grade	19 950	73 4100	92 4960	23 1380	22 1320	45 2700
				47 4215	74 4100	121 8315	42 4880	35 3120	77 8000

3. The pay of the present establishment entitled in the above table is the actual establishment sanctioned, the proposed establishment is shown in the ordinary way at the mean rate of Salary. — On the whole, there is a Saving of Rupees 315 per mensem or Rs 3780 per mensem.

4 The Division of the proposed establishment between the Central and the Divisional Offices is purely hypothetical, for the Establishment being Provincial will be employed wherever required. To remove any idea that the proposed establishment for the Central Office is excessive, I subjoin a Statement of the Accounts establishment in the other Provinces which will show clearly how extremely moderate these proposals really are.

	First Grade №	First Grade Rs	Second Grade №	Second Grade Rs	Third Grade №	Third Grade Rs	Fourth Grade №	Fourth Grade Rs	Fifth Grade №	Fifth Grade Rs	Total №	Total Rs
Bombay	3	1,200	7	2,140	16	3,530	37	4,164	.	"	63	11,034
Bengal	3	1,270	3	945	14	2,850	48	5054	.	"	68	10,119
North West Provinces	3	1,225	5	1,583	18	3,914	37	4773	.	"	63	11,495
Madras	1	400	3	900	8	1,600	20	2,400	45	2700	77	8,000

5 By introducing the 5th Grade Accountant although the number of hands is slightly increased, I have been able to recommend an Establishment over Rupees 2,000 per mensem or Rupees 25,428 per annum less than the most economical of the other three large Provinces of India and actually

actually Rupees 36,400 per annum cheaper than Bombay.—

6. The actual and proposed establishment of Clerks for the Controller's Office is shown below.

Minimum	Increment	Maximum		Present		Proposed	
				Nr.	Rs.	Nr.	Rs.
50	2	60	Clerks. III. Class. 3rd. Grade	1	50	1	55
40	2	50	" IV Class. 1st. Grade	3	120	3	135
30	2	40	" " 2nd. Grade	13	415	6	210
20	2	30	" " 3rd. Grade	10	220	12	300
"	"	20	Apprentices	5	78	6	90
			Menial establishment		102		102
			Total	32	985	28	892

The Saving under Office establishment is therefore Rupees 93 per mensem or Rupees 1116 per annum.

Altogether the Savings will amount to nearly Rupees 5000 per annum. and this I hope to increase so soon as matters are more settled.

I have the honor to be
Sir,
Your most Obt. Servant

Examiner Public Works Accounts.

Draughtsmen.

I.	1st	70.	80
	2nd	60.	70
	3rd	50.	60
II.	1.	40.	50
	2	30.	40
III.	1.	20.	30
	2.	10.	20.

Existing Scale

Controller's Office.

Accountants

1 —— 300
1 —— 275
2 — 575 = 2nd Grade

5 at 150 = 750
1 —— 120
6 at 110 = 660
2 at 100 = 200
12 at 80 = 960
26 — 2690

1 —— 70
4 at 60 = 240
5 at 50 = 250 + Clerk 1 — 50
8 at 45 = 270
3 at 40 = 120 + Do 3 at 40 = 120
19 — 950
47 — Total 4215 (Do 5 @ 35 = 175
8 @ 30 = 240
4 @ 25 = 100
6 at 20 = 120
3 at 16 = 48
2 at 15 = 30

1 Khuskee 10
1 Do 7
4 Do @ 7 = 28
4 Peons @ 6 8 = 36
2 Rollers @ 4 8 = 8
1 Sweeper 5
16 — 102
48 Total 985

These 2 men are now employed under the orders of Store Keeper
The number of menial Servants not entered in the State embodied in the 6th para of the letter to Govt.

	No	Amount
Accounts	47 =	4215
Office	48 =	985
	95 =	5200

4/7

30 Do.
1 East Coast Canal
2 West Coast Canal

Provincial

Divisions	No	Rate of Pay	Sanct.
Nilgiris	1 —	90 =	90
Special Divisional Establishment	28 —	70 =	560
1 Bellari			
2 Ly D East Del			
3 — West Del			
4 Madura			
5 Mount			
6 Presidency			
7 Tinnevelli			
8 Trichinopoly			
1 Trangalore	29 —	60 =	1740
2 Vellamipur			
3 Cudalur			
4 Cudapa			
5 Salicat			
(Special) 6 Cannanore			
7 Chenglepat			
8 Chittur			
9 Coimbatur			
10 Dindigal			
11 Ly D Central Del:			
12 Kamlam			
13 Karnul			
14 Madanapalli			
15 Manpalur			
16 Masulipatam			
17 Mayaveram			
18 N. L. Southern			
19 Nepali			
20 Salem			
21 Tirmadevi			
22 ~~Tuticorin~~ Revenue			
23 ~~Tuticorin~~ Store			
24 ~~Trichy~~ Tanjore			
25 Tanjore N. Northern			
26 Tindevanam ~~Tel~~ Northern Velur			
27 Virudachalam			
28 Vizianagaram			
29 Walaja			
1 Architect	29 —	50 =	1450
2 Bapatla			
3 Beswada			
4 Carur			
5 Chelpakol			
6 Ld Irrign			
7 Dumachcheim			
8 Ellur			
9 Goleonda			
10 Gooti			
11 Hospeta			
12 Jeypur Ghant			
13 ~~Hombum~~ Kurnumbaden			
14 ~~Darmab~~ Kanagundi			
15 Kundurie			
16 Nagapatam			
17 Nandial			
18 Nandijama			
19 N.L. Central			
20 " Northern			
21 Paulghat			
22 Palnad			
23 Peraikonda			
24 Pulur			
25 Putthur			
26 Rajahmahendri			
27 Sidout			
28 Upsur			
29 Vernadu			
1 Coalgal B	5 —	40 =	200
2 Kundur			
3 Kundiyanam	2 —	30 =	60
4 Tirupatur			
5 Tindivanam	74 —	Total	4100

Controller's Office 5200
Divisional 4100
9300

DD
Accts 8000
Clerks 892 8892
408
6896

Most Respectfully
Sir
I have the honor to acknowledge the receipt of your letter of the 6th inst. with copies of the Office Note of the 5th inst. and in reply to state that it was not my intention to convey by my letter of the 4th inst. any instruction to the Superintendent of Telegraphs to discontinue the transmission of messages from Divisional Offices. The Office Note referred to was issued for the purpose of preventing the transmission of messages from Divisional Offices to the Chief Office which could be done more conveniently & expeditiously by the Superintendent of Telegraphs to whom they are addressed. I have however given instructions that messages from Divisional Offices to the Chief Office shall be transmitted only when they are marked "Urgent" & that the Superintendent of Telegraphs will be at liberty to refuse the transmission of messages from Divisional Offices to the Chief Office which could be done more conveniently & expeditiously by the Superintendent of Telegraphs to whom they are addressed.
I have the honor to be
Sir
Your most obedient servant

Statement showing proposed changes as compared with the Estimate Budget Estimate of the year 1876-77.

No. of Item in the Budget				Present establishment	Total	Proposed Establishment	Total	Excess	Saving	Remarks.
	Executive Branch									
	Salaries									
	Engineer Establishment	Direction	Rs	362032						A—Chief Engineer & Secretary's Office 32316 Actual
		Construction	"	384194						Chief Engineer for Irrigation 9360 Do
1 to 7										7 Superintending Officers at Rs 377 each 31668 Proposed
45 - 56	Upper Subordinate establishment									9 1st Class Division @ 233 each 25764 Do
57 - 69	Lower Subordinate establishment									11 2d Do Do 178 each 23496 Do
70 - 72	Petty establishment									15 3d Do Do 148 each 26640 Do
	Office establishment	Direction	Rs	128184						Consulting Architects Division 3240 Actual
73		Construction	"	223548	747116		747116			6 Special Officers at Rs 98 each 7056 Do
	Survey Establishment				324738		324738			Grant to Revenue Survey Deptt 6000
18 - 40	Temporary establishment				100380		100380*			33 Sub Divl estabt for Mysore Engrs 12872 Proposed
76 - 94					51500		51500*			42 Sub Divl estabt for Upper Subs at Rs 32 each
95	Personal Allowances									at Do 16128 Do
41	Residency House Rent	Direction	Rs	2760						187 Overseers establishment at 15 Rs 31260 Do
42		Construction	"	1950	351732		252872 A		98860	Paumben " 1856 Actual
97	Wynaad allowances				30000		20000*		10000	Public Works Stores 6216 Do
96					6000		6000*			Total Rupees 252872 A
	Contingencies				4200		4200*			
		Direction	Rs	1648						
		Construction	"	17514	4710		4710*			
44					11496		7000		4496	
100 - 101	Travelling allowances	Direction	Rs	35000		163872		151876		
		Construction	"	191500	33994	33994	30000* 30000		3994	
43					226500	226500	226500* 226500			
99	**Total Executive Branch**					1892366		1775016	117350	Saving of about 6.2 per Cent.
	Accounts Branch									
	Salaries									
103 - 107	Control Establishment				33120		33120			
108 - 110	Accountants				106020		98000		3096	
111 - 118	Office establishment				9780		10704			
119	Temporary establishment				4200		4200			
120	Residency House Rent				1800		1800			
						148920		145824		
122 - 123	Contingencies					6300		6300		
121	Travelling Allowances					16000		10000	6000	
	Total Accounts Branch					171220		162124	9096	Saving of about 5.3 per Cent.
102	**Conservancy**					113395		*113395		
	Grand total as per Budget					2176981		2050535	126446	Saving of about 5.8 per Cent.

* These items have not been dealt with by the Chief Engineer

[Cr. Wks. Form No. 111.]

5-11-90 ✓
12/12/00

GOVT. OF MADRAS. 1876. P.W. DEPT.

CONTROLLER, P. W. ACCOUNTS.

Madras, July 19th 1876.

OFFICE NOTE.

Ex Sec. to G. 24/7/76 No. 3678 W.

To

W.

Amongst the voluminous papers on the subject of the Divisional Establishments, that were handed over to the Reorganization Committee was an original letter no 162 W, dated 2nd May 1876 (W's no 5) - If not required further, can this be returned to this office.

D.C.S.
19/7

KEEP-WITH.

Genl. No. dated 187 .

[Cr. Wks. Form No. 111.]

GOVT. OF MADRAS. } 187 . { P.W. DEPT.

CONTROLLER, P. W. ACCOUNTS.

Madras, July 12th 1876

OFFICE NOTE.

To

The Honorable R. S. Ellis C.S.
President of Commission.

On the Chief Engineer's proposals as regards the number and extent of the New Divisions and Circles I probably am not called upon to express an opinion. Briefly I may say that the number of Executive Divisions appears suitable, while that of the Circles of Superintendence appears larger than is absolutely necessary.

2 But as regards the Establishment proposed for these Divisions & Circles I observe that the Scheme involves increased numbers with a consequent increase of expenditure and I may at once say that this alone

without

KEEP-WITH.

dated 187

Genl. No.

without going into details appear to me sufficient to condemn the proposals as unsuitable under present circumstances.

3 In the first place, I may point out that to re-organize existing establishments is with slight restrictions within the power of this Govt; but that a change of Establishment involving increased expenditure cannot be carried out by this Govt without the previous sanction of the Government of India.

4 The Chief Engineer not only proposes to rearrange present Establishments, but to increase the number of Officers of the rank of Superintending Engineers from 5 to 8 at a cost of Rupees 48600 doubtless forgetting that this proposal by entailing a reference to the Government of India will probably delay for a considerable

considerable time the ultimate solution of the question now before Government.

5. That question, as I understand it is how to re-organize the present establishments so as to secure better administration at Head Quarters, better supervision outside & more competent men in charge of the Executive units; in short to apply the means at our disposal in the most effective way, or still better if possible by introducing a simpler organization, more personal responsibility, and a well defined division of labor, to secure with an actual reduction of our existing means results as good as, if not superior to those already obtained.

6. The Chief Engineer's proposal to increase the number of Officers in the rank of Superintending Engineers will

will certainly not increase
the efficiency of the Depart-
ment these three extra Superintg
Engineers are presumed
to be supplied in the ordinary
way - Three of the present
Executive Engineers will be
promoted to the rank of Superin-
tending Engineer, and it will
follow that three of the present
Assistant Engineers will
be promoted to the rank of
Executive Engineers. Note
promotions made Govt
must have exactly the same
men to carry out their work
the rank & pay of six of the
present Officers will be
increased at the expense of
Provincial Funds, but there
will be no increase in the
efficiency even of these six
Officers - As a whole,
there will not even be
an increase in the number
of P. W. Officers. At present
there are several supernu-
=meraries and positively
the

the only return I can see
that Government would
derive from this proposed
additional expenditure
of Rs. 8,000 would be that
certain Supernumerary
2nd Grade Assistant Engineers
now at the end of the list
would be absorbed in the
new appointments.

7 Not only would this
proposal fail in improving
matters, but it would, of
admitted, very seriously
tie the hands of Govt.
when they come to deal
with the personal side of
the question - The proposal
is based on a presumed
association of the two
meanings of the word
"Superintending Engineer"
ie, the rank with the
corresponding pay, and the
duties of the Superintending
Engineer as a Supervising
Officer

Officer are in all cases to be carried out by an Officer of the rank of Superintending Engineer. The proposal has no meaning if it is assumed that the Seven Superintending Engineers ale to be the Seven Supervising Officers, or in other words that the present five Supt.g Engineers Supplemented by two others are to be the Superintending Officers of the future.

8 The acceptance of such a proposal would, I think be fatal to the measures proposed; it would prevent Government from selecting from amongst the Officers on the present establishment those who physically and professionally are most competent to undertake the duties of a Superintending Officer.

9 I am therefore strongly

in favor of not increasing the Engineer Establishment, and this I recommend not only as the best course to pursue, but also as the only practical course open to Government. — At the time when our Provincial Budget shows an Amount of Rs. 52,34,32 to be expended on Establishment as compared with Rs. 74,56,86 to be expended on works; when the Supreme Govt. have already reduced their Imperial grants thus bringing an increased amount of Establishment charges on Provincial Funds; when exchange is daily falling and every penny of fall brings a loss of about fifty lacs of Rupees on the Imperial exchequer, thus clearly pointing to a probable further reduction of the Imperial grants; and lastly, when the charge for

for P.W. Estabt. had actually first been reported to the Supreme Government as "burdensome beyond measure," it would I declare, be not only preposterous it would almost be indecent to propose to the Supreme Govt. within a few days of the submission of this report that these very P.W. Establishments should be increased.

10 In this memo I confidently assume that no increase will be made in the present Engineer Establishment and that Govt. will choose from the present Establishment the seven best men for the Superintending Officers, and the 35 next best men for the Executive Divisions. To furnish 7 competent Superintending Officers, 35 Executive Officers, a Secretary, and an Asst. Secretary surely cannot be too severe a strain on an Establishment which at the present time is supposed to include no less than 21 competent Superintending Officers and some 76 to 79 competent Executives!

11 At present, the Madras System is to employ men of the ranks of Superintending Engineer, Executive Engineer, and Asst. Engineer as Superintending Officers, and to employ men of the ranks of Executive Engineer, Assistant Engineer, Sub Engr. Supervisor & Overseer as Executive Officers. This System it is of course undesirable to change more than is absolutely required. The Supt. Engrs. & the best of the Executive Engineers can therefore continue to be employed as Superintending Officers, and the bulk of the Executive Engineers with

with a few of the Senior Assistant Engineers can take charge of the Executive Divisions. The remaining Assistants can be employed as Personal Assistants to the Chief Engineer, as Personal Assistants to the Superintending Engineers, and as Assistants in charge of Sub-Divisions.

12 To Executive Engineers in charge of Circles, and to Assistant Engineers in charge of Divisions I should allow the regular Offg allowance prescribed by the P.W. Code. The expenditure on this account would be covered by the present charge allowance now drawn by Assistant Engineers when in charge of Districts, and by Overseers when in charge of Ranges.

Upper Subordinate Establt

13. For the same reasons as I have before given in regard to the Engineer Establt I agree with the Chief Engineer in considering it inadvisable to make any changes in the Upper Subordinate establt

Lower Subordinate Establt

14 As regards these two Establishments, the Chief Engineer says absolutely nothing - This surprises me, for it is in this direction that I think economy can be best effected. It would be well for these Establishts to be taken up, and definite fixed for each Division.

Offices establishment

Chief Engineer & Secretary

15. On the arrangements proposed for the Offices of the Chief Engineer & Secretary I can make no remark, for Appendix A referred to as containing these proposals is not amongst the papers furnished to me.

16 In Northern India the most important Member of the Superintending Engineer's Office is his Personal Assistant usually one of the Young Assistant Engineers. With the Superintending Engineer away in Camp for weeks & months together, it is absolutely necessary to have attached to his Office some one who can look after the Office hands, who can answer a routine letter without all the delay of sending it out to the Superintg Engineer's Camp, who can direct the Office draughtsmen who can check estimates Assist in criticising plans write Small Precis and see generally that the work is sent out to the Sup. Engr in such a form as will enable him finally to deal with it. The Superintending Engineer wants in fact an Educated Professional Assistant.

17 To attach a young Assistant Engineer to each of the Sup.d Engr Offices does nothing. It is an excellent school for him to join on his first arrival in the Country he gets acquainted with Office routine and the duties being comparatively light he has an opportunity of acquiring the vernacular, Language. I would therefore strongly recommend that one of the Young Asst Engrs be attached to each Sup.d Engr Office, as is done universally elsewhere.

18 The Office establishment proper proposed for the Sup.d Engineer's Office appears to me Suitable. The Clerks & draughtsmen should however be properly graded, and all peculiar designations such as "Changes" "Record Keeper" "Writer" &c.a should be dropped. Every

Every man should be a Clerk and carry out whatever duties may be assigned to him.

19. Peons are Office Estabt while Lascars proper are not. I think two or three Peons should be allowed to each Supt & Engr and the remaining 3 or 4 Lascars will more properly be dealt with under Petty Estabt. I may however here say that I think a great deal of money is expended on Lascars in this Residency.

20. I should therefore propose the following Scale of Estabt for the Supt & Engrs Office

	Class	Grade	Salary	Allowance
1 Clerk	III	1st	100	80
1 D°	III	2d	80	60
2 D°	IV	2d	80	60
1 D°	IV	3d	30	20
Total Clerks			290	220
1 Draughtsman	I	3d	60	50
	II	1st	50	40
3 Peons			22	22
			422	332

or a mean expenditure of Rs 377 per mensem

Divisional Office

21 The Office Estabt proposed for the Divisional Office compared with the Estabt allowed in Bombay & England, seems to me very high. Although the Division is increased in Area, the Office work will not be increased proportionately. With the new organization will be introduced a Code of Regulations and a better System of finance & Accts. The Code itself will place a limit on the endless returns now required from the Executive Officers and will substitute personal Supervision for the present paper checks. A considerable amount of the present Office work can be simplified by the use of printed forms, and by the Accounts branch undertaking its fair share of the work. All things considered, I do not think the future work

work of the Divisional Office will be much heavier than it is at present.

22. The Office Establt of a 1st Class Bombay Division under the System to be adopted here, is as follows.

2	Clerks at 50		Rs 100
1	D°	30	30
2	D°	25	50
3	Menials		20
	Total Rs		200

as compared with Rs 311 proposed for the Divisional Office in Madras; and there can be no question that the cost of labor in Bombay is much higher than it is here. The cost of the 3 Class Bombay Division is 125 Rs against Rs 216 here proposed.

The cost of the Mysore Divisions, excluding Petty establishment varies from about Rs 227 to about Rs 314

23 The present cost of the Office establt of the 1st 2nd & 3d Class Divisions is respectively Rs 111, Rs 86 and Rs 56. The Chief Engr proposes to increase the Cost of these Establts to Rs 311, Rs 256, and Rs 216; and proposals which almost treble the Cost of the 1st & 2nd Divisions & nearly quadruple the Cost of the 3 Class Divisions appear to me extreme.

24 I consider the following establishment will be ample

1st Class Division

No		Class	Grade	Rate	Amt
1	Clerk	III	3d	60	50
1	D°	IV	2d	40	30
2	D°	.	3d	60	40
1	Draughtsman	II	1st	50	40
1	D°	.	2d	40	30
2	Peons			13	13
	Total Rs			263	203
	Average			233	

2nd Class Division

1	Clerk	IV	1st	50	40
1	D°	.	2d	40	30
1	D°	.	3d	30	30
1	Apprentice			20	10
1	Draughtsman	II	1st	50	40
2	Peons			13	13
	Total Rs			203	153
	Average			178	

3rd Class Division

	Class	Grade	Rate	Limit
1 Clerk	IV	1st	50	40
1 D°		3d	30	20
2 Apprentices			40	20
1 Draughtsman	II	2d	40	30
2 Peons			13	13
Rs			173	123
Average			148	

25. That is to propose an average expenditure of Rs 233, Rs 178, and Rs 148 against the present expenditure of Rs 111, Rs 86 and Rs 56 for the three classes of Divns. This appears to me more than is absolutely required.

26 For the Sub Divisional establishments for both Dept. Engineers, Sub Engineers and Supervisors, the following is sufficient.

	Class	Grade	Rate	Limit
1 Clerk	IV	3d	30	20
1 Peon			7	7
Total Rs			37	27
Average Rs			32	

27 I am doubtful whether an Overseer requires any establishment at all. I should certainly allow him nothing more than an Apprentice Clerk with an Average Salary

Salary of Rs 15 per mensem.

28. The effect of all these proposals on the Established Budget Estimate of the year 1876/77 is shown in the accompanying Statement, but many questions still remain which are not dealt with at all in the Chief Engineer's brief memo.

29 Briefly I should say that a saving of at least a Lac, or a Lac & half might be made. The reductions proposed by me in the items that have been considered by no means appear to me all that could be carried out were more System introduced into the Dept.; and I say this more particularly with regard to my own Branch. The simpler the System, the cheaper I shall be able to work it.

30

30. In conclusion I would strongly recommend that any Reductions determined upon be carried out by simply not filling up vacancies as they naturally occur. This will avoid any hardship to the present staff, and enable us to get easily through any slight confusion consequent on the reorganization.

L.H.C.
13/7

Despatched.
14th July. 1876.

Lower Subordinates 1165

Sub Overseers.

District	Division	Number	Grade	Rate	Amount	Total of Div.	Total of District per month	Grand Total for the year
Bellary	Bellary	1	1st Grade	60	60			
		2	3rd Grade	20	40			
						100		
	Gutti	2	1st Grade	60	120			
		3	3rd Grade	20	60			
						180		
	Hospetta	1	1st Grade	60	60			
		2	3rd Grade	20	40			
						100		
	Ruiakonda	1	1st Grade	60	60			
		3	3rd Grade	20	60			
						120		
							500	
Cuddapah	Cuddapah	2	1st Grade	60	120			
		1	2nd Grade	40	40			
		1	3rd Grade	30	30			
						190		
	Madanapalli	3	1st Grade	60	180			
		1	3rd Grade	30	30			
						210		
	Sidout	2	1st Grade	60	120			
		1	2nd Grade	40	40			
						160		
							560	
Chingleput	Chingleput	2	1st Grade	60	120			
		1	1st Grade	55	55			
		9	3rd Grade	20	40			
						215		

Chingleput (Continued)	Mount	1	1st grade	60	60			
		1	3rd grade	20	20			
						80		
	Simulia	1	1st grade	60	60			
		1	do	55	55			
		5	3rd grade	20	60			
						175		
							470	
Coimbatore	Caligal	1	1st grade	60	60			
		1	3rd grade	20	20			
						80		
	Cariur	1	2nd grade	45	45			
		1	3rd grade	20	20			
						65		
	Coimbatore	1	2nd grade	45	45			
		2	3rd grade	25	50			
		2	3rd grade	20	40			
						135		
	Irrigation	1	3rd grade	45	45			
		1	3rd grade	25	25			
		1				70		
							350	
Canara	Bekampore	3	1st grade	60	180			
		4	3rd grade	20	80			
						260		
	Chikkakole	1	1st grade	60	60			
		2	3rd grade	20	40			
						100		
							360	
Godavery	Collair	2	1st grade	60	120			
		4	3rd grade	20	80			
	Godavery Central Delta	2	1st grade	60	120	200		
		2	3rd grade	20	40			
	E. Delta	2	1st grade	60	120	160		
		2	3rd grade	20	40			

Godavery (Contd)	Western Delta	2	1st grade	60	120			
		2	3rd grade	20	40	160		
	Rajmahundri	2	1st grade	60	120			
		2	3rd grade	20	40	160		
							840	
Kistna	Eastern Delta	1	1st grade	60	60			
		4	3rd grade	20	80	140		
	Guntur	4	1st grade	60	240			
		6	3rd grade	20	120	360		
	W. Delta	2	1st grade	60	120			
		4	3rd grade	20	80	200		
Kurnool	Kambam	1	1st grade	60	60			
		2	3rd grade	20	40	100		
	Kurnool	1	1st grade	60	60			
		2	3rd grade	20	40	100		
	Nundial	1	1st grade	60	60			
		2	3rd grade	20	40	100		
							300	
Madura	Dindigal	1	1st grade	60	60			
		1	2nd grade	40	40			
		3	3rd grade	20	60	160		
	Madura	1	1st grade	60	60			
		1	2nd grade	40	40			
		2	3rd grade	20	40	140		
							300	
Malabar	Calicut	1	1st grade	60	60			
		1	3rd grade	20	20			
						80		

Malabar Continued	Cannanore	1	3d Grade	45	45			
						45		
	Kummbanadu	1	3d Grade	20	20			
						20		
	Palghat	1	2d Grade	45	45			
		2	3d Grade	25	50			
						95		
	Gernàdu	1	3d Grade	25	25			
						25		
							265	
Nellore	East Coast Canal	1	1st Grade	55	55			
						55		
	Nellore Central	1	2d Grade	35	35			
		1	3d Grade	20	20			
						55		
	Nel. Southern	2	1st Grade	60	120			
						120		
	Nellore Southern	2	1st Grade	60	120			
		2	2d Grade	35	70			
						190		
							420	
Nelgire	Nelgire	1	1st Grade	75	75			
		1	2d Grade	35	35			
						110	110	
North Arcot	Chittur	1	1st Grade	60	60			
		3	3d Grade	20	60			
						120		
	Polur	1	1st Grade	60	60			
		2	3d Grade	20	40			
						100		
	Vellore	1	1st Grade	60	60			
		2	3d Grade	20	40			
						100		
	Walaja	2	1st Grade	60	120			
		3	3d Grade	20	60			
						180		
							580	

Sub Divisions Continued

District	Division	Number	Grade	Rate	Amount	Total of Division	Total of District per Annum	Grand total for the year
Salem	Salem	2	1st Grade	60	120			
		4	3d Grade	20	80			
						200		
	Sringapuram	1	1st Grade	60	60			
		2	3d Grade	20	40			
						100		
	Usdaur	2	1st Grade	60	120			
		3	3d Grade	20	60			
						180		
							480	
South Arcot	Cuddalore	2	1st Grade	50	100			
		1	2d Grade	40	40			
						140		
	Sridiamam	1	1st Grade	60	60			
		1	3d Grade	40	40			
						100		
	Vendachalam	1	1st Grade	60	60			
		1	2d Grade	50	50			
		1	3d Grade	40	40			
						150		
South Canara	Mangalore	1	1st Grade	60	60			
		1	2d Grade	45	45			
		1	3d Grade	30	30			
		2	3d Grade	25	50			
						185		
	Puttur	1	2d Grade	45	45			
		2	3d Grade	30	60			
						105		
							290	

Sanjore	Manargudi	2	1 frade	60	120		
		3	3 frade	20	60		
						180	
	Mayaveram	1	1 frade	60	60		
		4	3 frade	20	80		
						140	
	Nagapatam	1	1 frade	60	60		
		2	3 frade	20	40		
						100	
	Sanjore	2	1 frade	60	120		
		3	3 frade	20	60		
						180	
							600
Simonelly	Shermadevi	1	1 frade	60	60		
		2	3 frade	20	40		
						100	
	Simonelly	2	1 frade	60	120		
		4	3 frade	20	80		
						200	
	Simonelly (Southern)	2	1 frade	60	120		
		4	3 frade	20	80		
						200	
							600
Tuchengy poly	Meconi	1	1 frade	60	60		
		2	3 frade	20	40		
						100	
	Tuchengy poly	1	1 frade	60	60		
		4	3 frade	20	80		
						140	
	Udaiyarpalliam Udaiyarpalaiyam	1	1 frade	60	60		
		2	3 frade	20	40		
						100	
							340
Veragapatam	Golconda	2	1 frade	60	120		
		3	3 frade	20	60		
						180	

	Egypur						148
Viraga patam (continued)	Ghats	1	1 frade	20	20		48
						20	
	Vizianagar	1	1 frade	60	60		
		2	3 frade	20	40		
						100	
						300	
							102.900
							8 Ah 8/12

P. W. Rec'd 18 Sept 77 No 317

Area of Building occupied by the Govt: Litho

Description	Area Sup.e feet
Drawing room	1,068
Press room with Knowchies and Tracing room	1,642
Total	2,710
Lithographic Stores (detached)	1896
Grand Total	4,606

Govt: Litho: Depart.t
Fort St: George
11th May 1877

W. Galloway
Supt.t and Manager
Govt: Litho: Deptt.

Area of Building occupied by the Govt: Litho: Deptt.

Description	Area Sup^t. feet	Remarks
Drawing room	1,068	
Press room with Hoochies and Tracing room	1,642	
Total	2,710	
Lithographic Stones (detached)	1896	
Grand Total	4,606	

Govt: Litho: Departo
Fort St: George
11th May 1877

W. Baldrey
Supt^te and Manager
Govt: Litho: Deptt.

cc No: 202 d/ 30th Jany 1877.

J. P. W.
Lieut.

150

Lds will see from the accompanying letter that Lieut. Lang is only a temporary hospl. We should have kept in a hut of wood &c away with other sick hospl. We have many sick here by Constant supervision & care & strong stony ground we must have wooden huts which shall be perfectly & entirely secured against weather without positive proof, that the work is badly executed & expensive to direct a whole hospl. when we have such complaints - ab pneumonia & bilious Remittent are now doing duty in the Technical dept. to which they should be transferred - which would reduce the cost of the Liberian hospl by Rs. 170 monthly abouc

7.5.77

C.E. No: 202 d/ 30th Jany 1877.

GOVT. OF MADRAS. 1876. P.W. DEPT.

CHIEF ENGINEER FOR IRRIGATION.

Irrigation W. Office 30-1 184

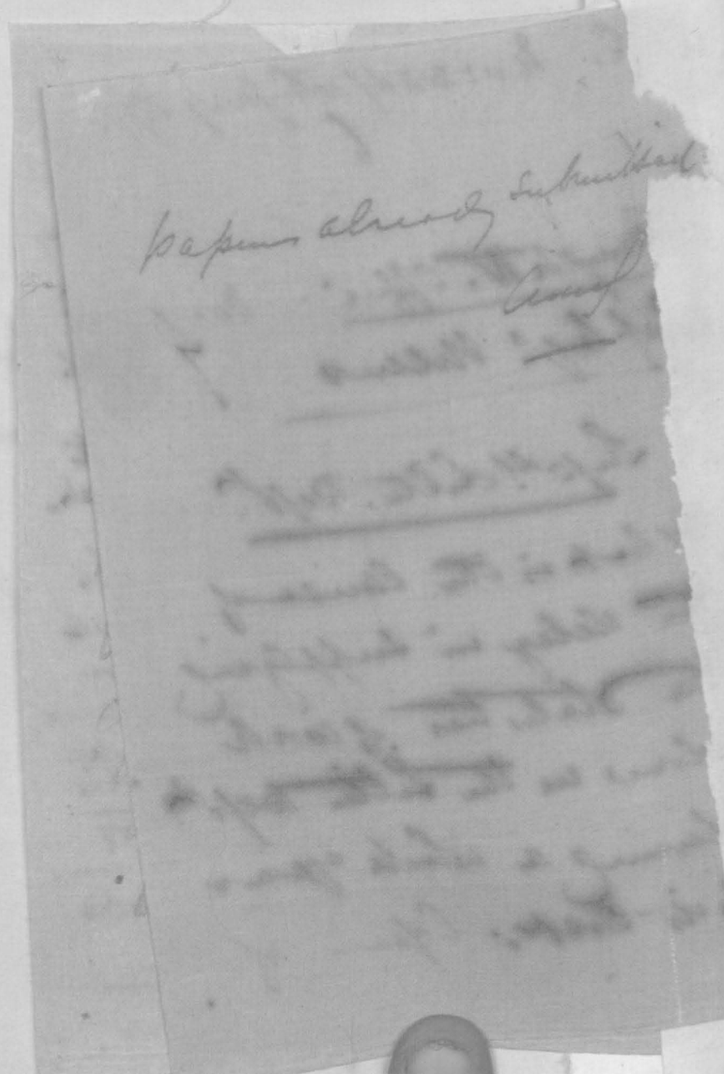
Madras, 187 7.

Chief Engr. Irrign

OFFICE NOTE.

To Supdt Lifts. Depts

What is the reason of the delay in supplying the statistics of work done on the Lifts Depts during a whole year & its Estt. Copies of



Memo

The Statistics of work done during a whole Year is herewith with the nominal Rolls of the

The Undersigned begs to above papers have been ready and that on the 15th of Dec[r] were reported to be an abstr[t] of the Statistics of work was then already and the nominal rolls had been pre-pared, a Copy of the former papers was ordered by the Under Secretary, which is now Submitted and would have been so sr. This but the papers were intended to be sent together with the Flow lists which have since been completed he was pleased to

30 – 1 – 77

Weekly report of the Work
on Minerals all stations
Catalogue & Office Work

1. Name of persons employed

2. Rameswaram Island 5
3. Sanavanavalai 9
4. Tuticorin 9

5. Parthasarathy 10

In Parthasarathy Island. Work
Store house

Memo 154
389

The Undersigned begs to state that he will shortly, on obtaining full information, submit to the Under Secretary a statement explaining the present condition of the plans in the Office with the object of inducing the Under Secretary to cancel the late minute of 29-1-77 on the subject

29-1-77

Remarks.

A number of these coolies as many as from 3 to 20 each on the

Rameswaram Island 5 Coolies for 2 days.

Sanavanavalai Island 9 Coolies for 2 days.

Parthasarathy Island 10 Coolies for 2 days.

Preparing Store Accounts and attending to Current Work for Stores, Plans &c &c

Weekly report of Work performed in Selecting, arranging, measuring, Cataloguing, labeling and lodging in Almirahs all plans belonging to the late Central Office in the Litho: Store together with those of Lithographic Copies sent down by the P. W. Secretariat for custody, &c. for the week ending 27th January 1877

Name of persons engaged on the work	Date	Nos of Plans and Maps Catalogued	Nos of Maps lodged and labeled.	Remarks.
V. Vardarajalu Moody: 5th Draughtsman C. Saravanavaloo — 9th Do. Two Peons now	January: 22nd, 23rd, 24th, 25th, 26th, & 27th	950 copies. Trimen's Sist. Streery corundum Project Plans, 5 copies of 19 Civil E. College Plates and 1 Co. of each of 50 Drawings.	661 copies of Cantonment Plans, 236 copies of Military Buildings, 137 copies of Cauvery Project Plans &c. 52 Copies of Kistna Project Plans, and 150 copies of Madras Water Works plans &c.	A number of these copies has as many as from 3 to 20 sections each. C. Saravanavaloo Moody, 9th Draughtsman reported sick for 2 days.
S. Parthasarady — 10th Draughtsman	26th & 27th			S. Parthasarady, Substitute for Saravanavaloo Moody.
M. Parthasarady Naidu. Record & Store Keeper				Preparing Store Accounts and attending to Current demands for Stores, plans &c.

Note - The above mentioned Draughtsmen &c. attended also on the last Saturday of the month (a general holiday) in order to expedite the completion of the work.

Govt. Office, Dept. Fort St. George
29th January 1877

W. Keldrey
Supdt and Manager

We the undersigned declare that these were all prepared and that have not been altered by us

Former cases
136 - 22 Jany 77
137 - " - " -
180 - 27 " - " -

No 192 of 30

Later cases.
202 of 30 Jan/77

Orders

marked A, B, & C

In the accompanying papers, me
laid down the details for carrying
out the practical suggestions of the
Chief Engineer, concurred in by the
Govt. in para. 2 of G.O. No. 337 of 24th
Nov. 1875 -

In A. It is proposed to increase the Establishment of the Survey Branch, at a cost of — £733 -
225 -
Total £ 958 -

In B. Part of the General Branch —

Pay Transfer from the present charges for the Lithographic Office Dept £5 5-2s
the appropriation of the cost of the Deputy Superintendent of the late Irrigation Engineers (less that of menial servants already given up) — 440.
Total £ 958

~~The remainder of the charges~~ and that the work of the Lithographic ~~Office~~ be remodelled under the Revenue Survey Dept, who ~~will~~ undertake to carry it out with the available balance of the cost of the present Lithographic Office by £450 - (See papers C).

Sd/ H.
29. 2.

GOVT. OF MADRAS } 187. { P.W. DEPT.

SECRETARY.

Ootacamund, 24-11 187

OFFICE NOTE.

To C.

Certain papers enclosing the transfer of the Lithographic Office to the Secretariat were despatched on a cover to the Hon'ble H. S. Ellis Esq on the 28 March last and they cannot be traced. Have they come to hand in your hands for perusal? Add 24-11

OF 187

Recd 1st

With reference to under Secretary's Memo dated 18th January the undersigned begs to state that the reasons for Mr Jackson's statement that he could enter the total number of lithographic copies of plans now in the whole of the bundles of plans were looked into is attributable to the fact that lists and in a state of disorder were sent down to the stores of the Litho. dept with a statement that lists could not be furnished as there was no establishment to prepare them. These plans were sent down from time to time at various intervals during a period of 2 years before the Survey Office was established

1360/22 Jany 1917.

with the undersigned, the Undersigned, communicated weeks ago the arranging and the maps in the store of the dept.—

calalogues

of work has

towards arrangement

OF 187

The plans were ordered
to be sent down by
the Secretary.

The above will be
corroborated by Mr Parsons
the Asst Chief Assistant.

The undersigned therefore
begs that the Under Secretary
will be so good as to
sanction the Contract
exchange mentioned in para 4 of this
Memo as the Exhibition has
been so successful.

Previous Correspondence
The plans from the
Secretariat all letters & papers
were completely entwined
in a cataloguer and
secured in almirahs.

Notes

18-1-77

All copies of Standard Plans as sd.
by the Secretary's order sent to
the Lithographic Dept for custody,
there being no room upstairs and
no establishment to arrange and
catalogue them. AB 18.1.77.

Lates Cases.

No 137 of 22 Jan/77
180 " 27 do
192 " 29 do
202 " 30 do

No 136 of 22 Jany 1877.

Memorandum

1. In accordance with the directions given by the Lieutenant Governor, Mr Jackson commenced some six weeks ago the work of arranging and Catalogueing the Maps & Plans in the Store of the Lithographic Dept. —

2. A complete Catalogue of the Maps forwarded to the undersigned by the Supt. Litho Dept on the 16th inst. Such a record of Mr Jackson's arrangements accompanies this, it is evident that although a good deal of work has been done towards arrangement much remains, undone.

It is not necessary

Reference instructions already given: As Mr. Jackson has reported himself sick & has been given a sick leave in consequence the Superintendent must make immediate Arrangements for continuing the work Mr. Jackson had in hand under these instructions, and he may for this purpose employ any portion of Lithographic establishment who may be necessary.

3 A weekly progress report will be sent to the undersigned every Monday morning stating

1. The number of Plans & Maps duly catalogued
2. The number of Plans Maps or Lithographed or Published
3. The names of persons employed on the daily & the No. of days during the week each was employed.

4

The Superintendent of the Lithographic Establishment will be held responsible that the Lithographic Stones are kept clean & in order, & that they are not worn out by bad printing. He will be held responsible for the safe custody of the Stones & Engraved Plates, and for their return to the Office when required. He will be subject to the orders of the Secretary P.W.D.

Approved
18-1

Forwarded to
Mr. Baldry for attention

C. E. No: 180.

Former cases
136 d/ 22 Jany 87
137 " " "

GOVT. OF MADRAS. 187 . P.W. DEPT.

2 - SECRETARY.

Fort St. George, 27 Jany 1887.

Lieut Shafto Flores

OFFICE NOTE.

To Supt 4 Lieut Shafto

Later cases

192 OF 29 Jany 1887.
202 - 30 do

Re MS. Irrigation Manual
suspended by Flores today
Mrs Flores is still much
unsatisfactory and the
progress made in arranging
Mans &c. is very insufficient
The work was commenced
seven or eight weeks ago
Ten Almirahs have been
filled and a third partially
so. The Mans have been
arranged in pigeon holes
in rolls whereby the leaves
are crushed. They should
have been laid flat on
shelves with Card board
between the sections of
each Man & Labels to

the Card Board. They would have taken up about half the space and would have been in a good condition when found. It is too late to alter things now.

The Main Lay-out of Wantage (Randell) does not indicate clearly the Meaning of the word Section or official in the form of Catalogue given to the Engineer. The dotted lines between the Scale of the Plan and the description is not sufficiently clear. A further explanation is necessary in order that the work may be got through.

Asst
27-1

To Mr. Baldrey for information and return as soon as read.

Memorandum

1875

The undersigned begs to submit the following explanations which he considers important in connection with the subject of his appeal against certain strictures recorded against him by the Under Secretary, and very necessary to be communicated to the Chief Engineer.

1st That it was not explained to the Chief Engineer on the submission of the folio of specimen of lithographic work last evening, that out of 56 drawings in the folio only 3 was specially got up as specimen for the Vienna exhibition, and that the rest were executed as current work.

2nd That the Under Secretary does not particularize the work on which he had based his censure, the undersigned therefore respectfully submits that the Lithographs considered inferior by the Under Secretary be pointed out, so that the undersigned may have an opportunity of explaining matters in order to remove any misunderstanding that may exist. There are only two instances which the undersigned remembers, and to which exception may have been taken, this is fully explained in the copy of the Memo: to His Grace the Governor, vizly that on the occasion when the Under Secretary insisted on the use of a certain lithographic material (although strongly protested against by the undersigned who had years before tried the material and found it to fail) and a large work involving months of labour then prepared, when struck off, yielded inferior impressions. The second instance was when the undersigned wishing to introduce more of Chromo-lithography in the department, waited on the Quarter Master General (Brigadier General O'connel) and suggested to him that the Cantonment plans which were at the time about to be printed in black, be chromo-lithographed or printed

in

in colors, to save after-trouble and expence in coloring by hand. When engaged on the work the Under Secretary happening to come down to the department, saw a proof which had been used simply for the purpose of obtaining the correct register of the different Colors, each of which being on a separate stone. The colors were somewhat shifted and when questioned by the Under Secretary, the undersigned gave, as he thought, a satisfactory explanation, but on the Under Secretary returning to his office room he perused the Memo: in question and recorded it as his opinion that the work turned out under the superintendence of the undersigned was of an inferior description. The undersigned at once had a fair copy of the identical plans which the Under Secretary had seen, and which has been submitted together with other Specimens to the Colonel Engineer, and waited with it, on the Quarter Master General, who highly approved of the work, and marked his unqualified approval on the plans itself. The undersigned submitted this with an appeal to the Under Secretary, but without favourable result.

The undersigned in Conclusion solicits the strictest investigation, and earnestly begs that all the papers submitted, and particularly the copies of those sent to His Grace the Governor be fully considered as giving ample particulars of his case.

Govt Litho. Deptt
Fort St. George
5th February 1877

W. Balaram
Supt and Manager Govt. Litho. Deptt

1918
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Dummy Sheet

Weekly report of work performed in Lithographing, Printing, Labeling, and Lodging in Almirahs all Plans belonging to the late Coast Survey Office now attached to the P.W. Secretariat for custody, &c. for the week ending 27th January 1877.

Remarks.

Names of Persons engaged on the work	Date	Printed	Delivered	Remarks.
Mr. J. Jackson	3d Draughtsman.	15.16.17 January		Printing Leave Granted with effect from 15th instant
P. Ramathoranayya Naidu	3d	Do.		unable to attend owing to being attacked with Pox.
M. Venkatarayudu Naidu	5th	Do.		Assisting and Cutting of Plans and Maps Coata Copies
C. Sannamalai Naidu	3d	Do.	18.19 & 20 January	300 Copies of Standard ally required to assist the Plans Record Keeper.
Peramma Pragasa Rao and Ramayya Lo.				Preparing stone Accounts and attending to Current demands for Stores Plans &c.
M. Parthasaradhy Naidu	Stone and Record Keeper who Lithographic Tracer			

Govt Litho Deptt
Fort St. George
22d January 1877

W. Balaram
Superintendent and Manager

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To His Grace the Duke of Buckingham and
Chandos &c &c &c
Governor of Madras

My Lord Duke

With a confidence of that justice and benevolence which actuates and so conspicuously characterises Your Graces acts, I am encouraged with every sentiment of respect to submit the following particulars, feeling assured that in doing so I confide in one who will with his usual unvarying kindness to those who seek his protection accord his careful consideration and meet out that justice so earnestly solicited.

In consequence of the matter being one of an urgent nature and requiring immediate action to prevent incalculable injury to those concerned, and whose fate may in a few days or hours be irrevocably decided, and further being aware that especially in official matters it is easier to prevent an evil than to cure one I have been compelled to take the liberty of addressing your Grace directly feeling assured that your Grace in your Clemency will overlook and pardon the transgression.

Your Grace is appealed to in order to investigate and prevent the perpetration of what is considered to be a gross injustice to the department which has long endured faithful and acknowledged good services.

The accompanying memorandum will give the necessary particulars of the case and Your Grace will there observe how a whole department has been made to suffer repeated hardships and how its members will thereby if not prevented be thrown either totally destitute or in very straitened

strained circumstances and for no other reason I sincerely
believe, than a deep rooted animosity entertained against myself by
officer under whose orders I am now unfortunately placed. I
appeal to your Grace that in the want of having committed
any fault which has been the occasion of incurring the
displeasure of my Official Superior, and if it is shown that
I have done so. I beg that I alone be punished and not
involve in my punishment the abolition of a long standing
establishment which it is proposed to abolish in order to give
place to another, which having in comparison with regard to
length of service only lately been in existance and in accordance
with the orders of the Supreme Government considered to
be only a temporary establishment to carry out a certain object
and then cease to exist.

The Department refused to see three of the good
Lithographic Proofs and the Proposed to abolish the former and to transfer the work
which it has so long and satisfactorily executed to that of
the latter.

The work turned out in the Government Lithographic
Department is considered by judges of Lithography to be of
a superior description and Colonel Michael with the Officers
finding it to be so applied for Collections of Specimens to
send to the London and Vienna Exhibitions. These I got up
for the purpose in the best style out of the material at hand
and the collections were exhibited at the Banqueting Hall
previous to their departure and were then much admired
other testimonies to the excellence of our work has from time
to time occurred together with one that we are specially
proud of, being that recently received through your Grace's
Military Secretary Major Ballard Expressive of your Grace's
satisfaction in regard to the way in which the N.C.O.'s Ex
Parade Marks was Lithographed.

But that your Grace may have a further knowledge of
the description and the style of work the Govt. Lithographic Establt
of which I am the Superintendant is capable of performing. I take
the liberty to submit for your Graces inspection a Portfolio containing
a few Chromo and other Lithographic works from the remaining
few after the selection for the Exhibitions had been completed.
Your Grace will then be in a better position to judge whether
the recorded imputation against me (vide Memo:) that the work
turned out under my Superintendence, is of an inferior des-
cription is a just one or not. This ungenerous impeachment
after nearly 22 years of acknowledged faithful Service, at
a time when the Public Works department reorganization
scheme is on the tapis shows the animus against me.

I implore your Grace then to give your kind attention to the
facts put forward in the accompanying Memo: in which Your
Grace will find a narrative of the rise and progress of that hatred
under the cloak of which I have had so long to endure, but yet
with the forlorn hope that time and submission on my part
would go a great way to ameliorate or entirely eradicate the
anger against me; but vain has been my hope, and the long
inflicted injustice is about to culminate in the abolition of
the department and the utter ruin of the long cherished hopes
and expectations of the members composing it. As for myself I
respectfully assure your Grace that it has always been my
greatest desire and ambition to do something that would
win the approval and reward of Government in order
to effect this my purpose I first considered the immediate
requirements of the department under my charge and how
improvements could be introduced to remove certain defects
one I found to be that owing to a faulty system which had
been obtained, that a great number of valuable German
Lithographic Stones were broken and otherwise injured.

to Letter

together with the loss of valuable drawings destroyed on these
three occasions I have effectually obviated by the introduction
of an apparatus, invented by me, which has ever since
I have taken the charge been used in the department, to
the saving of several thousands of Rupees to Government.
I should also add that by the use of the above mentioned
apparatus, transfer to the Stone can at any time and
in all weathers be carried out with certainty, which had not been attain-
ble before its use. I beg permission to mention that I
also introduced a system of water mark lasting in
the Public Works Cheques which however since its intro-
duction prevented fraud by erasure. I could also mention
other improvements in the working of the department, more
than a most useful and hitherto unknown precept to obviate
the necessity of redrawing maps and other subjects which
require to be printed in several editions from time to time
to meet current demands, by this process the elaborate
drawings on stone can in a few hours be faithfully copied
on to Copper, thus forming an engraving which can at any
time be printed from and leaving the stone free for
other work with the advantage of economizing space,
which the cumbrous Stones would have taken up would
received for one special drawing.

I have not only devoted any attention to the
wants of my own immediate department but have
endeavored to be useful in a more general way and
with that view a new pattern Venetian bar for door and
window shutters which was considered by the late
General Orr R.E. when Secretary to Government P.W.D.
to be a decided improvement on the Bengal and other
patterns

patterns and further that by its use a great saving would
be effected in building, that he had the plan lithographed
at once and circulated to the District Engineers several
of whom adopted the design and applied it to works
as opportunity occurred reporting favorably on it at
the same time to the Secretary to P.W.D. The plan of Venetian
Bar with General Orr's Circular together with a copy
of a letter from one of a number received from the
District Engineers will be found in the accompanying
Portfolio of Lithographs where also will be found a
drawing of an invention which I offered to the War
office through Sir Charles Trevelyan late Governor of
Madras whose kind and most generous letter in
reply is also appended, the instrument alluded to is
a Range Finder intended for Artillery and Nautic
purposes.—

I need not go into further details to show the
Zeal which actuated me as I fear that I should
by doing so, only prove wearisome, if I have not
already tried Your Graces patience by what would
be considered by many unnecessarie and pedantic
parade of our services, were it not considered that
it is only resorted to by me during what I consider
a most critical period in relation to myself as a
Government Servant and the Department over which
I am placed

All my hopes and aspirations appear now
about to be cruelly crushed and it is only owing to
the painful circumstances under which I am placed.

that

that the foregoing disclosures are made. It is natural I should have hoped for a better termination in my already long period of service under Government, than my worthy predecessor for the introduction of a simple proof in the Department was rewarded for life with a pension allowance in addition to what he would otherwise have received. I had hoped that by repeated endeavours to deserve approbation (which I have obtained from the predecessors of these Offices under whom I now come) I would also have attained to the same privilege, but to this moment I am receiving but little more than one half of what my predecessors drew although a greater amount of work has been thrown on the Department. (See Abstract of the work turned out of the Department during the Calendar year is appended to shew that the amount of work is of far greater value (even when calculated at the lowest market rates) than the cost of the Establishment which is less than what is ordinarily paid to a single individual.

I most respectfully beg to observe that if each Department rendered as good a return on the outlay it would be simply a matter for Congratulation instead of which the Lithographic Department which has been for more than 50 years in Existence and has been remarkable for the excellence of the work executed by it, and the service it has so long rendered to the State is now to be expunged from the Roll of Departments under Government

If it was even shown that the Lithographic work turned out in the Revenue Survey office is of a superior description to that of the Government Lithographic Establishment in point of Style, Clearness and Sharpness of printing it would be to some extent justly the measure about to be taken with reference to the abolition of the latter Department, but if it is found that the work is not superior nor even equal to that of the Lithographic Department notwithstanding the superior appliances which they command in addition to those which were ordered to be furnished to them from the limited stock in the Government Lithographic Department (vide Memo of I then most respectfully leave it to your Grace to judge whether under such circumstances a worthy and long standing Establishment is to give place to one so recently established.

I also beg to state for your Graces information that the Government Lithographic Department has not only to perform its own legitimate duties, but it has been from time to time employed on special work and members of the department have been engaged since the past two years to conduct the Technical work in connection with the office under the Chief Engineer for Irrigation, and of that of for buildings without any extra emoluments, such services necessarily affect the amount and quality of lithographic work turned out during a year, as senior and qualified hands are deputed to perform the Technical work, notwithstanding which, it will be seen by the abstract appended that a large amount of lithographic work is executed in the department and the value of it more than double as return on the outlay.

In

In Conclusion I once more earnestly beg that your Gr will accord your kind consideration to the facts enumerated in the accompanying memo: which will clearly explain one of the principal motives for abolishing the Lithographic Dept. and furnish an insight as to how the department has been cruelly treated and unjust acts of supercession perpetrated by the appointment of unskilled hands over those long in the department and will rest in the lithographic Est open to the infringment of an order by the Governor General in Council P.C. No 421 dated 5th May 1856 in which it is declared to be a very objectionable practice for officers to introduce their own dependants from other Districts under them in a new office thus supercending the old servants of the office. Your Grace & General in Council accordingly resolved that this source of partiality be removed and at once checked. The same order deprecates any measure having a tendency to strike at the root of all independence and manliness of character with reference to Subordinates in Government service.—

The accompanying memorandum will also show the acts of Animosity evinced against myself for respectfully remonstrating against such acts. The degradation to which I had been in consequence subjected, the hardships that are inflicted on both myself and brother who is in the same department as he is made also, to feel the bitterness which is openly entertained against me, the inability of appealing to the Head of the department, as the infliction when such a course is adopted is yet more aggravated

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and no satisfaction obtained as the head himself is the perpetrator of the acts appealed against. In fact the whole cause of my having to make this Complaint and appealing to your Grace for protection which I beseech your Grace will with your well known disposition to support the weaker side also extend to me.—

I most respectfully beg to assure your Grace that it is with exceeding regret that I am compelled to submit these papers the statement therein contained are strictly wrong from me no self defence and in consideration to the Claims of that department of which I would consider myself to be an unworthy superintendent were I to remain silent, and allow matters to take their course which would end in its abolition and the consequent sufferings to which the members who compose it will be subjected on the carrying out of so cruel a measure.

I Most &c—

(Signed) Hon. Baldwin

(True Copy) Hon. Baldwin

Memorandum

The undersigned has been employed in the Government service for nearly twenty two years during which time (it will be found on reference to the appended abstract from the office Registers) he had given entire satisfaction to his superiors in Office and in consequence of which was promoted to the highest post in his particular branch of work, matters had been going on in the usual uninterrupted course until the appointment of General Walker Secretary to Government P.W.D. when certain appointments in the Lithographic department were made by officer which called for remonstrances from the undersigned, but which was couched in the most respectful language, the cause calling for such remonstrance was the appointment of men who had no knowledge of the art of lithography over the heads of Experienced and Skilful hands in the department, the undersigned represented the fact to General Walker that skill in the lithographic art required much practice and special talent, for out of six apprentices trained in the department by order of Government only one turned out a good lithographer, so that it was not very likely that men up in years could easily attain that art and the fact of their not yet being in a position to be entrusted with lithographic work proves the reasonableness of the objections the remonstrances proved useless, and men from the District and Elsewhere were appointed in supercession of old hands and in one particular case it was very distressing to all the department to be superceded by one who was not only their junior in service but what was particularly objectionable had been degraded in his former appointment in the Civil Engineering College for drunkeness, and disorderly conduct in connection with the Military students attached to the College, and who had finally had to vacate his post.-

The undersigned who is responsible for the outturn of
had no other alternative than to respectfully remonstrate
the matter but he was angrily told by General Walker
he would make his own appointments and he must not
of any interference on the part of the undersigned and
that he would bring in men from the districts and
thousands in the Lithographic department in the
such circumstances how was it then possible that the
signed could be responsible for the proper outturn
and for the quantity of it. The undersigned had been
consulted by the predecessors of General Walker when any
Appointment had to be made in the Lithographic
and the obstinate demands from the head
be better understood
explain.

The undersigned after this subjected to typical
annoyance, petty in detail, but in the aggregate
to bear, but what gave him an insight into the real nature
General Walker, was the ordering from time to time the best
implements and material intended to facilitate the
workings of the Govt Lithographic Department to the Revenue
Survey Office whose, at that time was Colonel Priddey
and with whom General Walker was most friendly and
intimate.

It had always been Colonel Priddey's ambition
to make his Lithographic department the only one in the
Presidency and thereby strengthen this department which
is a temporary one, by obtaining all the work of a per-
manent department. This was gradually brought about
and work was transferred from this department to the

either from time to time when the whole of the late
Surveyor Generals valuable Surveys and Records (the
source of a great deal of information to the Lithographic
Department) was transferred to the Revenue Survey Office
and when it was thought that the Govt Lithographic
Department was completely crippled, then was an order
issued that it was intended to institute a comparison as
to the amount, quantity and value of work turned out
by the two departments and that too after cutting us off
from all our resources and the very officers in charge
of the department who are naturally looked to for
protection are chiefly those who have been the main
instruments in cutting the ground from under our feet
the reason is obvious, the cost of the Lithographic Departm
although only 70 Rupees per mensem is considered a
burden on P.W.D. principally for the reason that it does
not confine its labours particularly to the wants of
P.W.D. but takes in work from almost every section in
the service, and the very wasteful ways proves now to be
the cause of its Annihilation there is no doubt it should
be a distinct department like the Gazette office
and not chargeable to any particular department
but it cannot be shown that the evil is remedied
by attaching it to another department or allowing
another whose position is not independent and
is not virtually a public department to take ch
the work, but to return to the subject the under-
signed anxious to allay the undeserved irritation
against him and hoping that by special
zeal

Real he should have gained his desire racked his brain for the purpose and at last hit upon a plan of roof construction in the adoption of which saving to Government would be effected, thereupon the undersigned prepared a plan specification and submitted it to General Walker thro Major Scott Under Secretary who before doing so forwarded the plan to Captain Rob Thompson for Report the Report stated that he Capt. Rob Thomson considered it a good one, but General Walker on receiving it wrote a remark on it stating that he considered the undersigned suggestions gratuitous, such was the encouragement which the undersigned received from his hands quite unlike the conduct of the late General Ort who very kindly entered into and promoted any scheme of usefulness emanating from his subordinates one instance of this kind may be quoted in his having recommended and circulated to the district Engineers a Design from the undersigned and which is put up in the Portfolio which will clearly show the different spirit which actuated him but the undersigned not discouraged by the failure of a single effort, prepared also a design for the Proposed Harbour for Madras and together with Specifications submitted it to General Walker praying him to forward for the consideration of Government together with others which had been sent in but it was forthwith returned with a curt remark that he failed to see any merit in it and declined to do so, the undersigned observing the serious defects in the plan proposed by

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by Mr Parkes, the Engineer Publisher the very plan which he had offered to Genl Walker slightly modified together with a Pamphlet, to the Public appearance of which he was denounced by General Walker, and a verbal message conveyed by Mr Parsons the acting Chief Assistant intimated to him that General Walker would have personally nothing further to do with the undersigned and that all communications were to be made through the acting Chief Assistant and ever since the common civility is unacknowledged and treated with contempt, these particulars are given to show the extent of the animus against the undersigned which was a matter of extreme grief to him to think that he had offended to such an extent, Orders both derogatory to the position of the undersigned and subversive in its tendency to the strict discipline which should be maintained in the department over which he had charge were issued and were not for the personal attachment of the members of the department to the undersigned there is not the slightest reason to doubt that much mischief and disorder would have been occasioned thereby.—

The details of the working of the Lithographic Department with respect to the disruption of the materials and vehicles was with reference to one important point interfered with by Major Scott although the System

system there in use produced very satisfactory results but the use of a certain material was insisted on by that Officer, although the undersigned had explained to him that years ago he had tried the experiment and found it very uncertain and defective. The undersigned had to obey orders and the consequence was that a large work which had thus been prepared, produced bad impressions, upon which the system was changed and that hitherto adopted one resumed.

But what was the surprise of the undersigned to find that a sudden visit to the department from Major Scott on which occasion he looked at a proof of a Chromo and found fault with the position of the colors that had been printed, the question how been taken to ascertain the true points of registration of the various intended colors to produce the drawing, and was not a fair copy the undersigned had explained the matter so he had thought satisfactorily but to his surprise a memorandum was recorded against him in which it was stated that "The undersigned "R.W.D. R.E. (Major Scott) has had occasion to remark "more than once on the very inferior impression of "Lithography which has been turned out by the Litho Department under Mr Harding's superintendence."

The undersigned was truly hurt at finding such document recorded against him and which might be brought against him hereafter and perhaps ultimately injured, with regard even such to his prospects of pension for papers bearing reference to the services and character of Government servants is recorded for or against them and when the purpose to retire from the service such papers are referred to and materially influence the officer then in charge of the Department, and on such documents decide for or against the individual. Being fully aware of this and seeing how matters were converging into a definite form, the undersigned at once had a fair copy of that particular Chromo which Major Scott took objection to and submitted it to Colonel O'Connel Quarter Master General for whose depart the work was intended who expressed much pleasure at the way in which the work was executed and. he said that he had no idea that such a specimen of Chromo Lithography could be turned out in this country and noted his unqualified approval on the plan, thus armed with the approval of the very officer for whose the work was intended I submitted it to Major Scott with a memo earnestly soliciting him to withdraw his animadverting memo but he declined to do so.

The particular plan above refered to was one of a series of plans of Cantonments which were sent in by the Quarter Master General's department to be Lithographed and were according to the system then prevailing, devided between the Government Litho Graphic Department and the Revenue Survey

Survey office, and the work of both, in this particular
have to be compared, especially with reference to
the order already alluded to, in effect that a comparison
as to the quality &c. of lithographic work turned out
in both Departments was to be instituted, but an
important point was omitted in the style of work
in which the plans were ordered to be done,
viz. Chromo lithographed or printed in colors,
in order to prevent errors and omissions which in
Common uncolored plans by hand is resorted to, the
cause for such an ommission by the Revenue Survey office
is obvious; to produce a good Chromo requires Artistic skill and a personal
knowledge of effects of combination of colors, as illus-
trated in the Chromos of this kind which
is put up in the accompanying Portfolio Probably the
talent for printing nothing beyond flat tints of
colors as to be found in the Lithographic Dept
of the Revenue Survey office

As the Superintendent of the Lithographic
Department naturally the undersigned expected that he would, at
least to a certain extent, be informed as to the
impending fate of the department, but up to
this date although orders have been passed
no intimation has been received by the
undersigned, all the proceedings have been
kept a mystery and it was only on the
hearing vague rumours of the intended abolition
of the Lithographic Department that the
undersigned a few days ago, enquired of

Major Scott and only
Major Scott on whom the announcement of the fact was
made, to the effect that the work was to be transferred
to the Revenue Survey Office but as yet no
minor arrangements were made regarding
the matter of the disposal of the hands, which,
the Under Secretary intimated, would rest
entirely in the hands of Major Sergeant,
who was to take or reject whomever he
pleased, and it has been otherwise ascer-
tained that he intended taking two one or
two hands at work. Such is the termination
of a long standing Department, and the
cruel treatment, which long experienced
and skilled hands are about to receive,
after long and faithful services, many
other hardships, not entered here, which the
undersigned and his department had to undergo,
although great in themselves, sink into insignificance
when it is compared with what is to happen when the
very bread is to be taken out of our mouths and for no
fault of ours. In the interest of common humanity
the undersigned feels it incumbent on him to represent
the matter as far as he has been able in the short space
of time which will elapse between the time the
undersigned received authoratative information
on the subject and the impending final settlement
of the matter will allow, he therefore arrived
at

at the determination to lay the whole case before His Grace the Duke of Buckingham and Chandos (trusting as there is but little or no time to lose, and throw himself on his mercy and solicit his protection, for that it is the only way at present left open to him for redress.-

Copied by W.S. Baldrey

15th Dec. 1876

(True copy)

W.S. Baldrey

Abstract Showing
Value of work performed by the Lithographic Deptt under the following heads for the Calander year 1875.

	Total in each head			Total	Grand Total	Total number of lithographed Copies and M.S. work turned out during the year 1875.
Imperial Building						
Plans	5606	12	-			
Diagrams	268	-	6			
Cheques	593	12	-			
Manuscript Dep^t	25	-	-	7393	8 6	
Provincial Govt						
Plans	10899	11	3			
Maps	2188	4	8			
Diagrs	152	13	-			
Cheques	1502	-	-			
Manuscript Dep^t	411	-	6	15153	13 5	
Irrigation						
Plans	286	2	9			
Diagrams	36	6	6			
Manuscript Dep^t	2723	13	5	3048	6 6	
Miscellaneous						
Lables	112	8	-			
Diagrams Reports & Manl	631	6	6			
Manuscript Drawings	533	-	-			
Mooches Deptt:	242	8	-	519	5 6	
Total value of work performed by the Litho: Deptt for the Calendar year 1875					27113	3 1
Total cost of Litho: Deptt for the Calendar year 1875					11210	9 7
Balance in favor of Govt Litho: Deptt					15210	9 6

Plans 50,999 Copies
Maps 695 "
Diagrams 20,562 "
Cheques 57,700 Copies (Books 2895)
Labels 22,500 -
M.S. Drawings 147 Copies

Govt: Litho: Deptt
Fort St: George
12th February 1876

(True Copy)
W.S. Baldrey

(Sigd) R. J. Baldrey
Supt: & Manager
Govt Litho Deptt

P.W.D. organisation

In order to ~~[illegible]~~
~~the Superintending~~
Engineer fully realise
the powers of the Superintending
and generally to obtain increased efficiency
the Government have
agreed to separate
the offices of Secretary
and Chief Engineer
the 6 divisions the
Number of Ranges and
to increase the number
of Supervising Officers

It is proposed to
reduce the ranges by
35 distributing into 7
circles of Supervision

To effect these changes
the same staff as
available as now -
all that is needed

being to supervision
the duties of some of
the higher officers -

To extend the duties
of Officers of the
District Engineers who
may be selected for
the supervision of
2 or 3 ~~districts~~ districts
combined - and to
delegate to Assistant Engineer
duties those Officers
who may not be
required to take charge
of districts

Write report to the
Establishment - recommend for
the Engineer decisions
Board on
charge of the consolidated
Corps on disputes the
C. Engineer Year submitting
a Scheme - distributing the
Corps into 3 classes
establishment
& giving ~~Cost~~ Cost

No.

The Examining Journeys and
that each of these classes
is in excess of West Point
Recruiting in Bombay
Bengal & suggests a
Scheme - of the Officers Establishment
& a compromise between
the schemes of the C. E. and
that in force elsewhere -

and with regard to

account search. Does
primary purpose
this arrangement on the
assumption that it is
desirable that the Jury
accountants in Madras
Presidency should
be appointed later
to allowances under
the Jurors Act
of the Jurors of Indian

It appears to me that
this idea of uniformity
may be carried too far.
That in ordinary cases
of Jury trial in Civil
Courts the lawyers
in Madras Presidency
Town and the Port Assistant
Should
have the advantage
in their duties if Jury"

for Madras a special Officer
clerk or person of Accounts
to keep accounts & search under
High Court of the working of
the Jury Clauses

It is true that the Code
prescribes that cases shall
4th grade and to be transferred
but I do not see in that
indemnities
juries away or litigation over
Madras the Jury extra jury
this purpose you can I suppose
Such was even the intention
or the Examiner
with
to search in connection
with the Establishment
to search that Accounts
or any the Presidency
Bombay can
Courts
Jurors a charge.
a certain Staff
Dr with a certain Staff
it follows as a matter of
that a Director Staff
perhaps be required
with sufficient
Madras Presidency
by the
the Mofussil
Mofussil

Duties of some of the higher Offices —

To extend the duties of Collectors of Districts

2 & 3 Collectors of Districts

Collectors & Magistrates

Collectors & Magistrates

Duties of Collectors & Magistrates

Collectors & Magistrates

Duties of Collectors & Magistrates

Duties of Collectors & Magistrates

Duties of

account branch. Does
his arrangement on the
assumption that it is
desirable that ~~the Secretary~~
accountants in Madras
Presidency and
should be appointed to
~~the Secretary's~~ allowances under
other his
other parts of India

It appears to me that
this idea of uniformity
may be carried too far
that ~~there is no reason~~
why ordinary salts
of Jersey & living should
not be lower
in Madras than
~~the Secretariat~~ the
Secretariat should
~~receive~~ have the advantage
in their scale of pay"

It is true that the Code
prescribes that all
said to be translated
4th grade are
but I do not see in that
indemnities of litigation or
pensions any
Madras to pay extra pay
this purpose can I suppose
Such cases were the exception
~~the Examiner~~ [illegible]
for again in connection
with ~~the~~ [illegible]
do I think that Accountant
or any other President
Presidency can ~~accompanied~~
~~by~~ a cargo.
~~Secretary~~ ~~Secretary~~
a certain ~~staff~~ scale for
an ~~Accountant~~ with a certain staff
it follows as a matter of
~~course~~ that a Secretariat staff
perhaps be required
with ~~a~~ [illegible] a cargo
~~spending~~ [illegible]
in the Madras Presidency
for any of the ~~Boards~~
the Members of the Board
their position
~~Secretary~~ ~~Secretary~~
the Secretary of

for Madras a special office
clerk or purpose of frequently
to keep down a scale entirely
Higher because of the additional
of the rate of pay allowance

Communication — The number of departments to be communicated with on all matters of account in determining the sufficiency or insufficiency of an establishment

---

~~I am of opinion that the following general principle should govern the determination of the sufficiency or insufficiency of an establishment~~

~~That the Treasury~~

~~Keeping in mind the following general principle~~

That the total amount of expenditure in the Treasury will not be increased — Therefore the Staff of departments must be in advance —

That 35 distinct offices being abolished — there will be 35 less accounts to be examined in the account branch —

Sir Stamford Northcote's Report

The saving of pay & allowances in any department should in all probability be used for the benefit of that department — and to raise the salaries & emoluments in other branches —

In considering the scheme for office establishment proposed I would keep in mind —

35 less managing or the clerks required

That there will be 35 fewer correspondents to be communicated with by strangers or by letter with each office — or

~~That there will be 35 fewer letters to write~~

35 sets of books to abolish

There will be less clerkage —

~~That the saving in these a large item would be~~

Unless ~~it~~ a greater number is employed in examining the accounts of the State Offices — the saving supposed for the latter agency can discharge it

~~in future~~ —

In the scheme for consolidation I find 7 ranges are contemplated — ~~and I think~~ ~~it very highly~~ would [illegible]

~~Land Capacity~~

1 Bangalore
2 Salem
3 Presidency
4 Vizagapatam
5 Nilgherries
6 Madura
7 Dindigul

~~Of the establishment of Sheriffs Peons in the Mofussil is recommended~~

~~Which 2.~~

~~Mofussil Peons~~

Peons under the Sheriffs are only slightly changed by allowing 1 Talook to the first — 2 Talooks to the second — so that many little additions will be known on Item 2 —

I find Economy in the Scheme proposed that the Expences of Item 7. Jointly Planned - unchanged —

Peons now in Service
Jaum Rs. 1650
to Rs 1421
Excess 271 x 12 = 3252

which the 2 talla peons will be increased from

Rs. 197
to Rs. 432
Excess 235 x 12 = 2820
Rs 6072

I find no necessity for this increase

Existing Establishment in the arrangement for the amalgamated Peons

I find 2 J. proposed 2.

Bellore also 2 peons = 256 x 2 = 512
Ste 2. 2 Chaps 111
about. Cuddapah
N. Bellore 86
S. Bellore 111
C. Bellore 86
Rs 394
11-8

= Rs. 1416 annually

Difference = being an excess of proposed peons

Get. the work of the 2 inundated Ranges cannot be more than that now done in the 4 Ranges —

The books to be kept as they are.

The correspondence less

Only 2 Office Guards & 4 clerks needed instead of 4 & 6.

Only 2 officers to travel Sleeper fewer Lascars

Cuddapah

This consolidated Range Cost Rs 250.

will include the 2 Cuddapah. III
Tirupati. 86

197
59

= Rs 708 annually

if it is proposed to have a staff of 6 clerks & 6 Lascars. apptt. 6. & 6.

Does not follow the necessity

~~Rain made the~~ necessity of Stock except ~~in this latter case~~. The In the latter case

IV

books to be kept as in Salem in December —

Only one officer to carry the copied sirkar of two —

only one set of returns to be filled up instead of two —

Got a clerk is added to Range

I think there must have been some error in working out the new establishment — that possibly some of the Range appointments may have accidentally fallen in this item —

The basis on which the establishment should be worked out to be — in the case of the Coast Range according to the letter & not — the number of letters

in the second book of
The number of Journeys
returns & the folios of
letters — in them —
average
The number of words
depend. estimate —
in hand for measurement
Questions to be
The number of dep.ts
correspond with
ranges
In consolidation of
of these can be lessened.
by Consolidating 2 of these
into one —
The average number of letters
will must be increased — on
slight diminution of error
because there will be only one
Office establishment to compared
about —
The number of books the
kept up will be ~~the same~~ more
although the entries will not
be reckoned in proportion

The number of returns to
be compared with
will be reduced — but
the entries in the remain

reduced so much

The average number of
words for measurement
calculation of
will be the same

The number of dependants
to correspond with the same.

~~Is the Auditor to be~~
~~is the~~

~~I suppose that the~~
~~Commissioners~~
that the work of each range can
be accurately
& examination on the spot —
~~that~~
I would therefore suggest that
the establishment for the new ranges
should be found as upon the office
on the basis that
when no change is made
in the ranges no increase
take place in the number
of clerks —
That when 2 ranges are
Amalgamated into one
the same establishment was

A

$\frac{1}{7}$ D 30 = 210×12 = 2520

1.22-402
2 520
120.242

2520

36 D 7 = 252/12
7024

35
40
1400/12
17.500

1.22.402
83,268
2.06.070
1,58,334
47.736

a consolidation in accordance with the foregoing suggestions would give a cost of the as nearly as possible

Present amounts 1/s. 1.22.402

which with Sep
Engineer establishment = 35.532
1,58,334

or a saving of say Rs 47.736

on the assumption that the Assistant Engineer — Upper Subordinate establishments do not require increase —

Division

1st Class ~~District Office~~

8.
1. Eastfederweg — H. Clerk — 4 70
2. West — Assistants — 50
3. Chiefsplant — " — 40
4. Tangoire — Writers — 40
5. Nagapatam — " — 30
6. Kellary — " — 25
7. East Kistna — " — 20
8. West do — Peons — 10
Flasks — 36
366
8
2928

Division

2nd Class ~~District Office~~

10
1. Sangoire — H. Clerk — 60
2. Vizagapatam — Assistants — ~~50~~ 45
3. North Arcot — " — ~~50~~ 40
4. Salem — Writers — 30
5. Kurnool — " — 25
6. ~~Cuddapah~~ Special — " — 20
7. Trichinopoly — Peons — 15
8. Calicut — 5 Lascars — 36
9. Canara — 256
10. South Kanara — 10
2560

3rd Class District Office

14
1. Madanapilly — H. Clerk — 50
2. Ramnad — Assistants — 40
3. Salem — " — 30
4. Tripatur — Writers — 25
5. Vellore — " — 20
6. Chittoor — " — 15
7. Tinnevelly — Peons — 15
8. Cuddalore — 5 Lascars — 36
9. Trichy — 216
10. Coimbatore — 4
11. Palghaut — 864
12. Madura — 216
13. Dindigul — 3024
14. North Tinnevelly

Special 3
35

8, 1st Class Divisional Offices £2488.
10. 2d — — — — — 2560.
14. 3d — — — — — 3024.
3. Special (as at present) 745.
35 8817/12
105,804

43 Asst Engrs at 70 {30/12/28/70} = 3010/12 36,120

56 Upper Subordinates (as Asst Engrs at Head Offices) at £46 {25/21/46} = 2576/12 30,960/12

1,172,2[illegible]/12

Upper Sch. B

Asst Engrs as proposed = 423. 2961/12 35532

Sub Engrs as proposed

Manager	100
Hd Clerk	80
Draftsmen	60
do	45
Record keeper	40
Writers	30
do	25
Peons from 5 Lascars	43
	423

Present cost of District, Manager &c. Establishment estimated at £ 196,460

Succ 11908

Public Works Department.

Papers regarding the Reorganization

After going over these papers again I adhere to the view that 5 circles are sufficient — Having regard to facilities of travelling &c —

I do not think under this arrangement that an Officer of the Rank of Sup Eng. is needed as an Undersec — but that an Officer of Immediate Lower Rank might be usefully so employed —

26 Feb/78 will probably be overtaken with Sch collectorate — with Trichinopoly Tanjore & Madura

8, 1st Class Divisional Offices £2488.
10. 2d — — — — — 2560.
14. 3d — — — — — 3024.
3. Special (as at present) 745.
35. 8817

PUBLIC WORKS DEPARTMENT.

Papers regarding the Reorganization ment.

~~1887~~ 1887

Dummy Sheet

1 Title of Correspondence marked A
1. Copy of Public Works Budget containing Establishments marked B
4 Statements marked C.D.E.F.

E A Ford C&R
Secy to Post Mrd

I have read these Papers again — it is desirable that the limits of circles - 5th Division as far as may be with Revenue Divisions — This second Board I see can join them at Myde — as Myde will probably be correlated with Postal Collectorates - with Lucknow Shahjahanpur

26 Feb/88

+2 Victoria Galleys attached - Here is the only point I think where adjustment is needed - I presume that where new ships would fall into the 2d circle -

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As regards the officers for changes - it will require much care I consider that the period of selection must be largely used - & that the Junction of Sup Engineer must be found by merit - rather than by seniority - - I think it would be advantageous to the Public int - if the Junction was for a period fixed

Just leaving power of continuing for a new period of seniority of first appointment - that such appointment should be vacated by Furlough - I look upon these ports as the command of an ship - always needing the Captains presence -

In no other way can I discover how the service can be protected from the continuance in such positions of men who from habits temper become unsuited to the Junction but yet avoid such a manifest grace errors as to justify their removal

The scheme of Superintendence also outlined I should

Simplify Instructions
Upon the Office work
of the C. E. & give
Plain Plans mean time
for Inspection Stamps
the Office Instructions works
and also Simplify the
Account Books —
Which Account depends on
the Green - and corresponds
on the Pounds use with
Clerk of Works in the
Districts of D. E.s
State the qualifications
of his qualifications of
Plain Offices —

Plan Art 3/4

Cir 20-7-78.
O.L. Sheet 25 July
Cir 26-2-78 R 2-4 recir 2.4.

FOR ORDERS.

Received from the Govt
the Governor 2 - 3 - 78

Recirculated with
Statement Showing
Exists and figures
of the Circles
into five
of Superintendence.

2.4.78

P.W. Dept.

Papers Regarding the Reorganization of the Public Works Department including Note by the Hon: W. Hudleston dated 8th May 1878 and Minute by Sir William Robinson, K.C.S.I. dated 17th July 1878.

Recirculated
to His Grace the
Governor.

Edmd Walker
Secretary to Govt
P.W. Dept.

20th July 78.

P.W. Rec. 18 Ref. 3/78 No. 3174 W.

General Statement of
Expenditure on Works and
Establishment in each
Division during the three
years ending 1874-75

P.W. Rec. 18 Ref. 3/78 No. 3174 W.

General Statement of Expenditure on Works and Establishment in each Division during the three years ending 1874-75

Division	Expenditure on Works					Expenditure on Establishment									
	1872-73	1873-74	1874-75	Total	Average	1872-73		1873-74		1874-75		Total		Average	
						Amount	Per cutage	Amount	Per cutage	Amount	Per cutage	Amount	Per cutage	Amount	Per cutage
Bangalore	111263	145071	150246	406782	145594	22503	189	31932	220	29571	176	83006	198	28335	198
Direction	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Bellari	85280	148996	145734	379950	129993	26131	306	13030	121	19177	123	64338	162	21446	162
Guti	90683	88192	100070	278945	92982	24329	268	23778	270	23356	234	71463	256	23822	256
Hospetta	20119	26293	32003	78415	26138	7346	365	15091	392	14034	305	66611	343	18537	342
Madanapali	37785	78774	92474	209033	69677	21369	565	20314	264	15119	163	57302	274	19101	274
Sidout	48912	41003	63357	153272	51091	11544	236	12404	303	25331	399	49279	321	16428	321
Total Cudapa (excluding distinct direction)	142346	174403	265007	581756	193918	53904	275	47892	275	55247	219	160043	275	53348	275
Direction	"	"	"	"	"	4646	"	15501	"	24326	"	44473	"	14824	"
Chenglepat	86756	153642	114308	354706	118235	26059	300	23826	155	25414	232	75299	212	25099	212
East Coast Canal	102623	"	"	102623	102623	24649	241	"	"	"	"	24649	241	24649	241
Mount	182431	312111	167718	662257	221419	23630	210	27482	88	28822	169	79934	120	26645	120
Sirculeir	79489	157535	69582	306606	102202	15977	207	18471	117	20449	294	54897	179	18299	179
Total Chenglepat (excluding distinct direction)	451279	623288	353605	1428192	376064	57318	193	69779	171	74685	211	231779	162	77260	162
Direction	"	"	"	"	"	6711	"	27280	"	27354	"	61348	"	20449	"

Caligal	23,245	30139	30,580	84,264	28085	5483	236	6230	207	6745	212	18,453	214	4453	214	
Karur	54,846	56017	73,904	184,767	64,559	8766	160	9172	164	11012	138	27,930	142	9,547	152	
Coimbatur	99,925	130,550	76,647	307,132	102,377	18769	184	17,559	158	22,626	295	58,954	192	17,651	192	
Irrigation	94,610	98,422	70,356	263,418	87,806	16079	170	11,594	118	11,307	167	38,980	148	12,993	148	
Total Cauvery excluding Godavari district direction	272,636	315125	251,517	839,551	279860	49092	18.0	44,355	14.1	53,590	20.1	144,142	17.2	45,112	17.2	
Direction	"	"	"	"	"	26944	"	28254	"	30980	"	83178	"	27726	"	
Barampur	118,481	84,601	106,930	310012	103337	26104	220	24185	256	19481	180	67,253	217	22,418	217	
Chikkakal	37,318	57,321	65,897	155536	51,845	10043	266	13,474	258	12,898	177	36,415	234	12,138	234	
Total Ganjam excluding Godavari district direction	155799	136922	172827	465548	155182	36147	232	35142	25.7	32,379	18.7	103568	22.2	34,556	22.2	
Direction	"	"	"	"	"	4719	"	15499	"	16213	"	36426	"	12142	"	
Central Delta	52,846	85,572	83,524	221942	73,981	18,302	259	16,349	191	17,530	234	51481	231	17,160	231	
Pavlaishwaram	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	
Eastern Delta	257,601	226,070	276,346	760017	253,339	54177	210	59,385	263	64,886	235	175421	234	59,807	234	
Ellur	53469	103,995	80,808	237372	79,124	19,250	360	13,261	129	18,620	230	51131	215	18,044	215	
Rajamahundri	114,142	164,170	88,979	364291	121,430	13183	115	15032	93	12,055	136	40,300	114	18,433	114	
Western Delta	186362	236,856	250,313	673531	224,510	40771	218	50,565	191	53,591	214	144927	215	48,309	215	
Total Godavari excluding district direction	664420	812763	779970	2257153	752354	142653	215	154895	190	168662	216	465960	206	155320	206	
Direction	"	"	"	"	"	31710	"	31424	"	25110	"	88244	"	29,415	"	

Kamlam	23,713	31,517	37,539	92,769	31,923	7,876	382	19,520	305	11,362	305	29,783	311	7,919	311
Kamil	41,226	43,742	52,820	137,757	45,929	15,883	488	18,937	433	15,216	295	53,038	354	17,679	354
Nandiál	65,231	61,028	57,705	183,967	61,322	10,542	166	13,498	221	12,586	218	36,926	201	12,309	201
Total Kamil Excluding district direction	130,169	139,287	148,067	417,823	139,174	37,603	289	42,953	305	39,164	265	119,722	256	39,907	256
Direction	"	"	"	"	"	3573	"	16687	"	14672	"	34902	"	11634	"
Bapatla	"	45489	51,150	96,639	48,820	"	"	11,396	267	13,168	353	39,061	311	10,020	311
Bezwáda	"	163,132	153,902	322,034	161,017	"	"	13,832	82	14,298	158	38,130	118	19,065	118
Eastern Delta	195,754	"	"	195,754	195,754	52,142	262	"	"	"	"	52,142	262	52,142	262
Guntúr	"	82,486	68,994	151,480	75,740	"	"	6058	73	9014	181	15,072	99	7536	99
Masúlipatam	"	135,296	87,139	222,436	111,218	"	"	35,251	283	29,149	338	64,400	308	32,200	308
Nandigáma	43,628	37,837	37,942	119,407	39,801	7,536	174	5,274	219	10,359	273	23,169	219	7,723	219
Palnád	32,128	37,759	27,824	97,711	32,570	10,293	320	9,724	258	9,250	330	29,297	299	9,766	299
Ripali	"	100,678	114,951	214,729	107,364	"	"	27,249	271	20,985	183	48,234	224	24,117	224
Western Delta	143,673	"	"	143,673	143,673	50,593	352	"	"	"	"	50,593	352	50,593	352
Total Kistna Excluding district direction	418,180	607,677	541,002	1566,859	522,286	120,614	285	115,284	190	126,591	225	357,489	222	119,163	222
Direction	"	"	"	"	"	24,712	"	20,771	"	23,104	"	68,588	"	22,929	"
Cumbigal	175,314	172,236	128,247	426,797	142,266	27,471	211	28,960	161	27,473	214	83,904	196	27,968	196
Madura	176,760	236,358	209,697	622,815	207,605	24,965	141	25,627	108	21,729	104	72,321	116	24,107	116
Total Madura Excluding district direction	302,074	409,589	337,944	1049,607	349,869	52,436	174	54,587	133	49,202	143	156,225	143	52,075	143
Direction	"	"	"	"	"	31,108	"	26,377	"	30,912	"	88,398	"	29,466	"

Calicut	111,619	82,531	95,680	289830	96,610	14,700	13·2	8707	11·8	9,588	9·8	32,767	14·8	14,922	8·1
Cannanur	93,508	116,537	124,226	334268	110,423	18,614	19·9	26,120	23·4	17,534	14·7	62,570	18·9	20,557	18·9
Cochin	51,982	62,575	16,254	130,811	43,604	5158	11·8	8333	13·8	10,716	8·29	24,238	18·5	3878	18·5
Kurumbanadu	34878	33,453	31,521	99,852	33,284	11942	34·2	12,774	38·2	16,231	8·7	44067	11·2	13657	41·2
Palghat	82,735	62,846	52,495	168076	56,025	14744	26·1	10,930	17·4	12,624	2·50	27,295	22·2	12,433	22·2
Yernadu	71147	77,576	113,965	262687	87,562	2240	25·9	7853	9·8	28172	24·7	64,166	22·4	21369	24·4
Total Malabar Collecting district direction	415,866	435,517	432,141	1282524	427,508	92,598	22·3	74,493	17·1	94,835	21·7	296,204	20·4	87,265	20·4
Direction	"	"	"	"	"	4,683	"	3,706	"	18,452	"	59,803	"	17,934	"
Central	77,516	86,451	70,710	234677	78,226	12282	15·8	13948	18·1	16267	23·0	42497	17·6	14416	17·6
East Coast Canal	"	122,979	148,961	264937	88313	"	"	2011	6·5	18,460	13·1	26,471	9·9	12,226	9·9
Northern	61,529	77,271	75,976	214776	71,625	16519	23·2	12954	18·1	14339	13·8	43842	20·4	14,614	20·4
Southern	146,011	118,164	166,783	422958	140,986	30191	21·4	23236	21·1	16,805	10·1	71,232	16·8	23744	16·8
Total Nellur Collecting district direction	285,056	397,964	454,430	1137450	379,150	58,992	20·6	53,179	14·9	68871	14·5	184,242	16·2	61,347	16·2
Direction	"	"	"	"	"	4,568	"	17,258	"	16,722	"	38,545	"	12,548	"
Nelgiri	114,280	137,363	131,911	383549	127,936	26,360	20·6	13,238	9·6	11478	8·6	58171	13·3	17,024	13·3
Direction	"	"	"	"	"	"	"	13,201	"	13,675	"	26,952	"	13,491	"
Chittur	75,739	93,736	103,617	273092	91,031	12,375	13·3	13076	13·9	12957	12·4	55,402	14·1	12,301	14·1
Polur	74,263	108,088	111,756	294,119	98,706	18958	25·4	17,864	16·5	18,683	16·7	55,583	19·5	12501	19·5
Velur	93,350	86,638	76,754	256,792	88,931	15,845	17·0	15,270	17·7	16,105	21·0	47,320	17·7	15,773	17·7

Ceja	77,181	117911	137,720	332,812	110,937	16,979	220	19,681	16.7	31,593	15.7	58,233	17.5	19,415	17.5
Total North Arcot (excluding district direction)	320,633	416,335	429,347	1,156,315	385,605	64,155	20.0	65,991	16.2	69,324.1	19.4.8	19.3	66,493	17.3	
Direction	"	"	"	"	"	1070	"	18091	"	18901	"	34062	"	11364	"
Architect	"	98,793	68,011	166,804	52,402	"	"	13947	17.2	19,150	25.2	35127	22.3	19,064	20.7
Unres	"	"	"	"	"	14644	"	13635	"	10557	"	29166	"	12055	"
Presidency	314141	268110	305829	888080	296027	52934	26.4	26154	9.8	44769	14.6	133857	15.1	44619	15.1
Total Presidency (excluding district direction)	314,141	366,903	373,840	1,054,884	351,628	97,678	21.1	55,736	16.1	74,836	20.0	23,150	21.9	77,050	21.9
Direction	"	"	"	"	"	27356	"	84660	"	17932	"	139948	"	46649	"
Salem	106557	92736	74571	274864	91,621	26,732	25.1	16933	18.1	23905	34.7	69,620	25.3	23,207	25.3
Tirupatur	8152	13,866	30,412	52,430	17,477	7314	39.7	6315	49.1	6949	22.5	20977	40.1	6992	40.0
Vessir	56,512	45,002	51895	153,409	51136	16447	29.1	11943	26.5	12,690	24.5	41,080	26.7	13,693	26.7
Total Salem (excluding district direction)	171,221	152,604	156,878	480,703	160234	50543	29.5	35691	23.3	45443	29.0	131677	27.4	43892	27.4
Direction	"	"	"	"	"	4396	"	18123	"	19351	"	42,372	"	14.124	"
Cudalur	135,663	144,089	167,231	430985	143,662	19760	14.6	19104	13.3	24011	15.8	62876	14.6	20959	14.6
Tindivanam	90,149	111357	74,362	276868	91,956	14620	16.2	15142	13.6	16648	22.4	46407	16.3	15469	16.8
Vrudáchalam	193276	188,640	212051	593967	197989	26337	13.6	19836	10.5	23730	11.2	69903	11.8	23,301	11.8
Total South Arcot (excluding district direction)	419090	444186	437644	1300820	433,607	60717	14.5	54,082	12.2	64387	14.7	179186	13.8	59729	13.8
Direction	"	"	"	"	"	27896	"	14382	"	15677	"	57955	"	19318	"

| | | |

Grand Total ——— 61,689,294 [illegible] 2,135,640 3,102,546 [illegible] 46,902 158 42,952 12 2,380,120 165 46,092 158

Total Valuation } 2,192,15 1,685,53 352,973 935,844 [illegible] 4,952 20 [illegible] 46,902 158 42,952 12 2,380,120 165 46,092 158
Assessed Valuation }

Limitation ——— " " " " " " 2005 · 1894 · 1384 · 3264 · 1789 ·

Total Valuation } —1924,32 353,73 397,97 1030,970 345,36 894,01 20·1 781,04 21·1 192,52 19,9 244,75 28,4 80,25 23,4
Assessed Valuation }

Depreciation ——— " " " " " " 3058 · 1,051 · 237,99 · 769,28 · 256,09 ·

Valuation ——— 256,09 1,916,76 814,47 783,50 809,91 817 1477 26,9 1,051 165 52,460 048 1,891,048

Grand Total ——— " " " " " " 1,772,7 · 1,26,854 · 1,685,5 · 2,315,76 · 1,03,859 ·

Grand Total and Assessed Valuation 1,685,53 1,35,973 1,102,546 [illegible] 46 [illegible] 1,380,120 165 46,092 158 1,772,791 28·1

Examined [illegible] 1870.

Memorandum

The undersigned respectfully submits the following particulars regarding certain strictures recently recorded against the undersigned by the Under Secretary, with reference to the condition of certain plans lodged in the store of the Govt Litho. Press notwithstanding the fullest explanations which have been given by the undersigned both verbally and in writing to the Under Secretary, with a view to have the censures expunged, but which the Under Secretary declines to do, so that the undersigned is forced to appeal to the Secretary as he fears that should the censures be allowed to remain without a recorded appeal, they would be brought against the undersigned, should the intended arrangements with regard to the Litho. Departt. now in contemplation be carried out, to the great injury of the undersigned and the blasting of his prospects. The undersigned fearing this from the severity with which he is treated, earnestly appeals to the Secretary for protection. It is with exceeding regret that the undersigned observes that the whole blame of the disorder which the above mentioned plans have been thrown into is attributed to the undersigned.

The undersigned will proceed to show that he is not at all responsible for the condition in which the plans are now found, and further, strictly speaking, the plans adverted to, have no connection with, and do not form a portion of the stores which legitimately belong to the Govt. Litho. Departt.

A portion of the above mentioned plans belong to the late Central office, and on the reorganization of the P. W. D. in 1863, when the Central Office was abolished, the whole of the records including a large number of plans were sent to the

the office of the Superintending Engineer 4th Division for custody in four months after their transfer to his office the Supy: Engr reported that for want of establishment to take charge of the plans they were being destroyed and stolen on account of the cloth on which they were mounted and the tracing cloth on which they were drawn, he requested the Secretary's (Col. Bridwood) permission to have the plans made over to the Litho: Deptt (which was then located at Lokepunch) with a view to have them arranged & numbered according to the Districts, to which they appertained; and despatched to the respective Supy: Engrs.

This was accordingly ordered, and the plans were forwarded to the Litho: Deptt in the utmost disorder and confusion, on the representation of Mr Dunphy, then Supt Litho: Deptt a special establishment was temporarily entertained to assort the plans and prepare distinct lists for the sets of plans of each district and make in due course despatched.

The residual plans are those now lodged in the store and were evidently considered by the officer then charge as obsolete, and inconsequence useless and unnecessary to be forwarded to the Supy: Engrs; no attempt with regard to arrangement was ever made and they were simply allowed store room, as no order had been given to destroy them.

The above arrangements had been carried out previous to the assumption of charge by the undersigned who was informed on that occasion that the plans in question from no part of the Litho: Stores but that they should be allowed to remain with the stores of the Litho establishment, as had hither to been done, there being no other place to receive them.

Shortly after assuming charge the office of the Litho: Establishment was ordered to remove in to the Fort in the buildings which it at present occupies. No accommodation however was provided for the stores and records.

On the representation of this fact to the Secretary (Col. Orr) the undersigned was informed that he was to make the best arrangement he could with regard to them. The undersigned then arranged with the late Superintendent of the Gazette Press and was allowed temporary accommodation in the buildings allotted to that office but as no room could be found for all the Almirahs, the undersigned was then ordered to dislodge the whole of the obsolete plans and to send the Almirahs to the P. W. Stores and Workshops where they were subsequently sold by auction. The plans and stores were scattered over different parts of the Gazette office buildings, and their innocuous state will be better understood when it is represented that valuable stores had, for want of room to be piled in the open lean-to verandah abutting against the record department, near to, and on the North of the Litho: Office; exposed to the weather and the ravages of the white ant.

Several applications were made for Store room but without effect, and on a good opportunity presenting itself the undersigned drafted an application for a portion of the store late vacated by the clothing Board, this application was signed by the Secretary (General Walker) and forwarded to the Officer in charge of the Ordnance Departt, to whom the store was made over, he however declined to give up any portion of it. The letter with reply were then ordered to be lodged. The undersigned not feeling satisfied with the result of the application waited on Colt. Colbilders in charge of the Ordnance Department and after explaining matters begged of him to allow a portion of the large store room, to be appropriated for the accommodation of the Litho: Stores. The request of the undersigned was kindly granted, on the proviso that a partition wall be built to separate the portion required for the Litho: stores from that of the ordnance. The undersigned then applied to Colt. Goddard

Lt. Goddard who readily had the wall built up, and thus the present store room was secured. The stores were immediately shifted into it, and shortly after Major Montgomery was ordered by General Walker to take stock when fortunately all the articles were found correct. Enquiries were then made regarding the bundles of obsolete plans, and on an explanation being given no orders were issued or steps taken to dispose of the plans.

But it was necessary that there should have been a suitable establishment to keep the stores and the valuable records which had belonged to the late Surveyor Generals Department. (These were of great value to the Litho: Departt.) The Records in question were made over to the Litho: establishment on the (Amalgamation of the [illegible] with it this occurred shortly before the year 1855, when the Lithographic establishment (which was on a large scale) was still further augmented by the additional hands from the late Surveyor Generals office at an enhanced cost of about 500 Rs per mensem. On the reorganization in 1863 the services of these additional hands were dispensed with and the Lithographic Establishment was reduced to less than one half of its previous expenditure, and designed to meet only ordinary current work: thus the valuable records of the late Surveyor Generals Office was left without any establishment to look after them.

Applications for increase of establishment from time to time have been made by the undersigned but without the desired effect, it was alledged that it was not found expedient to forward the application to Government.

The Litho:

The Litho: Departt: in its crippled condition could not undertake more than its current duties, and the undersigned could not take upon himself the responsibility of employing the draughtsmen of the dept: to arrange &c., catalogue and register the enormous number of plans, Trigonometrical Surveys, Memoirs, files of papers, and other Manuscript records of the Surveyor Generals and Central offices; especially as they do not strictly belong to the department, and also for the reason that the Litho: Departt has not, since the reorganization, had a writer to keep the several Books in the department, not a peon, or even sweeper for many years, so that it was found necessary, in order to keep the office and store rooms clean, to pay a sweeper for upwards of three years out of our own private pockets. This single instance will serve to show, that it was not lack of will but means, to keep the records &c in proper order which is the more necessary at present, from the treatment they have received of late, and which will now be described.

The records although not arranged according to the order in which they should have been, were nevertheless kept tolerably well and preserved as far as they could possibly be, under the circumstances described; and it was not until lately when the late Surveyor General records were ordered to be transfered to the Revenue Survey office, that it was found, owing to the frequent shiftings from place to place that some of the Maps and papers of the Surveyor Generals records had become mixed with those of the late Central office, and were not to be found in the Almirahs which had hitherto contained them that search had to be made in the immense pile of irregular bundles of obsolete plans from the late Central office, this circumstance together with the several hurried searches which were ordered by General Walker to be made among the records and

Stores

stores for the missing plans of the junction Canal threw the whole of the stores in utter confusion, for parties were sent from the Secretariat on several occasions to rummage every roll and bundle for the missing plans, and any interference on the part of the undersigned to prevent the raid (for such it was) would have been deemed obstructive, and would undoubtedly have met (as in several instances it unfortunately did) with the severest displeasure and punishment.

The Under Secretary recently, considering that the arrangement of the stores and records is of the most urgent and paramount importance ordered Mr. Jackson on that duty, this was prosecuted by him (with the aid of three assistants) from about the middle of November last. Interruptions in carrying out the work frequently occurred, for the store keeper had to be granted leave on account of his wife's illness and subsequent death. The frequent illness of the men employed on that duty also somewhat impeded the work, and shortly after the Xmas vacation on resuming his duties Mr. Jackson was suddenly prostrated by a severe attack of illness and had to take a months privilege leave to recruit himself. The Under Secretary immediately on hearing of Mr. Jackson's illness and reading his report ordered additional hands to be employed on the work as it was evident from what had already been done that much time would be required to complete the undertaking if more hands were not engaged to do it; but what appears to the undersigned as somewhat inconsistent and severe, is, that although in the recorded opinion of the Under Secretary it is admitted that a good deal of work had been done during the six weeks (only four, if the Xmas vacation be deducted) the Memo concludes with censure and animadverting remarks

on the undersigned, coupled with a threat to report him to the Secretary if the work be not speedily completed as if the whole blame of the present condition of the stores was attributable to the undersigned and full explanations had not already been given. Subsequent memos. by the Under Secretary evince the same dissatisfaction with the progress although every exertion is being made to get on with the work as speedily as possible. No allowance appears to be made for the trouble that is experienced in collecting the different plans from the immense number which have been thrown into confusion, and when it is further considered, that by order of the Under Secretary the plans and Maps have to be classified, measured, numbered, labelled with the G.Os, date, titles, &c.; and further, that the ordinary scales have also to be reduced to fractional admeasurements, and the whole catalogued, first in rough, and then fair copied, and all this to be done without even the aid of a writer. It is therefore a matter of surprise that the work has progressed, as well as it has done, especially when it is considered, that for the most part the men engaged on the work are illiterate and without any experience of how the work they are expected to perform is to be done.

The so called record keeper can hardly get through his store accounts and the daily issue of stores, plans &c. that are continually required, besides having to furnish tracings on transfer paper of the work to be lithographed in the department. The difficult task therefore of keeping the necessary books &c. in a clear and intelligible form with regard to the records, in addition to his duties of transfer tracer, and store keeper cannot well be expected from him.

In the Under Secretary's last memo it is alledged and recorded that the store is still in great disorder and that plans were littering the

the floor; in explanation the undersigned has to state that the majority of the plans seen on the floor by the Under Secretary were there which were being assorted, and that for want of room on the table they were placed on the floor until such time as the number of each kind was completed when after being registered they would find their place in their respective shelves. Fault is now found with the mode in which the plans are placed in the almirahs; the lodgement of the sets of plans in rolls is objected to, it is proposed instead, that the plans be laid flat with card boards tabled, dividing each set. The Undersigned begs to submit that from his experience when Head Draughtsman in the late Central office where he had the custody and arrangement of thousands of plans, that he found the system of arranging the plans flat tended greatly to their destruction by cutting them over when required for reference, it frequently happened that the plans required was underneath, or in the centre of the pile, and plans which were not at the time required had to be shifted, and in doing so the corners soon became dog-eared, torn and crushed, and in cases of large plans which had to be folded, creased and much crumpled - whereas by rolling them neatly and tightly, and the rolls touching but at points, the friction is reduced to a minimum, and by slightly easing the uppermost rolls the roll required (being labelled) is drawn out with ease and without injury; this is exemplified in the case of the late Surveyor Generals records, where the Surveys were in some cases upwards of a century old, and by adopting this method kept in good preservation.

As the head of a department the undersigned looks to his superiors to strengthen his hands, and support him; this is

essential

essential. But it cannot be expected that discipline can be maintained, and that the subordinates in the department will respect the orders of the undersigned, when such severe strictures and threats are committed to writing, passed through both the works office and Litho. Departt. and finally recorded against the undersigned; when, a few words of explanation, if it had been called for, would have cleared and set matters to rights; and further, by inquiring from the subordinates of the undersigned, as to the attendance of the undersigned at the stores, and questioning the correctness of a statement made in the weekly report, as to the attendance on the last Saturday (a holiday) of the men detailed to do duty at the Store; the Under Secretary stating that he had seen but one, when two of the men positively assert that they were spoken to by the Under Secretary on that occasion and the rest were present, these matters may appear trivial but when it is considered that it has long been sought to attach blame to the undersigned during General Walkers time, with a view to injure the undersigned and his department, and the participation (I very much regret to state) of the Under Secretary himself in the matter, it becomes then a point too serious to be allowed to pass without remonstrance, especially as it yet appears to be the intention of the Under Secretary to carry out General Walkers determination with regard to the department.

The undersigned in a written explanation to the Under Secretary stated that the confusion of the plans and the difficulty of completing the entry of them in the Register in ink; - the number in each set was therefore of a necessity kept open in pencil, was also owing to a great number of plans which were sent down from time to time to the store in bundles, without lists, and in disorder; this fact Mr Parsons, when called upon, corroborated and stated that as

he

he had no establishment to catalogue or arrange them, they had to be sent down as found. The Under Secretary in reply to the undersigned states that he had made inquiries and found that the plans sent down from the Secretariat was inconsiderable in number, these plans have been received up to the 31st January last and it cannot be stated when the supply will cease, but the number of plans that have been selected and arranged from the state of confusion in which they were sent down were; up to that date, no fewer than Three thousand two hundred and thirty six (3236) standard plans besides other miscellaneous plans. If these plans, which form but a moiety of the work which the Litho. Departt has to get through, could not be undertaken by a large establishment of writers and record keepers, it is hard to expect a department without even a writer or peon, to carry out the large work already particularized. The plans sent down by the Secretariat, properly are the records of that department, and it is presumed, borne on their books; by transferring them to the Litho. Departt for custody. they virtually convert the Litho. Departt which has nothing whatever to do with them, into a record departt of the Secretariat. It would be equally reasonable if each department under Government were to return the plans, which have been from time to time lithographed for them, to the Litho. Departt for safe custody and that too without allowing a suitable establishment for the purpose. As for the plans which the Litho. departt is ordered to arrange, measure, Register &c, it is a well known fact that even previous to the reorganization when Sir Charles Trevelyan inspected the Central Office, that that Governor openly declared that valuable wood was wasted in the almirahs which contained what he considered useless rubbish. The undersigned has frequently urged that a competent officer be deputed to examine each plan in the store, condemn those that are useless, and register and preserve those which may prove otherwise, for it is very possible there are some of value to be found among them; The undersigned on several occasions personally essayed the task but the musty smell and the dust inhaled by him overpowered him, and on one occasion the undersigned was laid up with a severe illness which lasted several months, which was in itself hard enough to bear, but when by order of General Walker the privilege leave he had had and which had expired 20 days previous to, his obtaining sick leave was ordered to be commuted together with the intervening 20 days into sick leave, with loss of half salary, the undersigned has not in consequence since had the hardihood to make any further prolonged gratuitous researches amongst the old records. Mr. Jackson blames his present severe illness to his having day after day inhaled the impure atmosphere which emanates from the musty papers and it is at present of daily occurrence that one or other of the men engaged on the work is taken ill even whilst at work. These matters are entered in the progress report and it would be advisable that the work be held in obeyance until such time as the present epidemics abate.

The fact that there was never any delay in furnishing plans when called for, clearly proves, that previous to the upsetting of the records, the plans were kept in tolerable good order, and all those strictly belonging to the Litho. departt registered.

The undersigned has been subjected to a long course of severity during the incumbency of the late Secretary General Walker, with which he bore up patiently, hoping that he would be released from the hardship when he (General Walker)

Walther) would vacate office; and not a word of complaint would have been uttered if the injury did not extend further than personal hardships, but when it was sought to ruin the whole department, when personal blame could not be fastned on the undersigned, it was then considered high time to make known to His Grace the Governor, the plan which had been systematically arranged to compass the ruin of the undersigned, and beg His Graces interference in the matter. The undersigned has the best authority for his belief that the Under Secretary is cognisant of the fact that the undersigned made such an appeal, and that it was impossible to state the particulars without explaining the Under Secretarys participation in it.

The urgency of the case and hopelessness of obtaining redress from the very officer against whose oppressive acts the undersigned was compelled to appeal, was the reason that His Grace the Governor was solicited to interfere, and the undersigned exceedingly regrets that in appealing to His Grace that he was forced to include the Under Secretary's part in the matter, as he feel convinced from his knowledge of the Under Secretary, previous to the late Secretary's tenure of office that it is not in his nature to injure any one and that his present acts are done only in consequence of finding himself committed to the carrying out of the object proposed by the late Secretary. The undersigned had no alternative than the course he had adopted, but he would never cease to reproach himself if he had allowed a long standing permanent establishment to give place to one of recent date without an effort on his part to prevent such a measure.

The undersigned cannot rest satisfied and not use his utmost endeavours to remove such grave accusation, as incompetency and gross carelessness which has been prefered by the Under Secretary and recorded against the undersigned and that too when it is proposed (as admitted by the Under Secretary himself when questioned by the undersigned) to abolish the Litho. Departt. and transfer the work to the Revenue Survey Office. It is indeed too serious a matter and the Under Secretary cannot blame the undersigned if he exerts his utmost to remove the slur which he has cast on the undersigned. To remove the first vizly that the work turned out by the undersigned is of a very inferior discription the undersigned respectfully submits for the inspection of the Secretary a portfolio containing specimens of the work turned out by the departt. The second accusation implying gross carelessness with respect to the disorder of the plans in the store has the undersigned hopes already been refuted in the foregoing portion of this memorandum.

The undersigned begs that the Secretary will peruse the accompanying letter and memorandum being a copy of each forwarded to His Grace the Duke of Buckingham from which the Secretary will learn the grevious hardships the undersigned and the Litho. Departt. so long have suffered and from which they have not as yet been relieved. The Undersigned feeling that better times have now dawned on us and confident that redress can now be had without going beyond departmental limits, he, with the most implicit trust commits his case in the hands of the Secretary and earnestly solicits his kind consideration of it

W. Baldrey

Dupt. Insp. Litho Depts

6-2-77

To

Dummy Sheet

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tment.

randum with copies of
papers lately (December last) submitted to His Grace the Gover-
-nor together with specimens of lithography turned out by the
Govt. Litho: Departt are most respectfully submitted by me for
your kind attention and consideration with the object of
obtaining that redress which has been denied to me by
the Under Secretary although I have frequently explained
and appealed to him to remove certain grave accusations pu-
-blicly recorded in the office of
the P. W. Secretariat and which if allowed to remain without
any recorded appeal from me will I have no doubt be the
cause of great injury to me should the contemplated
abolition of the Litho: Departt be carried into effect.

The first charge is tantamount to that of incompetency for
is alledged and publicly recorded, that the work turned out und-
-my superintendence is of an inferior description, the accompan-
-ing folio of specimens which were submitted to His Grace the
Governor will be sufficient to rebut such a charge for it is admitt
by judges of lithography that the work turned out by the Litho
Department could bear favourable comparison with that in
Europe, and in consequence of this opinion which was held by
Colt. Michael and Dr. Balfour specimens of our work were sent
to the London and Vienna exhibitions.

The second accusation which is also recorded against me as also tantamount to that of gross carelessness, with regard to the state of disorder in the stores, and which it is recorded, reflects great discredit on me, this matter I have answered in the fullest way that I am able in the accompanying memo, which is but a restoration of explanations already submitted both verbally, and in writing to the Under Secretary, but which proved ineffective in obtaining the expungement of the animadverting records against me.

It is with the greatest sense of regret that I find myself obliged to take these steps to vindicate myself of accusations which at any time could not be borne without evil results results, but at a time when the department is in a state of a crises, it would be an act of the greatest imprudence to allow charges of the grave nature above stated to remain unquestioned.

I beg to remain
Sir
Your most obedient Servant
W. Walowsky
Supt. and Manager Govt. Litho. Deptt.

Govt. Litho. Deptt.
Fort St. George
8th February 1877

Note.

The memorandum appended to the letter addressed to His Grace the Duke of Buckingham, explains the whole case regarding the hardships endured by the Govt. Litho. Deptt under the regime of the late Secretary.

W.W.

Memorandum

Liberty necessary in order to admit
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Steamer off Beypore
October 5. 1876.

My dear Smeaton

Here with all the papers you ask for, except abstracts. Forest Dept you cannot return the whole lot please when you have done with them.

The routes of Cook were to those which have been done with the Division as near as possible the routes as originally proposed. Cameron's Brothers has the Rough Sd. &c. &c. and Case Stas pass all the papers you have any enquiries

Yours sincerely
A Thomson

in June 1876.

Mr Circle - Districts	Divisions	Divisions etc.	No. of Divisions
Ganjam	Ganjam	1	1
Vizagapatam	Vizagapatam	2	1
Godavery	Eastern & Delta Divisions	3	
	Chintoor & Dowlaishweram		

Dummy sheet

Memorandum

It being necessary in order to admit of comparison between the Superintending Engineer Circles with the Divisions included in them being constituted to show what number of Divisions will be recommended to Government for adoption, and it being very desirable in order to strengthen the Executive of the Department that these arrangements should be carried out so far as may be practicable in anticipation of the complete reorganization of the Department, the following scheme of Circles and Divisions has been drawn up to enable the Cost and distribution of Office establishments to be determined -

The number and extent of the Circles agree with the arrangements accepted by Government at Ootacamund in June 1876.

Mr Circle - Districts	Divisions	Divisions etc.	No. of Divisions
Ganjam	Ganjam	1	1
Vizagapatam	Vizagapatam	2	1
Godavery	Eastern & C. Delta		3
	Western Delta		

	Godavery	Eastern & Central Deltas	3	3
	"	Western do	4	
	"	Rajahmundry	5	
		Total 1st Circle		5
2nd Circle	Kristna	Eastern Delta	6	3
		Western "	7	
		Guntur "	8	
		Total 2nd Circle		5
~~2nd Circle~~	Nellore	Ongole	9	2
		Nellore	10	
		Total 2nd Circle		5
3rd Circle.	Bellary	Bellary	11	2
		~~Penukonda~~ Anantapore	12	
	Kurnool	Kurnool	13	1
	Cuddapah	Cuddapah	14	2
		Nundidrupully	15	
		Total 3rd Circle.		5
4th Circle.	Presidency	Presidency	16	1
	Chingleput	Chingleput	17	1
	North Arcot	Vellore	18	2
		Chittoor	19	
	Salem	Salem	20	1
	Bangalore	Bangalore	21	1
		Civil Architect	22	
		Total 4th Circle		7
5th Circle	South Arcot.	Cuddalore	23	2
		Chidambaram	24	
	Tanjore.	Tanjore	25	2
		Negapatam	26	
	Trichinopoly	Trichinopoly	27	1
		Total 5 Circles	25	5

6th Circle Coimbatore — Erode 28 } 2
Coimbatore 29 }
Neilgherries Ootacamund 30 1
Malabar Palghaut 31 } 2
Calicut 32 }
9. Canara Canara 33 1
Total 6th Circle 6

7th Circle Madura — Dindigul 34 } 2
Madura 35 }
Tinnevelly ~~Palamcottah~~ 36 } 2
Southern 37 }
Total 7 Divs. 4

2. The number of Subdivisional Officers required in Column below as also the number of those Subdivisions which should ordinarily be held by Assistant Engineers.

Districts	Divisions	Sub Divisions	S. Divl. Officers: Executive	Assistant	Apprentice	Total
Ganjam	Ganjam 1	Rushikonda		1		
		Berhampore	1	—		1
Vizagapatam	Vizagapatam 2	Vizianagaram	1			
		Vizagapatam	1			1
Godavery	Eastern Delta 3	Head Works & Workshops	1			
		Eastern Delta	1			1
		Central	1			1
	Western Delta 4	~~Westward~~ Eastern	1			1
		— Western	1			1
Kistna	Eastern Delta 6	Head Works & Workshops	1			
		Workshops	1			1
		Northern				
		Southern				

→ Registering 5 in to Division

Districts	Divisions	Sub Divisions	Sub Divisions Officers 1st Class	2nd Class	3rd Class	Sub Magistrate or S.D.O.	
	Western Delta 7	Eastern	1	—	—	1	
		Western	1	—	—	1	
~~Trichinopoly~~	~~Trichinopoly~~	~~Trichinopoly~~					
	Trichinopoly 8	East	—	1	—	—	
		West	—	0	1	—	
	Rajahmundry 5	East	—	1	1	—	— vacant in Perspective
		West	—	1	—	—	
Nellore	Ongole 9	Ongole	1	0	0	1	
		Cumbum	—	1	—	—	
	Nellore 10	Nellore	1	—	—	1	
		Gudur		—	1	—	
Bellary	Bellary 11	Kudligi	—	1	—	—	No 2 Ramya
		Bellary	1	—	—	1	No 1 Ola do
	Anantapur 12	Anantapur	1	—	—	1	" No 5 — do
		Raidrug	—	1			" No 3 do
		Pamakota	—		1		" " 6 do.
Kurnool	Kurnool 13	Kurnool	1	—	—	1	Kowlkota, Puttikonda, Kurnool & Nundikotkur Talugs.
		Nundial	—	0	1	—	Koilakuntla, Nundial & Sirvel Talugs.
		Cumbum	—	1	—		Markapoor & Cumbum Talugs
Cuddapah	Cuddapah 14	Cuddapah	1	—	—	1	~~Pulivendla, Cuddapah, Siddout & Pullampett Talugs~~
		~~Dupadu~~ Duvvur	~~—~~	~~1~~	~~—~~		~~Siddout & Pullampett Talugs~~
			—	1	—	—	Jammalmadugu, Proddatur & Badvel Talugs.
	Nuddanpully 15	Nuddanpully	0	—	1	—	Nuddanpully & Kadiri Talugs
		Royachoti	1				Royachoti & Vailpaud do.
Penidenay	Penidenay 16	Penidenay	1	1	1		
Chingleput	Chingleput 17	Conjeveram	—	1	—	—	Trivalore & Ponnary Talugs.
		Poonamalee	1	—	—	2	Sydabad Talug
		Chingleput	1	—	—	1	Chingleput, Conjeveram & Madrantacum Talugs.
North Arcot	Vellore 18	Vellore	1	—		1	
		Walaja	—	1	—		
	Chittoor 19	West	1	—	—		
		East	—	—	1	—	

25. 11. 8 20

Salem -	Salem 20	Osfoor.	1				
		Tripatore			1	—	
		Salem	1	—		1	
	Bangalore 21 Civil Architecture			—	—	1	—
South Arcot.	Cuddalore 22	Tindewanum			—	1	—
		Cuddalore	1		0	0	+
	Vridhachellum 24	Vridhachellum	0		—	+	—
		Chellumbrum	+		—	0	—
Tricheinopoly	Tricheinopoly 25	Tricheinopoly	1		—		1
		Woraiyur -	0		1	—	1
Tanjore	Tanjore 26	Tanjore	1		1	—	1
		Trangambar	1		—	—	1
	Nesapatam 27	Negapatam	1		—	—	1
		Pallicotta	1		—		1
Coimbatore	Coimbatore	Coimbatore	1		—	—	—
		Dharapuram 6 Oddanchatram	—		1	—	
	Peraindurai	Elumanur	1		—	—	—
Wellpurrie	Wellpurrie	Collegal	—		1	—	
Malabar	Calicut	Calicut	—		1	—	
		Palgheaut	1		—	—	—
	Cannanore	Cannanore	1		—	—	—
		Wynaad	—		1	—	
S Canara	Canara	North	0		+	—	
		South	+		0	—	1
Madura	Dindigul	Dindigul	1		—	—	—
		Peraculum	—		1	—	
	Madura	Madura	1		—	—	—
		Sivagunga	—		1	—	—
Tinnevelly	Palamcotta	Palamcotta	1		—	—	1
		Shermadevy	—		1	—	
	Caitbultry	Shevallipatta	—		1		
		Caitbultry	—		1	—	

Tindewanum & Trinomalee by Talugs.

Villupuram, Villupuram & Cuddalore

Division 37
Sub Division 73

Memorandum on special points connected with Establishments.

Dummy sheet

253
220

...ishments in Delta
...ers and Standard set
...ating per cultivator.

...t (Irrigation)

Rs 5,160 Audit & P.

...be set down to Revenue work — 16,000
...of the Executive Establishment say 15,250
~~30,000~~
31,250

Acreage about 500,000

~~Cost per acre $\frac{3}{50} \times \frac{16}{1} \times \frac{48}{50} = 0.96$~~

a charge of 1 anna an acre might justly be allowed on this account or 31,250

Kistna. Conservancy Establishment (Irrigation) cost Rs ~~10,767~~ 12,123 of which $\frac{2}{3}$ rds may be set down to Revenue work 8,000

*Inclusive of Rs 3,654 Audit Establishment

1 anna an acre would on 200,000 acres come to Rupees 12,500 making the amount under Executive Establishment to be — 4,500
12,500

Santha Arcot. The Santha Arcot Conservancy Establishment cost Rupees 4,380 — Some of the irrigation of this District like that of the Delta requires special management, but that which the

the time of Sr Est. absorbed in protecting the Revenue. 1 anna an acre would cover to $\frac{64000}{16} = 4000$ Rupees about.

The case with these Islands somewhat thus

Sorawar

Value of Revenue work	31,250	Conservancy Sr.	29,562
		Charge Sr. Est. due Revenue work	1688
	31,250		31,250

Or 140 Rupees a month should be allowed in sept. the whole percentage for Revenue Sr.

Kutch.

Value of Revenue work	12,500	Conservancy Sr.	15,807
Charge Conservancy Estt.	3,307		
charged to work Supervision			
	15,807		15,807

Or from the percentage for Executive Sr. for work Rupees 3307 or 275 a month should be deducted on account of Conservancy Sr.

Tanjore

Value of Revenue work	22,000	Conservancy Sr.	9,702
		Charge Sr. Est. due Revenue work	12,298
	22,000		22,000

For the work percentage of Sr Est. should be added 12,298 per Revenue work or Rupees 1,025 monthly.

For the Sorawar Delta the establishment required is

Eastern & Central Delta	1 Executive Engineer	707
	1 Asst. Engr. Headquarters Division	368
	1 do. S.D.	368
	1 do. S.D. —	368
	Engineers	1811
1 Subordinate & 1 Supervisor or 2 Supervisors. 304 + 168 or 2 × 168		336
6 Overseers 75		450
5 Subordinates - 30		240
	Upper House subordinates	1026
	Total	2837
	Upper establishment	34,044
	Add.	1677
		32,356

Besides would be 12 per cent on 270,000 Rupees about

areas under Tanks. The Conservancy Staff may be taken to represent the amount not to be considered in connection with expenditure.

Tanjore. The Conservancy Sub. Contr Rupees 9702
The irrigation of this District does not demand as much looking after as that of the Northern Deltas intermittently in the special interests of the Revenue Staff during the time of P.W. Staff has to be employed

Trichinopoly. Area of irrigation is slightly over 70,000 and taking 704,000 acres of 6 fair crops acres under crops to Rupees 22,000 of which the cost of Conservancy Staff being 9702 the portion of Executive Staff is worth 1229 and the Tanjore Sub. Standard be awarded by a per centage on works with Rupees 12,300 added.

Salem. Only the Pennair Delta irrigation requires special treatment & the cost of its establishment is Rupees 6,442 — The agency tenders in superintending works may be taken to Counterbalance

is hardly worth the machinery when the estimates are allowed to be increased with of the Staff be equal to the work to be done — This entire management to start under Government —

Tanjore. The Executive is under Rs 365000
the Conservancy Staff Rs.
and Standard not exceed 12 per cent under
ordinary =
with exception for Conservancy Staff — 43800
12295
56095

The present 4 Ranges should form 2 Divisions
The Tanjore Division should be composed of the
Talugs forming the present Tanjore & Trangabar
Range leaving the rest of the District to the
Negapatam Division.
The Tanjore Division will leave the Upper Anicut
take the more heavy Conservancy work to attend
to.

Tanjore Division
1 Executive Engineer 707
1 assistant for Upper Anicut
regulating works — 368.
2 assistants for Sub Division 736
1811

9/

1811

1 Supervisor for left bank Amicut & Kolamuttu Z.T. works down to ~~Amicut~~ Vettamburai .. 168

1 Sub Engineer & Supervisor 472
304 & 168
~~640~~
300
4 Overseers - 75 ~~450~~ 1118
6 Subordinates 30 180 ~~270~~ ~~1320~~
~~2339~~ 2929

Negapatam Div. 1 Executive Engr. 707
1 Assistant - 368 1075
~~736~~ ~~1443~~

2 Supervisors - 168 336
3 Overseers 75 225 681
4 Subordinates 30 ~~300~~ 120 ~~810~~
~~2259~~ 1756
4685
56,220

This is as much as the establishment and the Negapatam Division can in any way be worked to otherwise

Vellore

Maramboondiattee of this District has been exceptionally high under Irrigation Works and taking this and the village under probably for the better those 5 lakhs - Latter Sum based there is the Great

Cost based to be pushed forward and this
12,000 Rs a mile — of which within one thousand 100 miles have to be constructed at a cost of some 12 lakhs which distributed will be finished in 4 or 5 years the Officer not in this manner raise the average outlay to about 7 lakhs. on which 10 per cent must be 70,000 Rupees for Executive Engrs.

Two Executive Divisions

Vellore & Cuddapah Division

1 Executive Engineer		707
1 Assistant do		~~736~~ 368
1 Sub Conl Engr.		368
		~~1811~~ 1443
1 Sub Engineer ~~& Supr~~	304	
1 Supervisor	168	
1 do Accountant	168	
5 Overseers 75	375	
8 Subordinates 30	240	1255
		~~3066~~ 2698

Cuddapah Division — 1 Executive Engr. 707
Ongole. — 1 Assistant & Accountant 368
1075

1075

2 Subversions 165 — 336
2 dozen & Canvas — ~~165~~ 336
6 Nurses 75 — 450
8 Subdeacons 30 — 240

1362
~~1191~~
~~2160~~
2437

~~1225~~
~~5503~~
~~66,036~~

5,735
0/620

5½ a little over 6 per cent
in 7 Lakhs

If Canvas be not so undertaken

11. 2 apiet Surgeons 736
3 Subversions. 168 336
3 Overseers 75 225
4 Subdeacons 30 1201

1417
17,004
~~49032~~
44616

a little under 12
a little over 11 per cent.
in 4 Lakhs

June 16 Ley.

~~350~~ 225

6

5

the expenditure of this Delta.

Western Delta

1 Executive Engr.		707
2 Assistant Engrs.		736
Engineers		1443
1 Subengineer	304	
1 Surveyor	168	
5 Overseers	375	
8 Subordinates	240	1087
		2,530

which would be 12 per cent on an expenditure of Rupees 2,11,000 -

It is not practicable to work the Delta satisfactorily with out 5 Assistant Engineers.

Hereafter should expenditure increase materially reduction of establishment should be secured by altering the number of the Upper and Lower Subordinates: probably 6000 rupees a year could be saved in this way in each Division representing 12 per cent on half a lakh in each Division or one lakh for the Delta.

2/6/09

Kistna Delta

~~Eastern Delta~~ - The amount of new work going on at present is small - The expenditure contemplated in the future will be very heavy. The present outlay is about 4½ lakhs in the District, it will probably be 7½ lakhs in the Delta viz 4 to 4½ lakhs under Completion estimates, 1 lakh to 1½ lakhs Railways & about 1½ lakhs for Local Fund & Provincial works - Many lakhs of Completion estimates are nearly and others will not be ready for getting the at present very inadequate establishment placed on a proper footing.

The Eastern Delta with regard

1 Executive Engineer	707
1 Assistant Engr. Head works Division	368
2 do	736
	1,811
Subordinates 1 Subord. 11 Surveyors	472
4 Overseers - 75	300
6 Subordinates 30	180
	952
	2763

Rs. 7. 2763
add ½ deficit for Overseers 33,156
1654
34,810

or 12 per cent on 2,90,000 Rupees expenditure.

Western delta

1 Executive Engineer	707	
2 Assistant do.	736	
	1443	
2 Supervisors.	336	
4 Overseers 75	300	
6 Subordinates 30	180	
	816	
	2259	
	27,108	
add ½ deficit for Overseers &c	1652	
	28760	

or 12 per cent on 240000 Rupees

The difference in the two Deltas is due chiefly to a large part of the work of the supply of materials, planting plants and the Central Works during the Eastern Delta. The two Establishments come to 63570 or 10 per cent on 3 and 6½ Lakhs annual expenditure which

Subordinate Engineers Office

1 Manager	150	
1 Head clerk	60	
1 Draughtsman & Surveyor	60	
1 do do	40	
1 Registering Keeper & Indexer	40	
2 Copyists 30+25	55	
1 Moorer	10	
1 Sweeper	5	
1 Peon & Durwan 7	~~38~~ 43	
	~~523~~	3241
	463	~~3361~~

for 7 Subordinate Establishments.

The saving on 5 Subordinate Establishments

marked with 7			
3 - 1st grade	1600	= 4800	
2 - 2 -	1350	= 2700	
2 - 3 -	1100	= 2200	12,941
7 × 523		= 3241 ~~3661~~	~~13,361~~
with 5			
2 - 1st grade	1600	= 3200	
2 - 2 -	1350	= 2700	
1 - 3 -	1100	= 1100	9315
5 × 463		~~2615~~ 2315	~~9615~~
			~~3746~~ 3626
			~~44052~~ 43512

or 0.58 per cent on annual expenditure of 75 Lakhs.
or 0.62 do do do 71 do.

Executive Engineer's Office

1 Head clerk	—	60
1 Draughtsman 3rd		50
1 do	do —	30
2 Cyclists 30+25		55
1 Gunmistake	—	12
1 Peon & 5 Lascars	—	42
		249

Assistant Engineers

1 Clerk		30
1 Gunmistake		12
1 Peon & 4 Lascars		35
		77

Sub Engineers.

1 Writer		25
3 Lascars		21
		46

Submission

1 Writer		20
2 Lascars	14	21
	34	41

Nos 1 Gunmistake 12
2 Lascars 12
24

Not wanting better to offer towards

Consideration bearing on the Cost of Pw. Establishments.

264 229

1. If an efficient Executive Establishment be organized at a minimum of cost, the first step is a simplification of arrangements. The arrangements [illegible] more complex, and with if the Bengal Pw. system be carried out become still more so than obtains at present. The classification of duties under numerous heads and subheads requires a great deal of the time and attention of all grades of the Department. Immediately [illegible] the Rampur Division. It entails a material, [illegible] especially on the subheads and on which it rests for information.

264 228

Dummy Sheet

2. The first consideration should be to secure good value for money spent on works, and this can be done only by close and effective supervision. Any organization to give satisfactory results must start by stating this first condition, and an organization with a minimum of cost must provide for this first and for less important matters only so far as funds will allow.

3 Close and effective supervision requires

1st That the Executive charge of every part of the Country should be in fairly competent hands

2nd That the establishment under the Executive

should be in proportion to the number of
Hypothecations to the character of number of the
works to be looked after, and to the area of the
Country over which these works are spread

3dly That the works of the Executive Establish-
ment should be adequate for looking after

4thly That arrangements should be made for
determining whether proposed works are valuable
& whether the proposals have as regards the
principles and details been made in a
suitable manner.

Establishments are costly, & the reverse
in proportion to the per centage which the
Cost bears to the money which they

but in proportion to

1st The value of the work they do, judg
Objects to be attained by doing it

2nd The Completeness, effectiveness and durabili
work done.

3rd The cheapness of the work carried
which are
a – The cost of securing the intended benef
in an economical manner
b – The execution of the requisite work in a
satisfactory manner at an outlay as simp
Consistent with allow.

A bridge across a river is demonstrated
means to secure advantages to a com
traffic – If, as has too often been the c
false economy take the place of true, the l
will

1st be designed without obtaining as a
the data necessary to decide 264
221
a - the best position for
b - its length
c - its height
d - the subsidiary works necessary to its stand
2ndly be built with inferior materials probably cotton
a as much as excellent materials could obtain
for
b - with radical defects or ominous leaning
either to top of bridge into subsequent additions
afterwards.

the bridge will not be an economical work
and if it cost 25,000 Rupees including 5 or
Rupees for 2% it would have been better to
employ a competent engineer been employed for say
15 days in the first instance in ascertaining
the requirements, & for 5 days subsequently
wards for 10 months in looking after its con-
structions involving another charge for 2%
of say 750 Rupees, the result being a workable
to the circumstances

Again the annual outlay on earthworks
probably does not fall short of 10 lakhs of
Rupees on repairs only, and of 12 lakhs in
clusive new works — the quantity represented
being about 2 millions of cubic yards — this
perfectly certain that earthworks not
has not been executed as cheaply as it should
be because it is impossible with the present

Inspection for the Executive Officer to direct the works to be done & to fix appropriate rates for each part. Consequently average rates are given and these [illegible] must part come to the large average and as a matter of fact the tendency is to give nothing less than an annas often 1½ annas are allowed.

$\frac{2000000}{12 \times 16} = \text{say } \frac{2000000}{200} = 10{,}000$ Rupees

for every mile per cubic yards of excep rates

Earthwork and in the way or another the excep in earthwork, is not much less than 3 per cent 30,000 Rupees a year

Similarly masonry works are but seldom designed to suit the circumstances of the works & the site and the result must be loss of money, which would more than cover the cost of all the [illegible] needful to ensure just work being done & the work being done

Roads are another class of works on which there is abundant room for improved arrangements Most roads have now a surface composed of material other than the natural soil - Here the exception rather than the rule for the quarries to be carefully selected and fixed for each part of a road, and for the cost of each part, the charge of getting the material & forming it into a proper surface being settled in a satisfactory manner.

Confined to useful material and in very few Districts cannot take a day's march without crossing material, a very important Contingent which is as valuable as the natural Surface Soil of the Country through which the roads runs, which has been carted - Screening found to be to eliminate the useless material is a work which is rarely necessary and as rarely performed - To do road work well requires the exercise of intelligence and discretion of doing their work thoroughly, with sufficient time to point to all the details and to test the correctness of the rates - This board labouring to give more attention to this branch of the Service. This discouraging to the Zealous, disheartens a ready response to the call.

Public works supervision in India includes a very great deal with which supervision in Europe is not concerned - There is at present no alternative but to provide for the management departmentally of every detail & the test of a good Executive should be ... work at a moderate total cost in
of the details of that cost
To get on the average Zealous
members of the Dept. the se
work highly attractive

Duties of Subordinate Engineers

G of I Code 1.1.20.

General duties

They act as Deputies of Chief Engineer.

Active control & supervision of Dept. work within their

[illegible] that work is properly conducted

[illegible] control over Executive Officers

[illegible] by Chief Engr.

[illegible] Executive Operations

[illegible] governing character of work, project

[illegible] & all papers on which his approval

may be [illegible] desires himself.

Confl. duty 7. Checks calculations in detail & all estimates

Compares estimates with plans.

[illegible] estimates, rates.

9 - Finally deals with estimates for works not

exceeding 5,000 Rupees. Supervises work

engineering work [illegible] & submits to Chief

Engineer [illegible]

267

Dummy slip

1- The proper working of irrigation works for the

2- The preparation of technical data for

determining the proper dimensions of

works under certain conditions. Such

data being based on observation.

e.g. (a) the proper arrangement of bifurcating

channels works.

(b) the dimensions of canal works, the

discharge being given.

(c) the proper arrangement of river conservancy

works with the arguments on which

proper arrangements are based

(d). the proper arrangement of flood banks

as regards, direction, length, dimensions

(e) the data for designing works for disposing

of which depends on rainfall; discharge

of rainfall; circumstances of country

and consequently its requirements

(f) - the quantities of water required for

irrigation respectively, with the determina-

tion of the proper quantities with reference

Memorandum

Often duties of Superintending Engineers in Madras are to consist in keeping strictly with those laid down in the G of I Code, it appears to be of great importance that their charges should not be so large as to make it improbable that they will be able to carry on these duties in the complete + thorough manner which alone can make their services of real value.

These duties involve a great deal of inspection which is of primary importance, and not a little office work which, so far as it relates to engineering matters examination of designs + in seeing that all requisite information is completely furnished, is of great importance likewise.

It may thus happen that it be assumed that Superintending Engineers cannot get through their duties without being at their head quarters for at least 4 months in the year; that besides regular tours of inspection they will often have to make

special journeys to see important works
in progress and allowing one month for
privilege leave not more than 7 months
will be available for inspections both
ordinary and special. It must be seen
that no Officer should not have
charge of more than 6 Executive Divisions
of ordinary description, which will
fully occupy their time and attention,
if any of these contain works of more
than ordinary importance.

Whether grounds this thought that the
proposal to constitute the

	1 Executive Division	
Ganjam	1	do.
Vizagapatam		
Godavary	2 Delta & non Delta	3 do
Kistna	do	3 do
	Total	9 do.

Existing Arrangements

as the Dr. Cuddapah Superintendence or Sub Charge
would necessarily prevent the Sub. carrying
the control intended.

In 4 out of the 9 Divisions the works are of
unusual magnitude and importance,
and for years past these 4 Divisions have
occupied the greater part of the time

and attention of 2 Superintending
Engineers, and it has not been found
that they have had much time
to spare for other parts of their Divisions
or Circles

For some time to come the personnel of
the Department cannot differ very
materially in efficiency from its
present condition and the control +
supervision of Sps will be of the utmost
importance. Assume it to be supposed
that 10 years hence Sps could manage
an extended charge owing to Executive
Engineers being thoroughly conversant
with their duties, there cannot it is
thought be room for two opinions as to
any such facilities being at present
existent, and if such work and
attention to orders is to be ensured Sps
charges should not be beyond their powers.
Sps presuming to come must not
only give instructions but see that
they are attended to

It appears to be necessary to adopt one of

two alternatives - The least number of
Sq.rs charges could be obtained by wide
or their Circles boards of as well as wher
Districts, and such an arrangement
would likewise render it perhaps the
more easy to constitute the Circles so
that particular kinds of work would
be under the Control of Sq.rs well
versed in their requirements. As regards
the Public Works Department such
an arrangement would entail
no inconvenience or difficulty this
Department but it is possible that the
Revenue Officers might object and
at present it is not known the under-
signed what other objections which would
not possibly have sufficient weight to
negative such a plan could be ad-
duced.

Were this plan adopted the 1st Circle
would consist of

Ganjam	1 Division	4274
Vizagapatam	1 Division	4628
Godavery (Upland Taluqs	1 do	4628
Kistna (do	1 do.	4376
		23,278

Within these boundaries will be included the Circles of the 1st Class

Staff of the Surveys

Guntur	1 Division	4274
Vizagapatam	1 do.	10[illegible]
Surveys	4 do	944
		1961
		4625
		21807

x including Damagudem

[Should this not be under whichever Circle arrangement.]

The 2nd Circle shall be constituted

Comprising the Kistna & Nellore Districts

Kistna	3 Divisions
Nellore	2 do.
	5

Of these only the 3 Divisions are being and the 2 Divisions of the Kistna Delta more than half of the 2nd with occupy

time.

The above Circles are what they were from 1862 to 1872

The third Circle would be the Coast District

Ganjam	2 Divisions	27000
# Kurnool	# 2 do.	
# Bellary	# 3 do.	
	7 do.	0r5

this might be 1 Division with 3 subdivisions # or 2 Divisions.

A 2nd time and attention would be very fully occupied and even were another District conveniently situated for addition

to this Circle it would not be wise to make it.

4th Circle

Pondicherry	1 Division
Chingleput	1 do.
North Arcot	2 do. 600
Bangalore	1 do.
Salem	1 do. 760
Civil Architect	6 do.

There certainly plenty for a S.E. to do in this Circle - There are not facilities for speedy the Railways for special inspections, but for the ordinary systematic inspection of whatever grants are all inspecting officers must march - Flying visits except to particular large works are worse than useless.

5th Circle. There are two thoughts special reasons for placing South Arcot, Tanjore & Trichinopoly in one Circle - They are all Districts in which particular kind there is much river irrigation All are interested in the same rivers - the Cauvery & Coleroon, and need much the same kind of management. The number of Sections. The proposed divisions

4

South arcot	2	243	4,936
Tanjore	3	207	3,739
Trichinopoly	1		3,584
	6		12,259

The area it may be said is no index to the work to be done; the latter will be seen partly from the subjoined statement partly from the annexed sketch.

The 6th Circle must thus be considered

Consisting

Coimbatore	2	Divisions	6,2
Nilgiri	1		1,6
Malabar	2	do.	6,2
South Canara	1	do	4,3
	6		17,86

and the 7th Circle of

Madura	2	Divisions	8,789
Tinnevelly		do	5,817
			14,606

This too is a small Division, but in it there is a great deal to be done & much to be settled which to be hopefully dealt with will need much thoughtful investigation

Taking these two Geographical Provinces of this Presidency into account

the heavy amount of work to be done in particular Districts which renders it impracticable with due regard to efficiency to make any other distribution of certain Districts than that above suggested, the undersigned is of opinion that with the addition of Submagistrates & Engineers the objects to be attained by the reconstruction of the S.E. system will not be secured, or rather would not have a chance of being secured

From the foregoing it will be seen that the number & Executive Officers to be constituted is

1 Circle	Ganjam 1	Santavarcot 2	5 Civil
	Vizagapatam 1	Tanjore 2	
	Godavery 3	Trichinopoly 1	
2 do	Kistna 3	Coimbatore 2	6 do
	Nellore 2	Malabar 2	
		S. Canara 1	
3 do	Cuddapah 2	Madura 2	7 do
	Kurnool 1 or 2	Tinnevelly 2	
	Bellary 2 or 3		
4 do.	Penidencer 1		
	Civil Architect 1		
	Chemist & Assist 1		
	North arcot 2		
	Salem 1 or 2		
	Bangalore 1		
	22 or 23		37 or 40

General Workers
in strength as follows
of 2 Divisions for Kurnool &
3 for Bellary & as follows
of 2 for Salem

Exclusive of Railways which are
ebsentially provincial for the 209 P.W.D Estt:
is as follows

1 Chief Engr.	1st Class	
1 do.	2 do.	
5 Supt. Engrs	2	1st Grade
	2	2 do
	1	3 do.

6 Executive Engineers	1st	Grade
9 do	2	"
9 do	3	"
11 do	4	"

35 Executive Engineers

15 Asstt. Engineers	1	Grade
22 do —	2	"
7 do —	3	"
1 do Probationer		

45 - Asstant Engineers.

4 Sub Engineers	1st	Grade
3 do —	2	"
7 do —	3	"

14 Sub Engineers

15 Sub Overseers	1st	Grade
26 do	2	"

41 Sub Overseers.

40 Overseers	1	Grade
60 do	2	do.
87 do	3	do.

187 Overseers.

Note on distribution of Officers 2nd

Godavery. Eastern Delta

There must be 2 Assistant Engineers
in this Division and Lieut C.C. Rawson
- Award for the charge
- under Division.
- ction rejoin the Division
- Award that all
that number said
Government have already lost a large
amount, revenue by the [illegible] changes that
have been made in this Division to
by reducing the Division unnecessarily.
As commencement of revenue has only
just been effected
Mr Rawson is in charge of the Head
Works sub Division which includes the
Anicut River works, Workshops, Quarries
& Canals near Dowlaishwaram. His
removal would be extremely detrimental
to the Public interests.
The young Officers who have just joined
from Cooper's Hill should not be taken
into account until they have proved

280

Dummy slip

their examination in language of the 282
are entirely unfit at present to be placed
in charge of subdivisions.

Central Delta This will have to be formed
into two subdivisions. Mr Ellis has been
in charge for a long time and has done
credit to his management, but he
cannot carry out the completion entirely
without ~~without~~ strengthening the whole section and
an Assistant Engineer will be needed
Perhaps by the time the estimates are
sanctioned Mr Young will be fit for
a subdivision as there will be no great
amount of work left after January 1879.
Mr Ellis himself informed me that it
would be impracticable to manage the
Central Delta properly after the Completion
estimates are sanctioned as one subdivision.

Kistna - Southern Delta - Mr Lambert who is put
down for one subdivision will not be fit
to take charge for 8 or 9 months to come
Mr J.W. Martin would perhaps do for the Southern Sub Div.
Mr Peters the Executive Engineer in charge
Contemplates taking furlough and it will
be a matter of some difficulty to find a
Competent successor. Mr G.D. Waghorn
is perhaps the best selection that can be

Is it believed that Major Pennycuick is not desirous of remaining in Salem. It would be advantageous to his future career to put him into the E.D. Kistna but probably

12

Inspector Jephson Division in North West.

made as before given permission for becoming a good Executive Engineer but he under require to be two months in the Division before Mr Peters leaves it to give him a fair chance of getting hold of the work.

Nellore The undersigned is of opinion that Dr Orland F.R. Hunter is altogether unfit for the charge of the Nellore Division - His antecedents were undiffferent before he went to Kurnool and there and in Salem he was useless. If Mr O'Shaughnessy cannot be made available for this Division, it will be better to place Dr. Henderson in charge with an apistant Engr. for the Assistant subdivision

Mr. Joffs transference from the W.D. Godavery where he has just commenced his professional education and where he will learn his work properly would much less serve the time when he will begin to be of use and probably detract much from the value of his services hereafter.

3rd Circle. It is proposed to place Mr J. W. Rundall in charge but only three Executive Engineers of which I am

meanwhile taking up irrigation works
on a considerable scale it would be unwise
to lose Mr Randall's experience as an
Irrigation Officer and it would be better
to give him the 5th Circle
Major Heard's work since his return from
furlough has been indifferent - He should
not therefore be placed in charge of
the very important 5th Circle and
he should be made, at any rate until
he has proved himself to be able & willing
to work a Circle properly, only an
acting Executive Engineer. The 3rd
Circle would be more suitable than the
5th for a trial
The selection of good Sup! Engineers on
which so much will depend is undoubtedly
by no matter of difficulty at the present time
With Major Smalley I have had little
to do but I have understood that his
work has been very unsatisfactory and
no Officer should be made a S.E. unless
his work has been eminently satisfactory.
Major Hennycuick is clearly an Officer
from whom very much better results may

Certainly be expected. He might take
the Southern Circle & Major Wood the
6th (Coimbatore).

Cuddalore Dist: Mr. Paiyar being entirely
under stood not be posted to Cuddalore
which has enough work sufficiently
already from insufficient management.

There is not time at the present moment
to go further into the matter as the
Chief Engineer wants the papers this
morning, but it is probable that it
will be desirable to suggest the employment
of other officers directly from the names
which in the statement in order that
their known qualifications may be
turned to account.

Non-employment officers who have no
qualifications of value is a difficulty &
all that can be done is to place them where
they will do least harm

Ly. 25/2/15

kr 1 Bet. Bruzzon
Vejaz-
Bördaz. } Bondby

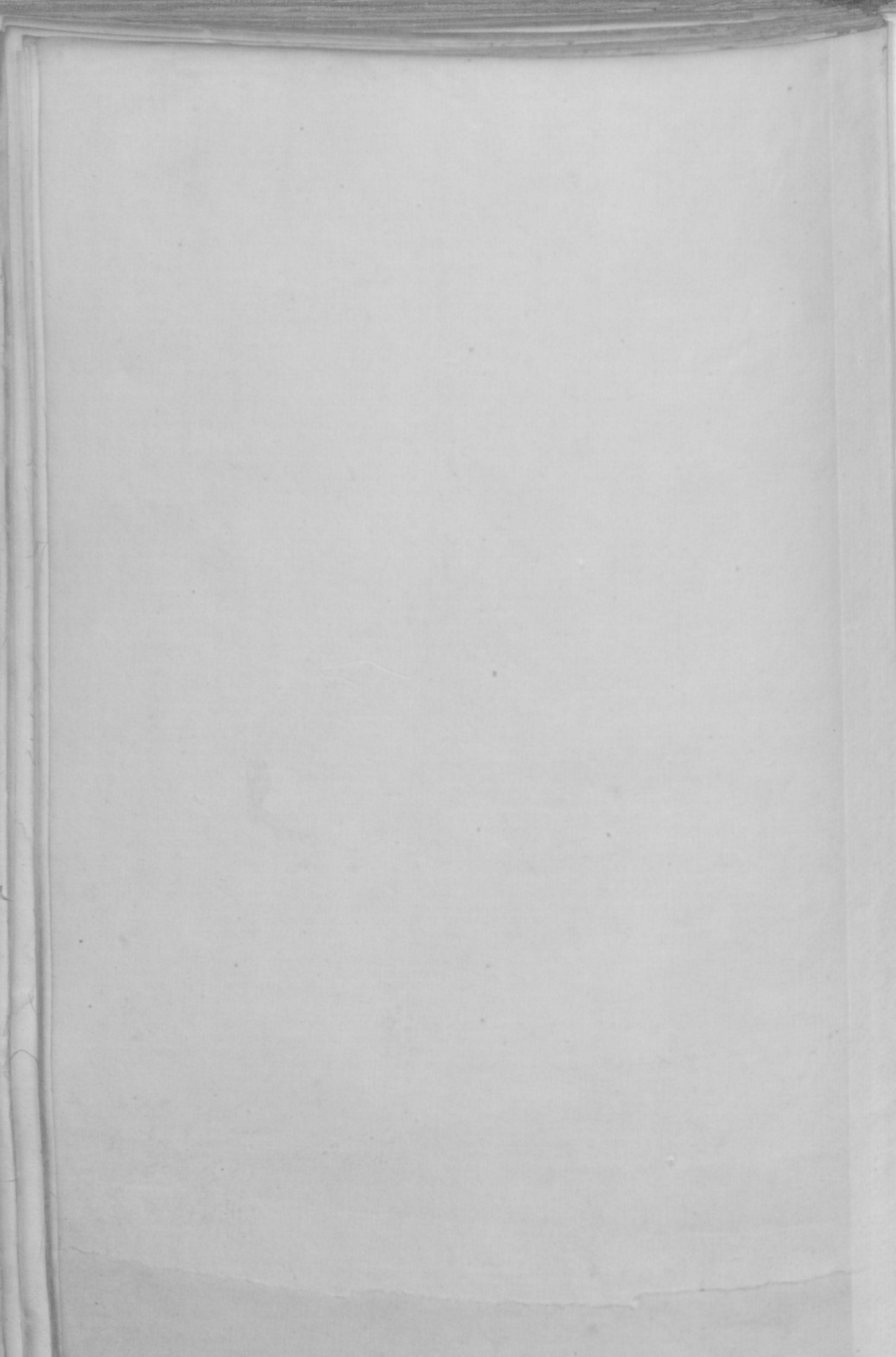
kr 2 Bet. Kvistvet
Kulevv. } Norrtäv.

kr 3 Bet. Salem
Almgärde
Lilla Agard
Fanbyn } Drevbygden

kr 4 Bet. Järlsvik
Vaxsjö
Lindorre
Finnvalla } Bondby

kr 5 Gärdesgården
Kumsta
Belaveg. } Nordv.

kr 6. Gärdsbäcken
Nilsgården
Nordsbacken
Ny Gården } Hamrik



Sepoys - Lascars

Total - 5 Present 7/2

Less 3 Reported - 5

Lascars Sepoys -

Total 44 Present

35 - Raising 2 Total

Leave - 15

Present - 36

Less Total - 44. 51 -

Cook Sepoys 1st Grade.

Total - 15 - 1 Total Sub Total

Cook Mate 1

Cleaner 1

Present - 17

Less. Total - 19

Cook Sepoys 27 3rd Grades

Total 27 - 29 - Present 27

Cleaners 2.

Less. Total - 29.

Sub Sepoys of 3 Grades.

Total 15 - 1 Total Blanket Issue. 15

Present - 15

Less Total -

Sepoys no. 1 of 2 Grades Sub of 2.

1 Total P. W. 5 - 1

1 Total Kamp. 3

1 Total Kamal. 1

Present - 5

Less. Total - 4

OFFICE NOTE.

To

Madras, 187

SECRETARY.

GOVT. OF MADRAS } 187 { P.W. DEPT.

Memorandum on special points connected with establishments.

Godavery. A part of the time of P.W. Establishments in Delta is occupied with Revenue matters and should not be taken into account in ~~ret~~ fixing percentage on expenditure.

There is the Conservancy Establishment (Irrigation) costing Rupees 24,402 of which ⅓rd may be set down to Revenue work - 16,000

and of the Executive Establishment, say - 15,250

Acreage about 50,000 31,250

A charge of 1 anna an acre might justly be

"Exclusive of Rs 5760 annual Establishment

allowed on this account
or 3120

Conservancy Establishment (Negapatam) costs Rs 12,123 of which 3/5ths may be set down to Revenue work ——— 8,000
(some or more would on 200,000 acres) come to Rupees 12,600 making the remainder of the Executive Establishment to be ——— 4500
Rs 500

Kistna

* Exclusive of Rs 3600 minor Establishment

The South Arcot Conservancy Establishment costs Rs 4380. Some of the irrigation of this District like that of the Vettas requires special management, but the bulk of the area is under Tanks The cost of the Conservancy Establishment may be taken to represent the

South Arcot

amount not to be considered in connection with expenditure.

Tanjore. The Conservancy Establishment costs Rupees 9,702 The irrigation of this District does not demand as much looking after as that of the Northern Deltas, but nevertheless in the special interests of the Revenue a good deal of the time of P.W. Establishments has to be employed. The area of irrigation is slightly over 700,000, and taking 704,000 a charge of 6 pies an acre would come to Rupees 22,000 of which the cost of Conservancy Establishment being 9,702 the portion of Executive Establishment would be 12,298

and the Tanjore Establishment should be arranged by a percentage on work with Rupees 12300 added. Only the Permanent Delta irrigation requires special treatment, and the cost of its establishment is Rupees 15,807. The assistance rendered in supervising work may be taken to counterbalance the time of Executive Establishment absorbed in protecting the Revenue. Kurnool an area would come to $\frac{64,000}{16}$ = 4,000 Rupees about The case will then stand somewhat thus:-

Nellore

Godavery.

Value of Revenue work	31250	Conservancy Establishment	29,562
		Share of Executive Establishment due to Revenue work	1688
	31250		31250

per 150 Rupees a month should be allowed in cases of this work per centage for Executive Establishments.

Kistna

Value of Revenue Work	12,500	Conservancy Establishment	15,807
Share of Conservancy Establishment charged to work supervision	3,307		
	15,807		15,807

Or from the percentage for Executive Establishment for work Rupees 3307 or 275 a month should be deducted on account of services on work of Conservancy Establishment.

Tanjore

Value of Revenue work	22000	Conservancy Establishment	9702
		Share of Executive Establishment due to Revenue work	12298
	22000		22000

To the work per centage

of Executive Establishment
should be added 17,290
for Revenue work at
Rupees 1,025 monthly.
For the Godavery Delta
the establishment re-
quired is

Eastern & Central Deltas. Executive Engineer ——— 707
1 Asst. Engr. Road Works
subdivision 368
1 — do — E. B. ——— 368
1 — do C. B. ——— 368
Engineers ... 1811
1 Sub Engr. Supervising 2 Supervisors ——— 336
304 × 168 or 2 × 168.
6 overseers — 75 ——— 450
8 Sub overseers. 30 ——— 240
Upper & lower Subordinates 1026
Total ——— 2837
or per annum ——— 34,044
Medical ——— 1644
32,388

which would be 12 per
cent on 2,70,000 Rupees
about the expenditure
of this Delta.

Western

Western Delta — 1 Executive Engineer 707
2 Assistant Engineers 736
Engineers 1443

1 Sub Engineer — 204
1 Supervisor — 168
5 Overseers 75 — 375
8 Subovereers 30 — 240 1087
2530

which would be 12 per
cent on an expenditure
of Rupees 2,11,000.
It is not practicable to work
the Delta satisfactorily
without 5 Assistant En-
gineers.
Hereafter should expendi-
ture decrease materially
reduction of each of Estab-
-lishment should be se-
-cured by altering the
numbers of the upper
and lower subordinates:
probably 6000 Rupees a
year could be saved
in this way in each
division representing

Work in the Country Carrying

12 per cent per half a
lakh in each Division
or one lakh for the delta.

Kistna Delta:- The amount
of new work going on
at present is small. The
expenditure contemplated
in the future is very heavy.
The present outlay is
about 5¾ lakhs in the
Delta; it will probably
be 7½ lakhs in the delta
viz 4 to 4½ lakhs under
Completion estimates, 1
lakh to 1½ lakhs repairs
and about 1½ lakhs for
Local Fund and Pro-
vincial works. Many
lakhs of completion esti-
mates are ready and
there is no time to spare
for getting the at pre-
sent very inadequate
establishment placed on

a proper footing.
The Eastern Delta will
require

1 Executive Engineer	707
1 Assistant Engr Headquarters Division	368
2 — do —	736
	1811
Subordinate Establishment	
1 Sub Engr & 1 Supervisor	472
4 Overseers 75 —	300
6 Subovereers 30 —	180
	952
	2,763
	2,156
Servancy Establishment.	1654
	34,810

or 12 per cent on 2,90,000
Rupees expenditure

Western Delta

1 Executive Engineer	707
2 Assistant — do —	736
	1443
2 Supervisors — 336	
4 Overseers 75 - 300	
6 Subovereers 30- 180	816
	2,259
	27108
Add ½ debit for Conservancy Establishment.	1652
	28,760

or 12 per cent on 2,40,000 Rupees.

The difference in the two Deltas is due chiefly to a large part of the work of the supply of materials, floating plant and the care of the ancut and head works devolving on the Eastern Delta. The two Establishments come to 63,570 or 10 per cent on 6,30,000 Rupees, an expenditure which is pretty sure to be reached when the estimates are allowed to be proceeded with if the Establishment be equal to the work to be done. It is entirely unequal to that work at present.

Tanjore. The expenditure is small 2,65,000, and the cost of the Establishment should not exceed 12 per cent on the outlay = 43,500 with addition for Reserve work of 12,298 / 55,798

The present 4 Ranges should form 2 Divisions. The Tanjore Division should be composed of the Talugs forming the present Tanjore and Tirangambar Ranges, leaving the rest of the District to the Negapatam Division.

The Tanjore Division will have the upper ancut and all the more heavy Conservancy work to be attended to.

Tanjore Division

1 Executive Engineer		707	
1 Assistant for upper amint & regulating works.		368	
3 Assistants for sub Division		736	
		1811	
1 Supervisor for upper amint & works down to Kodamutty and Vettaur head	180		
1 Sub Supt & 1 Supervisor 201 & 168	372		
4 Overseers. 75	300		
6 Subovereers 30	180	1112	2929

Negapatam Division

1 Executive Engineer	707		
1 Assistant	368	1075	
2 Supervisors 168.	336		
3 Overseers 75.	225		
4 Subovereers 30.	120	681	1756
			4685
			56,220

This is as near as the cost can be brought and the Negapatam Division are in being rather weak than otherwise.

Nellore.

The expenditure of this

12,000 Rs a mile

District has been exceptionally high under Irrigation of late and taking this out the outlay would probably be 4 rather than 6 lakhs On the other hand there is the Cauk & Cauk Canal to be pushed forward and this of which rather more than 100 miles have to be constructed at a cost of some 12 lakhs which it is hoped will be finished in 4 or 5 years, will if carried out in this manner raise the average yearly outlay to about 7 lakhs, on which 10 per cent would be 70,000 Rupees for Executive Establishment

For Executive Divisions

Nellore or Southern Division.

1 Executive Engineer		707
1 Assistant do		368
1 for Canal E.C.		368
		1443
1 Sub Engineer	304	
1 Supervisor	168	
1 do E.C. Canal	168	
5 Overseers 75	375	
8 Suboverseers 30	240	
		1255
		2698

Northern Division
Ongole.

1 Executive Engineer		707
1 Assistant for E.C. Canal		368
		1075
2 Supervisors 168	336	
2 do for E.C. Canal	336	
6 overseers 75	450	
8 Suboverseers 30	240	
		1362
		2437
		5135
		61620

a little over 5½ per cent on 7 Lakhs

If Canal be not undertaken

Deduct 2 Asst Engrs		736
3 Supervisors 168	336	
3 overseers 75	225	
4 Suboverseers 30	120	
		1417
		17004
		44676

a little under 11 per cent on 4 Lakhs

Deduct 30 Years

Dummy slip

26

Assuming from June 6
to the Govt of India
of 10th April 1876 –
maintain to be kept
in viewing the ongoing
the Public Works Dept
to economy: And consequently
that the present Establishment
of
55 Executive Engineers
44 Assistant Engineers
55 Upper Subordinates
(excluding Taluk Overseers)
must not be exceeded; it follows
that the field of selection must
be divided into
5 Circles of Supervision
55 Executive Divisions
and the accompanying Sub-
ordinate Statement shows the
best that can be done.

Circle	District	Division	Area	Extent
Northern Circle	Ganjam	1. Ganjam	4374	2 Ranges
	Vizagapatam	2. Vizagapatam	3048	4 — " —
	Godavary	3. Eastern Godavary	4328	4 Ranges. All the District East of the Godavary
		4. Western Godavary	5211	3 Ranges. All the District West of the Godavary
	Kistna	5. East Kistna	4980	3 Ranges. All the District East of the Kistna
		6. West Kistna	4753	4 Ranges. All the District West of the Kistna
	Nellore	7. North Nellore	5173	4 Ranges. [illegible]
		8. South Nellore	6700	[illegible]
	Kurnool	9. Kurnool	6700	[illegible]
		10. Cuddapah	6380	[illegible]
	Cuddapah	11. Cuddapah	3916	4 Ranges. All the Cuddapah District West of the Pennair
		12. Madanapilly	4134	Cuddapah Range and Subdivisions
	Bellary	13. Bellary	6918	3 Ranges and Bellary Range, Upper Valley and Hindupore Talooks
		14. Anantapore	4414	Anantapore Range with Penners and Hindupore Talooks
	Total of Provincial Circle		67[illegible]	
	Bangalore	4. Bangalore	11	Bangalore Cantonment
	Salem	5. Salem	3161	Salem Range
		6. Tripatore	4438	Tripatore and adjacent Ranges
	Coimbatore	7. Vellore	5515	Vellore, Salem Ranges and Wallajah Talooks
		8. Chittoor	4869	Chittoor and Wallajah Ranges with Gurrumkonda and Wallajah Talooks
	Chingleput	9. Chingleput	4819	3 Ranges
	Madras	10. Presidency	27	Madras Town
	Coimbatore	11. Coimbatore	2911	Coimbatore Range with Wallajah Talook
		12. Coimbatore	3523	Coimbatore and Karical Ranges with Wallajah Talook
	Total of Provincial Circle			

13, Tinnivelly
24.25 Tanjore

Circle	District	Division	Area	Extent
Western Circle	Coimbatore	26. Erode	3777	Collegal and Amigatum Ranges
		27. Coimbatore	3494	Coimbatore and Caroor Ranges
	Neilgherries	28. Neilgherries	1000	Neilgherry Hills
	Malabar	29. Palghaut	3454	Coonal and Palghaut Ranges
		30. Calicut	4787	Cannanore, Calicut and Coorumbanad Ranges
	South Canara	31. Mangalore	4393	3 Ranges
	Total of Western Circle			
Southern Circle	Tinnivelly	33. Tinnivelly	1800	3 Ranges
	Tanjore	31. Tanjore	3231	Tanjore and Mannargudy Ranges
		32. Negapatam	878	Negapatam and Kangaroon Ranges
	Madura	32. Madura	4866	Madura Range
		33. Dindigul	3937	Dindigul Range
	Tinnivelly	34. Tinnivelly	2065	Tinnivelly and Shermadevi Ranges
		35. Northern	2752	Northern Range with adjacent Talooks
	Total of Southern Circle			

No 38 Executive

Division being that of the Presidency taking up by the Consulting Architect who met be brought on the permanent strength of the Establishment as a Draftsman

In order that charges of Executive Division may

[illegible] be left by offices of
the Engineer Establishment
now by Subordinates, the Assistant
Engineer will have to be posted
to each which will be as
7 Assistant Engineers
14 Sub Engineers
27 Supervisors
for distribution as following

Name of Division	Assistant Engineers	Sub Engineers	Supervisors	Totals for Distn
1 Ganjam	—	—	2	2
2 Vizagapatam	—	—	2	2
3 East Godavery	—	—	2	2
4 West — do	1	1	2	4
5 East Kistna	1	1	2	4
6 North Nellore	1	1	1	3
7 South — do	1	—	1	2
8 Cuddapah	—	—	1	1
9 Kurnool	—	—	1	1
10 Nundyall	—	—	1	1
11 Cuddapah	—	—	1	1
12 Madanapilly	1	1	1	3
13 Bellary	1	—	1	2
14 Dimmuta	1	2	1	4
15 Bangalore	—	—	1	1
16 Salem	—	—	—	—
17 Seringapatam	—	—	1	1
18 Vellore	—	—	1	1
19 Chittoor	—	—	1	1
20 Chinglepute	—	—	1	1
21 Presidency	1	1	2	4
22 Tondiarpaum	—	1	1	2
23 Cuddalore	—	1	—	1
24 Erode	—	1	—	1
25 Coimbatore	—	—	1	1
26 Nilgherries	—	—	1	1
	7	11	27	

Name of Division	Assistant Engineers	Sub Engineers	Supervisors	Totals for Distn
27 Polghaut	—	—	1	1
28 Cyclicut	—	—	2	2
29 Canara	1	1	1	3
30 Tuticorin poly	1	1	1	3
31 Tanjore	1	0	2	3
32 Negapatam	1	1	2	4
33 Madura	—	—	1	1
34 Dindigul	1	—	1	2
35 South Tinnevelly	1	—	2	3
36 North — do	1	—	1	2
	6	2	14	22

[illegible] this is how the wrong
[illegible] but not my fault
[illegible] Madras is having
[illegible] made. The present No
of Ranges is 71.
Please do not Contradict
[illegible] but let it be
[illegible] and not in
[illegible] correspondence with
[illegible] Controller

It is desirable that
of the 36 Assistants and
disposal of Executive Engine
as above 36 should have
permanent charges, and
Head Quarters, correspond
ing most probably to the
of existing Ranges; the
remaining 36 being employ
and quartered at the dis
cretion of the Divisional
Officers.

Superintending Engineer

will perform the functions
assigned them in the Gospels
of Sunday Easter and Whitsun
tide as well as the hours
of Divine Office with
the Chief Cayons be sung
as before.

Given under Our Privy Seal

Outline of occupation of the time of the Superintending Engineer 1st Circle 366 / 201

Supdgs Head Quarters - Rajahmundry -

Occupation of Time Commencing 1 September	Days Head Quarters	Days In Camp	Direct distance travelled	Total distance travelled	Distance in District	Time in District	2nd year	3rd year	Remarks
Rajahmundry - Receiving Completion of Irrigation works for last year - Examining estimates for Original works for submission to Govt, Correspondence - estimates for Local Fund works &c	30						30	20	
Continuing Budget estimates of Executive Engineers, Obtaining information for their review - Correspondence &c Inspection for tour	31						20	30	
Dr Rajahmundry - Divisional & Sub-divisional Offices, Examination of records, accounts, registers &c.		5							
Examination of persons for appointment as Ancient Khurai works, effect of Govt Circulars &c, results of last season's operations, State of rivers above and below Anicut	4	30	35						
Quarries - their state, Cost of working Condition of quarry plant -	1	4	7						
Quarries & tramway Samalkot Canal. State, Cost of working, Relative prices, Stores, Capital sunk - Comparative value &c.	1	10	12						
Floating Plant - Inspection of - Examination of Cost of maintenance, quantity and value of work done. Comparison of Cost, transport as Compared with private boats -	3								
Examination of traffic returns - traffic receipts - Cost of maintenance of Navigation in Eastern Delta. Comparison of Statistics of Receipts & Expenditure in recent years -	1								
Workshops - extent of working work done - Cost &c									

Description of time	Days Camp	Distance (Miles and Furlongs)	Public accounts	Date	Time in Office	1st year	2nd year
Designs of bridges, huts, etc. in connection with facility of execution & economy	15	44	54			50	50
Polavaram – State of river – Proposals for Conservancy – Condition of embankments – effect of Conservancy works – Sufficiency & condition of drainage sluices. Proper upkeep of village cuttings to Revenue or district charges. Issue of directions for seasonal work.	3					12	12
Drainage diem – Inspection of Ancient Godavari Delta works. Inspection of works & Communications in three parts of the two talugs to which attention was drawn in previous inspection. Some criticism into present state of agriculture & suggestions into remedies, difficulties, & particulars wanted. Topography. Collector or other Revenue officer with Secretary	3	25	45			3	
Godavari Delta Bank Canal, condition & sufficiency of distributaries, cultivation of irrigation, its position, principal features, drainage – River embankments River Conservancy – State and effects of protective works – changes in river. Eastern drains – progress of works	2	50	50				
	12	60	100				
	2	75	75				
	5	40	100				

Port – Reclamation
Engineer Office &c
Bandipatam – R

| | | |

Occupation of land

Rajahmundry —

do = main Embankment

Dilapidated repair establishment &c —

Trunk Road & Tanks

Tanks near roads

Irrigation Tanks

Coast, road maintenance, district

Superintendence, Office establishment

Establishment = Inspection & Office Establishment

Cuddapah Irrigation Establishment

Bundary —

Kurnool Cuddapah

Kurnool-Cuddapah = road & tanks in

Its vicinity

Kurnool-Cuddapah = road & tanks

vicinity continued

Station = Subdivisional Officer

Irrigation works & roads in

neighbourhood

Bunga Canal = road —

Godavari Irrigation

Krishna Canal = road

Military & Civil Buildings =

Port = Reclamation = Executive

Engineer Office &c. ——

Kistnapatam = Road

do Port

Vizianagaram Road

Rest = Station = Buildings &

Subdivisional Office ——

Salaries = Road

72	478	478			82	82	
1	40	40					
8	74	90			5		
91	584	826	Gal:	157	97	97	
14					8	8	
95				171	95	95	
10				10			
105	154	926	Gal:	181	95	95	
2	16	25					
2	21	30					
3							
3	20	40					
2	22	22					
3	24	36					
2	30	30					
10	20	30					
1	25	25					
2							
2	20	20					
3	15	25					
3	35	35					

Occupation

| | | |

Description of time							
		64	102		24	21	21
Drainage between W.B. Canal & Ramalaboor Canal - cutting of irrigation under Bank Canal efficiency & insufficiency of the latter - Works, Water Supply & Sanitation - Traffic on Canals &c							
	5	18	50			3	3
						2	2
Ramalaboor Canal - Works - Distribution, cutting of irrigation, drainage (minor)	4	29	50				
Lower Bank Canal to [illegible]							
Agriculture - Works - distribution of irrigation - River embankments - River Conservancy - Statistics of Public Works - Marine Superintendence, Surveying between Ramalaboor & W.B. Canal - Lighting of Rivers, Grain Trade, Cooperage - Piloting, maintenance & Establishment - Salt Water Ditch -							
	6	27	45			4	4
Irrigation Agriculture. Statistics - Rivers above and below							
	1	9	10			1	1
West Bank to Nagavara Canal - Distribution of irrigation, drainage (minor) Minor Surveying, Boat embankment							
	2	20	35				
	1	16	16			3	3
	2	20	20				
Roads - main distributaries - Embankments of branches of Cooperage, Piling of Nagavara Canal - Flood barriers - effect of railway tracks towards Cauvery [illegible] River Conservancy							
	5	40	50			5	4
Nagavara & Rajakaluvanda	2	50	50				

Bank Canal

Bank Canal - Works

Number	Name of Work	Number of Sluices	Number of Bridges	Length in Miles	Cost per Mile	Total Cost
9	6½	102	Small	24	21	21
5	18	50			3	3
4	28	50			2	2
5	27	45			4	4
1	3	10			1	1
2	20	35				
1	16	16			3	3
2	20	20				

Description of Canal	Number of Locks	Length in Miles	Total Cost	Cost per Mile	Number of Bridges	Number of Sluices
		373	423	62	48	48
Annalaforest & Wootten Vellatchi Main canal to Chittiputti - heads of several branches. Irrigation works - water regulation. Executive Engineers' office - proposed works	2 4	43 6	43 12	Small ·	2 4	
Ellore Canal - works - Cross drainage - flood water locks - supply water locks - distributaries & direct irrigation - present & ultimate area, irrigation.	3	40	50		3	
Kyttavaram & Elluru subdivided Mid lock channel - works distributaries, drainage, Swetlej's drain - Pundi Kodur Lock channel. General drainage - extension of irrigation present & ultimate areas - Ellore Superintendent's work.	1 4	23 16	23 40	- -	4	15
Nandalapuram Lock & Junction Canal - heads of Mid Flow Lock Channel.	1	3	6		1	
Venkatachellum & Weyairam to Ellore - heads - works - distributaries drainage - state of both Venkatachellum. Alterations since opening of Junction Canal Chinnakalavaram Channel	3	28	50		3	
Ongole Eleru & Gunnamadugu down to Binnavaram - state of drains - flood & Junction water levels - condition of Country, extension of irrigation - further improvements ——	1	22	22		1	
Undi & Palkole works - Condition - traffic - Cost of maintenance Undi Canal works - distributaries	1	10	15		1	

Classification of Canals

Utilities - Roads -

do Canal & Shallow						
works - distributaries, drainage						
extension of irrigation —						
Protection & Welfare Canals	22	207	271	Sind	69	83
works - distributaries, drainage	1	8	8		1	
extension of irrigation. Effects						
of Protection on drainage.						
State of Country - rainfall of						
Protection into Government	1	12	12		1	
Canals - relative flood levels.						
Drainage of Country between						
Welfare & Inundation Canals.	3	25	40		3	
effect of works. further works						
required - interior protection						
works ———						
Inundation Canal - works	3	26	36		3	720
principal distributaries channels						
General distribution - junction						
with Protection irrigation to Protec-						
tion - Changes since extension						
works effected						
Embankments & drainage effects	6	50	80		6	
Inundation Lock & Dodipatha -	1	12	15		1	
main & subsidiary drainage						
of Country between Inundation						
Canal & Bank Canal	3	10	25		3	
Bank Canal - works - tidal						
protection to river - distribution						
drainage extension of irrigation						
River embankments & river conservancy						
defensive works their cost & effect	2	20	30		2	
on Inundation & Canals						
River embankments to Inundation	1	12	15		1	
Canal & Bank Canal, river conservancy	5	60	100		5	

Camp	Distance	Miles	Rivers	Miles	Days	Days
22	207	287	Gold.		69	83
1	8	8			1	
1	12	12			1	
3	28	40			3	
3	26	36			3	>20
6	50	80			6	
1	12	15			1	
3	10	25			3	

Days Head Quarters	Days Camps	Miles Direct	Miles Actual Travel	Rivers	Miles	2nd Year	3rd Year	
	48	445	642	Gold		95	83	
	8					8	6	2nd Year to 4th August.
						103	89	3 - 2 do -
Sundays								
Cremador.	1	33	33	Sanja			1	
do - Writing for steamer	1							
Osofanfore - by steamer -	2						2	
Hbulandfore		243	243					
Engineer Office - Buildings and Station work. - Municipal Fore-								
work	3	15	25				3	
Chitterfore - Hsanjam. Building								
Hbank	2	20	25				2	
Chitka Canal & Rivers	1	15	15				1	
Sanjam - Rivers	1	10	10				1	
Tanfara Saltly Sanjam								
Hbridge at mouth of Canal	1	6	12				1	
Ceska, via Dunsholtafore with								
Indirect via Road	4	35	45				4	
Embankments. Repairing &								
protecting Ends. Excavating for Officers								
Quarters -	3	10	15				3	
Rupal Kandra - Road & River								
Embankments -	3	30	35				3	
Sabdivisional Office - building	2						2	
Bonny reservoir & Sowers	2	20	25				2	
Ceska - Road -	1	20	20				1	
Injilly — do —	1	12	12				1	
Irrigation works between Injilly								
Hsanjam - Permanent Station								
extent of Operations in cultivation								
Subcommittee regarding Hbridges								
Surveys								
Pantaiafore	5	25	50				5	
Hchafore — 7. Road	2	16	35				2	
Bafentula - 7. do -	3	35	35				3	
Calingafattam	2	25	25				2	
Purlakhimedy - Roads	15	90	150				15	
do. Roads, Tanks &c	5	45	60				5	
Bomsadara river, Hchingafattam	61	715	880				149	

Occupation & time

Drugs

	Black Cattle	Cattle	Sheep & Goats	Horses & Ponies	Buffaloes	Camels	2nd Class	3rd Class
		61	715	800	Carjam			49
		10						10
2 Smallpox		71						159

3rd Class 5. 12 October.

Total district Villages 867
Total distances
Travelling

Abstract

	1st Class	2nd Class	3rd Class	1st Class	2nd Class	3rd Class	4th Class
Head Quarters	134	90	90	100	100	90	90	100
Ordering	147	184	170	147	140	140	130	150
Vizagapatam	68	82	82	68	60	26	80	—
Ganjam	—	—	71	—	—	70	—	60
Privilege leave	30	30	30	30	30	30	30	30
Holidays	15	15	15	15	15	15	15	15
Special inspection	371	20	?	—	—	20	20	20
				371	365	365	365	365

Between 1st class (detailed) and 2nd class little work is shown as inspected

It will be noticed that the 3rd class is more than sufficient to take work.

14/6/76

This Statement shows the number of villages to be done in the Ordinary Taluks in the Vizagapatam Ganjam Districts

The Taluks must be visited

The "Occupation of time" is not the distribution of time by seasons (shows Cattle Sheep) but the distribution of time by Classes of villages

completely the whole work of inspection

but only a selection of work to be got through in the Ordinary Taluks in the Vizagapatam Ganjam Districts

looked after each year

as complete a sketch as could possibly be given

and liable to be affected by varying matters

are closed - during seasons - times of Festivals and

from other causes, Periodical visits to the

Appendix A.

Territorial limits of Circles.

Circles

No 1 To comprise of the Districts of Ganjam, Vizagapatam, Godavery and Kistna.

—2— Districts of Nellore, Cuddapah, Kurnool and Bellary.

—3— Districts of Chingleput, North and South Arcot, with the Presidency and Military Cantonment of Bangalore. Buckingham Canal.

—4— Districts of Salem, Coimbatore, Nilgiris, Malabar, & Canara.

—5— Districts of Trichinopoly, Tanjore, Madura, and Tinnevelly.

S. K. A. Ford Colle
Chief Secy to Govt Mad

Appendix B.

List of P.W. Divisions.

1 Ganjam
2 Vezagapatam
3 Godavery. D & C Delta
4 Do W. Delta
5 Rajahmundry
6 Kistna. E Delta
7 Do W. Delta
8 Guntur.

9 Nellore
10 Cuppole
11 Cuddapah
12 Madrapatty
13 Kurnool
14 Bellary
15 Trautapore

16 Presidency
17 Consulting Architect
18 Bangalore
19 Chingleput
20 Vellore
21 Chittur
22 Cuddalore
23 Tindivanum
24 Buckingham Canal

25 Salem
26 Coimbatore
27 Coimbatore
28 Perundoray
29 Calicut
30 Wynaad or Caumanore
31 Nilgiri
32 Canara

33 Trichinopoly
34 Tanjore
35 Negapatam
36 Madura
37 Madura
38 Tinnevelly
39 Satur.

F. R. A. Favel Lt. R.E.
Chargé Dept. Public Works

Appendix C
No I

Office Establishment

No 3. Superintending Engineer.

No	Description	Class	Grade	Salary Min.	Salary Max.	Average	Amount Rs as P.	Amount Total Rs as P.
	Clerks.							
1	Clerk	II	3rd	100	120	110	110 . .	
1	— "	III	2nd	60	80	70	70 . .	
1	— "	IV	1st	40	50	45	45 . .	
1	— "	"	2nd	30	40	35	35 . .	
1	— "	"	3rd	20	30	25	25 . .	
5								285 . .
1	Draftsman	1st		50	70	60	60 . .	
1	— "	2nd		35	50	42½	42 8 .	
2								102 8 .
1	Messenger					5	5 . .	
3	— "					6	18 . .	
4								26
						Total Monthly		413 8 .

GAT 11/9

Office Establishment

No. 4 Executive Engineer. 1st Class Division

No.	Description	Class Grade	Salary Rs.	Rs.	Rs.	Amount Rs.	Total Rs.
	Clerks						
1	Clerk	III	2nd	60	80	70	70..
1	—"	IV	1st	40	50	45	45..
1	—"	"	2nd	30	40	35	35..
1	—"	"	3rd	20	30	25	25..
4							175..
	Draftsmen						
1	Draftsman	1st		50	70	60	60..
1	—"	3rd		20	30	25	25..
2							85..
	Messengers						
1	Messenger			7		7..	
1	—"			6		6..	
2							13..
	Total Monthly						273..

Office Establishment

No 5 Exec. Engineer 2d Class Division

No	Description	Class	Grade	Salary Minimum	Salary Progressive	Salary Average	Amount	Total
	Clerks							
1	Clerk	III	2d	60	80	70	70	
1	"	IV	2d	30	40	35	35	
2	"		3d	20	30	25	50	
4								155
1	Draftsman		1st	50	70	60	60	
1	"		3d	20	30	25	25	
2								85
1	Messenger						16	
1	"						16	
2								13
							Total Monthly	253
							Annual charge	3036
							For 10 2d Class Divisional Offices	30360

907 20/7

S. E. A.

S. L. C. G.
Ex.

Office Establishment

Executive Engineer - 3rd Class Division

Pa 6.

No	Description	Asp Grade	Salary Max	Salary Min	Salary Ave	Amount	Total
			£	£	£	£ s d	£ s d
	Clerks						
1	Clerk	III	3rd	50	60	55	55 . .
1	— "	IV	3rd	30	40	35	35 . .
2	— "	.	3rd	20	30	25	50 . .
4							140 . .
1	Draftsman	2nd		35	50	42½	42 8 .
1	— "	3rd		20	30	25	25 . .
2							67 8 .
1	Messenger			7		7 . .	
1	— "			6		6 . .	
2							13 . .
	Total Monthly						220 8 .

Ent 20/9

Accountants.

For Examiners and Divisional Offices.

No	Description	Scale	grade	Salary minimum	maximum	average	amount	Total
	Accountants.							
2	Accountants		1st	350	450	400	800	. .
3	——— : ———		2nd	250	340	295	885	. .
12	——— . ———		3rd	160	240	200	2400	. .
20	——— . ———		4th	80	115	115	2300	. .
28	——— : ———		5th	40	75	57½	1610	. .
65								7995 - -
							Total Monthly	7995 - -
							Annual Charge	95,940 - -

Note of above the following will be for Div. Offices.

6	Accountants		3rd	160	240	200	1200	. .
16	——— : ———		4th	80	150	115	1840	. .
17	——— . ———		5th	40	75	57½	977	8 -
39							Total	4017 8 -
							Annual charge	48214 - -

Abstract.

65	Accountants as above		95940 - -	95940 . .
31	Clerks as per Statement No 12		14040 - -	
	Menial Servants	do	126	1500 - -
96			Total	111240 - -

9117 J. L. Conway London
Examiner Div.

Appendix G. 218

Distribution Statement.

No		Standard	Circle	Divisional	Sub Divisional	Office	Total	Remarks
			5	39	50			
2	Chief Engineers	2					2	
5	Superintending Engineers		4	1			5	
37	Executive Engineers		2	1	34		37	
43	Assistant Engineers		1	5	4	33	43	
14	Sub Engineers					14	14	
42	Supervisors				3	39	42	
187	Overseers					187	187	
			5	10	39	50	226	330

417

Sir W. R. adopts the suggestion
of Organization as one always
use a Starting apparently
from the basis for future
that - it proposes to get -
"a small saving of some 2
"or 3 per cent- on the existing
"cost- of establishment - but what
it" is undoubtedly the main Item
I do not see why the saving
should be under-stated at
being more than 5 per cent- as
the new proposed Scale includes
an establishment for the Basin -
Canal & not existing but
sorely needed -
Then the comparison as to
Margin - for Steps in Basin
do compare

look at the items taken to
the first line in sheet. Using
the C. E. Scale says we are
not- included - which forms
1. 38,000 - the percentage is
really on 10,53,000 -

6 per cent on the items

11.91.503

Present - - - - -

Proposed inadequate.
including an
basin Canal
Sluice - for upper Storey } 11.28.725

Saving 62.778

= 5 3/8 per cent -

Establishment for Basin & Canal
= 22.692 - must for comparison
be added on both sides as it is
a new establishment - for a
new work -

Sir W. R. permits the Establishment being fixed at 32 in the ejusdem generis supposition of exclusion from the Superior in making 2d works.

I agree in this principle & permitted that in words it could not be carried into the ordinary Establishments — this is a matter for consideration — and after both the number of Executive Officers and the Subdivisions Superior Officers —

Sir W. agrees that the principle of Superintending Officers — Inspectorates. but considers 3 should suffice — this is a question of degree. and with the advantage of Sir W's note I think there as much reason for 3 as for

5 Officers in addition already on the Establishment for 5 was added after Consult Congress for the Public work in Delhi. & the facilities for travelling — & the time an Officer could be in the Circle.

to report the number of Executive charges. Sir W. R.

Gives the number at 26 — but with the Public and as matters at present stand there are 21 distinct

Bangalore —
Proposed new district
Myso
Ekamaram
Ojeon
Trindejeh
4

26

Subdivisions of
Godavery
Kistna
Tanjore
3

29 which with the Superintendents

The Proposed number 41.

Chief Com. Architect
Ex. Eng. Public Canal
Eng. for Upper Godavery
5

36

+ 2 under Secy. in
in 7 cases

This account is inconsistent with the facts stated in Sir W. R's own notes for

Office Establishment

Chief Engineer

The following officers are borne upon the Establishment of Superintending Engineers

Colonel F. J. Marberly C.B. Chief Engineer
Colonel A. J. Moberly R.E. 1st Superintending Engineer
Colonel J. F. Fischer R.E. 2nd Superintending Engineer
Colonel J. L. Maister R.E. 3rd Superintending Engineer
Lt. J. Marrington Engr. Inconsiderable 2 C. 15
R. E. Danforth Engr. Inconsiderable 2 C. 15
Major Moberly R.E. 1st Executive Engineer
Major Barton R.E. 2nd Executive Engineer
Lieut B. Coppock Engr. Inconsiderable 2 C. 15

Rupees
50
50
50
70
60
70
70
70
60
97
93
250
360
80
141
134
3
968

Gl. 1926 of 17 July 1874.

Office appears to contemplate One Executive Engineer for Tinnevelly. Station Cuddapah S. Arcot. Ge Secret. Cuttack Chittoor Godavery Kistna — Six assistants in addition to those 2 in Orissa may be sufficient but soon as Irrigation is introduced Ist Grade Executive below 2nd Grade

Of the Assistant Engineers Sir W. R. considers that in Geo can should this Grade expend 2 in district —

East Godavery. Kistna + Tanjore will from the nature of the duties need Generally an additional Grade — in the mean time the Secretary only gives for the 36 Executive districts 42 assistant Engineers allowing 2 in only 6 districts

30. D 1 = 30
6 D 2 = 12
42

Which appears to be inadequate
[illegible] for the
[illegible] Executive Engr
[illegible] Assistant Engineers
S. Asst. Engr. & Asst. Engr.
[illegible]
[illegible] Draftsman
[illegible] — for
assisting or assisting in
Some [illegible]

Office Establishment

Chief Engineer

	Rupees
[illegible]	550
[illegible]	350
[illegible]	250
[illegible]	150
[illegible]	130
[illegible]	100
[illegible]	160
[illegible]	70
[illegible]	370
[illegible]	370
[illegible]	160
[illegible]	17
[illegible]	77
	2693
[illegible]	250
[illegible]	360
[illegible]	80
[illegible]	141
[illegible]	134
[illegible]	3
Total	968

The Executive Officers are
considered for Purposes of Subsistence

Major C. A. Smith R.E. Colonel
Major H. R. Meade R.E. Colonel
Major P. Montgomerie R.E. Colonel
Major M. Connell R.E. Colonel
Major H. M. Pickard R.E. Colonel
Major J. Peavey Civil R.E. Colonel

[illegible] 42 assistant Engineers 30 : 21 —
allowing 2 in only 6 districts 6 D 2 = 12/42

[illegible] No. 1928 of 17 July 1874. 30

Office Establishment

Chief Engineer

			Rupees
To Secretary to Government Public Works Department	1	Chief Assistant	350
	1	Second Do	350
	1	Superintendent of Registries	250
Govt of India P.W.D. No 773 E.G. dated 15th May 75 Communicated in G.O. No 1505 of the 31st May 75 & G.O. No 3373 of the 26th November 1875 para 3	1	Deputy Do	150
	1	Superintendent Record Department	130
	1	Clerks	100
	2	Do Rs 80 each	160
	1	Do	70
	6	Do Rs 60 to 65	370
	4	Do Rs 20 to 50	270
	3	Draughtsmen Rs 40 to	160
	3	Allowance Readers Rs 10 to	37
	2	Duffadars Rs 8 to 10	19
	11	Peons Rs 7 each	77
	43	Total	2693

Lithographic Establishment

Govt of India P.W.D. No 815 E.G. of 15th March 1873 Communicated in G.O. No 1143 of 21st April 1873 also G.O. No 1497 of 28th May 74 & Govt of India P.W. Department No 1119 E.G. dated 30th June 74 Communicated in G.O. No 1928 of 17th July 1874.	1	Superintendent & Manager	250
	4	Draughtsmen 1st Grade Rs 40 to 120	360
	2	Do 2 D at Rs 40 ea	80
	7	Do 3 D Rs 10 to 30	141
	15	Pressmen Rs 5 to 20	134
	1	Sweeper	3
	30	Total	968

Chief Engineer
and Joint Secretary
to Government

Govt of India P.W.D.			
No 1423 of the 13th	1	Head Clerk	100
February 1869 printed	1	Accountant	150
with G.O. No 736 of	2	Accountants @ Rs 60 & 65	125
11th March 1869	7	Clerks @ Rs 25 & 40	235
Govt of India P.W.D.	2	Draughtsmen Class I & II	135
No 1435 E.b. of 18th	2	Do Do Do @ Rs 40 & 50	90
March 1873 printed	3	Attendants Mochis Rs 6 & 10	26
with G.O. No 1143 of	1	Peon	7
21st April 1873 & G.O.			
No 791 of 29th March 76		Total	938
Govt of India No 1613			
dated 3rd July 1877			
printed with G.O.			
No 167 J of 13th July 77			
and G.O. No 738 W			
dated 17th September 77			

2nd First class District
Engineer's Office

Establishment	1	Head Clerk	100
for Godavery and	2	Draughtsmen Class I & II	90
Kistnah	1	Accountant	50
Chief Engineers No 221	4	Clerks @ Rs 25 & 40	130
dated 12th November 1872	2	Apprentices (one at Rs 15 & 18)	33
Govt of India P.W.D.	1	Mochie	10
No 1435 E.b. of 18th March 73	7	Peons (1 at 8 & 6 at 7)	50
printed with G.O. No 1143			
of 21st April 1873.		Total	463
		For Two Districts Rupees	926

District Engineer's
Office for Bellary

Chief Engineers No 221	1	Head Clerk	100
dated 12th November 72	2	Draughtsmen Class I & II	90
Govt of India P.W.D.	1	Accountant	50
No 1435 E.b. of 18th March 1873	4	Clerks @ Rs 25 & 40	130
printed with G.O. No 1143	2	Apprentices (one at Rs 15 & 18)	33
of 21st April 1873. and	1	Mochie	10
G.O. No 1107 of 29th April 70	7	Peons (1 at 8 & 6 at 7)	50
also Govt of India P.W.D.			
No 1022 E.b. of 12th June 1874		Total	463
printed with G.O. No 1515			
of 7th July 1874.			

District Engineers
Office Establishment
for Tanjore 1 Head Clerk ——— 100
Chief Engineer's R. 221 1 Accountant ——— 60
dated 16th November 72 2 Draughtsmen & Tracers ——— 105
Govt of India P.W.D. Resolve 6 Clerks ——— 225
of 18th March 1873 printed 1 Apprentice (Journal) ——— 15
with G.O. No 1143 of 21st 1 Munshi ——— 6
April 73. also G.O. No 1 Peons (1st 2nd 6th 7th) ——— 30
668 of 4th June 1872 Telegr —
superseded G.O. No 1367 9
of 16th May 1873. —— Total 546

District Engineers
Office Establishment
for Chingleput
Chief Engineer's R. 220
dated 16th November 1872
Govt of India P.W.D. Resolve
of 18th March 1873 printed with
G.O. No 1143 of 21st April 1873
also G.O. No 668 of 4th June 1873
and G.O. No 1367 of 16th May 1873

1 Head Clerk ——— 100
1 Accountant ——— 60
3 Draughtsmen & Tracers (2 at Rs 30 1 at Rs 25) ——— 85
3 Clerks at Rs 30, 25 and 20 ——— 75
2 Apprentices (Journal Rs 15 and 12) ——— 27
1 Munshi ——— 10
7 Peons (1st 2nd 3rd 4th 5th 6th and 7th) ——— 50
—— Total 407

7 Second class District Engineers Office Establishment
Cuddapah, Coimbatore
Karnool, Malabar, Nilgiri
South West & Tinnevelly
Chief Engineer's R. 221
dated 16th November 72
Govt of India P.W.D. Resolve
of 18th March 1873 printed with
G.O. No 1143 of 21st April 1873
also G.O. No 668 of 4th June 1873
& G.O. No 1367 of 16th May 1873

1 Head Clerk ——— 80
1 Draughtsman & Estimate ——— 60
1 Accountant ——— 50
3 Clerks at Rs 25 30 and 35 ——— 90
2 Apprentices (Journal Rs 15 each) ——— 27
1 Munshi ——— 10
7 Peons (1st 2nd 3rd 4th 5th 6th and 7th) ——— 35
—— Total 352
12 Second class Districts. Rupees 4224

3rd Third Class
District Engineers
Office Establishment
Ganjam, Madura,
North Arcot, Salem
South Canara, Trichinopoly
Nellore & Vizagapatam
Chief Engineer's R. 221
dated 16th November 72
Govt of India P.W.D. Resolve
of 18th March 1873 printed
with G.O. No 1143 of 21st
April 1873.

1 Head Clerk ——— 70
1 Draughtsman's Estimate ——— 45
1 Accountant ——— 40
3 Clerks at Rs 25 and 30 ——— 75
2 Apprentices at Rs 12 and 15 ——— 27
1 Munshi ——— 10
7 Peons (1st and 6th at Rs 7) ——— 50
—— Total 317
10 for 7 Districts. Rupees 2219

Conservancy Establishment
Office Establishment

G.O. No 668 of 1st March 1873 1 Draughtsman's Estimate ——— 145
" No 522 of 15 March 1873 1 Clerk ——— 30
also Govt of India P.W.D.
No 435 L of 11 March 1873 2 Draughtsmen at Rs 25 & 30 ——— 55
printed with G.O. No 1143 3 Peons (1 at Rs 7 & 2 at Rs 6) ——— 20
of 21 April 1873. also G.O.
No 1165 of 2 May 1873.
G.O. No 1024 of 29 May 1873. —— Total 250
" " 440 of 6 July 1875

Conservation
District Engineer Head Clerk ——— 80
Presidency 6 Clerks Rs 25 & 50 ——— 195
Govt of India P.W.D. Resolve 2 Estimators at Rs 50 ——— 100
of 18th March 1873 printed with 2 Draughtsmen at Rs 40 & 50 ——— 90
G.O. No 1143 of 21st April 1873 2 Peons ——— at 6 Rs ——— 12
also G.O. No 2705 of 20th Nov 1872 13
& G.O. No 261 of 27th January 1873 —— 477
Chief Engineer's No 221 of
16th November 1872.

District Engineer Nellore

Govt of India G.O. Nos 2 Clerks — Rs —
of 15th March 73 printed
with G.O. No 1143 of
21st April 1873 & G.O. Nos
of 12th August 1873.

1 Total

District Engineer Bangalore

Govt of India G.O. Nos 2 Clerks — Rs —
of 15th March 73 printed with
G.O. No 1143 of 21st April 1873
& G.O. No 3577 of 7th (Nov) 74
2 Draughtsmen — Rs —
of 15th November 1872
& G.O. No 2725 of 26th Dec 72.
1 Storekeeper —
2 Lascars at — Rs 6 @

7 Total

General Superintendent Public Works Stores at the Presidency

G.O. No 2393 of 25th August 75 — 1 Clerk (Storekeeper) —
Govt of India G.O. No 3 — D° — Rs —
of 2 March 1865 printed
with G.O. No 2013 of 2nd May 1873
& also Govt of India G.O.
No 4334 of 15th March 73
printed with G.O. Nos
of 21st April 1873.

Total

Office Establishment

Bellary Division

Govt of India G.O. Nos dtd
of 15th March 1873 printed
with G.O. No 1143 of
21st April 1873 & G.O. Nos
of 12th August 1872.

1 Draughtsman & Estimate —
4 Clerks — Rs 25-20-15-10 —
4 Lascars at Rs 7 @ —

9 Total 178

Cannanur Division

Govt of India G.O. No 1155 dtd 1
of 15th March 73 printed 2 Draughtsmen & Estimate —
with G.O. No 1143 of 21st April 73 2 Clerks — Rs 25-20 —
& G.O. No 3577 of 7th (Nov) 74 3 Apprentices (promotable from Rs 12-10) —
— " 1270 of 5th May 75 3 Lascars at Rs 7 each —
— " 3463 of 21st Nov 75 —

9 Total 153

Dumagudium Division

G.O. No 2393 of 25th August 75 2 Clerks — Rs 25-20 —
— " 3042 of 5th December 75 3 Lascars at Rs 7 each —

Total 7

East Coast Canal Division

Govt of India G.O. No 1155 dtd 1
of 15th March 73 printed with Draughtsmen — — — —
G.O. No 1143 of 21st April 1873 4 Lascars — at Rs 7 each — —
& G.O. No 662 of 17th March 1873
— " 770 of 8th Feb —
— " 1147 of 21st April 1873 5
— " 1970 of 7th August 1873 —

Total 48

Godavery Eastern Delta
Dt Western Dt

Govt of India P.W.D. No 4356 & of 15 March 73 printed with G.O. No 1143 of 21 April 73. and G.O. No 1265 of 12 May 1873	2 Draughtsmen @ Estimates Rs 30 & 50	80
	4 Clerks @ Rs 20. 25 & 30	105
	6 Lascars at Re 1 each	38
	Total	223
	For Two Divisions	446

Guntur Division

Govt of India P.W.D. No 4356 & of 15 March 73 printed with G.O. No 1143 of 21 April 73. G.O. No 1126 of 23 May 1873 and G.O. No 932 of 26 June 77	2 Draughtsmen @ Estimates @ 30	60
	3 Clerks 1 @ 20 & 2 @ 25	70
	1 Apprentice	15
	6 Lascars @ Re 1 each	38
	Total	223

Kambam Division

Govt of India P.W.D. No 4356 & of 15 March 1873 printed with G.O. No 1143 of 21 April 1873 & G.O. No 2220 of 8 August 1873	1 Draughtsman @ Estimate	30
	1 Clerk	20
	3 Lascars at Re 1 each	30
	Total	80

Kistna Eastern Delta

Govt of India P.W.D. No 4356 & of 15 March 73 printed with G.O. No 1143 of 21 April 73. G.O. No 1126 of 23 May 1873 and G.O. No 932 of 26 June 1877	2 Draughtsmen @ Estimates @ 30	60
	3 Clerks at 20. 25 & 30	75
	6 Lascars at Re 1 each	42
	Total	177

Mount Division

Govt of India P.W.D. No 1355 of 15 March 1873 printed with G.O. No 1143 of 21st April 1873 & G.O. No 615 of 21 March 1876 and G.O. No 119 of 4 May 1876	3 Draughtsmen @ Estimates @ Rs 25. 30 & 35	95
	4 Clerks @ Rs 20. 25. 30 & 35	110
	4 Lascars @ Re 1 each	28
	Total	233

Madura Division
Tinnevelly Division

Govt of India P.W.D. No 4356 & of 15 March 1873 printed with G.O. No 1143 of 21st April 1873 and G.O. No 1521 of 8 August 1873	1 Draughtsman @ Estimate	40
	3 Clerks @ Rs 20. 25 & 30	75
	4 Lascars at Re 1 each	28
	Total	143
Govt No 1543 A of 11 June 72	For Three Divisions	429

23 First Class Divisional Office Establishments.

Karampur, Cuddapah, Cuddapah, Darlawt, Chingleput, Chittoor, Coimbatore, Dindigul, Godavary, Guntur, Ellore, Hamirt, Madanapalle, Mangalur, Nagercoil, Nellore, Southern, Salem, Shimoga, Sirsilla, Tanjore, Tinnevelly, Trichinopoly, Vellore, Vizagapatam, Vizianagram and Walajapet.

1	Draughtsman's Establishment		30
2	Clerks	at Rs 50 and	80
3	Lascars	at Rs 16 and	48
		Total	158
23	For 23 Divisions		2553

23. Second Class Divisional Office Establishments.

Cauvery, Coimbatore, Dingadul, Ellore, Golconda, Guntur, Hospetta, Jeypore ghaut, Karumbanadu, Mannargudi, Masuri, Nagapatam, Nundial, Nellore Central, Nellore Northern, Palghat, Penukonda, Pulicat, Pattikonda, Rajamahendri, Sidout, Ulpur and Yernadu.

Govt of India P.W.D. No 2586 of 18th March 1873 printed with G.O. No 1163 of 21st April 73 G.O. No 2095 of 6th September 73 " 1901 of 12th August 73 " 2322 of 19th September 73 " 662 of 12th March 1873 " 935 of 17th — 5th — " 965 of 25th — 5th — " 1543A of 11th June 1873 " 3107 of 13th December 73 " 178 of 25th January 1874 " 1761A of 30th June 1874 " 2311 of 12th August 1874 " 3393 of 3rd December 1874 " 1177 of 14th June 1875 " 2293 of 21st August 1875 " 3442 of 3rd December 1875 " 3643 of 21st — 12th — " 135 of 26th January 1876

1	Draughtsman's Establishment		40
1	Clerk		16
3	Lascars	at Rs 7 and	21
5		Total	86
23	For 23 Divisions		1978

4. Extra Officers
Office Establishments.

Coimbatore Dist. Coimbatore ... 1
Eastern Delta Dist. Cuddalore ... 1
Palghat Dist. (West Coast Land) ... 2
Malabar District ...
Salem Division. Salem District ... 3
Govt. of India Pl. No. 1458 dated 6th March 73 printed with Pl. No. 1 Nos. of 21st April 1873
" " 2500 of 29 October 1872
" " 770 of 11th March 1873
" " 2401 of 15 October 1873
" " 2636 of 25 October 1873
" " 2532 of 6th — Dec — 1874
" " 1525 of 25th July 1876.

1 Clerk ... 22
2 Lascars at Rupees 14 ... 28
Total 36

For 4 Extra Officers ... 144

36. Sub Divisional
Office Establishments
Rs. 144 to 1 District.

Bangalore District ... 1
Bellary ... 3
Cuddapah ... 3
Chingleput ... 3
Ganjam ... 3
Godavery ... 1
Kistnah ... 2
Madura ... 2
Nellore ... 2
North Arcot ... 2
South Arcot ... 1
South Canara ... 2
Tanjore ... 1
Tinnevelly ... 6
Total 36

1 Clerk ... 25
2 Lascars at Rupees 7 each ... 14
3
Total 39

For 36 Office Estts. ... 1404

1 Sub Engineer and
1 Superintendent at the
Presidency and
187 Overseers

Office Establishments

Bangalore Division	2		
Bellary	17		
Cuddapah	12	1 Apprentice (Clerk)	
Chingleput	5	2 Lascars at Madras	
Coimbatore	11	—	
Ganjam	6	3	
Godavery	10	—	
Hamsul	9	187	For 187 Upper Subordinates
Kurnul	8		
Malabar	12		
Nellore	11		
Nilgiris	2		
North Arcot	10		
Presidency	5		
Salem	10		
South Arcot	7		
South Canara	6		
Tanjore	10		
Tinnevelly	8		
Trichinopoly	7		
Vizagapatam	3		
Total	187		

Total including the 2nd Engr
& Superintendent at the
Presidency 189

Govt of India G.O.R. dated
4 th March 1870 prescribed
G.O. No 803 of 20th April 70
G.O. No 2733 of 21st Nov 1870
" 467 of 18 July 1871
" 767 of 5 March 1872

For Lower Subordinates

Office Establishments

	Draftsmen and Overseers		
Bellary	5		
Cuddapah	8		
Chingleput	4		
Coimbatore	4	1 Apprentice (Clerks)	15
Ganjam	4	1 Lascar	6
Godavery	10	—	
Kurnool	8	2	Total 21
Madura	7		
Malabar	8	For 97 Lower Subordinates	1970
Nellore	7	1 Apprentice (Clerk)	10
Nilgiris	1	1 Lascar	6
North Arcot	5	2	Total 16
Salem	6		
South Arcot	5	For 3 Lower Subordinates in the Nellore District	48
South Canara	3		
Tanjore	6		
Tinnevelly	5		
Trichinopoly	3		
Vizagapatam	3		
	Total 97		

Pl. Rs. 2 of 25th Jany 75
" " 26 of 25 Sept 75
" " 30 of 15 Dec 75
" " 32 of 31 Dec 75

Paumben Establishment

Govt of India N.D. No 2005 of 18 June 1873 printed in P.D. Proc of 25 April 1873

G.O. No 230 of 26 May 1876

1 Clerk		30
1 Storekeeper		25
	Total Rs	55
Workshop Establishment		
1 Carpenter		17½
1 Blacksmith		17½
1 Hammerman		11
1 Bellowsboy		5
4 Lascars at 5 Rs each		22
	Total Rupees	83
	Total of Paumben Estt	138

Examiner of Public Works Accounts

Govt of India P.W.D.		
No 2056 C of 26 May 70 printed with G.O. No 23 of 27 April 1870 of India P.W.D.	2 Superintendents' Establishments	576
	27 Do Do	2700
	5 Do Do	2070
	5 Clerks	175
No 322 E of 20 Sept 70	9 Do	270
printed with G.O.	4 Do	120
No 252 F of 16 Feb 70	6 Do	120
Govt of India P.W.D.	5 Apprentices	75
No 162 A of the 12th	2 Munshis	60
January 1870 printed	5 Translating Copyists	56
with G.O. No 349 of	9 Lascars @ Rs 11	99
15th February 1870 —	Total	9370
also G.O. No 1240 of		
date 5th May 1870 —		
G.O. No 2310 of 19th		
August 1870 and		
G.O. No 870 of 30th April		

Distribution of Office Establishments for each District

Total 12497½ 8613 528 36 1642 4 144 187 5103 97 2022 123 8425 39083 147 405 133 6025