M.R.O. 1—77,006—8-8-37.

(1) Number of pages 14

(2) Date of repair 18-2-44

3. Initials of the Referencer

MADRAS RECORD OFFICE.

Government of Madras.

Public works **DEPARTMENT.**

G.O. No. 532 Press Mis.

305-06

Dated 15 2 1820.

Not to be folded or roughly handled

No. 505. Read the following Proceedings of the Board of Revenue, dated 21st December 1869, No. 9,436:—

Read the following letter from the Officiating Collector of Malabar, to the Acting Secretary to the Board of Revenue, dated Calicut, 30th October 1869, No. 296:—

I HAVE the honour to submit my report on the works executed during the year 1868-69, from Imperial Funds in this district.

2. The expenditure on Irrigation works, on Communications, and on Buildings, as contrasted with the outlay of the preceding year, is shown in the subjoined statement:—

N. B.—Expenditure by Revenue Department ...

	Rs.	A.	P.
Irrigation.			
Repairs to Yenamakal Dam	604	14	4
Do. to Veatil do. ...	208	8	0
Thatching the Watch-house at Veatil	2	0	0
Total...	815	6	4
Communications.			
Making approaches to the Huzoor Office... ...	25	0	0
Repairs to the road from Manantoddy to Panamaram...	36	9	10
Total...	61	9	10
Buildings.			
Constructing a Civil Hospital at Manjeri ...	2,010	0	0
Do. Stable at the Huzoor Cutcherry	100	0	0
Repairs to Revenue, etc., buildings	1,351	4	3
Do. to Public Bungalows	500	0	0
Total...	3,961	4	3
Grand Total...	4,838	4	5

Items.	1867-68.			1868-69.			Increase.			Decrease.		
	Rs.	A.	P.	Rs.	A.	P.	Rs	A.	P.	Rs.	A.	P.
Irrigation.												
New	...	...	...	...	...	...	...	...	...	...	...	...
Repairs ...	400	0	0	1,140	9	10	740	9	10	...	...	...
Communications.												
New	2,13,204	2	11	2,86,026	1	7	72,821	14	8	—	...	...
Repairs ...	66,576	11	1	89,023	2	0	2',446	6	11		...	...
Buildings.												
New	2,30,057	2	6	2,33,193	15	7	...	...	...	3,863	2	11
Repairs ...	20,383	5	11	18,791	7	9	..	...	...	1,591	14	2
Miscellaneous...	1,037	9	3	114	0	0	...	...	...	923	9	3
Total...	5,31,658	15	8	6,21,289	4	9	96,008	15	5	6,378	10	4
Expenditure by Revenue Department ...	5,539	15	9	4,838	4	5	...	...	...	701	11	4
Grand Total...	5,37,198	15	5	6,26,127	9	2	96,008	15	5	7,080	5	8

3. *Irrigation.*—As in former years, the expenditure under irrigation has been confined to the repairs of some of the existing petty works.

4. *Communications.*—Rupees 3,75,049 have been expended on Communications, being an increase of Rupees 95,268 over the expenditure of the previous year. The largest outlay has been on the under-mentioned works, almost all of which, it will be observed, are connected more or less with the three important ghauts, Peria, Tambracherry, and Karkur:—

	Amount expended in 1868-69. Rs.
Peria Ghaut, new trace	30,562
New trace from Manantoddy to Coorg frontier ...	13,164
Kalpetta to Sultan's Battery	15,826
Tambracherry Ghaut	83,258
Karkur Ghaut	16,786
Bridges over the Cherupoya and Nelambur rivers on the road from Mambat to the foot of Karkur Ghaut	18,902
Road below Karkur Ghaut from Mambat to Kundoti..	36,127

5. *Buildings.*—The expenditure on buildings amounted to Rupees 2,44,985, exclusive of Rupees 3,961 expended by the Revenue Department. The subjoined statement exhibits the outlay under each department :—

Description.	New works.	Repairs.	Total.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
Military buildings	66,589 13 2	13,814 15 5	80,404 12 7
Revenue do.	1,195 8 3		
Public do.	1,51,104 9 1	4,976 8 4	1,61,580 10 9
Judicial do.	7,304 1 1		
Ecclesiastical do.	... ...		
Total...	2,26,193 15 7	18,791 7 9	2,44,985 7 4
Expenditure by the Revenue Department	2,110 0 0	1,851 4 3	3,961 4 3
Total...	2,28,303 15 7	20,642 12 0	2,48,946 11 7

6. The works on which the largest expenditure was incurred are noted below :—

		Expended in 1868-69. Rs.
1.	Central Jail at Cannanore	89,704
2.	District Jail at Calicut	24,379
3.	Artillery Barracks and Married quarters at Cannanore	17,775
4.	Commissariat Godown at Cannanore	13,960
5.	Alterations to the Leper Hospital at Palliport ...	9,612
6.	Lunatic Asylum at Calicut	6,579
7.	Talook Cutcherry at Tellicherry	7,517

7. *General remarks on the progress of the several works.*—The following remarks on the state of public works and the requirements of the district are prepared from notes left by Mr. Ballard, and from the reports of Division Officers:—

8. *Peria Ghaut, new trace.*—Rupees 30,500 have been expended on this work during the year. The roadway below is good, and not only is the coffee crop of North Wynaad now brought down almost entirely on carts, but miscellaneous cart traffic is fairly established. The improvement of the road above the ghaut head to Manantoddy and the Mysore frontier is being very judiciously pushed on, and careful up-keep will soon be all that will be necessary. This ghaut will be tolled. A bridge is much required at Mambram where the road crosses the Anjcrakandi river.

9. *Coast road.*—Has been much improved, especially about Badagerra, but still wants some of the gradients raised, and the roadway better metalled. The Kodavally and Dharmapatam bridges have been put in thorough repair. The other bridges on this line, namely, at Ellatur, Mahé, and Kudakadava will never be safe until the wooden piles are replaced by stone piers or iron screw piles. The whole of these bridges should, if possible, be of iron, but if that is too expensive, properly seasoned wood should be used. The Mahé bridge is in an unsafe condition, and will require repairs during the present year.

10. *Cannanore to Coorg frontier.*—Was in fair condition during the year. In the working season this road is dreadfully cut up by the cart traffic, and it is evident that a better description of metalling is required. Broken stone has been employed in some places, but the road most requires good metalling between Ullil bungalow and Chavacheri. Some of the gradients are too steep, for instance, that near the Ullil bungalow, and should be razed.

11. *Kalpatty to Sultan's Battery.*—Rupees 15,826 were expended on this road. The earthwork of all but about a quarter of a mile near Kalpatty is completed. The road is temporarily bridged.

12. *Sultan's Battery to Mysore frontier.*—Road surface completed and temporarily bridged throughout.

13. *Road between Vytri and Kalpatty.*—Earthwork is completed and culverts are nearly finished.

14. *Tamberacherry Ghaut.*—Rupees 83,258 expended. Regarding this work, Mr. Ballard says, "The great event of the year as regards the communications of "the district is the opening of the Tamberacherry ghaut to cart traffic. It was "only accomplished by Major Kennedy's invincible determination to have the "ghaut opened in 1868, and now the ghaut will remain a lasting monument of his "engineering talent. The first carts passed up the last day of the year. There "is a good deal of further widening and finishing up to be done still, but Major "Kennedy assures me he will be able to accomplish this without closing the ghaut, "and all next season's crop will probably be carted down from South Wynaad, as "well as from considerable portions of South-East Wynaad." I regret, however, to state that a serious landslip occurred during the monsoon, and the upper portion of the ghaut has, in consequence, been rendered completely impassable. Major Kennedy is, however, hard at work, repairing the damage done. The road will be shortly, if it is not already, open for bullock, and will be completely repaired and ready for cart traffic before next year's crop is ready for transport to the Coast.

15. *Road from Mambat and Edakarra Bridge to Karkur Ghaut.*—Rupees 8,632. The road is in good order, but the Edakarra bridge has, I regret to state, been damaged, the centre piece having been destroyed by floating timber in the early part of last monsoon.

16. *Bridges over the Cherupoya and Nelumboor Rivers on abovesaid.*—Rupees 18,901 expended during the year. The piers and abutments of the Nelumboor bridge are finished, and the woodwork is in progress. The Cherupoya bridge has been damaged, the northern abutment having given way. An estimate for its repair is under preparation.

17. *Road between Mambat and Kundotti.*—Rupees 36,126 expended. This road has been finished, and only requires one bridge, viz., over the Perawanna river between Eddawana and Areakode. This bridge is half completed, and only requires a timber-platform. I have gone over this line myself. It is in capital order, well traced throughout, and through a difficult country.

18. *Miscellaneous.*—New Artillery Barracks and married quarters at Cannanore, Rupees 17,774 expended.

These works have been completed during the year.

19. *Central Jail at Cannanore.*—Rupees 89,704. This work has made good progress, and as the enclosing walls have been completed, the site is occupied by the prisoners, who are partly hutted in temporary sheds. The site is a magnificent one, and the arrangements generally are excellent. The buildings are tiled with Mangalore tiles, which promise to be very satisfactory, and make a handsome roof.

Talook Cutcheries at Tellicherry and Manjeri.

Badagarra.	Pudiangadi.
Vytri.	Chowghaut.
Gudalur.	Angadipuram.
Alatur.	Cherpulcheri.
Palghaut.	Chevayur.

20. These works have been commenced and good progress made with the subsidiary jail buildings at the former place.

21. The subsidiary jail accommodation at the places noted in the margin have been greatly improved.

22. *District Jail at Calicut.*—Rupees 24,378. This jail is completed with the exception of some very trifling work. The prisoners have not been moved into it as yet, but I anticipate that, after the approaching inspection of Colonel Wilson, the necessary orders will be given.

23. The Lunatic Asylum at Calicut is in progress, the boundary and dividing walls having been nearly completed.

24. The General Hospital at Cannanore has been converted into a Talook Cutcherry. There is fair accommodation generally, but some improvements have been suggested which will greatly add to the convenience, and in some degree improve the appearance of the building.

25. As regards the requirements of the district, the most important work remaining to be executed is the bridging of the Great Western road at Mammali, the timber-bridge over the Beypore river at this point having been destroyed several years ago. I trust that provision will be made for the work in next year's budget, Government having sanctioned the preparation of plan and estimate.

26. The Kunnadi river, at Palghaut requires bridging, or at least a substantial causeway for fair-weather traffic. This work will receive consideration hereafter, but as other important works have to be completed, Government have deferred the proposal for the erection of a bridge at this place.

Vide G. O., dated 22nd March 1869, No. 957.

27. The river near the Pattamby Railway Station, crossed by Trunk Road No. 5, requires either bridging or the construction of a suitable causeway. Colonel Walker proposes to obviate the necessity of a bridge at this place by taking a line leaving the road from Ponani at Padinharangadi and running (south of the present line) direct to the Shoranoor bridge. This will answer nearly all the purposes of providing better crossing at Pattamby. The line would be Ponani to Shoranoor, instead of Ponani to Pattamby, and should come on the Imperial Budget as a salt road. It will have, I believe, to traverse some extent of Cochin territory, and as the Cochin Sirkar have already constructed the fine bridge at Shoranoor, I doubt whether it would be fair to ask them to contribute to the proposed road more than by giving the land.

Vide G. O., dated 10th June 1869, No. 1,885.

28. The construction of a jetty at Calicut has been sanctioned, and has been given on contract to Mr. Maylor, and will, it is hoped, be put in hand very shortly.

ENCLOSURE No. 1.

IMPERIAL FUND.

List of Important New Works executed during the year 1868-69, in the District of Malabar.

Description of Work.	Amount of Estimate.	Expenditure during the year.	State of Progress, etc.
	Rs. A. P.	Rs. A. P.	
Peria Ghaut new trace	1,33,238 0 0	30,562 2 9	Completed.
Bawali road towards Mysore frontier	33,660 0 0	6,936 0 2	In progress.
New Trace from Manantoddy to Coorg frontier	42,400 0 0	13,163 8 11	Do.
Twenty-seven Culverts on Peria road	15,800 0 0	3,615 14 4	Do.
Constructing Bridges on Terriot road	10,256 0 0	1,188 10 7	Completed.
Sultan's Battery to Mysore frontier	30,000 0 0	547 3 7	Completed temporarily, bridged throughout.
Culverts between Sultan's Battery and Mysore frontier ...	18,320 0 0	1,840 8 11	In progress.
Kalpatty to Sultan's Battery	76,024 0 0	15,826 7 6	Earthwork of all but about a quarter of a mile near Kalpatty completed. Temporarily bridged.
Timber Platform Bridge over Kallur River ...	15,450 0 0	4,917 0 1	In progress.
Road between Vytri and Kalpatty	41,400 0 0	6,552 12 6	Earthwork completed. Culverts nearly completed.
Bridge over Koonooth River	16,000 0 0	4,285 9 11	Masonry completed. Timber girders three parts done.
Kalpatty Bridge	16,500 0 0	9,271 13 11	Masonry completed.
Earthwork and Bridges between Lakadi and Vytri ...	25,150 0 0	3,920 12 5	Bridges and culverts in course of construction.
Tamberacherry Ghaut	1,46,413 0 0	83,258 2 8	Widening and improving the roadway. In progress.
Gudalur to Tippakalu	58,388 0 0	7,315 1 8	Eleven miles from Tippakadu to Gudalur opened out for bandy-traffic and maintained in good order.
Karkur Ghaut to Gudalur	64,086 0 0	9,464 2 3	The road opened out for bandy-traffic. Portions require widening and several road tunnels to be constructed.
Karkur Ghaut	1,07,400 0 0	16,786 0 8	Barrelling road. Blasting operation in progress.
Road from Mambat to the foot of Karkur Ghaut including Edakara Bridge, Karkur Ghaut Earth-works, etc., below.	32,550 0 0	8,632 12 6	Centre pier raised 12 feet, and abutment up to 20 feet, woodwork of platform being constructed.
Bridges over the Cheripoya and Nelumboor Rivers on the road from Mambat to the foot of Karkur Ghaut.	54,600 0 0	18,901 9 2	The 1st, 2nd, and 3rd piers of Nelumboor bridge are raised up to 37½, 28, and 16 feet, respectively—abutments raised up to 35 feet.
Road below Karkur Ghaut from Mambat to Kondoti ...	90,230 0 0	36,126 13 2	Bridge No. 119, road from Areakode to Kondoti almost completed. Other bridgework, etc., in progress.
Reconstructing Kutilangadi Bridge	18,800 0 0	1,243 12 10	Foundations excavated, and materials collected.

List of Important New Works executed during the year 1868-69, etc.—(Concluded.)

Description of Work.	Amount of Estimate.	Expenditure during the year.	State of Progress, etc.
Miscellaneous.	RS. A. P.	RS. A. P.	
Constructing new Artillery Barracks and Married quarters at Cannanore, and altering the Drivers' Bungalow into an Hospital for the Garrison Battery.	1,05,300 0 0	17,774 15 11	Completed and paid up in full.
Do. Commissariat Godown at do.	28,780 0 0	13,959 14 3	Flooring completed, and ceiling in progress.
Do. Grand Powder Magazine at do.	20,700 0 0	3,972 7 5	Do.
Do. the Central Jail at Cannanore	3,00,305 0 0	89,704 2 0	Jail wall built up 16 feet full height all round. Male Hospital and out-houses, Male Ward Nos. 1 and 2 completed. Male Wards Nos. 3 to 7 in progress. Foundation of Female Ward and Hospital built. Latrine wall raised full height all round. Walls and pillars of Jailer's quarters raised full height. Wall of European Constables' quarters No. 1 raised about 7½ feet. Basement of quarter No. 2 completed. Well No. 1 sunk 40 feet; walls and pillar of Cook-houses Nos. 1 and 2 raised full height. Excavating foundation of latrine.
Do. Taluk Cutcherry at Tellicherry	30,000 0 0	7,516 15 9	Excavating foundation 12,018 cubic feet—masonry work executed.
Do. Subsidiary Jail at Badagara	... ...	3,093 4 9	Masonry work nearly completed.
Do. New Cook-room for the European Infantry Detachment at Malliapuram.	3,330 0 0	1,664 15 3	In progress.
Erecting Temporary Sheds, etc., for the accommodation of Troops embarking and disembarking at Beypore.	8,170 0 0	7,998 9 4	Approaching completion.
Constructing a new District Jail at Calicut	80,000 0 0	21,378 11 11	Additions in progress, viz., work-sheds, cook-house, glazed windows, etc.
Do. Talook Cutcherry at Manjeri	25,000 0 0	2,625 4 4	Superstructure of Subsidiary Jail raised 9 feet, and foundations for remainder of Cutcherry in progress.
Do. Lunatic Asylum at Calicut	31,000 0 0	6,579 9 1	Boundary and dividing walls almost completed.
Do. Moonsiff's Court at Payangadi	2,240 0 0	497 0 0	Completed.
Reconstructing Fish-oil Manufactory Building at Calicut ..	1,480 0 0	195 8 3	In progress.
Enclosing the compound of the Collector's Cutcherry with a wall and railing.	1,275 0 0	697 6 11	Completed.
Additions and alterations to the Leper Hospital at Palliport.	10,360 0 0	9,612 3 4	Boundary wall complete, except tarring palisades, two side wards, two wells, and two latrines completed, Dispensary and Lodge also completed. Other works in progress.
Constructing Police Inspector's Bungalow at Manantoddy.	2,421 0 0	511 12 0	Completed.
Do. Eight Police Huts at Manantoddy	6,400 0 0	2,272 2 9	All materials collected.
Do. Four Blocks of two Police Huts at Vytri	5,046 10 8	1,370 11 1	} Completed.
Do. Head Constable's House at Vytri	1,954 0 0	351 3 5	
Do. Two Blocks of two Police Huts at Kalpatty ...	3,456 0 0	1,019 4 6	Masonry of one block completed, materials being prepared for remainder of work.
Do. Post Office at Vytri	4,420 0 0	977 10 8	Completed with the exception of roofing of privy and cook-house.
Do. Sub-Magistrate's Cutcherry with Treasury, Subsidiary Jail, and Post Office at Gudalur.	8,500 0 0	891 1 6	Levelling site and making approaches.

CALLICUT,
30*th October* 1869.

(Signed) A. McC. WEBSTER,
Officiating Collector.

RESOLVED that the foregoing letter be submitted for the information of Government.

2. The following remarks occur to the Board :—

3. As there are few irrigation works in Malabar of a public or commercial character, the expenditure under that head has been small.

4. Under the head "Communications," 3¾ lacs have been spent chiefly on roads in connection with the Wynaad and Western Ghauts. The road from Cannanore, *viâ* Peria Pass and Manantoddy to the Mysore frontier is well-advanced, and the Pass quite practicable for wheel traffic.

5. The coast line has been much improved, but the wooden bridges require to be replaced by more permanent structures.

6. Improved metal has been applied with beneficial result to the Cannanore and Coorg road, (*viâ* Perambady Ghaut).

7. The Tamberacherry Pass was opened for wheel traffic before the end of 1868, but landslips which occurred during the early part of the late monsoon have temporarily rendered the ghaut impassable.

8. The report speaks highly of the energy displayed by Major Kennedy, both in the original formation of this road, and in the work of its repairs which will soon be completed.

9. Several minor roads in Wynaad are favourably reported on, and the roads below the ghauts which lead from the Karkur Pass are being pushed forward, little remaining to complete them.

10. The report under the head "Buildings," shows that the District Jail at Calicut is complete, and that the wall enclosing the Central Jail at Cannanore has been finished. The buildings also at the latter place are progressing favourably, and the lock-up accommodation at most of the Magistrates' stations has been much improved during the year.

11. The Lunatic Asylum at Calicut is reported to be in progress, and the General Hospital at Cannanore has been successfully converted into a Talook Cutcherry.

12. On the whole, the Board consider this report very satisfactory, as showing great progress in the public works of the district during the year.

Para. 11 of G. O., 11th Nov. 1868, No. 2,831, communicated to the Collector in Board's Procs., 25th Nov. 1868, No. 8,321.

13. The information regarding the total mileage of Imperial roads in the district, called for in the orders marginally noted, has not been given.

14. The Collector is requested to furnish this information in the form of a statement without delay.

No. 306. ORDER THEREON, 15th February 1870, No. 532.

ESTABLISHMENT, No. 28.

COMMUNICATED to the Superintending Engineer of the 7th Division, and to Major Kennedy.

(True Extract.)

Colonel, R.E.,
Secretary to Government.

No 532

Communicates by the Supt Engineer of the 7th Division, and to Major Kennedy —

A.G.O. Washington
5 Feb 3/03

To the Supt Engr 7th Div ✓
Major H. B. Kennedy ✓
" Kennedy Desp ✓

Copies 17/2/03.

Cue 151

Govt. of {1870} Madras.

PUBLIC WORKS.

To The Superintending Engr
Mr Lawson

Dated

Recd. Rnd.

G. O., 15-Feby 1870, No. 532

Nos. 305-316

Progs & Br Prov & Ruke
& Revr submitting notes
Remarks Estimate & Plan
Coll & Malabar on the
Progs & Br works &c
during 1868-69 - and Plan
&c enclosed