

(1) Number of pages _____

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MADRAS RECORD OFFICE

Government of Madras

Public Works

DEPARTMENT

G.O. No. - 2271	Press
B.P. No. _____	Mis. _____
Dated 17 - 8 - 195	C874

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
17th August 1874.*

No. 335. Read the following letter from Lieut.-Colonel J. F. FISCHER, R.E., District Engineer, Godavery, to Lieutenant-Colonel J. MULLINS, R.E., Chief Engineer for Irrigation and Joint Secretary to Government, dated Dowlaishweram, 27th April 1874, No. 244:—

As requested in paragraph 1 of your memorandum of the 13th February last, No. 156, I have the honor to forward herewith a complete return of the harbour and river plant in this district, and to state that estimates for the immediate repair and maintenance of the plant will follow as soon as they can be prepared. I regret to say the iron punts from constant use in carrying heavy stone are much out of repair; but if these are taken into the shop for mere ordinary repairs the delta works suffer as they are so few in number.

- 1 Statement of Harbour Floating Plant.
- 1 Statement of River Floating Plant (despatched in a separate cover.)

Proceedings of the Madras Government,

Statement of the River Floating Plant in the Godavery District showing the nature of employ

DETAILS OF PLANT.				MEASUREMENT OF PLANT.						Engines.	
Registered Number.	Description.	Name of Boat, etc.	Date of construction.	Hull over all.			Extra width for Paddle Box.	When loaded.		No. H. P.	Description.
1	2	3	4	Length.	Breadth.	Depth.	8	Draft.	Tons carried.	11	13
II. III. IV. VI. VII. VIII. 12	Iron	Steamer Prince	1861	140	25	7	18	8 9	70	45	Condens- ing.
	Do.	Do. Thistle	1859-60	95	14 6	4 3	3 6	2 6	No storage room.	12	High pres- sure.
	Do.	Do. Little Nell	1859-60	90	9 3	4 3	6	3 0		12	Do. oscil- lating.
	Do.	Do. Faun	About 1860-61	61 9	9 0	2 3	5 6	2 0		6	High pres- sure.
	Do.	Canal Dredge	1859-60	90 0	14 0	3 9	...	2 0		10	Do. ...
	Do.	Do.	Do.	50 0	8 0	3 6	...	3 0	...	4	Do. ...
	Do.	Do.	Do.	90 0	14 0	3 9	...	2 0	...	8	Do. ...
	Do.	Do.	Do.	90 0	14 0	3 9	...	2 0	...	8	Do. ...
	Do.	Do.	Do.	90 0	14 0	3 9	...	2 0	...	8	Do. ...
	Do.	Do.	Do.	90 0	14 0	3 9	...	2 0	...	8	Do. ...
	Do.	Trap Punt	Do.	90 0	14 0	3 9	...	2 0	...	8	Do. ...
	Do.	Do.	Do.	60 0	10 4	2 9	...	2 0	...	...	...
1	Wooden	Deep Boat	1871-72	72 0	12 0	4 6	...	3 6	25 C. yds.	...	...
2	Do.	Do.	1872-73	72 0	12 0	4 6	...	3 6	25	...	...
3	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
4	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
5	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
6	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
7	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
8	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
10	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
7	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
8	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
9	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
1	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
12	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
2	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
8	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
11	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
13	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
1	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
2	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
0	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
3	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
5	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
6	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
9	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
14	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
15	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
16	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
17	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
19	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
20	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
23	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
24	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
27	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
28	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
32	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
36	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
37	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...
38	Do.	Do.	Do.	72 0	12 0	4 6	...	3 6	25	...	...

Public Works Department, 17th August 1874.

ment, the cost of up-keep, and the fund or estimate from which to be maintained during 1874-75.

MACHINERY, ETC.				Average speed, miles per hour.	VALUE OF PLANT.		Cost of annual up-keep as per details appended.	EMPLOYMENTS DURING 1874-75.				Remarks.—Present condition and how to be disposed of if irreparable.
Boilers.		Propellers.			Original.	Present book value.		District.	Locality.	Work.	Fund.	
Pounds pressure.	Description.	Description.	Revolutions.									
13	14	15	16	17	18	19	20	21	22	23	24	25
45	2, Horizontal.	Side wheels.	32	8	Rs. 33,000	Rs. 21,450	Rs. ...	...	...	...	...	In good order, no charges at present.
60	1 do. ...	Do. ...	22	6	20,014	12,509	732	...	...	...	...	Do., petty repairs to engine required.
60	1 do. ...	Do. ...	22	6	16,436	10,270	478	...	...	...	...	In good order.
60	Vertical...	Do. ...	Uncertain.	4	1,800	1,170	...	...	...	...	...	
60	Vertical...	...	22	...	26,373	16,484	755	...	...	...	...	Boiler is very bad, new one indented for.
60	Do. ...	...	22	...	15,395	9,622	766	...	...	...	...	
60	Horizontal.	...	22	...	30,437	19,024	325	...	...	...	...	Only useful for dredging, cost. of conversion into trap punt was Rs. 1,026 paid in 1869-70.
60	Do. ...	...	22	...	30,437	19,024	138	...	...	...	...	
60	Do. ...	...	22	...	30,437	19,024	254	...	...	...	...	
60	Do. ...	...	22	...	31,097	19,436	202	...	...	...	...	
...	...	...	...	...	2,811	2,399	...	...	...	...	...	
...	...	...	...	...	1,026	...	...	...	...	...	...	
...	...	...	...	...	2,330	2,156	...	...	...	...	...	Wants caulking. In good order.
...	...	...	...	...	2,117	2,012	...	...	...	...	...	
...	...	...	...	...	1,750	1,663	...	...	...	...	...	Fair order.
...	...	...	...	...	1,750	1,663	...	...	...	...	...	
...	...	...	...	...	1,750	1,663	...	...	...	...	...	
...	...	...	...	...	1,750	1,663	...	...	...	...	...	
...	...	...	...	...	1,750	1,663	...	...	...	...	...	The deck and hull are very bad.
...	...	...	...	...	1,750	1,663	...	...	...	...	...	
...	...	...	...	...	1,500	1,050	...	...	...	...	...	Two holes in the bottom. There are a number of holes in the bottom. Two holes in the bottom.
...	...	...	...	...	Unknown.	...	...	...	...	...	...	
...	...	...	...	...	1,800	1,260	...	...	...	...	...	
...	...	...	...	...	4,693	3,051	...	...	...	...	...	
...	...	...	...	...	4,693	3,051	...	...	...	...	...	Decks bad.
...	...	...	...	...	4,693	3,051	...	...	...	...	...	
...	...	...	...	...	5,000	3,500	...	...	...	...	...	
...	...	...	...	...	4,694	3,169	...	...	...	...	...	
...	...	...	...	...	5,817	5,527	...	...	...	...	...	Decks are very bad, there are some holes in the bottom.
...	...	...	...	...	5,817	5,527	...	...	...	...	...	
...	...	...	...	...	6,243	5,931	...	...	...	...	...	
...	...	...	...	...	2,812	1,758	...	...	...	...	...	
...	...	...	...	...	2,812	1,758	...	...	...	...	...	Decks are little bad.
...	...	...	...	...	2,812	1,758	...	...	...	...	...	
...	...	...	...	...	2,812	1,758	...	...	...	...	...	
...	...	...	...	...	2,812	1,758	...	...	...	...	...	
...	...	...	...	...	2,812	1,758	...	...	...	...	...	Decks are very bad.
...	...	...	...	...	2,812	1,758	...	...	...	...	...	
...	...	...	...	...	2,812	1,758	...	...	...	...	...	
...	...	...	...	...	2,812	1,758	...	...	...	...	...	
...	...	...	...	...	2,812	1,758	...	...	...	...	...	Decks are bad.
...	...	...	...	...	2,812	1,758	...	...	...	...	...	
...	...	...	...	...	2,812	1,758	...	...	...	...	...	
...	...	...	...	...	2,812	1,758	...	...	...	...	...	
...	...	...	...	...	2,812	1,758	...	...	...	...	...	Decks are bad.
...	...	...	...	...	2,812	1,758	...	...	...	...	...	
...	...	...	...	...	2,812	1,758	...	...	...	...	...	
...	...	...	...	...	2,812	1,758	...	...	...	...	...	

Statement for the River Floating Plant in the Godavery District showing the nature of

DETAILS OF PLANT.				MEASUREMENT OF PLANT.							
Registered Number.	Description.	Name of Boat, etc.	Date of construction.	Hull over all.			Extra width for Paddle Box.	When loaded.		Engines.	
				Length.	Breadth.	Depth.		Draft.	Tons carried.	No. H. P.	Description.
1	2	3	4	5	6	7	8	9	10	11	12
3	Iron	No. 3 Range.									
4	Do.	Canal Pump*	...								
14	Do.	Do.	1859-60	60 0	10 4	2 9		20	12 C.yds.	...	...
24	Do.	Do.*	1859-60	60 0	10 4	2 9		20	12 "	...	...
25	Do.	Do.	1859-60	60 0	10 4	2 9		20	12 "	...	...
26	Do.	Do.	1859-60	60 0	10 4	2 9		20	12 "	...	...
27	Do.	Do.	1859-60	60 0	10 4	2 9		20	12 "	...	...
28	Do.	Do.	1859-60	60 0	10 4	2 9		20	12 "	...	...
29	Do.	Do.	1859-60	60 0	10 4	2 9		20	12 "	...	...
30	Do.	Do.	1859-60	60 0	10 4	2 9		20	12 "	...	...
31	Do.	Do.	1859-60	60 0	10 4	2 9		20	12 "	...	...
32	Do.	Do.	1859-60	60 0	10 4	2 9		20	12 "	...	...
33	Do.	Do.	1859-60	60 0	10 4	2 9		20	12 "	...	...
1	Do.	Light Boat	1859-60	60 0	10 4	2 9		20	12 "	...	...
				35 0	10 4	2 9		20	13 "	...	...
					8 6	3 0		19	13 "	...	...
1	Do.	Do.	Purchased from Upper Godavery in March 1871.	35 0	8 6	3 0		19	3 Garces lime or sand.	...	...
2	Do.	Do.		35 0	8 6	3 0		19	3 "	...	...
3	Do.	Do.		35 0	8 6	3 0		19	3 "	...	...
29	Do.	Do.		35 0	8 6	3 0		19	3 "	...	...
30	Do.	Do.		35 0	8 6	3 0		19	3 "	...	...
31	Do.	Do.		35 0	8 6	3 0		19	3 "	...	...
33	Do.	Do.		35 0	8 6	3 0		19	3 "	...	...
34	Do.	Do.		35 0	8 6	3 0		19	3 "	...	...
35	Do.	Do.		35 0	8 6	3 0		19	3 "	...	...
0	Wooden	Do.		35 0	8 6	3 0		19	3 "	...	...
0	Do.	Do.		35 0	8 6	3 0		19	3 "	...	...
	Iron	Dredge Pant	1873-74	40 0	9 0	3 0		19	3 "	...	...
	Do.	Do.	1871-72	40 0	9 0	3 0		20	3 "	...	...
	Do.	Do.	1871-72	30	13	2 6		20	3 "	...	...
	Do.	Do.	1871-72	30	13	2 6		20	3 "	...	...
	Do.	Open Boat	1871-72	30	13	2 6		20	3 "	...	...
	Do.	Do.	1872-73	30	13	2 6		20	3 "	...	...
			1872-73	37 3	7 6	3 0		20	3 "	...	...
				36 7	7 6	2 7		...	...	...	...
								...	...	...	...
								...	...	...	...
1	Wooden	Range Boats.									
2	Do.	Boat, 1st Class	...	1868-69	44	7 0	3 0		...	...	...
3	Do.	Do.	...	1870-71	44	7 0	3 0		...	...	...
10	Do.	Do.	...	1869-70	44	7 0	3 0		...	...	...
6	Do.	Boat, 2nd Class	...	1872-73	44	7 0	3 0		...	...	...
6	Do.	Do.	...	1869-70	30	6 3	3 0		...	...	...
7	Do.	Old Boat, 2nd Class	...	1869-70	30	6 3	3 0		...	...	...
			used as range boat from 1870-71.	33	6 2	2 7		...	...	...	...
								...	...	...	...
8	Do.	Boat, 3rd Class	...	1868-69	25 0	6 3	3 0		...	...	...
9	Do.	Do.	...	1869-70	25 0	6 3	3 0		...	...	...
	Wooden	Paddle boat	...	...	30 0	6 10	2 6		...	...	...
	Do.	Wooden flat 5 1/2 tons	Upper Godavery	Plant	...	...	...		...	...	...
	Do.	Boats	1870	70 0	10 0	5 0		...	...	...	...
	Do.	Do.	1871	70 0	10 0	5 0		...	...	...	...
	Iron	Steamer Godavery.	1868	140	25	7	25	20	70	60	H. P.

DOWLAISHWERAM,
27th April 1874.

N.B.—All boats, etc., except those built lately

Public Works Department, 17th August 1874.

employment, the cost of ^{up}-keep, and the fund or estimate, etc.—(Concluded).

Machinery, etc.				Average speed, miles per hour.	Value of Plant.		Cost of annual up-keep as per details appended.	Employments during 1874-75.				Remarks.—Present condition and how to be disposed of if irreparable.
Boilers.		Propellers.			Original.	Present book value.		District.	Locality.	Work.	Fund.	
Pounds pressure.	Description.	Description.	Revolutions.		18	19	20	21	22	23	24	25
...	...	...	...	...	Rs. 2,811	Rs. 1,757	Rs. ...	...	...	...	...	*There are three holes in the bottom, and the decks are very bad, under repair at the workshop. Under repair.
...	...	...	...	...	2,811	1,757	Vide Remarks A.	...	...	...	...	
...	...	...	...	...	2,811	1,757		...	...	...	...	
...	...	...	...	...	2,811	1,757		...	...	...	...	
...	...	...	...	...	2,811	1,757		...	...	...	...	
...	...	...	...	...	2,811	1,757		...	...	...	...	
...	...	...	...	...	2,811	1,757		...	...	...	...	
...	...	...	...	...	2,811	1,757		...	...	...	...	
...	...	...	...	...	2,811	1,757		...	...	...	...	
...	...	...	...	...	2,811	1,757		...	...	...	...	
...	...	...	...	...	2,811	1,757		...	...	...	...	
...	...	...	...	...	2,811	1,757	...	...	...	...		
...	...	...	...	...	2,811	1,757	...	...	...	...		
...	...	...	...	...	1,000	900	...	...	...	...		
...	...	...	...	...	1,000	900	No charges.	...	...	...	...	
...	...	...	...	...	1,000	900		...	...	...	...	
...	...	...	...	...	1,000	900		...	...	...	...	
...	...	...	...	...	1,000	900		...	...	...	...	
...	...	...	...	...	1,000	900		...	...	...	...	
...	...	...	...	...	1,433	1,290	No charges.	...	...	...	...	
...	...	...	...	...	1,433	1,290		...	...	...	...	
...	...	...	...	...	1,000	900		...	...	...	...	
...	...	...	...	...	1,000	900		...	...	...	...	
...	...	...	...	...	1,000	900		...	...	...	...	
...	...	...	...	...	750	732	No charges.	...	...	...	...	
...	...	...	...	...	750	732		...	...	...	...	
...	...	...	...	...	2,310	2,137		...	...	...	...	
...	...	...	...	...	2,310	2,137		...	...	...	...	
...	...	...	...	...	2,310	2,137		...	...	...	...	
...	...	...	...	...	2,310	2,137	No charges.	...	...	...	...	
...	...	...	...	...	200	190		...	...	...	...	
...	...	...	...	...	200	190		...	...	...	...	
...	...	...	...	...	1,200	727		107	...	...	...	...
...	...	...	...	...	1,200	568		50	...	...	...	...
...	...	...	...	...	1,200	804	93	...	...	...	...	
...	...	...	...	...	1,557	1,380	61	...	...	...	...	
...	...	...	...	...	800	781	79	...	...	...	...	
...	...	...	...	...	800	373	71	...	...	...	...	
...	...	...	...	...	400	400	*106	...	...	...	...	
...	...	...	...	...	400	400	40	...	...	...	...	
...	...	...	...	...	400	400	53	...	...	...	...	
...	...	...	...	...	483	736	...	...	...	...	...	
...	...	...	...	...	300		...	...	...	...	...	
...	...	...	...	...	250		...	...	...	...	...	
...	...	...	...	...	400	...	...	...	...	...	...	
...	...	...	...	...	400	...	...	...	...	...	...	
120	1 Horizontal	Stern wheels.	33	9	...	...	...	...	...	...	...	Now used as range boat No. 11.
												In good order not in the list of tools, transferred from Upper Godavery.

are not in good working order.

(Signed) J. F. FISCHER, Lieutenant-Colonel, R.E.,
District Engineer, Godavery.

Proceedings of the Madras Government,

Statement of the Harbour Floating Plant in the Godavery District showing the nature maintained during

DETAILS OF PLANT.				MEASUREMENT OF PLANT.				MACHINERY.			
Registered Number.	Description.	Name of Boat, etc.	Date of construction.	Hull over all.			Extra width for paddle box.	When loaded.		Engines.	
				Length.	Breadth.	Depth.		Drafts.	Tons carried.	No. H. P.	Description.
Iron ...	Steamer	Fred and May.	1859-60.	95	16	7	3	FT. I. 3 6	232	30	Condensing...
Do. ...	Dredge, No. I.	...	Do. ...	90	18	7	None.	3	42	30	Do. ...
Do. ...	Do. " II.	...	Do. ...	90	18	7	Do....	3	42	30	Do. ...
Do. ...	Harbour Punt, No. 1.		Do. ...	50	12	4	...	2 6	10 Tons or 20 cubic yards each.	...	Do. ...
Do. ...	Do. " 2.		Do. ...	50	12	4	...	2 6		...	...
Do. ...	Do. " 3.		Do. ...	50	12	4	...	2 6		...	...
Do. ...	Do. " 4.		Do. ...	50	12	4	...	2 6		...	...
Do. ...	Do. " 5.		Do. ...	50	12	4	...	2 6		...	...
Do. ...	Do. " 6.		Do. ...	50	12	4	...	2 6		...	...
Do. ...	Do. " 7.		Do. ...	50	12	4	...	2 6		...	...
Do. ...	Do. " 8.		Do. ...	50	12	4	...	2 6		...	...
Do. ...	Do. " 9.		Do. ...	50	12	4	...	2 6		...	...
Do. ...	Do. " 10.		Do. ...	50	12	4	...	2 6		...	...
Do. ...	Do. " 11.		Do. ...	50	12	4	...	2 6	...	...	...
Do. ...	Do. " 12.		1872-73.	50	12	4	...	2 6	...	...	...

DOWLAISHWERAM.

DOWLAISHWERAM,
27th April 1874.

Public Works Department, 17th August 1874.

of employment, the cost of up-keep, and the fund or estimate from which to be 1874-75.

of employment, the cost of up-keep, 1874-75.

NEBY, ETC.				Average speed. Miles per hour.	VALUE OF PLANT.		Cost of annual up-keep as per details appended.	EMPLOYMENTS DURING 1874-75.				Remarks.— Present condition and how to be disposed of if irreparable.
Boilers.		Propellers.			Original.	Present book value.		District.	Locality.	Work.	Fund.	
lbs. pressure.	Description.	Description.	Revolutions.									
15	Horizontal.	Side paddle	22 in a Minute.	6	36,746	22,967	800	Godavery.	Cocanada.	Dredging harbour.	Provincial and Local.	Dismantled for fitting new boiler.
15	Do.	...	...	...	48,012	30,008	300					Under repairs.
15	Do.	...	...	...	48,012	30,008	300					In working order.
...	...	...	...	...	3,387	2,117	150					In bad order, new bottoms required.
...	...	...	...	...	3,387	2,117	150					
...	...	...	...	...	3,387	2,117	150					
...	...	...	...	...	3,387	2,117	150					
...	...	...	...	...	3,387	2,117	150					
...	...	...	...	...	3,387	2,117	150					
...	...	...	...	...	3,387	2,117	150					
...	...	...	...	...	3,387	2,117	150					
...	...	...	...	...	3,387	2,117	150					
...	...	...	...	...	3,387	2,117	150					
...	...	...	...	...	6,278	5,965	150	In good order.				

J. F. FISCHER, Lieut.-Colonel, R.E.
Engineer, Godavery.

(Signed) J. F. FISCHER, Lieut.-Colonel, R.E.
District Engineer, Godavery.

Proceedings of the Madras Government, Public Works Department,
17th August 1874.

No. 336. From Lieutenant-Colonel J. F. FISCHER, R.E., District Engineer, Godavery, to Lieutenant-Colonel J. MULLINS, R.E., Chief Engineer for Irrigation and Joint Secretary to Government, dated Dowlaishweram, 23rd May 1874, No. 602.

WITH reference to my letter, No. 244, of the 27th April last, I have the honor to forward, for such instructions as you may wish to issue, copy of letter received from the Executive Engineer in charge of the Eastern Delta Range on the subject of the complete estimates for the repair of the whole of the floating plant of this district.

2. From Captain Brockman's letter it will be observed that the estimates in question cannot be framed without a minute examination of each boat or punt and without putting a stop to the supply of stone for the Central and Western Deltas, and subsequently when the canals in the Eastern Delta are opened for navigation for that delta as well.

From Captain R. R. E. BROCKMAN, R.E., Officer in charge No. 1 or Eastern Delta Range, Godavery District, to Lieutenant-Colonel J. F. FISCHER, R.E., District Engineer, Godavery, dated Camp at Dowlaishweram, 20th May 1874, No. 93.

In reply to your memorandum, No. 522, dated 19th instant, relative to the forwarding of a complete set of estimates for the repair of the whole of the floating plant belonging to Nos. I. and III. Ranges, I have the honor to point out that these cannot be framed without hauling up each boat or punt and critically examining its bottom. But owing to the length of time these iron punts have been running, their bottoms have rusted away to such a degree both from outside and from within that the very act of cleaning the iron plates from the rust during examination of them drives holes into the plates composing them, and throws the punt out of work. At this season of the year, therefore, it would result in putting a stop to the supply of stone for the Central and Western Deltas, and subsequently when the Eastern Delta opens for that delta as well. Under these circumstances, I do not see my way to hauling up and examining the whole of the floating plant when they are constructed of iron, or of forwarding the estimates for their repair.

No. 337. From Major J. BEATTY, R.E., District Engineer, Godavery, to Lieutenant-Colonel J. MULLINS, R.E., Chief Engineer for Irrigation and Joint Secretary to Government, dated Dowlaishweram, 22nd June 1874, No. 929.

In continuation of this office letter, No. 602, dated 23rd May 1874, I have the honor to forward, herewith, as per margin, twenty estimates for the repair and maintenance of the floating plant in this district, and to state that estimates for the remaining plant cannot be submitted at present for reasons already explained in the letter above quoted.

2. I have now to request you will

Harbour Plant.	Estimate.
	RS.
Maintaining two sea dredges ...	600
Do. twelve sea punts ...	1,800
Wages of Superintendent over Harbour Plant ...	480
	2,880

Proceedings of the Madras Government, Public Works Department,
17th August 1874.

River Plant.	Estimate.
	RS.
Maintaining three small river steamers.	1,375
Repairing steamer <i>Thistle</i> ...	317
Maintaining four canal dredges ...	1,700
Repairing No. 7 steam dredge ...	155
Do. " 8 " " ...	233
Watching " 4 " " ...	78
Repairing " 4 canal punt ...	541
Do. " 14 " " ...	541
Do. " 16 " " ...	2,574
Do. " 24 " " ...	2,546
Do. " 27 " " ...	2,437
Do. " 29 " " ...	2,400
Do. " 30 " " ...	560
Do. " 32 " " ...	2,648
Do. " 33 " " ...	777
Do. " 34 iron chunam punt ...	49
Do. " 33 Upper Godavery Punt.	49
	18,980

be good enough to sanction them and obtain the orders of Government for placing at my disposal the sum of Rupees 2,880 from the Reserve under "Provincial" for the repair of the harbour plant, and Rupees 10,980 from the Reserve under head "Ordinary" for the repair of the river plant, Rupees 8,000 having already been provided for that purpose in the Irrigation Budget for the current official year under the head "Navigation."

3. I also request the favor of your returning me the estimates with a view to the work being put in hand.

No. 338. ORDER THEREON, 17th August 1874, No. 2,271.

IRRIGATION, No. 25.
Account.

It was intended when G. O., No. 236, of the 2nd February 1874, was passed that all the floating plant of the Presidency should come under review at one time, and that the requisite orders for its efficient maintenance should then be passed and funds provided. As it appears however that there are difficulties in the way of an examination of all the plant in order to the preparation of repair estimates, the statements received from the Godavery and the partial estimates which have been prepared will, to save further delay, be disposed of at once.

2. The non-irrigation river plant of the Godavery District does not appear to have been fully brought to account in the statement dated 27th April 1874, and in future all such plant appertaining to the Upper Godavery Navigation should be exhibited in a separate statement. The steamers *Prince* and *Godavery* have been entered in the statement,* and

* First and last entries. three barges, Nos. 7, 8 and 9, appear among the irrigation plant, at least the letters U. G. D. are supposed to indicate that they belong to the river navigation, and near the end of the statement there is a wooden flat of 5½ tons belonging to the same service; neither in the statement nor in the District Engineer's letter is any information given regarding the amount required for the maintenance of this plant, which, with reference to G. O., No. 1,612, dated 16th June 1874, will be provided for under Provincial. The District Engineer will lose no time in submitting such estimates as may be required, and care must be taken that the Upper Godavery steamers employed in carrying passengers and goods up and down the river are kept, both as regards hull and machinery, in very complete order. It is understood that the framing of the *Godavery* under the engine and the bed plates of the latter had worked loose, and very rapid deterioration will follow if the necessary repairs be not executed before the steamers are again used. With the *Prince* as an alternative vessel, the carry-

Proceedings of the Madras Government, Public Works Department,
17th August 1874.

ing out of repairs to either steamer, from time to time as necessary, may, it is thought, be rapidly arranged for.

3. The statement of harbour floating plant shows that there are one steamer, the *Fred and May*, which has been dismantled for fitting a new boiler, two dredges, and twelve punts. In this statement the following entries for annual up-keep are shown:—

<i>Fred and May</i>	Rs.
2 Dredges, Rupees 300 each	300
12 Punts, „ 150 „	600
	1,800
	<u>2,700</u>

In the District Engineer's letter* the steamer has been omitted; but it is certain that, without ordinary repairs, though out of work, deterioration will take place, and this must not be allowed. It is more than doubtful whether Rupees 300 will suffice to keep one of the large dredges in order, and it appears also to be quite clear from previous papers that Rupees 150 each for the punts will prove insufficient. However, for the present, Rupees 2,700 as above detailed, and Rupees 480 for the wages of the Superintendent of Harbour Plant, or together Rupees 3,180 will, with reference to paragraph 7 of G. O., No. 236, dated 2nd February 1874, be placed at the District Engineer's disposal from Provincial Funds. Returns of harbour plant and estimates for its up-keep will in future be submitted to the Chief Engineer, Public Works Department, to whom the District Engineer will report, as early as practicable, what arrangements he proposes to make for providing a fresh-water basin or dock for this harbour plant when not in use, with reference to paragraph 8 of the order of Government above quoted.

4. The irrigation floating plant is shown in the statement to comprise the following:—

3 Steamers, *Thistle*, *Little Nell*, and *Fawn*.

6 Canal dredges.

71 Punts of different kinds.

~~10 Range boats, including a paddle boat, but exclusive of one, No. 10, which is not the property of Government, it having been built by Lieutenant Colonel Fischer without sanction, and it belongs therefore to him.~~

In the statement Rupees 732 are entered for the repairs of the *Thistle*, and Rupees 478 for the *Little Nell*, but nothing for the *Fawn*; in the letter the entries are:—

Repairing three small river steamers	Rs.
Do. steamer <i>Thistle</i>	1,375
and the estimates show that the distribution is as follows:—	317

<i>Little Nell</i>	Rs.
<i>Fawn</i>	600
<i>Thistle</i>	150
No.	625
	<u>317</u>
	942

The sums as given in the estimates will be passed. It seems to be very improbable, with reference to paragraph 11 of the memorandum of inspection of the Chief Engineer for Irrigation, that the *Fawn* can be placed or maintained in a state of efficiency for Rupees 150.

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17th August 1874.

5. It may here be noticed that, in preparing future statements, column 20 should show, first, the estimated cost of up-keep or ordinary repairs, and, secondly, when necessary, the cost of any special repairs or improvements. The boats should be re-numbered, and the same number should not recur. In the register both the present and new numbers should be shown, and hereafter numbers should be consecutive, and will not be used a second time.

6. In the statement the following is entered as the annual cost of up-keep:—

No.	II. Dredge	...	...	...	...	...	...	...	Rs.
..	III. „	...	...	...	...	...	...	...	755
..	IV. „	...	...	...	...	...	...	...	766
..	VI. „	...	...	...	...	...	...	...	325
..	VII. „	...	...	...	...	...	...	...	138
..	VIII. „	...	...	...	...	...	...	...	254
									<u>202</u>
									2,440

All except No. III. are 90 feet dredges, and that is a small dredge of 50 feet, and it is to be remarked that its maintenance is said to cost more than any of the rest, while the great variations in the entries for the rest of the dredges appear to indicate that the amounts give no indication of what ordinary repairs are likely to cost.

7. Estimates have been submitted for five of the dredges, viz.:—

No. 2 Dredge	...	...	...	...	...	...	...	Rs.
.. 3 „	...	...	...	...	...	...	...	600
.. 4 „	...	...	...	...	...	...	...	300
.. 7 „	...	...	...	...	...	...	...	400
.. 8 „	...	...	...	...	...	...	...	400 } 555
								155 }
								233 }
								<u>2,088</u>

but why No. 6 has been left out is not apparent; it should be reported what the circumstances are.

8. For eleven only out of the seventy-one punts have estimates been sent in, and out of these No. 33, Upper Godavery punt, belongs to a different service, and will be removed from this list. The amounts entered for the remaining ten are:—

No.	...	...	...	...	...	...	...	...	Original Cost.
.. 4	...	...	...	...	...	...	...	...	Rs. 541 1,750
.. 14	...	...	...	...	...	...	...	...	541 2,812
.. 16	...	...	...	...	...	...	...	...	2,574 2,812
.. 21	...	...	...	...	...	...	...	...	2,546 2,812
.. 27	...	...	...	...	...	...	...	...	2,437 2,811
.. 29	...	...	...	...	...	...	...	...	2,400 2,811
.. 30	...	...	...	...	...	...	...	...	560 2,811
.. 32	...	...	...	...	...	...	...	...	2,648 2,811
.. 33	...	...	...	...	...	...	...	...	777 2,811
.. 34	...	...	...	...	...	...	...	...	49 1,000
									<u>15,073</u>

It is probable that with the greatly increased price of iron the cost of building these boats would be greatly larger than the original expenditure upon them; but the District Engineer will be requested to report whether they were built in England or constructed in India, and if the latter he should explain what the repair estimates of a few of them, say Nos. 16, 24, 27, 29 and 32 would amount to

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17th August 1874.

at the rates which prevailed at the time the punts were built, and whether the enhanced rates are fully justified by the rise in the prices of iron, wood, and labor.

9. The total amount asked for or above shown as required for irrigation floating plant is—

	Rs.
For steamers	1,692
„ dredges	2,088
„ punts	15,073

Total ... 18,853

which agrees with the District Engineer's letter No. 929, except that No. 33, Upper Godavery punt, Rupees 49 has been taken out, and watching No. 4 steam dredge Rupees 78 has been left out, it not being understood why this additional charge should be made for one out of six dredges.

The Government have not however funds at their disposal to meet the whole of this demand, and it is not certain that all the work included in the estimates could be carried out within the year. For the present therefore, in addition to the Rupees 8,000 provided under repairs of navigation plant, Godavery, in the budget, Rupees 5,000 out of the Rupees 11,960 at the disposal of Government will be made available, and the District Engineer will report what further amount will be needed for expenditure later in the year.

10. The District Engineer will take care that sufficient budget provision is made for 1875-76, and that the Chief Engineer for Irrigation is informed by the 1st September at latest what this provision under "Capital, Extraordinary" and "Ordinary" and "Revenue" (repairs) will be, in order that the rough estimate, which has to be submitted to the Government of India in that month, may be properly made out.

11. No estimates for the up-keep of range boats have been submitted. For the current year they will be repaired out of hire under the arrangements hitherto in force, but from 1875-76 the hire will be credited to Revenue Miscellaneous, and provision will be made in the budget for their maintenance in good order, on the distinct understanding that the Government is to be put to no expense which is not covered by the earnings of the boats. This arrangement will of course in no way affect the special accounts ordered to be kept of all outlay and receipts in connection with them. The balance to the credit of the range boat reserve at the close of 1874-75 will be paid into the treasury to the credit of "Revenue Miscellaneous."

(True Extract.)

Lieut. Colonel, R.E.,
Joint Secretary to Government.

To the Chief Engineer for Irrigation.
„ District Engineer, Godavery.
„ Officiating Controller of Public Works Accounts.

Exd. E. C. Shunker.

Spare Copies

up-keep, and the Land Revenue Estimate from which to be
Maintained during 1874-75
Value of

MEMORANDUM.

REQUESTED for reference the under-mentioned papers:—

20 Estimates sent with letter No. 929 of 22 June 1874 from the
Godavery provided with S.C. 2271-717 August 1874
(@ No. 156-713 7 Feb 74 }
(@ No. 599 A 710 June 74 } signed off at above
S.C.

OFFICE OF THE CHIEF ENGINEER
FOR IRRIGATION,

7-7-1874.

Mr. Hamilton

Head Clerk.

To

The Registrar of the

Statement of the River Floating Plant in the Gadag District showing the Nature of Employment, the Cost of Exp. kept and the Land or Estimate from which to be maintained during 1874-75.

Details of Plant				Measurement of Plant				When loaded		Machinery &c		Value of Plant		Employment during 1874-75			Remarks Present Condition and how to be disposed of if irreparable.					
Description	Name of Boat	Date	Year	Height	Width	Depth	Draw	Carried	Engines	Boilers	Propellers	Original	Present book value	Cost of Annual repairs	District	Locality		State				
1	Steamer	Princeton	1861	14.0	25	7	18	2.9	70	11.5	Condenser	4.5	2 Horizontal side wheels	22	6	2000	21,450	10	12,500	752	✓	Good order
2	Do	Do	1861	9.5	14.6	11.3	7.6	2.6	12	High pressure	60	1	Do side wheels	22	6	200	11,250	752	✓	Good order		
3	Do	Do	1861	9.0	9.5	11.3	6	3.0	12	Do	60	1	Do Do Do	22	6	16,436	10,270	1,78	✓	Good order		
4	Do	Do	1861	61.9	4.0	2.3	3.6	2.0	6	High pressure	60	Vertical	Do Do	11	1800	1170				✓	Good order	
5	Do	Do	1861	90.0	14.0	3.9		2.0	10	Do	60	Vertical		22	26,373	16,481	755	✓	Good order			
6	Do	Do	1861	50.0	8.0	3.6		3.0	14	Do	60	Do		22	15,395	9622	766	✓	Good order			
7	Do	Do	1861	90.0	14.0	3.9		2.0	8	Do	60	Horizontal		22	30,437	19,024	325	✓	Good order			
8	Do	Do	1861	90.0	14.0	3.9		2.0	8	Do	60	Do		22	30,437	19,024	138	✓	Good order			
9	Do	Do	1861	90.0	14.0	3.9		2.0	8	Do	60	Do		22	30,437	19,024	254	✓	Good order			
10	Do	Do	1861	90.0	14.0	3.9		2.0	8	Do	60	Do		22	31,097	19,436	202	✓	Good order			
11	Do	Do	1861	60.0	10.4	2.7		2.0							2811	2399		✓	Good order			
12	Do	Do	1861	72.0	12.0	11.6		3.6							2330	2156		✓	Good order			
13	Do	Do	1861	72.0	12.0	11.6		3.6							2117	2012		✓	Good order			
14	Do	Do	1861	72.0	12.0	11.6		3.6							1750	1663		✓	Good order			
15	Do	Do	1861	72.0	12.0	11.6		3.6							1750	1663		✓	Good order			
16	Do	Do	1861	72.0	12.0	11.6		3.6							1750	1663		✓	Good order			
17	Do	Do	1861	72.0	12.0	11.6		3.6							1750	1663		✓	Good order			
18	Do	Do	1861	72.0	12.0	11.6		3.6							1750	1663		✓	Good order			
19	Do	Do	1861	72.0	12.0	11.6		3.6							1750	1663		✓	Good order			
20	Do	Do	1861	72.0	12.0	11.6		3.6							1750	1663		✓	Good order			

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at the rates which prevailed at the time the punts were built, and whether
enhanced rates or not.

Cl. 2/828/74.

Enclosed in a L. No. 2244
dated 17th April 1874 from the
District Engineer, Madras, to the
Chief Engineer, for information,
for record.

Recd 4th May 74

Mr. 4501/74

P. 9. 17th Aug 1874
In P. 335.
The probable cost of the work is

2

Statement of the Harbour Floating Plant in the Godanery District showing the Nature of Employment, cost of upkeep, and the Fund or Estimate from which to be maintained during 1874/75 29

Registered Number	Details of Plant			Measurement of Plant				Machinery &c.					Value of Plant	Cost of annual repairs	Employments during 1874-75	Remarks Present Condition and how to be disposed of if irreparable		
	Description	Name of Boat &c.	Date of Construction	Said over all			Engines	Boilers		Propellers								
				Length	Breadth	Depth		when loaded	Description		Description							
						Exposed length for paddle box	Draft	Tons carried	H.P.	Description	Pressure	Description	Revolutions in a minute					
	Iron Steamer	Prod. May 1859/60		95	16	7	3. 6	232	30	Condensing	15	Horizontal Lido paddle	22	6	26746	22967	300	Dismantled for fitting New Boiler under Repairs
	Dredge	No. 1		90	18	7	None	3	112	30		No Paddles			18012	30008	300	In Working Order
	Dredge	No. 11		90	18	7		3	30						18012	30008	300	
	Harbour Pump	No. 1		50	12	4		2. 6							3387	2117	150	
	Dredge	No. 2		50	12	4		2. 6							3387	2117	150	
	Dredge	No. 3		50	12	4		2. 6							3387	2117	150	
	Dredge	No. 4		50	12	4		2. 6							3387	2117	150	
	Dredge	No. 5		50	12	4		2. 6							3387	2117	150	
	Dredge	No. 6		50	12	4		2. 6							3387	2117	150	
	Dredge	No. 7		50	12	4		2. 6							3387	2117	150	
	Dredge	No. 8		50	12	4		2. 6							3387	2117	150	
	Dredge	No. 9		50	12	4		2. 6							3387	2117	150	
	Dredge	No. 10		50	12	4		2. 6							3387	2117	150	
	Dredge	No. 11		50	12	4		2. 6							3387	2117	150	
	Dredge	No. 12	1872/73	50	12	4		2. 6							3387	2117	150	

10 Pans or 20 Cylinders

the above are the estimates for the year 1874/75

2700

District Engineer's Office Godanery
Dorlaishwaram 27 April 1874

W. T. Tucker Esq. M. B. P. G.
District Engineer Godanery

Enclosure in a letter to
dated 27 April 1874 from the District
Engineer to the Chief Engineer

Dec 1/20/74
Mr. 1330/74
2
P.S. 15/15/74
In P.S. 13/13/74

No. 244

31

From.

Lieut. Col. J. F. Fischen R.E.

District Engineer

Godavery District

To.

Lieut. Col. J. Mullins R.E.

Chief Engineer for Irrigation and

Joint Secretary to Government

MADRAS

Enclosures 2 SIR,

As requested in para 1 of your Memo of the 13th February last No 136 I have the honor to forward herewith a complete return of the Harbours and River Planks in this District and to state that Estimates for the immediate repair and maintenance of the Plank will follow as soon as they can be prepared. I regret to say the iron punts from constant use in carrying heavy stone are much out of repair but if these are taken into the shop for mere ordinary repairs the Bell works suffer as they are so few in number.

I have the honor to be

Sir,

Your most obedt. servant

W. T. Tucker Lieut. Col. R.E.

District Engineer Godavery

Camp Don Carlos 10
Executive Engineer's Office
20th May 1874. 33

From The District Engineer, No. 1 or Eastern
Delta Range, Godavary District.

The District Engineer,
Godavary District,
Don Carlos.

In reply to your memorandum
No. 522 dated 19th Instant relative to the
forwarding of a complete set of estimates
for the repair of the whole of the floating plant
belonging to Nos. I and III Ranges, I have
the honor to point out that these cannot
be framed without hauling up each boat
or punt, and critically examining its
bottom. But owing to the length of time
these iron punts have been running, their
bottoms have rusted away to such a degree
both from outside and from within, that
the very act of clearing the iron plates from
the rust during examination of them drives
holes into the plates composing them, and
throws

Recd no. 022
P. W. 1874
From The District Engineer,
Godavary District.
The Chief Engineer for Irrigation
and Joint Secretary to Government.
MADRAS.
Dated 27th May 1874
Received 21st July 1874
NO. 244
10th May 1874
Encl. Two
Subject.
Supervisor Constable, Godavary,
the Santhos and River Plant in
the District and from the
and the other for the same.
Molara and the same.

Q. No. 2271. 17.5.74.

through the point out of work. at this
season of the year therefore it would be much
in pulling a stop to the supply of stone
for the Central and Western Deltas, and
subsequently when the Eastern Delta opens
for that Delta as well. Under these
circumstances, I do not see any way
to hauling up and examining the whole
of the floating plant when they are
constructed of iron or of forwarding
the estimates for their repair.

I have the honor to be
signed for correction and
District Engineer George

/True Copy/

W. L. Treacher Lieut. Col. R. S.
District Engineer G. J. Dwyer

2

DISTRICT ENGINEER'S OFFICE, GODAVERY,
DOWLAISHWARUM, 23rd May 1874.

No. 602

From.

Sicut Col. J. F. Fisher R.E.

District Engineer

Godavery District

To.

Sicut Colonel J. Mullins R.E.

Chief Engineer for Irrigation and

Joint Secretary to Government

MADRAS

SIR,

With reference to my letter No 244 of the 27th April last, I have the honor to forward, for such instructions as you may wish to issue, Copy of letter received from the Executive Engineer in charge of the Eastern Delta Range on the subject of the Complete Estimates for the repair of the whole of the floating plant of this District. From Captain Brockman's letter, it will be observed that, the Estimates in question cannot be framed without a minute examination of each boat or pump and without putting a stop to the supply of stone for the Central and Western Deltas, and subsequently, when the canals in the Eastern Delta are opened for navigation, for that Delta as well.

I have the honor to be

Sir,

Your most obed^t servant

W. F. Fisher Sicut Col. R.E.

District Engineer Godavery

Ch's 1/993/74.
M. 4502/74.

Enclosure in a letter No 602 dated 23rd May 1874, from the District Engineer Godavery to the Chief Engineer for Irrigation, Madras.

P.S. 2717 Aug 1874

In B. N. 336.

District Engineer's Office Godavari
 No 929 Dowlaishwarum 22 June 1874.
 39
 From

Major J. Beatty R.E.
 District Engineer Godavari

Lieutenant Colonel Mullins R.E.
 Chief Engineer for Irrigation &
 Joint Secretary to Government.
 Madras

Enclosures 08
 To Estimates Sir

In continuation of this office letter
 No 662 dated 23rd May 1874, I have the
 honor to forward herewith as per margin
 20 Estimates
 for the repair
 and mainten-
 -ance of the
 floating plant
 in this District,
 and to state
 that Estimates
 for the remain-
 -ing plant
 cannot

Maintaining 2 sea Dredges Rs 600
 Do 12 sea Punters 1800
 Wages of Superintendent Over Harbour Cant 480
2880

Maintaining 3 small River Steamers	1375
Repairing Steamer "Shivota"	214
Maintaining 4 Canal Dredges	1400
Repairing No 1 Steam	153
Do No 2	233
Do No 3	48
Watching No 4	145
Repairing No 4 Canal Punt	2544
Do No 14	541
Do No 16	2544
Do No 24	2546
Do No 27	2434
Do No 29	2400
Do No 30	560
Do No 32	2648
Do No 33	444
Do No 34 Iron Churnam Punt	49
Do No 33 Upper Godavary Punt	49
	<u>18980</u>

Recd No 993
 P. M. 1874
 From
 The District Engineer,
 Godavari District.
 The Chief Engineer for Irrigation
 and Joint Secretary to Government
 MADRAS
 Dated 23rd May 1874
 Received 1st June 1874
 Recd 21 July 1874
 NO. 002
 Encl. 002
 Subject.
 Forwarded copy of Rs 2880
 from the Godavari District
 in charge of M. L. R. for
 repairing & complete estimates
 for the repairs & to be held
 of the floating plant of the
 District - 8
 P. O. No. 2275-17-8-74

cannot be submitted at present for reasons already explained in the letter above quoted.

2 I have now to request you will be good enough to sanction them and obtain the orders of Government for placing at my disposal the sum of Rs 2880, from the Reserve under "Provincial" for the repair of the Harbour Plant; and Rs 10,980 from the Reserve under head "Ordinary" for the repair of the River Plant; Rs 8,000 having already been provided for that purpose in the Irrigation Budget for the current official year, under the head "Navigation".

3 I also request the favor of your returning me the Estimates with a view to the work being put in hand.

I have the honor to be
 Your Most ^{Dear} Obedient Servant
 J. Beatty Major R.E.
 District Engineer Goo

Evd
 L.B.

RECEIVED

2

The St Engineer Goddard (FB C 60 244 dated
27 April 1874)
do do (FB C 60 2 - dated 23 May
1874)
do do (FB C 60 929 dated 22 June
1874)

1317

Dated 2nd June 1944

Deutsche Bank AG
E. 20

Received of the
Secy. of the Navy
15th July 1874

Noviembre 20 Estimado

for the refugees and

maintenance of the

W. Locking Oland in

Two District with

certain information

Q. 227117-8-74

20. Carlinville, Ill.

however that there are dif-
ficulties in the way of
an examination of all
the plant in order to
the preparation of re-
-pair estimates the State-
-ments received from the
Godavery and the partial
estimates which have been
prepared will, to save fur-
ther delay, be disposed of
at once.

2. The non irrigation
river plant of the Godavery
District does not appear
to have been fully brought
to

* First & last entries

As account in the Statement
dated 27th April 1874, and the
in future all such plant, ^{there,}
appertaining to the Upper
Godavery navigation, ^{shall} be
exhibited in a separate ^{kept,}
Statement. The steamers
Prince and Godavery have
been entered in the Statement
and three barges N^o 7, 8 and 9
appear among the irriga-
tion plant, at least the
letters H. L. D. are supposed
to indicate that they be-
long to the river navigation
and near the end of the
Statement

Statement there is a ~~statement~~
flat of 5½ tons belonging
to the same service; ~~no~~
ther in the Statement,
nor in the D. Engineer's
letter, is any information
given regarding the amount
required for the mainte-
nance of this plant, which,
with reference to G. O. N. 1612
dated 16 June 74 will be
provided for under Prov-
-cial. The D. Engineer will
lose no time in submitting
such estimates as may
be required, and care
must

47 10
must be taken that the
Upper Godavary Steamers,
employed in carrying
passengers and goods up
and down the river, are kept,
both as regards hull and
machinery in very com-
-plete order. It is under-
-stood that the framing
of the Godavary, under the
engine, and the ^{bed} ~~bad~~ plates
of the latter had worked
loose, and very rapid de-
-terioration will follow
if the necessary repairs
be not executed before the
Steamers ^{are} again used. With
the

The Prick as an alterna-
 tive vessel, the carrying
 out of repairs to either
 Steamer, from time to time
 as necessary, may, it is
 thought, be rapidly ar-
 ranged for.

3. The statement of
 Harbour floating plant
 shows that there are one
 Steamer, the Fred and May,
 which has been dismantled
 for fitting a new boiler,
 2 Bridges, and 12 Punks.
 In this statement the
 following entries for
 annual

49
 annual upkeep are 18
 shown.

Fred May	Rs. 300
2 Bridges	Rs. 300 each - 600
12 Punks	150 - 1800
	<u>2700</u>

* A. 929. 223 June

In the St. Jurgineer's letter
 the Steamer has been omitted,
 but it is certain that with-
 out ordinary repairs, though
 out of work, deterioration
 will take place, and this
 must not be allowed. It
 is more than doubtful
 whether Rs. 300 will suf-
 fice to keep one of the
 large dredges in order,
 and

and it appears also to
be quite clear from pre-
vious papers that Rs. 150
each for the punts will
prove insufficient. How-
ever for the present Rs.
2700 as above detailed,
and Rs. 400 for the wages
of the Superintendent
of Harbour plant, or to-
gether Rs. 3100 will with
reference to para 7 of G.O.
N: 236-2^d Feby. 74 be placed
at the D^r Engineer's dis-
posal from Provincial
Funds +

+ There is a clear fund available
for supply of the
Harbour plant when not
in use, with reference to para
8 of the order of Govt.
above quoted.

Funds. Returns of Har-
bour Plant and estimates
for its upkeep will in
future be submitted to
the Chief Engineer P. M. D.
to whom the D^r Engineer
will report as early as
practicable, what arrange-
ments he proposes to make
for providing a fresh water
basin or lock for the
harbour plant when not
in use, with reference to para
8 of the order of Govt.
above quoted.

4. The irrigation floating
plant is shown in the
Statement to comprise the
following.

3. Steamers - Thistle, Little hell & Fawn
6. Canal dredges
7. Pumps of different kinds
9. Range boats including a paddle boat
but exclusive of one, No. 10, which is not the
property of Govt, it having been built by
Lieut. Col. Fischer without sanction, and
it belongs therefore to him.

In the Statement Rs. 732
are entered for the repairs
of the Thistle, and Rs. 478
for the Little hell, but nothing
for the Fawn: in the latter
the entries are

Repairing 3 small rivers
Steamers } Rs. 1375
do Steamer Thistle - 317
and

53 19
and the estimates show that
the distribution is as follows.

<u>Little hell</u> - Rs. 600	} 1375	+ 1
<u>Fawn</u> - " 150		
<u>Thistle</u> - " 625		
do - " 317		
	942	

The sums as given in the
estimates will be passed.
It seems to be very impro-
bable, with reference to pa-
ra 11 of the memo. of Mrs.
section of the Chief Eng-
for Irrigation, that the
Fawn can be placed or
maintained in a state
of efficiency for Rs. 150.
It may here be us-
ticed

noticed that in preparing future statements column 20 should show first the estimated cost of upkeep or ordinary repairs and secondly, when necessary, the cost of any special repairs or improvements. The boats should be renumbered, and the same number should not recur. In the register both the present and new numbers should be shown, and hereafter numbers should

be consecutive, and will not be used a second time. In the statement the following is entered as the annual cost of upkeep.

N: II Dredge - - -	Rs. 755
" III - do - - -	" 766
" IV - do - - -	" 325
" VI - do - - -	" 138
" VII - do - - -	" 254
" VIII - do - - -	" 202
	2440

all except N: III are goft. dredges, and that is a small dredge of 50' and it is to be remarked that its maintenance is said to cost more than any of the

the rest, while the great variations in the entries for the rest of the bridges appear to indicate that the amounts give no indication of what ordinary repairs are likely to cost.

7. Estimates have been submitted for 5 of the bridges viz:

N: 2 bridge	600	
3 do	300	
4 do	400	
7 do	400	} 533
8 do	153	
8 do	233	
	<u>2028</u>	

but

57 24

but why N: 6 has been left out is not apparent it should be reported what the circumstances are.

8. For 11 only out of the 71 punts have been sent in, and out of these N: 33, Upper Godavary punt, belongs to a different service, and will be removed from this list.

The amounts entered for the remaining 10 are

N: 4	Rs. 521	original cost 1750
14	541	2812
16	2574	2812

		Original cost.
No. 24	Rs. 2546	2812
27	" 2437	2812
29	" 2400	2811
30	" 560	2811
32	" 2648	2811
33	" 777	2811
34	" 49	1000
	<u>15073</u>	

It is probable that with the greatly increased price of iron the cost of building these boats would be greatly larger than the original expenditure upon them; but the D^r. Engineer will be requested to report whether they were built in England or constructed

in

59 223
in India, and if the latter he should explain what was the ^{value} estimates of a few of them say Nos 16, 24, 27, 29, and 32 would amount to at the rates which prevailed at the time the punts were built, and whether the enhanced rates are fully justified by the rise in the prices of iron, wood and labour.

9. The total amount asked for or above shown as required for irrigation floating plant is

For

For Steamers - - - Rs. 1692
 " Bridges - - - - - 2088
 " Punks - - - - - 15073
 Total Rs. 18853

which agrees with the
 P. Engineer's letter No. 929,
 except that No. 33 Upper
 Godavary Punt No. 49
 has been taken out
 watching No. 4 Steamers No. 78
 has been left out, it not
 being understood why
 this additional charge
 should be made for one
 out of 6 bridges.

The Govt. have not how-
 ever

[Faint, illegible handwritten text, possibly a stamp or official note.]

however funds at their
 disposal to meet the whole of this demand, and it is
 not certain that all the
 work included in the estimate could be carried out within the year. For the present therefore, in addition to the Rs. 8000 provided under repairs of navigation plant, Godavary, in the Budget, Rs. 5000 out of the Rs. 11960 at the disposal of Govt. will be made available, and the District Engineer will report what further

further amount will
be needed for expenditure
later in
within the year [when,
if necessary, with the
approval of the Govt.
of India, the repair
grant, Tools and Plant
will be supplemented
by transfer from "Repairs
Agricultural"]

10. The D. Engineer will
take care that sufficient
Budget provision is made
for 1875-76 and that the
Chief Engineer for Irriga-
tion is informed by the
1st

I don't think that this
assurance of the given
"Repairs Agricultural" will be fully
utilized on their proper ob-
jects and there is certainly
ample work of a legitimate
kind to which to apply the
whole in sufficient grant
1876

1st Sept. at latest what
this provision will be
under "Capital, Extraordinary
and Ordinary" and "Revenue
(repairs)" will be, in or-
der that the rough esti-
mate, which has to be
submitted to the Govt. of
India in that month may
be properly made out.

11. No estimates for the
upkeep of Range boats
have been submitted.
For the current year they
will be repaired out of
hire

for hire under the arrange-
ments hitherto in force
if but from 1875-76 the
ap, hire will be credited
of to Revenue Miscellaneous
granted provision will be
made in the Budget.
by for their maintenance
Apt in good order. This ar-
rangment will of
course in no way affect
for the special accounts
Chy ordered to be kept of
all outlay and receipts

London-consider this a
work arrangement. There are
inconveniences pointed at
public charge for the use of
officers & who draw allow-
what are intended & cover
all charges of travelling, that
of conveyance included.
The construction & up-keep
of therefor be fully met
from the hire & and the
State of the above is a
separate acct so as to
provide proper check
I submit that this should
be ordered accordingly.
I would
On the despatch under this
that the Govt is the first to
expenses which is not covered
the earnings of the boats

in connection with them
The balance to the credit
of the Range boat re-
serve at the close of 1874-75
will be paid into the
Treasury to the credit of
"Revenue, Miscellaneous."

C.M.W.

To the Chief Secy for India ✓
" D. C. Gladstone ✓
" Controller ✓
Signed S. Cairns despatch 1/9/74.
1-2-75 sent to Comd of India - 28-9-75

Passer 1917

From 1000 ft. to
1500 ft. in
the mountains
of the Sierra Nevada

Length 100 ft. to 150 ft.
Weight 100 lb. to 150 lb.



335-338.

2000 ft. to 2500 ft.
125 lb. to 150 lb.

4503
4502
4501

Gobi. of 1874. Madras.

PUBLIC WORKS.



To The Chief Engineer
for Bangalore

Dated

Recd.

Enc 23

G. O. *Naup* No. 2271

Nos. 335-338.

Floating Plant.

Passing orders on E.
imates for the repair
and maintenance of
floating Plant in the
Podanery District, and
providing funds from
the allotment under Floating
Plant.