(1) பக்கங்களின் எண்ணிக்கை 56

(2) புழுக்கித் திருப்பிய நாள் 11/91

(3) ஆதாரங் குறிப்பவர் சுருக்கொப்பம் 11/1991

தமிழ்நாடு ஆவணக் காப்பகம்.

தமிழ்நாடு அரசு

சொத்துப் பணிகள் துறை

அரசாணை எண். 2645-46 அச்சகம்
மு. கோப்புத் தாள் எண். பலவகை

நாள் : 16.10.1893. 199

கண்டபடி கையாளவோ கூடாது.

1—18,006—6-9-90.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following paper:—

From W. P. AUSTIN, Esq., I.C.S., Chairman, Harbour Trust Board, to the Chief Secretary to Government, dated Madras, 15th September 1893, No. 1870.

I have the honour to submit, for the information of Government and the Right Honorable the Secretary of State for India, a report upon the Madras Harbour for the quarter ending 30th June 1893.

2. During this period 179 vessels of 318,593 net registered tonnage have entered the harbour, and 12 vessels of 4,587 net registered tonnage have anchored outside. This shows an increase of 19 vessels with a tonnage of 37,171 tons as compared with the corresponding quarter of the previous year.

3. Appended are returns of imports and exports for the quarter under report (1st April to 30th June 1893) as compared with the corresponding quarter of 1892–93.

4. These returns show that there has been an increase of the following goods imported and exported, viz., coal, piece-goods, kerosine case oil, window glass, galvanized iron and timber imported; and in cotton, ground-nuts, jaggery and turmeric exported; while there has been a decrease in the quantities of food-grains and railway stores imported; and of coffee, cotton twist, hides and skins, exported.

5. The quantity of coal imported is steadily on the increase, almost the whole of which is used on the Kolar Gold fields. During the quarter 29 steam-boilers of large power were imported which will probably cause a still larger consumption of coal as fuel during the remainder of the year.

6. I annex statements of receipts and charges, and it is satisfactory to note that the revenue collected during the quarter was Rs. 9,876–8–0 in excess of that collected during the quarter April—June of last year, considering that trade in general has been very dull.

7. The year opened with a credit balance of Rs. 11,65,852, of which Rs. 7,93,157 were invested in Government 4 per cent. paper of the par value of Rs. 8 lakhs. On the 30th June the Trust had to credit in the Bank of Madras Rs. 55,013, cash in office Rs. 723, and invested in 4 per cent. Government paper, Rs. 8,91,390, of the par value of Rs. 8,95,000, a total of Rs. 9,47,127. The diminution of the credit balance by Rs. 2,18,725 being accounted for by the payment of Rs. 3,18,478, interest on loan and repayment (under sections 30–31). The quarter under review has therefore provided one lakh of rupees towards meeting the liabilities of the year next ensuing.

8. With regard to the progress made upon the construction of the Harbour, I submit herewith the plans which accompanied the engineer's report for the quarter.

9. The permanent bonded block work at the north pier was completed during the quarter, and of the six temporary courses of block work required for compressing the base upon which the cylindrical caisson is to be placed, two were set.

10. At the south pier one course of blocks was set, advancing the structure by 5′ 4½″, the greater part of available working days having been taken up in dredging and raising by divers the excess rubble stone and pieces of broken blocks.

The wave-breaker screen has been brought up to its full sanctioned width at both piers and in line with the last courses set, 23 blocks having been deposited at the north and 41 at the south pier.

The apron or protection to rubble base at both piers has been proceeded with as opportunity offered.

ENCLOSURES.

Statement of Receipts and Charges from 1st April to 30th June 1893.

Opening balance—										
Government securities (par value Rs. 8,00,000)										
1. Cash in the Bank of Madras										
2. General cash in office										
3. Advance for contingencies										
							7,93,157	0	10	
					3,71,724	13	1			
					469	14	8			
					500	0	0			
							3,72,694	11	9	
										11,65,851	12	7
Receipts.										
I. Harbour Dues collections—										
Beach import					39,343	15	5			
Pier do.					15,849	3	8			
Beach export					8,534	11	3			
Pier do.					12,556	13	6			
Storage					675	6	5			
Wharfage					1,930	0	0			
Cranage					12,581	5	11			
Penalties (section 84)										
Demurrage										
							91,471	8	2	
Porterage—										
Beach					16,206	13	5			
Pier					9,171	15	0			
Haulage					2,107	14	0			
Miscellaneous					184	5	11			
							28,671	0	4	
Miscellaneous—										
Harbour Trust properties					286	14	0			
Provisions					152	3	6			
Water collection					1,129	0	0			
Sundries										
							1,568	1	6	
										1,21,710	10	0
II. Contribution from Port funds										
III. Interest realized on Government of India 4 per cent. promissory notes.										
										5,059	4	0
Amount refunded from Construction funds in repayment of advances made from time to time from revenue during the current official year 1893-94										
Nominal value of Rs. 20,000, Government securities (Port fund investments) transferred by the Accountant-General under paragraph 3, G.O., dated 27th April 1893, No. 411, Financial										
										20,000	0	0
							Total	...		13,12,621	10	7
Charges.										
I. Interest (under section 30)							2,18,477	13	7	
II. Repayment of loan for construction of Harbour							1,00,000	0	0	
										3,18,477	13	7
III. Establishment, &c.—										
1. Chairman's salary					1,200	0	0			
2. Secretary's do.					2,436	0	0			
3. Correspondence department					713	5	0			
4. Accounts department					1,525	0	0			
5. Cash department					1,038	12	4			
6. Traffic department					6,290	11	8			
7. Preventive service (shore staff).					3,046	0	0			
8. Do. (boatmen)					293	3	8			
9. Contribution to Government for pensions					88	9	3			
10. Fees to Trustees					1,590	0	0			
11. Contribution to Provident fund.					12	15	10			
							18,457	14	11	

Statement of Receipts and Charges from 1st April to 30th June 1893—cont.

Charges—cont.										
IV. Contingencies—										
(*a*) Subject to regular audit—										
Postage					20	7	2			
Receipt stamps					55	13	0			
Telegrams					7	4	0			
Furniture					.....					
Fees for audit					.....					
Law charges					1,197	14	0			
Stationery and printing					638	14	3			
Advertisement charges					214	8	0			
Uniform for preventive service					658	8	0			
										2,793	4	5
(*b*) Admissible without detail audit—										
Overtime fees to establishment					1,045	2	11			
Do. preventive service and boatmen					715	0	1			
Miscellaneous					2,749	15	4			
										4,510	2	4
										916	2	4
V. Refunds					.....					
VI. Petty construction and repairs—										
New works					.....					
Repairs					900	2	7			
Tools and plant					384	6	5			
										1,284	9	0
										27,962	1	0
VII. Porterage—										
1. Coolies, pier					3,984	10	5			
2. Do Beach and Custom House					12,337	3	0			
3. Madras Railway Company					1	6	0			
4. South Indian Railway Company					33	11	0			
5. Coasting cargo					287	5	4			
6. Boat-hire					.....					
7. Claims for losses and damage					67	6	11			
8. Engine charges					285	4	4			
9. Refunds					62	11	3			
10. Steam crane charges					202	1	6			
11. Contribution to Cooly Provident fund					261	15	6			
										17,523	11	8
Contingencies—										
(*a*) Subject to regular audit—										
Postage					.....					
Receipt stamps					4	2	0			
Telegrams					.....					
Furniture					.....					
Tarpaulins					707	8	0			
Law charges					.....					
Stationery and printing					30	6	11			
Advertisement charges					.....					
Lighting pier and yards					420	2	0			
										1,162	2	11
(*b*) Admissible without detailed audit—										
Miscellaneous					.....					368	10	5
										19,054	8	7
Advances to construction account					.....					.....		
							Total Expenditure	...		3,66,494	7	
Balance on the 30th June 1893—										
Government securities (par value Rs. 8,95,000)					.....					8,91,390	6	10
Cash in the Bank of Madras					55,013	5	9			
General cash in office					223	6	10			
Advance for contingencies					500	0	0			
										55,736	12	7
										9,47,127	3	5
							Total	...		13,12,621	10	7

* Includes only the nominal value of Rs. 20,000 Government securities transferred by the Accountant-General (Port Fund investments).

MADRAS,
13th July 1893.

(Signed) H. E. HOPE-ROSS,
Chief Accountant.

I.—Statement of goods imported from Foreign Ports.

—	Packages.	1890-91.	1891-92.	Quarter ending 30th June 1892.	Quarter ending 30th Sept. 1892.	Quarter ending 31st Dec. 1892.	Quarter ending 31st March 1893.	Totals for 1892-93.	Quarter ending 30th June 1893.
Apparel and effects	Packages	851	1,347	212	259	229	273	1,013	347
Alum	Barrels	1,733	326	156	50	379	103	688	477
Asphalte, tar and pitch	Casks	6,013	4,455	913	397	856	428	2,594	831
Acids	Cases	1,512	1,834	399	264	179	176	1,018	705
Arms and guns	Cases	126	143	127	28	49	13	221	193
Arrack	Cases	46	384	142	212	247	128	729	11
Blankets	Bales	46	110	4	16	142	6	168	..
Beef and pork	Cases	..	26	..	..	..	..	..	24
Bricks	No.	222	1,021	170	..	221	130	521	1,733
Boiler	Cases	6,606	8,123	2,313	1,841	2,015	2,710	8,879	974
Corks	Hogsheads	146	1,140	2,438	2,212	1,841	1,707	8,198	815
Canvas	No.	8,217	6,808	639	126	432	497	1,694	19
Candles	Bundles	32	2,017	1,677	2,159	1,966	2,310	8,112	47
Colours	Bales	55	61	7	10	6	72	95	2
Confectionery, provisions and oilmen's stores	Cases	244	121	14	13	18	27	72	47
Crockery and glassware	Packages	18,515	16,647	3,529	3,612	4,255	4,990	16,386	1,976
Coals	All sorts	2,098	2,836	465	1,147	1,177	497	3,286	1,503
Cast-iron pipes and tubs	Packages	17,896	23,656	6,047	7,213	6,831	6,468	22,759	4,593
Camphor	Casks	9,097	4,558	1,304	330	302	1,172	3,817	913
Coal, coke and fuel	Tons	1,913	2,818	2,210	310	403	4,100	5,035	1,413
Coal	Tons	23	2,768	222	376	920	370	1,888	510
Coke	Tons	367	1,317	55	..	148	65	272	..
Fuel	Packages	68	54	296	275	171	72	814	14
Crackers	Cases	246	6,667	1,109	2,805	387	8,892	5,987	1,869
Hops	... and casks.	..	..	..	..	..	..	..	19
Hardware	Packages	3,254	8,234	1,506	1,391	1,668	2,478	6,785	2,476
Iron	Tons	122	123	19	17	3	20	64	31
Iron safes	No.	18,136	13,787	6,046	4,923	17,861	4,192	17,929	6,879
Kerosine oil	Cases	241	396	90	36	19	14	159	40
Lime water	Tons	345,000	397,862	78,400	25,835	52,664	114,421	251,320	86,000
Malt	Bags	45	..	..	..	..	3,361	3,361	..
Millinery and haberdashery	Cases	354	445	58	300	7	13	467	6
Machinery	Cases	..	..	..	..	..	..	..	..
Nails	Tons	1,356	1,609	343	551	452	330	1,566	213
Oil and turpentine	Kegs	7,916	10,665	2,839	3,977	1,529	2,630	9,125	2,404
Piece-goods	Drums	4,606	3,099	886	707	278	970	3,241	607
Twist	Cases and bales	13,287	13,744	4,471	664	2,237	3,175	10,547	3,469
Paper	Bales	6,942	7,225	2,305	1,903	1,680	959	6,500	734
Piano	No.	82,649	85,079	13,281	11,045	13,477	14,748	51,551	14,237
Printing types	Cases	4,646	5,646	1,857	1,021	1,128	1,612	5,618	2,123
Pig lead	No.	123	153	28	28	25	18	99	27
Paint	Kegs	263	492	409	138	112	68	727	80
Rattan	Bundles	1,420	2,198	266	342	305	161	1,008	1,074
Soaps	Cases	1,453	3,523	2,177	693	1,146	1,632	10,267	3,018
Salt	Cwt.	263	1,650	172	140	573	2,317	6,669	295
Steel	Casks and casks.	1,666	383	104	30	216	448	970	459
Steel bundles and bars	No.	225	864	281	138	116	89	329	5
Steel hoop	Bundles	874	11,251	3,830	421	1,278	1,096	3,243	426
Shovels	No.	5,746	6,567	1,189	..	2,608	3,636	10,401	1,827
Sodawater bottles	Crates	127,566	275	197	205	35	408	1,697	3,386
Sulphur	Casks	747	1,995	462	489	473	344	1,768	241
Shot	Kegs	840	752	339	66	34	..	439	225
Sundries	Packages	633	177	..	..	20	..	56	70
Specie	No.	240	48,408	6,143	5,947	11,490	10,026	33,606	11,803
Sugar	Bags	48,364	1,229	253	203	208	224	888	191
Slates and pencils	Cases	1,115	2,152	248	20	774	154	1,196	2,671
Spelter	Casks	2,260	1,242	161	248	166	279	848	497
Saw	Cases	1,101	336	2,144	..	3,266	3,376	8,786	3,601
Twine and rope	Bales and coils	11,342	70	30	..	..	..	48	22
Tin plates	Boxes	68	438	4	4	6	8	22	375
Wine and spirits	Cases	4,994	5,608	65	26	239	25	455	..
	Casks	40,857	37,877	845	609	866	2,338	4,649	2,321
	Puncheons	2,739	863	10,793	11,896	10,057	11,993	44,739	9,819
		149	369	111	327	32	188	668	112
				109	54	332	238	733	208

I.—Statement of goods imported from Foreign Ports—*cont.*

—	Packages.	1890-91.	1891-92.	Quarter ending 30th June 1892.	Quarter ending 30th Sept. 1892.	Quarter ending 31st Dec. 1892.	Quarter ending 31st March 1893.	Totals for 1892-93.	Quarter ending 30th June 1893.
Window glasses	Cases	8,297	5,972	2,779	2,705	1,579	4,937	12,000	5,874
White and red lead	Kegs	495	681	144	213	319	275	951	201
Yellow metal	Cases	4,309	3,076	451	447	1,139	1,324	3,361	633
Zinc sheets	Packages	595	2,749	476	371	361	482	1,690	311
Horses	No.	611	816	3	297	336	323	959	..
Ponies	,,	17	70	3	53	32	24	112	..
Cows	,,	..	59	..	5	6	4	15	..
Dogs	,,	10	13	..	..	3	11	14	..
Elephants	,,	25	10	..	..	..	7	7	6
Two-wheeled carriage	..	..	..	..	4	4	..	8	2

II.—Statement of stores imported by the Madras Railway Company.

—	Packages.	1890-91.	1891-92.	Quarter ending 30th June 1892.	Quarter ending 30th Sept. 1892.	Quarter ending 31st Dec. 1892.	Quarter ending 31st March 1893.	Totals for 1892-93.	Quarter ending 30th June 1893.
Stores	Packages	51,879	82,103	19,829	2,111	7,293	49,601	72,434	10,730
	Tons	467	3,305	389	..	110	..	499	6
Fuel	,,	4,673	..	..	..	..	..	..	..
Coke	,,	839	1,437	141	..	..	403	544	417
Coal	,,	4,301	27	..	..	..	300	300	..
Timber	,,	3,800	2,477	569	42	73	1,399	2,083	..
Fire brick	100	165	115	..	..	98	232	330	..

III.—Statement of stores imported by the South Indian Railway Company.

—	Packages.	1890-91.	1891-92.	Quarter ending 30th June 1892.	Quarter ending 30th Sept. 1892.	Quarter ending 31st Dec. 1892.	Quarter ending 31st March 1893.	Totals for 1892-93.	Quarter ending 30th June 1893.
Stores	Packages	618,937	68,282	5,718	4,901	4,241	7,311	22,171	1,268
	Tons								22
Fuel	,,	..	..	..	..	..	..	..	..
Coke	,,	..	14	..	..	..	..	..	..
Coal	,,	5,980	..	..	..	..	..	..	..
Timber	,,	..	..	..	..	..	7	12	10
Boiler	No.	56	4	..	5	..			

IV.—Statement of goods imported from Coast Ports.

—	Packages.	1890-91.	1891-92.	Quarter ending 30th June 1892.	Quarter ending 30th Sept. 1892.	Quarter ending 31st Dec. 1892.	Quarter ending 31st March 1893.	Totals for 1892-93.	Quarter ending 30th June 1893.
Apparel and effects	Packages	634	451	105	55	78	105	343	103
Alum	Barrels	..	10	5	76	106	..	187	4
Acids	Cases	99	89	11	5	17	92	125	71
Animals	No.	210	..	10	..	..	..	10	..
Arms and guns	Cases	10	45	4	1	5	2	12	2
Boilers	No.	7	2	..	..	..	..	..	..
Bricks and tiles	100	1,630	1,396	..	10	47	..	57	517
Coffee	Bags	849	379	366	95	14	120	595	236
Candles	Cases	..	..	..	..	..	..	..	..
Colours	Do.	1,541	1,225	378	861	167	125	1,531	376
Crockery and glassware	Do.	305	322	96	87	103	176	466	97
Coal	Tons	14,884	13,249	600	3,692	1,935	7,515	13,792	3,750
Coke	Do.	..	..	..	..	..	..	..	..
Carpets	Bales	137	77	20	25	..	27	94	25

V.—Statement of goods exported to Foreign Ports—*cont.*

—	Packages.	1890-91.	1891-92.	Quarter ending 30th June 1892.	Quarter ending 30th Sept. 1892.	Quarter ending 31st Dec. 1892.	Quarter ending 31st March 1893.	Totals for 1892-93.	Quarter ending 30th June 1893.
Coriander and cumum seeds	Bags	1,385	8,218	361	269	899	294	1,814	2,151
Carpets	Bales	524	418	50	90	56	92	288	87
Coal	Tons	..	905	213	..	100	..	313	185
Deer horns	Packages	1,511	1,574	384	743	263	179	1,549	176
Explosive	Cases	..	21	..	..	1	..	1	..
Firewood	Tons	..	..	..	..	..	..	..	..
Four-wheeled carriages	Nos.	2	8	1	1	..	..	2	..
Ground-nuts	Bags	109,229	93,132	11,610	11,110	82	3,407	26,209	53,119
Gram, peas, &c.	,,	..	519	..	..	136	25	161	1,804
Horns, cow and buffalo	Tons	81	62	15	4	3	7	29	13
Hides, tanned	Bales & bundles.	16,460	21,848	5,444	7,352	3,808	5,118	21,812	1,351
Indigo	Cases & chests	24,453	14,622	2,762	2,781	10,802	9,588	25,933	1,262
Iron	Tons	..	2	..	..	11	..	11	18
Jaggery	Bags	34,135	28,985	13,736	..	6,443	36,493	56,672	29,713
Myrsbolams	,,	2,576	235	60	..	31	..	91	562
Miscellaneous	Packages	16,335	37,808	8,290	8,889	4,641	6,727	28,547	6,039
Onions	Bags & baskets	12,022	21,964	4,458	935	24	200	5,617	4,753
Oil	Casks	50	434	18	4	25	9	56	5
Piece-goods	Bales & cases	5,843	6,205	1,075	1,261	1,540	961	4,837	1,663
Potatoes	Bags & baskets	2,284	2,437	157	..	116	10	282	773
Poonac	Bags	26,134	33,880	5,962	4,165	3,764	2,236	16,127	7,641
Piano	No.	5	41	5	2	3	..	10	3
Paddy	Bags	..	..	..	..	5	..	5	2
Rice	,,	2,559	1,138	1	..	2,639	589	3,229	3,936
Redwood	Tons	1,809	699	342	384	278	655	1,654	178
Seeds, gingelly and castor	Bags	19,021	1,313	652	65	7,633	4,304	12,654	172
Skins, sheep and goat, tanned	Bales	31,200	32,194	7,435	10,035	7,207	9,386	34,063	6,470
Sandalwood	Bundles	1,728	1,534	43	..	1	286	330	469
	Casgs	..	332	..	18	1	22	41	19
Spirits and wine	Casks	..	977	1	39	25	..	65	..
	Puncheons	..	..	..	..	..	..	..	..
Sugar	Bags	..	599	21	1	62	77	161	102
Specie	Boxes	55	81	25	..	9	18	43	2
Tamarind	Bundles	1,156	6,445	1,969	1,467	61	1,834	5,331	509
Turmeric	Bags	..	2,159	217	20	374	330	941	606
Tea	Cases	2,381	2,265	424	785	370	190	1,769	546
Two-wheeled carriages	No.	3	1	..	..	..	..	..	..
Wool	Bales	1,196	1,021	436	443	207	384	1,470	455
Yellow metal	Tons	..	107	..	..	100	..	100	67

VI.—Statement of goods exported to Coast Ports.

—	Packages.	1890-91.	1891-92.	Quarter ending 30th June 1892.	Quarter ending 30th Sept. 1892.	Quarter ending 31st Dec. 1892.	Quarter ending 31st March 1893.	Totals for 1892-93.	Quarter ending 30th June 1893.
Beer and ale	Cases	289	352	81	88	58	69	294	56
	Casks	160	159	16	19	46	24	94	..
	Hogsheads	47	7	1	5	9	26	41	79
Boiler	No.	..	..	..	84	..	..	84	1
Cinchona bark	Bales	..	393	..	..	..	..	..	..
Chillies	Bags and bundles.	4,592	2,664	1,264	1,124	280	237	2,907	956
Cigars	Cases	1,345	1,418	311	277	288	260	1,136	455
Coffee	Bags	905	507	806	334	198	111	1,449	183
Cotton	Bales	8,521	5,721	532	1,312	572	1,528	3,949	1,875
Cotton twist	,,	5,103	4,698	784	950	3,124	1,281	6,139	534
Coriander and cumum seeds	Bags	1,782	2,970	1,531	1,012	532	3,877	7,092	893
Cement	Casks	..	..	..	..	..	..	..	864
Carpets	Bales	45	68	14	11	14	12	51	8
Coal	Tons	976	275	98	..	100	50	151	39
Deer horns	Packages	84	109	1	..	26	958	1,331	23
Explosive	Cases	55	2,668	315	53	379	588	1,125	15
Eggs	Pots	2,891	1,165	157	193	..	..	..	214
Firewood	Tons	..	2	..	6	..	5	12	31
Four-wheeled carriage	No.	34	21	9	..	..	..	..	19
Ground-nuts	Bags	61,462	27,790	7,797	731	2,352	6,959	17,839	5,016
Gram, peas, &c.	,,	3,565	521	66	53	33	540	1,226	66

VI.—Statement of goods exported to Coast Ports—*cont.*

	Packages.	1890-91.	1891-92.	Quarter ending 30th June 1892.	Quarter ending 30th Sept. 1892.	Quarter ending 31st Dec. 1892.	Quarter ending 31st March 1893.	Totals for 1892-93.	Quarter ending 30th June 1893.
Horns, raw and buffalo	Tons ..	30	310	79	68	113	32	292	99
Hides	Bales and bundles								
	Other	800	379	111	107	143	161	516	178
	Cases and chests	4194	165		16	690	580	2,411	318
Indigo	Tins ..	600	2,244	233	4	20	183	1,448	76
Iron	Tons ..		256	82		33	220	650	405
Jaggery	Bags ..		1,054	213	216	11	331	991	196
Kerosine oil	Cases ..	2,953	10,037		6	22	272	299	12,504
Myrabolams	Bags ..	251	1,054	12,967	11,905	13,077	23,585	61,534	9,419
Miscellaneous	Packages	27,208	39,130	5,036	4,512	26,460	20,378	53,106	143
Onions	Bags and baskets	21,141	22,411	49		238	71	357	1,144
Oil	Casks ..	1,281	807	252		1,772	2,970	5,011	340
Piece-goods	Bales and cases	6,239	3,615	1,566	2,330	14,823	766	24,385	6,097
Potatoes	Bags and baskets	26,470	21,037	816	2,881	9,651	5,852	18,781	1
Provisions	Bags ..	4,752	4,270	6,033	2,395	6	2	16	250
Rice	No. ..	24	32	3	4	1,200	7,256	8,975	1,818
Sugar	Bags ..	11,626			350	1,200	24,215	25,765	2
Paddy	Bags ..	3,098	2,448	2,674	1,221	13,678	6	33	
Rice	Tons ..		113	48	439				7,056
Redwood									
Roots, ginger and turmeric	Bags ..	42,127	16,962	401	252	643	4,501	2,797	
Salt									
Skins, sheep and goat, tanned	Bales ..	1,271	721	50	182	253	537	1,022	239
dressed	Bundles	1,856	153	84	9	102	31	3,782	271
Spices	Bags ..	3,049	2,082	1,209	772	1,023	735	770	204
	Cases ..	230	727	56	2	196	254	1,889	94
	Casks ..		1			95	91	1,412	221
	Packages	91	13		1	268	242	810	15
	Pondicums ..				333		40	8,253	2,939
Sugar	Bags ..	2,021	273	561	169	169	1,934	47,883	13,047
Rosin	Packages	134	256	139	197	716	6,152	92	1
Tamarind	Bags ..	17,197	3,624	4,389	1,554	3,761	15	15	
Tea	Chests ..	4,719	19,956	5,219	2,742	15	3	3	219
Tea-wheeled carriage	No. ..	295	311	12	9	4	1	603	67
Wax	Cases ..	17	15		6	115	143	67	
Yellow metal	Tons ..	436	709	147	120	81	..		67
		47	93	12	4				

VII.—Statement of stores, &c., imported by Government.

Department.	Description.	Class.	1890-91.	1891-92.	Quarter ending 30th June 1892.	Quarter ending 30th Sept. 1892.	Quarter ending 31st Dec. 1892.	Quarter ending 31st March 1893.	Totals for 1892-93.	Quarter ending 30th June 1893.
Accountant-General.	Specie, silver.	Boxes.	1,170	422	100	..	379	1128	582	99
	Do. copper	..	3,475	5,199	..	..	..	710	710	540
	Silver and copper	..	..	..	..	..	..	..	..	..
	Notes	..	8	32	..	..	17	2	19	..
Z	Packages	No.	..	27	..	1	..	..	1	..
	Packages and pieces	..	3	..	..	..	..	..	..	..
State Railway	Rails	..	..	..	..	..	..	..	..	..
	Wagons	..	..	..	..	..	..	..	..	..
	Bridge works.	Tons	..	..	..	..	..	..	..	..
Public Works Department.	Boilers	No.	..	2	..	..	..	..	2	..
	Coal	Tons	60	60	..	30	..	..	30	..
	Iron	..	250	271	..	..	2	..	2	..
	Stores	Pkgs.	2,049	15,148	2,622	1,130	2,096	1,248	6,494	305
	Coal	Tons	939	..	..	..	..	..	..	..
Ordnance	Ammunition	Boxes	..	2,148	..	..	..	..	..	..
	Stores	Pkgs.	22,898	13,017	4,067	4,152	10,206	6,812	25,236	5,689
Madras Harbour Works.	Cement	Casks	30,375	1,899	..	..	..	..	..	..
	Stores	Pkgs.	895	3,869	..	..	..	..	..	..
	Coal	Tons	586	..	..	..	..	..	..	507
Clothing	Packages	No.	4,627	1,683	589	635	709	391	2,324	64
Police	.. ..	..	335	722	98	51	13	5	167	135
Salt Revenue	.. ..	..	150	272	220	56	3	11	291	135
Post Office	.. ..	..	1,739	1,145	198	249	129	282	858	897
Medical	.. ..	..	1,260	1,779	445	80	32	810	1,367	2,326
Telegraphs	.. ..	..	19,218	64,708	1,725	1,949	6,739	13,696	24,126	69
Stationery	.. ..	..	311	752	13	107	783	288	1,197	980
Stamps	.. ..	..	1,617	1,961	188	656	179	101	1,132	1,274
Commissariat	.. ..	..	4,884	8,588	2,913	1,303	2,038	1,165	7,420	84
Gazette Press	.. ..	..	1,414	191	2	126	11	5	149	77
Marine	.. ..	..	511	729	117	107	509	147	880	

VII.—Statement of stores, &c., imported by Government—*cont.*

Department.	Description.	Class.	1890-91.	1891-92.	Quarter ending 30th June 1892.	Quarter ending 30th Sept. 1892.	Quarter ending 31st Dec. 1892.	Quarter ending 31st March 1893.	Totals for 1892-93.	Quarter ending 30th June 1893.
Superintendent, Railway Mail Service	Packages ..	No.	..	297	75	133	1	1	208	8
Revenue Survey	.. ..	..	32	292	206	101	6	4	320	10
Agriculture	.. ..	..								
Government Central Museum	.. ..	..	10	15	3	2	3	2	10	2
Under Secretary to Government	.. ..	..	94	235	439	28	20	17	504	17
Superintendent of Prisons	.. ..	..	1	2	3	8	4	17	6	
Revenue Board	.. ..	..	139	424	..	15	12	6	33	2
Forests	.. ..	..	1,313	1,196	..	2	1	1	6	10	1
Bank of Madras	Specie, silver.	Boxes	..	..	..	..	..	..	..	..
	.. copper.	..	..	..	..	..	..	..	..	..
Presidency College	Packages ..	No.	40	28	7	..	2	6	15	1
School of Arts	.. ..	..	..	3	..	..	..	1	1	..
Sanitary Commissioner	.. ..	..	..	..	..	..	..	..	..	..
Inspector of Cattle Diseases	.. ..	..	9	..	..	..	100	..	100	..
Chemical Examiner	.. ..	..	32	31	2	6	16	7	31	5
Medical College	.. ..	..	64	73	..	2	13	16	31	13
Deputy Collectors	.. ..	..	14	9	1	10	2	2	15	3
Camp Equipage	.. ..	..	..	..	..	..	..	..	..	..
Astronomer	.. ..	..	6	23	2	7	4	..	13	5
Presidency Pay Master	.. ..	..	13	2	5	3	..	..	8	..
Registration	.. ..	..	3	7	1	3	..	..	4	..
Director of Public Instruction	.. ..	..	5	9	..	137	2	..	139	1
Superintendent, Remount Depôt, Hosur	.. ..	..	..	..	..	..	300	300	600	150
Resident, Mysore	.. ..	..	..	..	..	..	1	1	2	3
Secretary for Berar, Hyderabad	.. ..	..	..	..	..	..	6	1	7	11
H. E. Lord Wenlock, Government House, Madras	.. ..	..	..	..	..	..	2	2	..	
Judge, Civil City Court, Madras	.. ..	..	..	..	..	..	..	1	..	
Quarter Master-General	.. ..	..	..	..	..	..	3	..	3	1
Registrar of High Court	.. ..	..	..	..	..	..	1	..	1	1

VIII.—Statement of stores, &c., exported by Government.

Department.	Description.	Class.	1890-91.	1891-92.	Quarter ending 30th June 1892.	Quarter ending 30th Sept. 1892.	Quarter ending 31st Dec. 1892.	Quarter ending 31st March 1893.	Total for 1892-93.	Quarter ending 30th June 1893.
Accountant-General	Specie, silver.	Boxes.	20	411	27	2	3	6	45	24
	.. copper.	..	330	68	173	25	2	..	200	100
	Notes ..	..	10	6	4	3	3	3	13	1
	Packages ..	No.	6	4	..	1	..	..	1	..
Bank of Madras	Specie, silver.	Boxes.	..	34	..	..	..	..	..	..
Do.	.. copper.	..	..	..	33	29	..	..	62	..
Ordnance	Packages and pieces.	No.	6,564	8,595	1,083	1,123	2,085	1,540	5,831	1,958
Public Works Department	.. ..	..	429	1,784	141	23	107	217	488	116
Clothing	.. ..	..	1,254	1,327	225	483	183	195	1,086	151
Police	.. ..	..	727	889	95	495	272	112	974	72
Salt Revenue	.. ..	..	306	691	84	293	149	199	725	118
Medical	.. ..	..	1,552	1,367	518	273	123	686	1,610	400
Telegraph	.. ..	..	2,462	8,845	35	120	3,735	440	4,330	390
Stationery	.. ..	..	799	693	163	132	121	371	780	165
Stamps	.. ..	..	195	220	53	45	134	66	298	46
Commissariat	.. ..	..	7,761	7,971	749	788	2,672	2,005	6,206	1,899
Gazette Press	.. ..	..	476	526	114	128	156	105	503	142

VIII.—Statement of Stores, &c., exported by Government—*cont.*

Department.	Description.	Class.	1890-91.	1891-92.	Quarter ending 30th June 1892.	Quarter ending 30th Sept. 1892.	Quarter ending 31st Dec. 1892.	Quarter ending 31st March 1893.	Total for 1892-93.	Quarter ending 30th June 1893.
Marine	Packages and pieces.	No.	268	390	92	122	78	74	366	7
Estimate Board	"	"	79	77	18	5	4	10	37	10
Do. Settlement	"	"	87	61	29	33	17	6	84	26
Do. Survey	"	"	74	73	56	233	91	71	452	81
Superintendent of Printing	"	"	71	69	55	90	19	62	166	9
Registration	"	"	61	66	..	..	..	43	43	1
Conservator of Forests	"	"	51	54	3	4	11	15	33	1
Quarter Master-General	"	"	..	..	..	4	..	..	4	..
Government Central Museum	"	"	9	10	4	15	2	1	22	7
Deputy Collectors	"	"	..	2	9	..	..	..	9	..
Camp Equipage	"	"	..	..	..	..	..	..	..	..
Government Astronomer	"	"	..	..	..	11	2	..	5	13	4
Agriculture	"	"	..	..	..	..	..	..	5	8	2
General Hospital	"	"	5	10	2	1	..	..	..	..	..
State Railways	"	"	..	100	..	..	..	..	..	..	..
Inspector of Cattle Diseases	"	"	3	3	1	..	..	..	1	..	..
Chemical Examiner	"	"	..	..	..	1	..	..	1	..	..
Director of Public Instruction	"	"	16	10	3	1	..	..	6	..	..
Registrar of University	"	"	12	12	..	..	10	..	10	..	5
Collectors	"	"	..	10	..	..	..	..	..	..	..
Curator of Government Gardens, Ootacamund	"	"	12	11	..	..	..	..	..	..	3
Trust Board	"	"	..	..	..	..	..	..	..	..	..
Crown Officer, High Court	"	"	..	..	..	..	1	8	9	..	1
School of Arts	"	"	15	14	..	..	..	..	..	..	..
Secretary to Government, Public Department	"	"	..	..	..	..	..	..	..	..	..
Registrar-General of Births, Deaths, Marriages	"	"	..	..	2	..	..	..	..	..	..
Salt Commissioner	"	"	..	..	..	..	..	..	..	..	..
Consulting Engineer to Government, Railways	"	"	..	..	1	..	..	..	..	..	..
Civil Engineering College	"	"	36	20	..	1	..	..	..	..	..
Superintendent, Census Operations	"	"	..	..	..	..	..	1	1	..	..
Post Office	"	"	..	..	..	..	..	4	4	1	2
Sanitary Commissioner	"	"	..	..	..	..	1	..	1	1	2

No. P.

(Signed) G. R. P. LLOYD,
Acting Traffic Manager, Harbour Trust Board.

To the Secretary, Harbour Trust Board, Madras.

REPORT of progress on the Madras Harbour Works for the quarter ending 30th June 1893.

Accompanying this report are the following plans and statements:—

No. 32 (*a*).—A plan of the harbour to a scale of 200 feet to an inch, showing in red the position and quantity of work done during the quarter. The contours in half fathoms shown on this plan are those of the last complete Marine survey of 1889. The positions of the high water marks of the 30th June 1893, and that of the previous twelve months, both to the north of the revetment and the south of the harbour, are shown for comparison.

No. 32 (*b*).—A revised plan showing in detail the advance made during the quarter at the pier-heads as now being constructed, and the positions of the caissons for completing both piers of the harbour, with an entrance of 520 feet.

No. 32 (*c*).—A statement comparing the expenditure on different sub-heads of work up to the end of the quarter; with the provisions of the sanctioned estimate.

No. 32 (*d*).—A statement showing work done under different sub-heads and particulars of cement received and issued.

2. The various heads of work, &c., throughout the Harbour Works are reported on as follows:—

3. *General.*—During the quarter under review, which includes the months of April, May and June, both the Titan cranes have to be brought on shore for security from rough weather, general, during the south-west monsoon; and this forced stoppage of all work at sea reduces the quarter of 91 days to only 40 possible working days, after deducting the holidays, Sundays and several days during the quarter, when the sea was too rough for Marine work.

4. *North Pier-head.*—The work of dredging up the excess rubble base, to found the pier-heads deeper than was done previous, to the damage of 1881, and setting the wider and deeper section of bonded block-work, was carried on from the commencement of the quarter and until the 27th April, when the crane was brought ashore for the monsoon. Dredging was resumed again on the 7th June, by which date the sea was sufficiently quiet; but diving operations could not be commenced till the 17th June, and from this date work at block-setting and dredging at the north pier went on steadily to the close of the quarter.

5. During the available 40 working days, two complete courses were added to this pier-head, by setting 49 blocks, which advanced the superstructure by 10′ 9″ and brought the total length of the northern arm up to 3,764 feet from shore, as shown on plan 32 (*b*).

6. At this point, or the sea face of course No. 254, the permanent bonded block-work at the north pier-head ends; and the last and permanent course of block-work, at the north pier-head, has been completed.

7. Beyond this point, or course No. 254, there are to be six temporary courses of block-work to be set to compress the base upon which the cylindrical caisson is to be set, and these courses also enable the necessary point being reached by the crane from the masonry pier.

8. Of these six temporary courses, two courses or 10′ 9″ out of a total length of 32′ 3″ of temporary work has been set to date, but the further the work advances the more difficult the work becomes, as there is so much of the old ruined work and rubble base to be dredged up, to make room for these more massive pier-heads, than originally designed by Mr. Parkes.

9. The removal of this heaped up mass of material, and the dangerous positions the old blocks are in, requires great skill in slinging them; and this can only be done when the sea is absolutely calm, but notwithstanding the unfavourable weather experienced during the quarter, fair progress has been made and unless some unforeseen difficulty or accident takes place, the north pier will be completed and the caisson set by the end of February next for certain, when there will be merely the capping to add, and a light-house to be erected, which will complete the north arm of the harbour.

10. *Wave-breaker.*—The general section of the wave-breaker screen throughout the length of the north pier as far as the pier-head was brought up to the full sanctioned width; at the different points, previous to closing work for the monsoon, consequently between the distance of 1,600 feet and 3,759 feet, 23 wave-breaker blocks, or 414 cubic yards of concrete was added on the sea face of the pier at points where, with old Titan cranes, it was not possible to place these blocks, so as to give the best possible resistance to the force of the sea.

11. *South Pier-head.*—The total working days available for work at the south pier-head after deducting Sundays and holidays and the period the crane was on shore for the monsoon, was only 38 working days, being 2 days less than at the north pier, owing to the longer time this old type of Titan crane takes to get in working position. Again, only half the progress in completed work at this pier-head can be reported as compared with the work at the north pier-head, and this, as already reported, is mainly due to the old Titan crane not being as handy for the work as the all-round Titan crane now at the north pier, so that the rate of progress must be slow until the north pier is finished and the new crane can be transferred to the south pier-head.

12. During the 38 days the crane was in position at this pier-head, 22 days were taken up in dredging and raising, by divers, the excess rubble stone and pieces of broken blocks, to found the pier-head at the lower level, as at the north pier; and 3 days were occupied in setting the 210th course in the pier-head which is also at the widest and the deepest section of the work. This course consisted of 23 blocks and added a completed length of 5′ 4½″ of pier-head, and the point reached at this pier is now 3,852 feet from the first block set on shore.

13. At the close of the quarter under review, the south pier-head was exactly 6 courses, or 32′ 3″ behind the point reached at the north pier-head, viz., the last permanent course of block-work—but I am glad to report that since that date, another course has been set, and it is most probable two courses or 10′ 9″ will have been added in the following quarter.

14. *Wave-breaker.*—The wave-breaker screen of random block-work was brought up in line with the last course set, as shown upon plan 32 (*b*) and over this area 41 large 30-ton blocks were dropped, which took 5 days to raise and place in position, while the crane at the north pier does the same work in one-fourth the time.

15. *Apron or protection to Rubble Base along North and South Piers.*—At both piers, at intervals during the quarter, and monsoon, when dredging was not going on and the divers were not required at the pier-heads, their labour was directed towards preparing the rubble base along both piers preparatory to receiving the concrete, forming the apron at the footing of the superstructure; to prevent any chance of scour, and when the sea was exceptionally calm, a length of 20 feet of base was concreted and a length of 40 feet partially protected with concrete, or in all 27 cubic yards of cement concrete was made at the north pier. At the south pier no concrete was put down, as there was generally a wave motion to be felt down below; but during the quarter a length of base 75 feet × 20 feet wide was levelled, ready to receive the concrete, when weather would permit.

16. *Block-making Yard.*—There was no block-making carried on during the quarter, as only a few core blocks, for the caissons, remain to be built next quarter, and for this purpose a supply of tons of 3,895¼ of granite chips was received from the quarries, and stacked at the crushing station.

17. All the blocks made for the south pier-head, with the exception of a few special guide blocks for the caissons, were transferred and restacked at the south pier block ground to allow of the beach line being taken up and moved on to Harbour Trust property for the realignment; rendered necessary for the rails of the proposed Electric Tramway Company.

18. *Protective Works North of Harbour.*—Along the length of new revetment, A to C, on plan 32 (*a*), the balance of the sanctioned estimate, viz., 8,352 tons of large boulders, were received from the Pallávaram quarries and deposited from wagons, by means of planks, to raise as high a bank of stone as possible above the rail levels. The provision made to date for the upkeep of this revetment has now been completed and the estimate run out, and I shall therefore be glad to receive sanction to feed this revetment with stone at the points where the stone settles down from time to time, until the revetment stands at the full section of 11 to 12 feet above mean sea level. The old line of revetment from the north pier to point A on plan has of late shown further signs of settlement, and will, before November this year, require additional stone.

19. The high water mark at the close of the quarter, along the new revetment, has not advanced this year as it did last year; but has left the stone revetment to protect the shore from erosion; thereby showing that all the sand which did collect at this point has now travelled permanently north, and but for this revetment having been taken in hand, in time, the Harbour Trust Board would have by this date been forced to meet heavy claims for compensation of land eroded upon by the sea. From this date, as there is no further sand to drift up the coast along the already revetted shore, the anticipated bay, at point C, will commence rapidly to develop, until it reaches the proportions of the original bay formed at point A at the end of the old revetment, and it will then be proved that the supposed reflected waves, from the harbour piers, have not been the cause of the erosion north of the harbour, but that erosion is due to the total stoppage of sand which, previous to the construction of the harbour, passed up the coast uninterrupted; but which at this date is arrested to the south of the south pier, so that a thoroughly substantial revetment, as now formed, must be maintained at any cost, or it will be breached, and the stone once strewn, will cost double to replace.

20. *Foreshore South of the Harbour.*—Upon the plan of the harbour attached to this report are shown the high water marks of 31st March and 30th June 1893, and the advance of foreshore measures near the pier 120 feet of accretion, but this is not permanent, as a portion of it will again be washed away; as proved from the high water marks of 30th June 1892 and 30th June 1893 the advance over the 12 months is only 60 feet.

21. *Sea bottom within the Harbour.*—A complete Marine survey of the harbour, and roadstead, was started at the close of the quarter exactly upon the same lines of soundings as in the Marine surveys I made in the years 1882–86 and 1889 and will be completed by October, if the sea is generally smooth enough for accurate work. July and half August proved too rough for soundings.

22. The high water mark inside the harbour during the quarter has receded to the extent of 40 feet on the north,—half of the harbour; while at the south half, the beach and high water line remains the same, this action is due to some swell and a few days of rough weather in April and May, which washed down the steep bank of sand thrown up in smooth weather to a more gradual slope, throwing the high water line back.

23. *Summary of Progress.*—The following is the summary of the progress made on the Harbour Works during the quarter under review.

PROGRESS STATEMENT No. 32. (d).

MADRAS HARBOUR WORKS.

STATEMENT showing progress during quarter ending 30th June 1893, No. 32 (*a*) and 32 (*b*).

No. of item	Particulars and quantity of work, &c.	Column.	North Pier. A: Rubble base.	North Pier. B: Pier-head founded at 40 feet below De Havilland's Mean Sea Level.	North Pier. C: Wave-breaker.	North Pier. D: Concrete capping.	North Pier. E: Base protection.	South Pier. F: Rubble Base.	South Pier. G: Pier-head founded at 40 feet below De Havilland's Mean Sea Level.	South Pier. H: Wave-breaker.	South Pier. I: Concrete capping.	South Pier. J: Base protection.	Railway Lines. K: At Works.	Railway Lines. L: At Quarries.	Railway Lines. M: Sand Lines.	Railway Lines. N: Beach improvements.	Pallavaram Quarries outturn. O	Concrete block-making. P	Protective works. Q	Total expenditure during the quarter ending 30th June 1893. R
1	Rubble stone deposited from boats ..	Tons.	..	..	..	..	..													
2	Do. do. from wagons..	,,	..	..	..	..	..													
3	Total quantity rubble stone received on works.	,,	..	..	..	..	..													
4	Do. blasted chips do.	,,	..	24 40	..	..	..		24 23	35 41										
5	Concrete blocks—Set by divers	No.	..	..	138 23	..	..													
6	Do. Deposited in Wave-breaker ..	,,	..	..	..	..	..													
7	Do. made, for superstructure ..	,,	..	..	..	..	..		8 6											
8	Do. Pier-head ..	,,	..	16 12	..	..	27½		6′ 8″ 5 4½											
9	Wrought-iron cramp fixed in position.	C. yds.	..	..	..	..	..													
10	Total cottum of concrete, under water.	,,	..	6′ 8″ 10′ 9″	..	..	..													
11	Advance or progress of completed superstructure ..	Ey ft.	..	..	..	..	..													
12	Rubble base protected with concrete..	,,	..	..	..	..	20 completed 40 part ,,													
13	Metre gauge, 40 lb. per yard laid new	,,	..	..	..	..	..													
14	Do. relaid or renewed	,,	..	..	..	..	..													

1																				
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				

Norm.—The figures in block type denote for comparison progress and quantity of work done in 30th June 1892 when the pier-head work was founded at 40 feet below De Havilland's Mean Sea Level.

Statement showing progress during quarter ending 30th June 1893, No. 32*(a)* and 32 *(b)*—*cont.*

| No. of item. | Particulars and quantity of work, &c. | Sub-heads of work. | Column. | North Pier. | | | | | | | South Pier. | | | | | | | Railway Lines. | | | | | | |

COMPARISON of expenditure to date with sanctioned estimate for the quarter ending 30th June 1893.

Sub-head of work	As per estimate sanctioned in Secretary of State's despatch No. 1, dated 7th January 1892.					As executed.							
	Quantity.	Rate.	Per.	Cost.	Total.	Quantity.	Rate.	Expenditure. Total up to end of last quarter.	Expenditure. During the quarter.	Expenditure. Up to date.	Arrears not paid.	Value of work done up to date, columns 11 and 12.
1	2	3	4	5	6	7	8	9	10	11	12	13
Expenditure up to 31st December 1884.		Rs. A. P.		Rs.	Rs.		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1. Works	..	..	..	55,09,324		..	..	55,09,324 8 10	..	55,09,324 8 10	..	55,09,324 8 10
2. Establishment	..	..	..	5,29,904		..	..	5,29,904 0 0	..	5,29,904 0 0	..	5,29,904 0 0
3. Tools and plant	..	..	..	5,15,262		..	..	5,15,262 6 0	..	5,15,262 6 0	..	5,15,262 6 0
Total	..	..	..	..	65,54,490	..	..	65,54,490 14 10	..	65,54,490 14 10	..	65,54,490 14 10
Revised Estimate.												
4. Alteration and extension of block ground	Prely.	..	..	5,892	5,892	..	..	5,882 9 5	9 13 6	5,892 0 11	..	5,892 0 11
North Pier.												
5. Ordinary rubble deposited from breakwater	Tons.	13,930	1 12 0	Ton.	24,378	13,930	1 12 0	24,377 9 9	..	24,377 9 9	..	24,377 9 9
6. Ordinary rubble deposited from boats	,,	205,896	2 0 5	,,	4,79,218	208,362	2 1 5	4,30,366 8 5	210 3 7	4,31,085 12 5	4,625 7 2	4,35,271 4 5
7. Concrete blocks for building	C. yds.	51,320	11 8 9	C. yd	5,00,110	49,054	11 14 3	5,24,254 5 10	10,322 14 3	5,34,577 4 1	..	5,34,577 4 1
8. Setting blocks at commencement of new work	,,	2,615	2 1 1	,,	5,415	2,615	2 1 1	5,414 11 2	..	5,414 11 2	..	5,414 11 2
9. Setting blocks from 2,700 to 3,600 feet	,,	36,520	2 14 3	,,	1,05,563	36,447	2 13 8	1,03,813 14 8	..	1,03,813 14 8	..	1,03,813 14 8
10. Setting blocks at pierhead	,,	12,185	9 8 11	,,	1,16,424	10,022	9 5 9	79,515 4 10	11,388 7 6	91,003 12 4	2,616 5 11	93,620 2 3
11. Concrete in mass for filling	,,	263	4 8 3	,,	1,188	263	4 8 3	1,188 0 7	..	1,188 0 7	..	1,188 0 7
12. Wave-breaker blocks	,,	288	9 6 7	,,	2,692	288	9 6 7	2,692 0 0	..	2,692 0 0	..	2,692 0 0
13. Wave-breaker concrete blocks	,,	77,255	10 14 11	,,	8,45,591	67,418	11 6 8	7,63,392 3 2	5,979 4 5	7,69,371 7 7	..	7,69,371 7 7
14. Depositing concrete blocks	,,	77,932	1 0 0	,,	77,928	68,013	1 0 2	68,626 10 5	16 14 3	68,643 5 8	9 7 5	68,652 13 11
15. Concrete in protection to rubble base	..	1,986	10 4 1	..	20,358	1,229	16 5 8	19,660 14 11	428 12 11	20,089 12 10	2 3 9	20,305 0 7
16. Cramps, iron	No.	331	9 10 1	Each.	2,184	313	7 11 10	2,449 5 8	2 16 5	2,452 5 3	..	2,452 0 3
17. Concrete capping	C. yds.	16,352	11 3 10	C. yd.	1,83,798	573	19 14 41	11,593 14 7	27 13 0	11,621 11 7	..	11,621 11 7
18. Cost of north pier caisson and setting in position and filling same as items 26, 27, 33 and 34	,,	..	..	..	84,750	..	..	20,773 3 6	123 13 2	20,897 2 8	2,593 12 2	23,500 14 10
Total for North Pier	..	..	..	..	24,80,607	..	..	21,12,598 10 2	78,615 1 2	21,42,413 11 10	5,514 6 5	21,53,928 3 5

South Pier.												
19. Ordinary rubble deposited from boats	Tons.	175,078	2 9 0	Ton	4,19,052	170,774	2 9 10	4,41,668 9 0	..	4,41,668 9 0	4,925 14 8	4,46,594 7 8
20. Large rubble deposited from breakwater	,,	8,615	1 12 0	,,	15,076	8,615	1 12 0	15,075 13 0	..	15,075 13 0	..	15,075 13 0
21. Concrete blocks for building	C. yds.	45,066	11 3 1	C. yd.	5,04,510	40,831	11 5 1	4,57,120 7 11	5,062 2 8	4,62,182 10 7	..	4,62,182 10 7
22. Setting blocks at commencement	,,	2,556	3 1 6	,,	7,912	2,556	3 1 6	7,911 13 3	..	7,911 13 3	..	7,911 13 3
23. Setting blocks from 2,550 to 3,700 feet	,,	30,160	3 7 11	,,	1,05,461	30,160	3 7 11	1,05,461 9 4	..	1,05,461 9 4	..	1,05,461 9 4
24. Setting blocks at pierhead	,,	12,350	11 1 3	,,	1,36,845	8,114	14 11 8	1,07,796 0 7	9,147 11 0	1,16,943 11 7	2,574 6 9	1,19,518 2 4
25. Concrete in mass for filling	,,	602	7 9 1	,,	4,555	602	7 9 1	4,554 14 4	..	4,554 14 4	..	4,554 14 4
26. Concrete in cylindrical pierhead	,,	2,355	15 0 0	,,	35,325	..	..	..	..	..	2,685 5 0	2,685 5 0
27. Concrete in filling in between coursed block-work and caisson	,,	184	15 0 0	,,	2,760	..	..	..	..	..	..	..
28. Wavebreaker concrete blocks	,,	47,231	11 1 6	,,	5,24,070	39492	11 7 2	4,35,252 11 7	10,658 11 6	4,45,911 7 1	..	4,45,911 7 1
29. Depositing concrete blocks	,,	47,714	1 5 8	,,	64,708	39175	1 6 1	55,053 15 4	93 0 10	55,147 0 2	..	55,147 0 2
30. Concrete in protection to rubble base	,,	1,700	9 10 6	,,	16,420	1,07	13 7 8	14,880 11 10	51 13 3	14,932 9 1	..	14,932 9 1
31. Cramps, iron	No.	259	11 7 7	Each	2,972	20	10 9 9	2,302 2 4	31 14 7	2,334 0 11	..	2,334 0 11
32. Concrete capping	C. yds.	16,247	11 5 8	C. yd.	1,84,495	69	21 2 4	14,146 0 4	..	14,146 0 4	..	14,146 0 4
33. Iron caisson	No.	1	..	,,	18,000	..	..	21,750 6 1	..	21,750 6 1	..	21,750 6 1
34. Preparing base for and setting cylindrical pierhead	,,	..	..	,,	28,665	..	..	..	..	..	..	..
Total for South Pier	..	..	..	..	..	21,00,826	..	16,82,975 2 11	25,045 5 10	17,08,020 8 9	10,185 10 5	17,18,206 3 2
Extending the Rubble Revetment protecting the Foreshore north of Harbour.												
35. Rubble stone revetment.	Tons.	70,600	2 1 0	Ton.	1,45,613	90,16	1 8 8	1,20,047 2 0	10,830 9 6	1,31,777 11 6	7,224 15 1	1,39,002 10 7
36. Railway lines	..	..	..	..	9,849	..	..	10,914 10 10	..	10,914 10 10	..	10,914 10 10
Total	..	..	..	..	..	1,55,462	..	1,31,861 12 10	10,830 9 6	1,42,692 6 4	7,224 15 1	1,49,917 5 5
37. Tools and plant	..	..	..	..	..	6,11,656	..	6,42,370 5 8	4,573 12 6	6,46,944 2 2	278 13 2	6,47,222 15 4
38. Contingencies	..	..	..	..	..	2,17,415	..	1,80,385 7 10	8,479 16 9	1,88,865 7 7	321 14 6	1,89,187 6 1
39. Establishment	..	..	..	..	..	5,34,369	..	5,32,647 7 11	12,163 10 10	5,44,811 2 9	..	5,44,811 2 9
40. Materials at site (concrete blocks in yards).	C. yds.	..	..	..	..	..	9,13	14 7 2	1,58,736 14 7	—31,041 0 6	1,27,695 14 1	4,246 8 2

Comparison of expenditure to date with sanctioned estimate for the quarter ending 30th June 1893—*cont.*

Sub-head of work.	AS PER ESTIMATE SANCTIONED IN SECRETARY OF STATE'S DESPATCH No. 1, DATED 7TH JANUARY 1892.					AS EXECUTED.					Arrears not paid.	Value of work done up to date, columns 11 and 12.
								Expenditure.				
	Quantity.	Rate.	Per.	Cost.	Total.	Quantity.	Rate.	Total up to end of last quarter.	During the quarter.	Up to date.		
1	2	3	4	5	6	7	8	9	10	11	12	13
Extending the Rubble Revetment protecting the Foreshore north of Harbour—cont.		Rs. A. P.		Rs.	Rs.		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
41. Advances to work-people ..	..	..	..	..	..	..	..	6,016 15 9	—5,951 6 1	65 9 8	..	65 9 8
Total of estimate and value of work done	..	..	..	..	61,06,227	..	..	54,54,675 1 1	52,725 15 0	55,07,401 0 1	31,872 2 0	55,39,273 2 1
Deduct probable recoveries due to sales of tools and plant ..	..	..	..	..	2,77,331	..	..	—76,636 11 5	—1,204 12 7	—71,841 8 0	..	—71,841 8 0
Total ..	..	..	..	..	58,28,896	..	..	53,84,038 5 8	51,521 2 5	54,35,559 8 1	31,872 2 0	54,67,431 10 1
Total of revised estimate sanctioned in Secretary of State's despatch, *plus* expenditure before 31st December 1884	..	..	..	..	1,23,83,386	..	..	1,19,38,529 4 6	51,521 2 5	1,19,90,050 6 11	31,872 2 0	1,20,21,922 8 11
Estimated cost of additional works found necessary up to end of last quarter	..	..	..	..	..	..	..	..	..	..	..	..
Estimated cost of additional works found necessary during quarter ending	..	..	..	..	..	..	..	..	..	..	..	..
Total estimated cost for completion of works	..	..	..	..	1,23,83,386	..	..	..	..	..	..	..
Deduct total expenditure as per column 11	..	..	..	..	1,19,90,050	..	..	..	..	..	..	..
Total estimated cost of completing work after quarter ending 30th June 1893	..	..	..	..	3,93,336	..	..	..	..	..	..	..

Expenditure up to 31st March 1893 from commencement of works .. .. Rs. A. P. 1,19,38,529-4-6
Do. during current official year from 1st April 1893 to 30th June 1893 .. 51,521-2-5 Grant for 1893-94 Rs. 4,50,000.

Total outlay to 30th June 1893 .. 1,19,90,050-6-11

MADRAS,
25th August 1893.

A. LEE POGSON,
Engineer, Harbour Trust Board.

No. 1391, Marine.

Transferred to the Public Works Department.

(Signed) J. F. PRICE,
Chief Secretary.

OOTACAMUND,
23rd September 1893.

ORDER—dated 16th October 1893, No. 2645 W., Public Works.

Ordered to be forwarded for the information of the Secretary of State and the Government of India.

[Here enter No. 2646 W., dated 16th October 1893.]

(True Extract.)

(Signed) J. HANNAN,
Ag. Joint Secy. to Govt., P.W.D.,
General, Buildings and Roads Branch.

To the Chairman, Harbour Trust Board.
" Marine Department.

ENDORSEMENT—dated 16th October 1893, No. 2646 W., Public Works.

Copy of the above, with two plans showing the progress of the work, forwarded to the Government of India.

(By Order.)

(Signed) J. HANNAN,
Ag. Joint Secy. to Govt., P.W.D.,
General, Buildings and Roads Branch.

Ed. A. D. Xavier.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1893} Madras.

PUBLIC WORKS.

Dated October, 16th.

Read. *Encl.*

G.O., 16th Oct. 1893, Nos. 2645, 2646 W.

OCTOBER.

Madras Harbour Works

Forwarding copy of the progress report of the — for quarter ending 30th June 1893, together with two plans showing progress of the work.

2645-46
11

16th October 1893, No. $\frac{9}{2645}$ W., Public Works.

PUBLIC WORKS DEPARTMENT.

Letter—to

The Right Honorable the SECRETARY of STATE for INDIA.

My Lord,

In continuation of our despatch No. $\frac{6}{1884}$ W., dated 21st July 1893, we have the honour to forward, herewith, the progress report of the Madras Harbour Works for the quarter ending 30th June 1893.

2. The report is accompanied by two plans showing the position and quantity of work done during the quarter.

We have the honour to be,
My Lord,
Your Lordship's most obedient, humble servants,

(Signed) WENLOCK.
(„) H. E. STOKES.
(„) J. H. GARSTIN.

Ootacamund,
16th October 1893.

Exd. A. D. Xavier.

GOVT. OF MADRAS.

2645-46/12

PUBLIC WORKS DEPARTMENT.

(Copy.)

LETTER to the Right Honorable the Secretary of State for India.

No. 9/2645 W., dated 16th Oct. 1893.

FORWARDING progress report of the Madras Harbour Works for quarter ending 30th June 1893, together with two plans showing the position and quantity of work done during the quarter.

761

MARINE DEPARTMENT.

FROM

THE CHAIRMAN,
HARBOUR TRUST BOARD,
MADRAS.

TO

THE CHIEF SECRETARY TO GOVERNMENT,
Marine Department.

DATED 15th } September 1893.
RECEIVED
Despt 20
ENCLOSURES 2 tracings

No. 1870

SUBJECT.

QUARTERLY REPORT ON THE MADRAS HARBOUR.

Submitting the ———— from 1st April to 30th June 1893.

LAWRENCE ASYLUM PRESS.

2695-A6
T4

MARINE DEPARTMENT.

FROM

THE CHAIRMAN,

HARBOUR TRUST BOARD,

MADRAS.

TO

THE CHIEF SECRETARY TO GOVERNMENT,

Marine Department.

DATED 15th } September 1893.
RECEIVED Sept-20

ENCLOSURES 2 tracings

No. 1870

SUBJECT.

QUARTERLY REPORT ON THE MADRAS HARBOUR.

Submitting the———————from 1st April to 30th June 1893.

LAWRENCE ASYLUM PRESS.

2645-96
15

HARBOUR TRUST BOARD OFFICE,
MADRAS, 15 *September* 1893.

No. 1870

From

WARE AUSTIN, ESQUIRE, I.C.S.,
CHAIRMAN, HARBOUR TRUST BOARD,
Madras.

1 Rec

To

THE HON'BLE MR. J. F. PRICE, I.C.S.,
CHIEF SECRETARY TO GOVERNMENT,
Marine Department.

SIR,

I have the honor to submit for the information of Government and the Right Honorable the Secretary of State for India, a report upon the Madras Harbour, for the quarter ending 30th June 1893.

2. During this period 179 vessels of 318,593 net registered tonnage have entered the Harbour, and 12 vessels of 4,587 net registered tonnage have anchored outside. This shows an increase of 19 vessels with a tonnage of 37,171 tons, as compared with the corresponding quarter of the previous year.

3. Appended are returns of imports and exports for the quarter under report, 1st April to 30th June 1893, as compared with the corresponding quarter of 1892-93.

4. These returns show that there has been an increase of the following goods imported and exported, *viz.*, coal, piece goods, kerosine case oil, window glass, galvanized iron, and timber, imported—and in cotton, groundnuts, jaggery, and turmeric, exported—while there has been a decrease in the quantities of food grains and railway stores imported—and of coffee, cotton twist, hides and skins, exported.

5. The quantity of coal imported is steadily on the increase, almost the whole of which is used on the Kolar Gold fields. During the quarter 29 steam boilers of large power were imported, which will probably cause a still larger consumption of coal as fuel during the remainder of the year.

2

6. I annex statements of receipts and charges and it is satisfactory to note that the revenue collected during the quarter was Rs. 9,376-8-0 in excess of that collected during the quarter April—June of last year, considering that trade in general has been very dull.

7. The year opened with a credit balance of Rs. 11,65,852, of which Rs. 7,93,157 were invested in Government 4 per cent. paper of the par value of Rs. 8 lakhs. On the 30th June, the Trust had to credit in the Bank of Madras Rs. 55,013; cash in Office Rs. 723; and invested in 4 per cent. Government Paper, Rs. 8,91,390, of the par value of Rs. 8,95,000, a total of Rs. 9,47,127. The diminution of the credit balance by Rs. 2,18,725 being accounted for by the payment of Rs. 3,18,478, interest on loan and repayment (under Sections 30—31). The quarter under review has therefore provided one lakh of rupees towards meeting the liabilities of the year next ensuing.

8. With regard to the progress made upon the Construction of the Harbour, I submit herewith the plans which accompanied the Engineer's report for the quarter.

9. The permanent bonded block-work at the North pier was completed during the quarter, and of the six temporary courses of block-work required for compressing the base upon which the cylindrical caisson is to be placed, two were set.

10. At the South pier one course of blocks was set, advancing the structure by 5'—4½": the greater part of available working days having been taken up in dredging and raising by divers the excess rubble stone, and pieces of broken blocks.

The wave-breaker screen has been brought up to its full sanctioned width at both piers, and in line with the last courses set: 23 blocks having been deposited at the North, and 41 at the South pier.

The apron or protection to rubble base at both piers has been proceeded with, as opportunity offered.

I have the honor to be,
Sir,
Your obedient Servant,

Chairman, Harbour Trust Board.

2045-46
16

Statement of Receipts and Charges from 1st April to 30th June 1893

Opening balance—					
Government Securities (Par value 8,00,000)				7,93,157	0 10
1. Cash in the Bank of Madras ...	3,71,724	13	1		
2. General Cash in Office	449	14	8		
3. Advance for Contingencies	500	0	0	3,72,694	11 9
				11,65,851	12 7
Receipts.					
I. Harbour Dues Collections—					
Beach Import	39,243	15	5		
Pier do.	15,849	3	8		
Beach Export	8,534	11	3		
Pier do.	12,556	13	6		
Storage	675	6	5		
Wharfage	1,930	0	0		
Cranage	12,581	5	11		
Penalties (Section 84)	...	...	...		
Demurrage	...	...	...		
Porterage—					
Beach				91,471	8 2
Pier	16,206	13	8		
Haulage	9,171	15	0		
Miscellaneous	3,107	14	0		
Miscellaneous—	184	5	11		
Harbour Trust Properties ...				28,671	0 4
Provisions	252	14	0		
Water Collection	152	3	6		
Sundries	1,129	0	0		
				1,568	1 6
II. Contribution from Port Funds ...				1,21,710	10 0
III. Interest realized on Government of India 4 per cent. Promissory Notes ...				5,023	4 0
Amount refunded from Construction Funds in repayment of advances made from time to time from Revenue during the Current Official year 1893-94					
Nominal value of 20,000 Rs. Government securities (Port Fund investments) transferred by the Accountant General under para. 3, G.O., dated 27th April 1893, No. 411, Financial				20,000	0 0
Total Rupees ...				13,12,621	10 7
Charges.					
I. Interest (under Section 30)				2,18,477	13 7
II. Repayment of Loan for Construction of Harbour				1,00,000	0 0
				3,18,477	13 7
III. Establishment, &c.—					
1. Chairman's salary	1,200	0	0		
2. Secretary's do.	2,400	0	0		
3. Correspondence Department ...	918	0	5		
4. Accounts Department	1,325	9	9		
5. Cash Department	1,098	12	4		
6. Traffic Department (Shore Staff) ...	6,290	11	8		
7. Preventive Service	3,045	0	0		
8. Do Boatmen ...	293	3	8		
9. Contribution to Government for Pensions	88	9	3		
10. Fees to Trustees	1,590	0	0		
11. Contribution to Provident Fund ...	12	15	10		
				18,457	14 11

IV. Contingencies—							R. A. P.
					Forward...	18,457 14 11	
(a) Subject to Regular Audit—							
Postage	...		Rs. 20	A. 7	P. 2		
Receipt Stamps	...		55	13	0		
Telegrams	...		7	4	0		
Furniture	...		...	...	...		
Tabs for Addl.	...		...	...	...		
Law Charges	...		...	...	...		
Stationery and Printing ...	...		1,197	14	0		
Advertisement charges ...	...		638	14	3		
Uniform for Preventive Service	...		214	8	0		
			658	8	0		
						2,793	4 5
(b) Admissible without Detail Audit—							
Overtime Fees to Establishment	...		1,045	2	11		
Do. Preventive Service and Boatmen...	...		715	0	1		
Miscellaneous	...		2,749	15	4		
						4,510	2 4
V. Refunds	...		...			916	2 4
VI. Petty Construction and Repairs—							
New Works...	...		...	...	...		
Repairs	...		...	...	...		
Tools and plant	...		900	2	7		
			384	6	5		
						1,284	9 0
							27,962 1 0
VII. Portorage—							
1. Coolies, Pier	...		3,984	10	5		
2. Do. Beach and Custom-House	...		12,337	3	0		
3. Madras Railway Company...	...		1	6	0		
4. South Indian Railway Company	...		83	11	0		
5. Coasting Cargo	...		287	5	4		
6. Boat Hire	...		...	...	...		
7. Claims for losses and damage	...		...	...	...		
8. Engine Charges	...		67	6	11		
9. Refunds	...		845	4	4		
10. Steam Crane Charges...	...		62	11	3		
11. Contribution to Godly Provident Fund			202	1	6		
			261	15	6		
						17,523 11 3	
Contingencies—							
(a) Subject to Regular Audit—							
Postage	...		...	...	...		
Receipt Stamps	...		...	...	...		
Telegrams	...		4	2	0		
Furniture	...		...	...	...		
Tarpaulins	...		...	...	...		
Law Charges	...		707	8	0		
Stationery and Printing ...	...		...	...	...		
Advertisement Charges ...	...		30	6	11		
Lighting Pier and yards ...	...		...	...	...		
			420	2	0		
						1,162 2 11	
(b) Admissible without Detailed Audit—							
Miscellaneous	...		...			368 10 5	
							19,054 8 7
Advances to Construction account			...		...	...	... ...
Total Expenditure	...		...		...	...	3,65,494 7 2
Balance on the 30th June, 1893.—							
Government Securities (Par value 2,95,000)			...			*8,91,390 6 10	
Cash in the Bank of Madras ...	...		55,913	5	9		
General Cash in Office ...	...		223	6	10		
Advance for Contingencies ...	...		500	0	0	55,736 12 7	9,47,127 3 5
Total Rupees ...	...		...			...	13,12,621 10 7

*Includes only the nominal value of 20,000 Rs. Government securities transferred by the Accountant General (Port Fund Investments).

ACCOUNTS DEPARTMENT,
HARBOUR TRUST BOARD,
MADRAS, 13th July 1893.

H. E. HOPE-ROSS,
Chief Accountant, Harbour Trust.

1.

STATEMENT OF GOODS IMPORTED FROM FOREIGN PORTS.

		Packages.	1890-91.	1891-92.	Quarter ending 30th June 1892.	Quarter ending 30th Sept. 1892.	Quarter ending 31st Dec. 1892.	Quarter ending 31st March 1893.	Totals for 1892-93.	Quarter ending 30th June 1893.
Apparel and Effects ...	Packages...	851	1,347	317	154	429	278	1,178	146	
Arrack ...	Barrels ...	1,234	326	136	50	378	102	666	477	
Asphalte, Tar, & Pitch	Casks ...	3,023	4,149	914	292	596	626	2,328	792	
Beads ...	Cases ...	1,962	1,854	599	304	129	428	2,460	321	
Boots and Gaiters	,, ...	126	442	122	28	93	113	356	136	
Brooks ...	Casks ...	346	884	146	312	247	128	833	330	
Blankets ...	Bales ...	...	...	...	...	...	12	12	...	
Bread and Pork ...	Cases ...	58	119	4	16	143	5	168	7	
Bricks ...	100 ...	...	36	...	...	...	...	...	...	
Beer	Cases ...	222	1,021	170	...	231	156	557	52	
Boiler ...	Barrels ...	6,606	6,128	2,242	2,312	1,241	2,315	8,110	1,775	
	Hogsheads ...	110	1,140	402	124	438	497	1,461	274	
Corks ...	No. ...	8,217	6,808	2,017	1,579	2,119	1,985	8,215	913	
Canvas ...	Bundles ...	32	51	7	6	40	9	62	19	
Candles ...	Bales ...	88	88	14	14	18	27	72	5	
Colours ...	Cases ...	244	121	30	24	24	62	140	47	
Confectionery Provisions and Oilmanstores	,, ...	18,515	16,637	3,329	2,047	7,206	6,275	21,017	4,169	
Crockery & Glassware	,, ...	2,695	3,858	465	1,147	1,477	497	3,586	1,258	
Chalk ...	Casks ...	17,886	23,893	5,047	4,258	8,221	4,468	22,129	4,895	
Cement ...	& Casks ...	4,099	4,538	1,104	738	802	1,172	3,817	919	
Cast Iron Pipes and Tubes	Barrels ...	178	370	15	50	25	50	140	10	
	Casks ...	7,049	14,522	4,319	1,450	963	656	7,388	1,231	
Camphor ...	Tons ...	...	...	...	...	...	...	...	...	
Coal, Coke and Fuel ...	Tubs ...	950	335	335	370	370	225	1,300	325	
Coal	Tons ...	1,556	4,720	1,201	1,143	1,142	1,550	4,936	1,234	
Coke	,, ...	16	...	...	...	...	...	...	...	
Fuel	,, ...	...	...	...	...	...	...	...	...	
Crackers	,, ...	...	25,686	17,283	16,494	11,205	10,466	49,568	15,441	
Copper Plates and Tiles	Cases ...	...	578	101	510	150	881	778	189	
Corrugated Iron ...	No. ...	1,181	470	...	...	...	2,953	2,953	...	
	Packages...	1,504	4,802	...	724	115	1	840	...	
Dynamite ...	Cases ...	2,918	805	90	109	145	177	521	144	
				506	486	845	676	2,513	1,040	
Earthenware ...	Crates ...	9,230	13,040	3,220	610	495	4,100	8,425	1,412	
Fire Clay ...	Casks ...	1,913	2,318	220	376	920	370	1,886	540	
Flour	Bags and Barrels.	23	2,763	56	...	148	69	273	...	
Flannel ...	Bales ...	367	1,317	236	275	171	70	971	202	
Gunpowder ...	...	58	54	5	9	9	9	32	14	
Haberdashery Hardware ...	Packages...	1,746	6,667	1,108	2,509	387	1,892	5,987	1,569	
Hops ...	Cases ...	9	30	...	3	14	10	27	12	
Iron ...	& Casks...	3,934	8,234	1,906	1,231	1,068	2,478	6,783	2,476	
Iron Safes ...	Packages ...	129	129	15	17	2	50	84	33	
	Tons ...	18,138	18,737	6,946	4,923	1,861	4,132	17,862	6,870	
	No. ...	241	296	80	36	10	14	150	40	
Kerosine Oil ...	Cases ...	345,000	397,862	28,400	25,855	82,664	1,14,421	2,51,320	86,000	
Lime Water ...	Tons ...	...	...	...	...	...	3,361	3,361	...	
Malt	,, ...	45	...	...	...	...	...	...	...	
Millinery and Haberdashery ...	Bags ...	354	445	88	300	7	12	407	6	
Matches	Cases ...	1,356	1,699	233	551	452	330	1,566	218	
Machinery ...	,, ...	7,916	10,065	2,639	2,277	1,579	2,630	9,125	2,464	
Nails	Tons ...	1,690	3,099	886	707	678	970	3,241	697	
Oil and Turpentine ...	Kegs ...	18,287	18,744	4,471	664	2,237	3,175	10,547	3,430	
	Drums ...	6,942	7,225	2,365	1,903	1,680	952	16,500	734	
Piece Goods ...	Piece Goods	Cases&Bales	82,649	85,079	12,281	11,045	13,477	14,748	51,551	14,287
	Twist.				5,060	4,282	5,706	3,676	18,664	5,595
Planer	Bales ...	4,646	6,546	1,857	1,021	1,128	1,512	5,518	2,123	

STATEMENT OF GOODS IMPORTED FROM FOREIGN PORTS—*continued.*

—	Packages.	1890-91.	1891-92.	Quarter ending 30th June 1892.	Quarter ending 30th Sept. 1892.	Quarter ending 31st Dec. 1892.	Quarter ending 31st March 1893.	Total for 1892-93.	Quarter ending 30th June 1893.
Piano	No.	128	153	28	28	25	18	99	27
Printing Types	Cases	263	492	408	138	112	68	727	1,074
Pig Lead	No.	1,420	2,198	266	342	309	181	1,098	3,015
Paint	Kegs	7,457	7,758	3,833	3,652	1,140	2,317	10,257	296
Rattan	Bundles	883	3,823	2,117	662	573	448	5,660	439
Soaps	Cases	1,996	1,650	172	140	210	80	979	8
Salt	,,	225	383	104	30	115	1,596	329	420
Steel	Cases & Casks	874	864	281	188	1,278		3,348	
Steel Bundles and Bars	No.	5,746	11,261	3,836	421	2,508	3,636	10,401	1,847
Steel Hoop	Bundles	12,596	5,567	1,189	...	...	405	1,597	2
Shovels	,,	747	275	197	209	35	58	499	241
Sodawater Bottles	Crates	840	1,395	462	489	476	311	1,768	225
Sulphur	Casks	633	752	805	66	34	...	435	70
Shot	Kegs	240	177	...	1	20	35	56	13,503
Sundries	Packages	48,364	18,408	6,343	5,947	11,490	10,026	33,806	791
Specie	No.	1,115	1,229	246	203	208	224	888	2,571
Sugar	Bags	2,250	2,152	248	20	774	154	1,196	407
Slates and Pencils	Cases	1,101	1,242	161	248	160	279	848	3,601
Spelter	Cakes	11,342	836	2,144	...	3,266	3,376	8,786	22
Saw	Cases	68	79	30	4	6	2	48	755
Twine and Rope	Bales & Coils	183	438	65	26	339	25	455	2,251
Tin Plates	Boxes	4,904	5,608	845	600	866	2,348	4,619	9,819
Wine and Spirits	Cases	40,857	37,877	10,793	11,896	10,057	11,993	44,739	112
	Casks	2,739	863	111	327	32	188	658	208
	Puncheons	149	369	109	54	332	238	733	5,874
Window Glasses	Cases	8,297	5,972	2,779	2,705	1,579	4,987	12,000	291
White and Red Lead	Kegs	495	681	144	218	319	275	951	633
Yellow Metal	Cases	4,309	3,076	451	447	1,139	1,324	3,361	314
Zinc Sheets	Packages	595	2,749	476	371	501	823	1,600	1,680
Horses	No.	611	816	3	297	336	24	112	1
Cows	,,	17	70	3	53	32	4	15	4
Dogs	,,	...	59	...	5	6	14	14	6
Elephants	,,	10	13	...	...	3	7	7	
Two-wheeled Carriage	,,	25	10	...	...	...	7	8	2
	...	...	...	...	4	4			

II.

STATEMENT OF STORES IMPORTED BY THE MADRAS RAILWAY COMPANY.

—	Packages.	1890-91.	1891-92.	Quarter ending 30th June 1892.	Quarter ending 30th Sept. 1892.	Quarter ending 31st Dec. 1892.	Quarter ending 31st March 1893.	Totals for 1892-93.	Quarter ending 30th June 1893.
Stores	Packages	51,879	82,105	13,429	2,111	7,203	49,601	72,434	10,730
Fuel	Tons.	467	3,603	389	...	110	...	499	6
Coke	,,	4,673	...	...	...	...	...	...	...
Coal	,,	...	1,437	141	...	...	403	544	317
Timber	,,	839	27	...	...	...	300	300	...
Fire Brick	,,	4,301	2,477	569	42	76	1,396	2,083	...
	100	5,800	115	...	...	98	232	330	...
	...	168	...	...	...	...	...	...	...

III.

STATEMENT OF STORES IMPORTED BY THE SOUTH INDIAN RAILWAY COMPANY.

—	Packages.	1890-91.	1891-92.	Quarter ending 30th June 1892.	Quarter ending 30th Sept. 1892.	Quarter ending 31st Dec. 1892.	Quarter ending 31st March 1893.	Totals for 1892-93.	Quarter ending 30th June 1893.
Stores	Packages	618,937	68,282	5,718	4,901	4,241	7,311	22,171	1,266
Fuel	Tons.	...	...	...	...	...	...	...	22
Coke	Tons	...	...	...	...	...	...	...	...
Coal	,,	...	...	...	...	...	...	...	...
Timber	,,	...	14	...	...	...	...	...	...
Boiler	,,	5,930	...	...	...	...	...	...	10
	No.	...	...	...	...	...	7	12	
	...	55	4	...	5	...	...	...	...

IV. STATEMENT OF GOODS IMPORTED FROM COAST PORTS.

—	Packages.	1890-91.	1891-92.	Quarter ending 30th June 1892.	Quarter ending 30th Sept. 1892.	Quarter ending 31st Dec. 1892.	Quarter ending 31st March 1893.	Totals for 1892-93.	Quarter ending 30th June 1893.
Apparel and Effects	Packages	654	451	105	55	78	105	343	103
Alum	Barrels	...	10	5	76	106	...	187	4
Acids	Cases	99	89	11	5	17	92	125	71
Animals	No.	210	...	10	...	...	...	10	...
Arms and Guns	Cases	10	45	4	1	5	2	12	2
Boilers	No.	7	2	...	...	...	...	...	...
Bricks and Tiles	100	1,630	1,396	...	10	47	...	57	517
Coffee	Bags	349	379	306	95	14	129	595	236
Candles	Cases	1,541	1,221	378	861	167	125	1,531	378
Colours	,,	305	322	96	87	108	175	466	97
Crockery and Glassware	Tons	14,881	13,249	609	3,692	1,985	7,515	13,792	3,750
Coal	,,	187	77	...	...	...	...	...	...
Copra	Bales	...	...	20	25	22	27	94	25
Crackers	Tubs	4,640	682	248	412	423	206	1,506	300
Copper	Bags	...	32	...	...	...	...	...	122
Da.	Cases	...	...	...	...	...	...	...	...
Cutch & Lac	,,	...	...	...	...	...	...	...	...
Cocoanuts	Tiles & Ingots	1,071	1,057	356	384	168	28	936	82
Earthenware	Packages	5,703	96	...	...	131	...	131	245
Da.	No.	...	4,415	369	725	1,340	557	3,191	1,265
Firewood	Crates	...	...	...	...	...	...	...	19
Flour	Pipes	23	302	1,424	...	1,496	21	2,941	75
Gunnies	Tons	...	2,026	386	2,329	300	2,790	5,315	614
Grass and Peas, &c.	Bags & Barrels	...	...	...	...	...	...	...	...
Garlic	Bales	4,177	7,248	2,134	2,880	3,501	2,968	11,482	2,992
Hardware	Bags	10,780	1,930	381	1,024	2,997	6,159	9,661	2,268
Horns	,,	225,735	271,682	78,693	109,441	112,518	84,496	380,145	92,145
Hides	Cases	8,523	2,945	20	979	223	...	1,215	1,097
Iron	Bundles	603	2,045	29	1,168	...	...	1,197	141
Iron Safes	Bales	681	650	220	311	244	186	980	130
Kerosine Oil	Tons	3,936	6,137	3,551	2,311	2,139	1,744	9,539	1,587
Leaves	No.	409	241	48	49	66	100	263	37
Liquor	Cases	19	31	10	11	2	15	38	3
Machinery	Bundles	...	...	...	...	...	...	...	550
Millinery and Haberdashery	Cases	5,574	6,509	778	1,522	1,030	417	3,742	1,576
Oil and Turpentine	Tons	...	...	...	...	...	...	...	917
Paddy	Cases	251	158	15	6	87	21	79	13
Piece-goods	Drums	189	208	41	68	50	96	245	45
Paper	Bags	2,846	3,810	1,086	1,857	1,167	2,129	6,239	1,787
Paint	Cases and Bales	...	...	34,781	14,429	8,610	28,160	75,980	7,088
Plano.	Bales	3,028	3,903	514	963	1,592	1,687	4,756	1,096
Rice	Kegs	3,985	3,123	962	1,188	1,782	1,576	5,508	1,886
Rose Water	No.	99	224	14	210	155	304	683	49
Seeds	Bags	5	45	4	4	1	3	12	2
Soda	Cases	223,751	1,147,048	76,303	45,699	26,051	57,143	205,176	26,328
Salt	Bags	715	1,884	762	557	281	265	1,865	415
Sandalwood	Bales	12,041	30,406	7,993	6,745	4,798	6,399	25,935	6,942
Sugar	,,	5,387	6,199	1,180	248	1,006	1,968	5,052	1,591
Specie	Bundles	823	1,051	170	289	177	72	699	87
Sundries	Bags	63	143	8	29	9	83	121	32
Soap	No.	2,134	1,881	158	190	227	291	866	468
Sulphur	Packages	37	202	14	40	27	109	190	14
Spice	Cases	40,653	47,533	13,376	16,953	12,379	11,323	47,137	912
Soda water Bottles	Casks	363	445	6	...	17	17	40	5
Twine and Rope	Packages	...	471	334	...	137	73	544	216
Tin Plates	Crates	5,674	359	189	68	318	177	740	47
Twist	Bales and Coils	...	...	...	...	...	...	...	2
Turmeric	Boxes	942	889	101	240	202	232	775	708
Timber	Bales	708	1,807	9	289	303	227	828	234
Tea	Bags	1,538	1,120	209	600	168	170	1,147	208
Tamarind	Tons	10,751	7,224	1,086	1,545	1,107	1,269	4,977	1,517
Yellow Metal	Cases	16,350	15,137	2,880	2,586	2,044	3,375	10,595	3,272
Horses	Bundles	4,720	1,821	2,272	864	261	14	3,411	2
Two-wheeled Carriages	Cases	...	...	...	...	...	...	...	32
Four-wheeled Carriages	No.	809	6	193	107	197	45	542	1
	No.	...	1	3	...	2	7	15	...
	No.	...	...	...	...	...	3	3	4

	Packages.	1890-91.	1891-92.	Quarter ending 30th June 1892.	Quarter ending 30th Sept. 1892.	Quarter ending 31st Dec. 1892.	Quarter ending 31st March 1893.	Totals for 1892-93.	Quarter ending 30th June 1893.
Beer and Ale	Cases	...	18	2	...	...	...	2	
	Casks	...	67	...	7	...	...	7	
	Hogsheads	...	3	...	...	...	...	...	
Cinchona Bark	Bales	1,346	471	110	327	32	60	529	
Chillies	Bags & Bundles	1,362	2,760	...	...	9	...	9	
Cigars	Cases	242	1249	146	139	92	179	556	1
Coffee	Bags	22,703	23,764	12,153	3,406	41	19,014	34,612	
Cotton	Bales	27,922	18,902	5,512	8,287	6,422	2,819	23,140	
Cotton Twist	"	8,271	14,229	2,394	2,907	5	60	5,366	
Coriander and Omum Seeds	Bags	1,393	8,218	361	260	890	294	1,814	
Cement	Casks	...	...	50	90	56	92	288	
Carpets	Bales	524	1,187	...	...	100	...	100	
Coal	Tons	...	902	218	...	...	179	1,549	
Deer Horns	Packages	1,311	1,371	364	743	263	...	1	
Explosive	Cases	...	21	...	...	1	...	...	
Firewood	Tons	...	...	...	...	...	...	...	
Four-wheeled Carriage	No.	...	...	...	...	...	...	...	
Groundnuts	Bags	2	8	1	1	...	...	2	
Gram, Peas, &c.	"	199,470	93,132	11,610	11,440	130	25	23,205	
Horns, Cow and Buffalo	Tons	...	319	...	...	...	...	...	
Hides	Tons	52	67	15	4	3	7	29	
	Bales & Bundles	16,169	21,348	5,444	7,352	3,808	5,118	21,812	
Indigo	Cases & Chests	24,453	14,622	2,762	2,781	10,802	9,588	25,933	
Iron	Tons	...	...	2	...	11	...	11	
Jaggery	Bags	34,135	28,935	13,736	...	6,443	36,493	56,672	
Kerosine Oil	Cases	...	...	...	...	31	...	31	
Myrabolams	Bags	2,576	225	60	...	4,641	6,727	28,547	
Miscellaneous	Packages	16,835	37,208	8,290	8,889	...	...	...	
Onions	Bags & Baskets	12,029	21,964	4,458	935	24	200	5,617	
Oil	Casks	50	426	18	4	25	9	56	
Piece-goods	Bales and Cases	5,849	6,205	1,075	1,281	1,540	961	4,857	
Potatoes	Bags & Baskets	2,284	2,487	157	...	115	10	282	
Poonac	Bags	26,134	33,880	5,962	4,165	3,764	2,236	16,127	
Piano	No.	3	41	5	2	3	...	10	
Paddy	Bags	...	...	...	...	5	...	5	
Rice	"	2,650	1,138	1	...	2,639	589	3,229	
Redwood	Tons	1,809	699	342	384	273	655	1,654	
Seeds, Gingelly and Castor	Bags	19,021	1,513	652	65	7,693	4,204	12,654	
Skins, Sheep and Goats, Tanned	Bales	31,200	32,494	7,436	10,035	7,207	9,386	34,063	
Sandalwood	Bundles	1,728	1,534	43	...	1	286	330	
Spirits and Wine	Cases	...	232	...	1	1	22	41	
	Casks	...	477	...	89	25	...	65	
	Puncheons	...	...	...	...	...	...	...	
Sugar	Bags	...	590	...	21	...	...	...	
Specie	Boxes	55	94	21	1	62	77	161	
Tamarind	Bundles	1,156	6,445	1,969	...	9	18	48	
Turmeric	Bags	...	2,159	217	1,167	61	1,834	5,331	
Tea	Cases	2,884	2,265	424	20	374	330	941	
Two-wheeled Carriages	No.	...	...	...	785	370	120	1,769	
Wool	Bales	3	1	...	...	...	...	...	
Yellow Metal	Tons	1,196	1,621	486	445	267	384	1,470	
		...	107	...	...	100	...	100	

	Packages.	1890-91.	1891-92.	Quarter ending 30th June 1892.	Quarter ending 30th Sept. 1892.	Quarter ending 31st Dec. 1892.	Quarter ending 31st March 1893.	Totals for 1892-93.	Quarter ending 30th June 1893.
Beer and Ale	Cases	289	352	81	86	58	69	294	56
	Casks	159	159	15	10	45	24	94	
	Hogsheads	47	7	1	5	9	26	41	79
Boiler	No.	...	...	...	...	...	...	...	1
Cinchona Bark	Bales	...	395	...	84	...	...	84	
Chillies	Bags & Bundles	4,592	2,064	1,264	1,126	280	237	2,907	956
Cigars	Cases	1,345	1,418	311	277	288	260	1,136	155
Coffee	Bags	665	507	806	334	198	111	1,449	185
Cotton	Bales	8,521	5,721	832	1,312	573	1,528	4,245	1,875
Cotton Twist	"	5,103	4,698	784	950	3,423	1,281	6,438	524
Coriander and Omum Seeds	Bags	4,783	2,970	1,531	1,012	582	3,877	7,002	898
Cement	Casks	...	...	...	...	8,611	297	8,908	54
Carpets	Bales	45	68	14	11	14	12	51	8
Coal	Tons	976	275	25	...	75	350	450	30
Deer Horns	Packages	84	108	1	...	100	50	151	23
Explosive	Cases	55	2,668	315	32	26	958	1,331	16
Eggs	Pots	2,801	1,165	157	193	379	396	1,125	244
Firewood	Tons	...	2	...	...	...	...	...	
Four-wheeled Carriage	No.	34	21	9	5	5	12	31	10
Groundnuts	Bags	61,463	27,790	7,797	781	2,352	6,939	17,839	2,046
Gram, Peas, &c.	"	3,568	521	65	587	38	540	1,226	60
Horns, Cow and Buffalo	Tons	30	310	28	68	112	99	307	27
Hides	Bales & Bundles	506	379	111	109	142	164	526	179
Indigo	Cases & Chests	412	165	...	16	600	200	816	512
Iron	Tons	850	2,244	885	1,517	26	183	2,611	197
Jaggery	Bags	...	258	86	4	35	1,323	1,448	76
Kerosine Oil	Cases	3,463	10,327	212	216	11	220	659	404
Myrabolams	Bags	535	1,054	1	6	12	272	291	199
Miscellaneous	Packages	30,398	50,510	12,262	11,366	12,071	38,825	69,584	12,504
Onions	Bags & Baskets	21,141	22,442	2,036	4,512	26,480	20,378	53,406	9,119
Oil	Casks	1,281	807	285	43	238	71	637	142
Piece-goods	Bales & Cases	6,259	5,615	1,566	2,336	1,779	2,970	8,651	1,153
Potatoes	Bags & Baskets	26,470	23,637	918	7,881	14,823	766	24,388	384
Poonac	Bags	4,752	4,770	6,023	3,355	3,951	8,852	22,181	6,997
Piano	No.	24	23	2	4	8	2	16	1
Paddy	Bags	11,426	...	...	250	1,300	7,256	8,806	250
Rice	"	8,098	5,448	3,076	1,924	12,678	14,215	31,893	1,816
Redwood	Tons	...	119	48	639	6	...	693	2
Seeds, Gingelly and Castor	Bags	57,157	16,893	401	252	633	4,501	2,787	7,035
Skins, Sheep & Goat, Tanned	Bales	1,271	721	90	166	253	537	1,046	289
Sandalwood	Bundles	1,856	153	54	9	162	31	256	466
Spirits	Cases	3,049	2,982	1,255	772	1,023	733	3,783	771
	Casks	250	727	86	210	196	224	716	304
	Puncheons	54	13	1	2	95	91	189	64
Sugar	Bags	2,093	773	564	338	268	249	1,419	224
Specie	Boxes	154	236	169	132	169	40	510	15
Tamarind	Bundles	17,197	8,624	4,340	1,254	725	1,934	8,253	2,959
Turmeric	Bags	4,719	19,258	5,218	2,762	3,751	6,152	17,883	13,047
Tea	Cases	298	341	17	15	15	15	62	7
Two-wheeled Carriage	No.	27	15	4	2	4	6	16	1
Wool	Bales	475	769	147	190	118	148	603	219
Yellow Metal	Tons	47	53	12	4	51	...	67	67

VII. STATEMENT OF STORES, &c., IMPORTED BY GOVERNMENT.

Department.	Description.	Class.	1890-91.	1891-92.	Quarter ending 30th June 1892.	Quarter ending 30th Sept. 1892.	Quarter ending 31st Dec. 1892.	Quarter ending 31st March 1893.	Totals for 1892-93.	Quarter ending 30th June 1893.
Accountant-General.	Specie Silver.	Boxes.	1,176	403	106	...	370	112	582	560
	Copper.	"	2,472	5,100	...	...	...	710	...	...
	Silver & Copper	"	8	92	...	...	...	...	19	...
	Notes	"	...	25	...	1	...	2	1	...
	Packages	No.	3	...	...	...	17	...	...	...
State Railway	Packages & Pieces.	"	...	...	...	...	...	...	...	...
	Mails	"	...	...	...	...	...	...	...	...
	Sleepers	"	...	...	...	...	...	...	...	...
	Bridge Works	Tons	...	2	...	...	...	...	20	...
Public Works Department	Boilers	No.	...	...	...	20	...	...	9	308
	Coal	Tons	60	50	...	...	9	...	...	...
	Iron	"	250	271	...	...	...	1,248	6,394	...
	Stores	Pkgs.	2,049	15,148	2,023	1,130	2,096	...	...	...
Ordnance	Coal	Tons	930	...	...	...	...	...	...	6,369
	Ammunition	Boxes.	...	2,148	...	1,152	10,296	6,812	28,566	...
	Stores	Pkgs.	22,898	13,017	4,967	...	...	...	...	...
Madras Harbour Works	Cement	Casks	90,475	1,800	...	...	...	...	...	507
	Stores	Pkgs.	895	2,869	...	...	...	...	2,324	64
	Coal	Tons.	580	...	...	...	709	391	167	13
Clothing	Packages	No.	1,527	1,983	589	635	13	5	291	138
Police	"	"	335	122	98	51	3	11	858	897
Salt Revenue	"	"	190	272	220	56	129	222	1,007	2,336
Post Office	"	"	1,749	1,119	198	249	32	510	24,126	62
Medical	"	"	1,250	1,779	415	50	1,949	6,789	13,656	1,197	960
Telegraphs	"	"	19,211	24,768	1,752	1,949	783	288	1,122	1,274
Stationery	"	"	811	732	19	107	179	101	7,420	64
Stamps	"	"	1,647	1,961	186	656	3,038	1,165	149	77
Commissariat	"	"	4,884	8,588	2,013	1,204	11	5	880	...
Gazette Press	"	"	2,414	161	7	126	509	147	...	...
Marine	"	"	513	120	117	107	...	...	...	2
Supdt. Railway Mail Service	"	"	...	...	...	...	...	...	208	10
Revenue Survey	"	"	32	265	76	133	1	1	320	...
Agriculture	"	"	202	380	209	101	6	4	...	2
Government Central Museum	"	"	10	15	3	2	3	2	10	17
Under Secys. to Government	"	"	91	295	489	28	20	17	504	6
Supdt. of Prisons	"	"	23	13	2	3	8	4	17	3
Revenue Board	"	"	139	124	15	12	6	6	33	1
Forests	"	"	1,318	1,196	2	1	1	...	10	...
Bank of Madras	Specie Silver.	Boxes.	...	...	...	...	...	...	...	...
	Copper	"	...	...	...	...	...	...	...	1
Presidency College	Packages	No.	50	28	7	...	2	6	15	...
School of Arts	"	"	...	3	...	...	...	1	1	...
Sanitary Commissioner	"	"	...	...	...	...	...	...	...	...
Inspector of Cattle Diseases	"	"	...	9	...	...	100	...	100	...
Chemical Examiner	"	"	...	...	...	...	...	...	...	...
Medical College	"	"	32	31	2	6	16	7	31	13
Dy. Collectors	"	"	64	73	...	2	18	16	81	3
Camp Equipage	"	"	24	9	1	10	2	2	15	...
Astronomer	"	"	...	...	...	...	...	...	...	5
Presidency Pay Master	"	"	6	28	2	7	4	...	13	...
Registration	"	"	13	2	5	3	...	...	8	...
Director of Public Instruction	"	"	8	7	1	3	...	...	4	...
Superintendent, Remount Depôt, Hussur	"	"	5	9	...	137	2	...	139	1
Resident, Mysore, in Bangalore	"	"	...	...	...	...	300	300	600	150
Secretary for Berar Hyderabad	"	"	...	...	...	...	1	1	2	3
H.E.I. and Wenlock Government House, Madras	"	"	...	...	...	...	6	1	7	11
Judge, Civil City Court, Madras	"	"	...	...	...	...	...	2	2	...
Quarter Master General	"	"	...	...	...	...	...	1	1	...
Registrar of High Court	"	"	...	...	...	...	3	...	3	1
							3		1	1

VIII. STATEMENT OF STORES, &c., EXPORTED BY GOVERNMENT.

Department.	Description.	Class.	1890-91.	1891-92.	Quarter ending 30th June 1892.	Quarter ending 30th Sept. 1892.	Quarter ending 31st Dec. 1892.	Quarter ending 31st March 1893.	Total for 1892-93.	Quarter ending 30th June 1893.
Accountant General	Specie Silver.	Boxes.	20	411	27	9	3	6	45	24
	Copper.	"	330	965	173	25	2	....	200	100
	Notes.	"	10	6	4	3	3	3	13	1
	Packages	No.	6	4	...	1	...	...	1	...
Bank of Madras	Silver.	Boxes.	...	34	...	...	...	...	...	...
" "	Copper.	"	...	...	33	29	...	...	62	...
Ordnance	Packages & Pieces.	No.	6,564	8,595	1,083	1,123	2,085	1,540	5,831	1,958
Public Works Department	"	"	429	1,784	141	23	107	217	488	116
Clothing	"	"	1,254	1,327	225	483	183	195	1,086	151
Police	"	"	727	889	95	495	272	112	974	72
Salt Revenue	"	"	306	591	84	293	149	199	725	118
Medical	"	"	2,552	1,367	518	273	123	696	1,610	400
Telegraph	"	"	9,462	8,845	35	120	3,735	440	4,330	390
Stationery	"	"	799	693	153	132	121	374	780	155
Stamps	"	"	7195	220	53	45	134	66	298	46
Commissariat	"	"	7,761	7,971	740	788	2,672	2,005	6,205	1,399
Gazette Press	"	"	476	526	114	128	156	105	503	142
Marine	"	"	268	390	92	122	78	74	365	7
Revenue Board	"	"	79	77	18	5	4	10	37	19
Revenue Settlement	"	"	87	51	29	33	17	5	84	26
Revenue Survey	"	"	74	75	56	233	92	71	452	81
Superintendent of Prisons	"	"	71	69	35	90	19	52	196	9
Registration	"	"	61	66	...	...	...	43	43	1
Conservator of Forests	"	"	31	34	3	4	11	15	33	1
Quarter-Master General	"	"	...	...	...	4	...	...	4	...
Government Central Museum	"	"	9	10	4	15	2	1	22	7
Deputy Collectors	"	"	...	2	9	...	...	...	9	...
Camp Equipage	"	"	...	...	...	...	...	...	...	...
Government Astronomer	"	"	...	...	11	2	...	5	18	4
Agriculture	"	"	5	15	2	1	...	5	8	2
General Hospital	"	"	...	...	...	...	...	...	...	...
State Railways	"	"	...	100	...	...	...	...	...	...
Inspector of Cattle Diseases	"	"	...	...	...	...	...	...	...	...
Chemical Examiner	"	"	3	3	1	...	...	...	1	...
Director of Public Instruction	"	"	3	...	...	1	...	...	1	...
Registrar of University	"	"	16	10	3	1	...	...	6	...
Collectors	"	"	16	13	...	...	10	...	10	...
Curator of Government Garden, Ooty	"	"	...	10	...	...	...	...	...	6
Engineer, H. T. Board	"	"	12	11	...	...	...	...	...	2
Crown Officer, High Court	"	"	...	...	...	...	...	...	...	...
School of Arts	"	"	13	14	6	3	1	8	18	4
Secretary to Government, Public Department	"	"	...	...	...	...	...	...	...	...
Registrar-General of Births, Deaths and Marriages	"	"	...	2	...	...	...	...	...	...
Inam Commissioner	"	"	...	...	...	...	...	...	...	...
Consulting Engineer to Government Railways.	"	"	...	1	...	...	...	...	...	...
Civil Engineering College	"	"	36	20	1	...	...	...	...	...
Superintendent, Censuss Operations.	"	"	...	...	...	...	...	1	1	...
Post Office	"	"	...	...	...	...	...	4	4	1
Sanitary Commissioner	"	"	...	...	...	...	1	...	1	2
To	"	"	3	4	4	4	4	4	1	1

THE SECRETARY,
Harbour Trust Board Madras.

No. P.

G. R. P. LLOYD,
Acting Traffic Manager,
Harbour Trust Board.

2695-A0
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Report of Progress on the Madras Harbour Works for the Quarter ending 30th June 1893.

Accompanying this report are the following plans and statements :—

No. 32 (*a*). A plan of the harbour to a scale of 200 feet to an inch, showing in red the position and quantity of work done during the quarter. The contours in half fathoms shown on this plan are those of the last complete marine survey of 1889. The positions of the high water marks of the 30th June 1893, and that of the previous twelve months, both to the north of the revetment, and the south of the harbour, are shown for comparison.

No. 32 (*b*). A revised plan showing in detail, the advance made during the quarter at the Pier-Heads, as now being constructed; and the positions of the caissons for completing both piers of the harbour, with an entrance of 520 feet.

No. 32 (*c*). A statement comparing the expenditure on different sub-heads of work up to the end of the quarter; with the provisions of the sanctioned estimate.

No. 32 (*d*). A statement showing work done under different sub-heads, and particulars of cement received and issued.

2. The various heads of work, &c., throughout the Harbour Works are reported on as follows :—

3. **General.**—During the quarter under review, which includes the months of April, May and June, both the Titan Cranes, have to be brought on shore for security from rough weather, general, during the South-West-monsoon ; and this forced stoppage of all work at sea, reduces the quarter of 91 days, to only 40 possible working days ; after deducting the holidays, Sundays and several days during the quarter, when the sea was too rough for Marine Work.

4. **North Pier-Head.**—The work of dredging up the excess rubble base; to found the Pier-Heads deeper than was done previous, to the damage of 1881, and setting the wider and deeper section of bonded block-work, was carried on from the commencement of the quarter and until the 27th April, when the crane was brought ashore for the monsoon. Dredging was resumed again on the 7th June, by which date the sea was sufficiently quiet ; but diving operations could not be commenced till the 17th June, and from this date, work at block-setting and dredging at the North Pier went on steadily to the close of the quarter.

5. During the available 40 working days, two complete courses were added to this Pier-Head, by setting 49 blocks, which advanced the superstructure by 10′ 9″ and brought the total length of the Northern arm up to 3,764′ from shore, as shown on plan 32 *b*.

6. At this point, or the sea face of course No. 254, the permanent bonded block-work at the North Pier-Head ends ; and the last and permanent course of block-work, at the North Pier-Head, has been completed.

7. Beyond this point, or course No. 254, there are to be six temporary courses of block-work to be set, to compress the base upon which the cylindrical caisson is to be set, and these courses, also enable the necessary point, being reached by the crane, from the masonry pier.

8. Of these six temporary courses, two courses or 10′ 9″ out of a total length of 32′ 3″ of temporary work, has been set to date, but the further the work advances, the more difficult the work becomes, as there is so much of the old ruined work and rubble base to be dredged up, to make room for these more massive Pier-Heads, than originally designed by Mr. Parkes.

9. The removal of this heaped up mass of material, and the dangerous positions the old blocks are in; requires great skill in slinging them; and this can only be done when the sea is absolutely calm, but notwithstanding the unfavourable weather experienced during the quarter, fair progress has been made and unless some unforeseen difficulty, or accident takes place, the North Pier will be completed and the caisson set by the end of February next for certain, when there will be merely the capping to add, and a light-house to be erected, which will complete the North Arm, of the Harbour.

10. **Wave-breaker.**—The general section of the wave-breaker screen throughout the length of the North Pier as far as the Pier-Head, was brought up to the full sanctioned width; at the different points, previous to closing work for the monsoon, consequently between the distance of 1,600 feet and 3,759 feet, 23 wave-breaker blocks, or 414 cubic yards of concrete was added on the sea face of the pier at points where; with the old Titan Cranes, it was not possible to place these blocks, so as to give the best possible resistance to the force of the sea.

11. **South Pier-Head.**—The total working days available for work at the South Pier-Head after deducting Sundays and holidays and the period the crane was on shore for the monsoon, was only 38 working days; being 2 days less than at the North Pier, owing to the longer time this old type of Titan Crane takes to get in working position. Again, only half the progress in completed work at this Pier-Head, can be reported as compared with the work at the North Pier-Head, and this, as already reported, is mainly due to the old Titan Crane not being as handy for the work, as the all-Round Titan Crane now at the North Pier, so that the rate of progress must be slow until the North Pier is finished and the new crane can be transferred to the South Pier-Head.

12. During the 38 days the crane was in position at this Pier-Head, 22 days were taken up in dredging and raising, by divers, the excess rubble stone and pieces of broken blocks, to found the Pier-Head at the lower level, as at the North Pier; and 3 days were occupied in setting the 210th course in the Pier-Head which is also at the widest and deepest section of the work. This course consisted of 23 blocks and added a completed length of 5′ 4½″ of Pier-Head, and the point reached at this pier, is now 3,852 feet, from the first block set on shore.

13. At the close of the quarter under review, the South Pier-Head was exactly 6 courses, or 32′ 3″ behind the point reached at the North Pier-Head, *viz.*, the last permanent course of block-work—but I am glad to report that since that date, another course has been set, and it is most probable, two courses or 10′ 9″ will have been added in the following quarter.

14. **Wave-breaker.**—The wave-breaker screen of random block-work was brought up, in line with the last course set, as shown upon plan 32 *b* and over this area, 41 large 30 ton blocks, were dropped, which took 5 days to raise, and place in position, while the crane at the North Pier, does the same work, in one-fourth the time.

15. **Apron or protection to Rubble Base along North and South Piers.**—At both Piers, at intervals during the quarter, and monsoon, when dredging was not going on, and the Divers were not required at the Pier-Heads, their labour was directed towards preparing the rubble base along both piers preparatory to receiving the concrete, forming the apron at the footing of the superstructure; to prevent any chance of scour, and when the sea was exceptionally calm, a length of 20 feet of base was concreted and a length of 40 feet partially protected with concrete, or in all, 27 cubic yards of cement concrete was made at the North Pier. At the South Pier, no concrete was put down, as there was generally a wave motion to be felt down below; but during the quarter a length of base 75 feet × 20′ wide was levelled, ready to receive the concrete, when weather would permit.

16. **Block-making yard.**—There was no block-making carried on during the quarter, as only a few coro blocks, for the caissons, remain to be built next quarter, and for this purpose a supply of tons of 3,895½ of granite chips was received from the Quarries, and stacked at the crushing station.

17. All the blocks made for the South Pier-Head, with the exception of a few special guide blocks, for the caissons, were transferred and restacked at the South Pier Block ground to allow of the Beach line being taken up and moved on to Harbour Trust Property for the re-alignment; rendered necessary, for the rails of the proposed Electric Tramway Company.

18. **Protective works North of Harbour.**—Along the length of new revetment, A to C, on plan 32 *a*, the balance of the sanctioned estimate, *viz.*, 8,352 tons of large boulders were received from the Pallaveram Quarries and deposited from wagons, by means of planks, to raise as high a bank of stone as possible above the rail levels. The provision made to date, for the up-keep of this revetment has now been completed and the estimate run out, and I shall therefore be glad to receive sanction to feed this revetment with stone at the points where the stone settles down from time to time; until the the revetment stands, at the full section of 11 to 12 feet above mean sea level. The old line of revetment from the North Pier to point A on plan, has of late shown further signs of settlement, and will, before November this year, require additional stone.

19. The high water mark at the close of the quarter, along the new revetment, has not advanced this year, as it did last year; but has left the stone revetment to protect the shore from erosion; thereby showing that all the sand which did collect at this point, has now travelled permanently north, and but for this revetment having been taken in hand, in time, the Harbour Trust Board would have by this date, been forced to meet heavy claims for compensation of land eroded upon by the sea. From this date, as there is no further sand to drift up the coast, along the already revetted shore, the anticipated bay, at point C, will commence rapidly to develop, until it reaches the proportions of the original bay formed at point A, at the end of the old revetment, and it will then be proved

that the supposed reflected waves, from the Harbour piers, have not been the cause of the erosion north of the Harbour, but that erosion, is due to the total stoppage of sand which, previous to the construction of the Harbour, passed up the coast uninterrupted; but which at this date is arrested to the south of the South Pier, so that a thoroughly substantial revetment, as now formed; must be maintained at any cost; or it will be breached, and the stone once strewn, will cost double to replace.

20. **Foreshore South of the Harbour.**—Upon the plan of the Harbour attached to this report, are shown the high water marks of 31st March and 30th June 1893, and the advance of foreshore measures near the pier, 120 feet of accretion, but this is not permanent, as a portion of it will again be washed away; as proved from the high water marks of 30th June 1892 and 30th June 1893 the advance over the 12 months, is only 60 feet.

21. **Sea bottom within the Harbour.**—A complete Marine Survey of the Harbour, and Roadstead, was started at the close of the quarter exactly upon the same lines of soundings as in the Marine Surveys, I made in the years 1882-86 and 1889 and will be completed by October, if the sea is generally smooth enough for accurate work. July and half August proved too rough for soundings.

22. The high water mark inside the Harbour during the quarter has receded to the extent of 40 feet on the North,—half of the Harbour; while at the South half, the beach and high water line remains the same, this action is due to some swell, and a few days of rough weather in April and May, which washed down the steep bank of sand thrown up in smooth weather, to a more gradual slope, throwing the high water line back.

23. **Summary of Progress.**—The following is a summary of the progress made on the Harbour Works during the quarter under review.

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MADRAS HARBOUR WORKS.

Progress Statement No. 32. (1)

Statement Showing Progress during Quarter ending 30th June 1893. No. 32 (a) and 32 (b).

No. of Item.	Particulars and Quantity of Work, &c.	Column.	North Pier. A	North Pier. B	North Pier. C	North Pier. D	North Pier. E	South Pier. F	South Pier. G	South Pier. H	South Pier. I	South Pier. J	Railway Lines. K	Railway Lines. L	Railway Lines. M	Railway Lines. N	O	P	Q	R
	Sub-heads of Work.		Rubble Base.	Pier Head founded at 40 ft. below De Havilland's Mean Sea level.	Wavebreaker.	Concrete Capping.	Base Protection.	Rubble Base.	Pier Head founded at 40 ft. below De Havilland's Mean Sea level.	Wavebreaker.	Concrete Capping.	Base Protection.	At Works.	At Quarries.	Sand Lane.	Beach Improvements.	Pallavaram Quarries Outturn.	Concrete Blockmaking.	Protective Works.	Total Expenditure during the Quarter ending 30th June 1893.
1	Rubble Stone deposited from boats ... Tons...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	214	...	214	
2	Do. do. from wagons... ,, ...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	8,332	...	8,332	
3	Total quantity Rubble Stone received on Works ,, ...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	214 8,332 1,851 3,895	...	...	
4	Do. do. Blasted Chips ,, ...		...	24 40	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
5	Concrete Blocks—Set by Divers ... Number...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
6	Do. Deposited in Wavebreaker ,, ...		...	...	138 23	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
7	Do. made for Superstructure ,, ...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
8	Do. do. Pier Head ,, ...		...	16 12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
9	Wrought Iron Cramp fixed in position ,, ...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
10	Total out-turn of Concrete, under water Cubic yds.		...	...	...	...	27	...	...	...	...	...	...	...	...	...	...	...	...	
11	Advance or progress of completed superstructure ... By feet		...	6—3 10—0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	

Note.—The Figures in red denote for comparison progress and quantity of work done in 30th June 1892 when the Pier Head work was founded at 24 feet below De Havilland's Mean Sea level.

Statement Showing Progress during Quarter ending 30th June 1893, No. 32 (a) and 32 (b).

No. of Item.	Particulars and Quantity of Work, &c.	Column.	North Pier. Sub-heads of Work.	A Rubble Base.	B Pier Head founded at 40 ft. below De Havilland's mean Sea level.	C Wavebreaker.	D Concrete Capping.	E Base Protection.	F Rubble Base.	G Pier Head founded at 40 ft. below De Havilland's mean Sea level.	South Pier. Sub-heads of Work.	I Concrete Capping.	H Wavebreaker.	J Base Protection.	Railway Lines. K At Works.	L At Quarries.	M Sand Line.	N Beach Improvements.	O Pallavaram Quarries Out-turn.	P Concrete Blocks making.	Q Protective Works.	R Total Expenditure during the Quarter ending 30th June 1893.
12	Rubble Base protected with Concrete	Ry. feet	...	...		...	...	20 Completed 40 Part "	...					75								
13	Metre Gauge, 40 lbs. per yard laid new	" ...	...	...		...	...	...	...						906							
14	Do. do. relaid or renewed	" ...	...	...		...	...	...	...						2,940							
15	Do. do. taken up	" ...	...	...		...	...	...	...						606							
16	Broad Gauge, 50 lbs. per yard laid	" ...	...	...		...	...	...	...						181							
17	Do. do. relaid or renewed	" ...	...	...		...	...	...	...						100							
18	Do. do. taken up	" ...	...	...		...	...	...	...						100							
19	Titan Gauge, 75 lbs. per yard laid new	" ...	...	...		...	...	...	...													
20	Do. do. relaid or renewed	" ...	...	...		...	...	...	...													
21	Do. do. taken up	" ...	...	...		...	...	...	...													
22																						
23																						
24	Approximate Expenditure under Sub-heads of Work	Rupees...	...	12,098	27	...	...	364	...	8,936	...	...	...	59	...	...	...	...	14,268	...	2,483	38,272

Quantity due on Indents. Nil. Tons. Cwts. Qrs. Lbs.

Nil. ... ...
... 1 0 13
... 15 15 ...
... 98 ... ...

Tons. Cwts. Qrs. Lbs.
Nil. ... ...

NOTE.—The figures in **red** denote for comparison progress and quantity of work done on 30th June 1892 when the Pier Head work was founded at 34 feet below Do. Havilland's Mean Sea level.

Nil Casks of Cement received on Works during Quarter ending 30th June 1893 containing
27¾ Do. issued for do. do. 1
88 10/14 Do. do. Balance in Store at end of do. do. ... ...

A. LEE POGSON,
Engineer, Harbour Trust Board.

24. **Miscellaneous.**—The general repairs, and additional roofing to the Traffic Manager's Bungalow at Cassimode, and some petty repairs to the Secretary's house at Royapuram, were carried out, and completed during the quarter.

25. The balance of the sanctioned 15 Pier Trucks, for the Traffic Department, were completed, and handed over to the Department in working order; and all achinery, Cranes, and Railway lines, &c., were kept in working order by the Eneer's Department.

Memorandum to accompany statement of progress for the quarter ending 30th June 1893.

1.	Estimated sum required to complete the works at the commencement of the quarter except Establishment, Tools and Plant and contingent charges	Rs. 5,75,941
2.	Cost of work done during the quarter	„ 38,272
		„ 5,37,669
3.	Estimated f additional work found necessary during the quarter	...
4.	Estimated cost of completing the works from and after end of quarter.	„ 5,37669

A. LEE POGSON,
Engineer, Harbour Trust Board.

MADRAS HARBOUR WORKS.

COMPARISON OF EXPENDITURE TO DATE WITH SANCTIONED ESTIMATE FOR THE QUARTER ENDING 30TH JUNE 1893.

Sub-head of Work	As per Estimate Sanctioned in Secretary of State Despatch No. 1, Dated 7th January 1892					As Executed.					Arrears not paid.	Value of work done up to date. columns 11 and 12.	Remarks.
								Expenditure.					
	Quantity.	Rate.	Per.	Cost.	Total.	Quantity.	Rate.	Total up to end of last Quarter.	During the Quarter.	Up to date.			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
		Rs. A. P.		Rs.	Rs.		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
EXPENDITURE UP TO 31ST DECEMBER 1884.													
1 Works ...				55,09,324	...			55,09,324 8 10		55,09,324 8 10		55,09,324 8 10	
2 Establishment ...				5,29,904	...			5,29,904 0 0		5,29,904 0 0		5,29,904 0 0	
3 Tools and Plant ...				5,15,262	...			5,15,262 0 0		5,15,262 0 0		5,15,262 0 0	
Total ...					65,54,490			65,54,490 14 10		65,54,490 14 10		65,54,490 14 10	
REVISED ESTIMATE.													
4 Alteration and extension of block ground ... Prely ...	...			5,892	5,892			5,892 3 5	9 13 6	5,902 0 11		5,892 0 11	
NORTH PIER.													
5 Ordinary rubble deposited from breakwater ... Tons	13,930	1 12 0	Ton	24,878		18,950	1 12 0	24,377 9 9	319 5 0	4,31,286 13 9	4,685 7 2	4,35,871 4 0	
6 Do. from boats ... ,,	266,896	2 0 5	,,	4,19,218		208,362	2 1 5	4,30,066 8 3	10,322 14 6	5,84,577 4 4	...	5,84,577 4 4	
7 Concrete blocks for building ... ... C. yds.	51,320	11 8 0	C. yd.	5,90,110		49,054	11 14 8	5,74,254 9 10	...	5,41,311 ...	...	5,41,311 ...	
8 Setting blocks at commencement of new work ,,	2,615	2 1 1	,,	5,415		2,615	2 1 1	5,414 15 2	...	1,08,819 14 8	...	1,08,819 14 8	
9 Do. from 2,200 to 3,500 feet ... ,,	36,447	2 13 9	,,	1,08,819		36,447	2 13 9	1,08,819 14 8	...	91,000 12 4	2,846 5 11	93,820 2 3	
10 Do. at Pierhead ... ,,	36,520	2 14 3	,,	1,05,569		10,022	9 5 9	79,615 4 10	11,388 7 6	1,188 0 7	...	1,188 0 7	
11 Concrete in mass for filling ... ,,	12,183	9 8 11	,,	1,16,424		2,33	4 8 3	1,188 0 7	...	2,692 0 0	...	2,692 0 0	
12 Wavebreaker blocks ... ,,	293	4 8 7	,,	1,388		288	9 5 7	2,692 0 0	...	2,692 0 0	...	7,69,577 4 4	
13 Do. concrete blocks ... ,,	288	9 5 7	,,	2,692		67,418	11 6 8	7,63,506 3 2	5,970 4 6	7,69,577 4 4	9 7 8	48,66,245 15	
14 Depositing do. ... ,,	77,355	10 14 1	,,	8,45,591		68,615	1 0 2	28,620 12 10	29 14 3	68,648 8 3	9 3 9	3,20,108 0	
15 Concrete in protection to Rubble Base ... ,,	77,932	1 0 4	,,	77,928		1,229	16 8 8	19,669 14 11	423 13 11	20,09 12 10	...	2,422 0	
16 Cramps, Iron ... ... No.	1,986	10 4	,,	20,358		313	7 11 10	2,419 5 8	2 10 6	2,424 0 2	...	11,42,141 11	
17 Concrete capping ... ... C. yds.	831	9 10 1	Each	8,188		573	19 14 11	11,389 14 7	27 13 0	11,43,11 7	...		
18 Cost of North Pier Caisson and setting in position and filling same as items 26, 27, 33 and 34	...	...	...	81,750		...	...	20,773 8 6	125 13 6	99,89 2 0	2,699 12 2	23,500 14 8	
Total for North Pier ...	...	...	...	...	24,80,607			21,13,793 10 2	23,615 1 8	21,42,41 11 10	9,614 4 8	21,32,028 0 1	
SOUTH PIER.													
19 Ordinary rubble deposited from boats ... Tons	175,072	2 ... 6	Ton	4,49,652		170,774	2 9 10	4,41,668 8 0	...	4,41,668 8 0	1,928 14 8	4,43,564 7 8	
20 Large do. deposited from breakwater ... ,,	8,613	1 12 0	,,	15,076		8,613	1 12 0	15,075 13 0	...	15,075 13 0	...	4,02,186 10	
21 Concrete blocks for building ... ... C. yds.	45,066	11 8 0	C. yd.	5,04,540		43,531	11 5 1	4,57,120 7 11	5,062 2 8	4,62,18 10 7	...	7,911 13	
22 Setting blocks at commencement ... ,,	2,550	3 1 6	,,	7,912		2,550	3 1 6	7,911 13 8	...	7,911 13 8	...	1,05,461 9	
23 Do. from 2,550 to 3,700 feet ... ,,	30,160	3 7 11	,,	1,05,461		30,160	3 7 11	1,05,461 9 4	...	1,05,461 9 4	...	4,58,434	
24 Do. at Pierhead ... ,,	39,139	3 7 10	,,	1,36,845		8,114	14 11 7	1,07,796 0 7	9,187 11 0	1,16,94 11 7	2,574 6 9	4,19,51	
25 Concrete in mass for filling ... ,,	12,350	11 1 3	,,	4,555		602	7 9 1	4,554 14 4	...	4,554 14 4	...	2,085 5 0	
26 Do. in Cylindrical Pierhead ... ,,	602	7 9 1	,,	4,555		...	...	...	...	...	2,085 5 0		
27 Do. in filling in between Coursed Block-work and Caisson ... ,,	2,353	15 0 0	,,	35,325		...	...	...	...	...	...	...	
28 Wavebreaker concrete blocks ... ,,	184	15 7 4	,,	2,759		39,492	11 7 2	4,35,292 11 7	10,658 11 6	4,45,91 7 1	...	4,45,911 7 1	
29 Depositing do. ... ,,	47,231	11 7 6	,,	5,24,070		39,975	1 6 1	53,053 13 4	93 0 10	53,147 0 2	...	85,147 0 2	
30 Concrete in protection to Rubble Base ... ,,	47,714	1 5 8	,,	64,708		1,167	13 7	14,580 11 10	51 13 2	14,632 9 1	...	14,632 9 1	
31 Cramps, Iron ... ... No.	1,700	9 10 6	,,	16,420		220	14 0 9	2,802 2 4	31 14 7	2,833 9 11	...	14,146	
32 Concrete capping ... ... C. yds.	259	11 7 7	Each	2,977		593	21 2 4	14,146 0 4	...	14,146 0 4	...	21,750 6 1	
33 Iron Caisson ... ... No.	1	... ...	,,	18,000		...	...	21,750 6 1	...	21,750 6 1	...		
34 Preparing Base for and setting Cylindrical Pierhead	...	...	,,	28,665		...	...	...	...	...	...	...	
Total for South Pier ...	...	...	...	...	21,00,826			16,82,975 2 11	25,045 5 10	17,08,020 8 9	10,185 10 3	17,18,206 3	
EXTENDING THE RUBBLE REVETMENT PROTECTING THE FORESHORE NORTH OF HARBOUR.													
35 Rubble Stone Revetment ... Tons	70,000	2 1 6	Ton	1,45,613		90,169	1 8 8	1,20,917 2 6	10,830 9 6	1,31,777 12 0	7,224 15 1	1,39,002 10	
36 Railway Lines	...	...	...	9,849		...	...	10,914 10 10	...	10,914 10 10	...	10,914 10 10	
					1,55,462			1,31,831 12 10	10,830 9 6	1,42,692 6 4	7,224 15 1	1,49,917 5	
37 Tools and Plant	...	...	...		6,11,650			6,42,370 5 8	4,573 12 6	6,46,944 2 2	978 13 2	6,47,222 15	
38 Contingencies	...	...	...		2,17,413			1,80,385 7 10	8,479 15 9	1,88,865 7 7	321 14 6	1,89,187	
39 Establishment	...	...	...		5,34,303			5,32,647 7 11	12,163 10 10	5,44,811 2 9	...	5,44,811 2 9	
40 Materials at site (concrete blocks in yards) ... C. yds.	...	...	...	...	...	9,153	14 7 2	1,58,736 14 7	31,044 6 6	1,27,693 14 1	4,043 8 2	1,31,843	
41 Advances to work-people	...	...	...	...	...			6,616 15 2	—3,951 6 1	62		62	
Total of Estimate and value of work done ...					61,06,227			54,54,675 1 1	62,725 15 0	55,07,401 0 1	31,872 2 0	55,39,273 2	
Deduct Probable recoveries due to sales of Tools and Plant	...	...	...		2,77,381			—70,836 11 8	—1204 12 7	—71,81 8	...	—71,84 8	
Total ...					58,28,846			53,84,058 5 8	61,521 2 5	54,35,559 8 1	31,872 2 0	54,67,431 10	
Total of revised Estimate sanctioned in Secretary of State Despatch, plus expenditure before 31st December 1884	...	...	...	...	1,28,83,386			1,19,38,529 4 6	51,521 2 5	1,19,90,050 6 11	31,872 2 0	1,20,21,922 8 11	
Estimated Cost of additional works found necessary up to end of last Quarter	...	...	...	...	...								
Estimated Cost of additional works found necessary during Quarter ending	...	...	...	...	...								
Total Estimated Cost for Completion of Works ...	...	...	...	...	1,28,83,386								
Deduct Total Expenditure as per column 11 ...	...	...	...	...	1,19,90,050								
Total Estimated Cost of Completing Work after Quarter ending 30th June 1893 ...	...	...	...	...	8,93,336								

MADRAS,
25th August 1893.

G. MOOTHOOSAWMY NAIDU,
Accountant,
M. H. Works Office.

A. LEE POGSON,
Engineer, Harbour Trust Board.

P. W. CURRENT No. 8355

2,000—13-3-93.

~~Current No.~~ 761

~~Marine~~ DEPARTMENT.

From The Chairman
Harbour Trust Board

No. 6 dy 21-7-93
1884 W
1884-85 Wdy 21-7-93
3
1018 W dy 13-4-93
1018-19 Wdy 13-4-93
No. 1870

Dated 15th Sept. 93

Received 21st Sept. 93

Enclosures 2 tracings with a duplicate
Copy of each and 2 S.C of C. No 761

Regd: 2.10.93

SUBJECT.

Submitting the Quarterly report on the Madras Harbour from the 1st April to 30th June 93.

Transferred

21 P 2645 Wdy 27
No. 1691

Transferred to the
Public Works Department.
Fredrick Rice
Chief Secretary

J.P.B. Cotacamund
23/9 23rd September 1893

To The Public Works Department

No. 2645 Wdy 16 October 1893

PUBLIC WORKS DEPARTMENT.

27

PROCEEDINGS OF THE MADRAS GOVERNMENT.

READ the following

Endorsement of the Marine Dept, No. 1691 dated 23rd Septr. 1893, on letter from the Chairman, Harbour Trust Board, No. 1870 dated 15th Septr. 1893.

22 P

Ordered to be forwarded for the information of the Secy. of State and the Govt. of India.

To
The Chairman, Harbour Trust Board
" Marine Dept.

29/10/93

(H.E. No. 2646 Wdy 16 October 1893)

Copy of the above, with two plans showing the progress of the work, forwarded to the Govt. of India.

To

To

The Right Hon'ble the Secy.

of State for India.

My Lord,

In continuation of our despatch No. 6/1884 W., dated 21st July 1893, we have the honour to forward, herewith, the progress report of the Madras Harbour works for the quarter ending 30th June 1893.

2. The report is accompanied by two plans showing the position and quantity of work done during the quarter.

Progress Report of the Madras Harbour works for the quarter ending 30th June 1893.

28

C No. 8355

Govt. of {1893} Madras.
PUBLIC WORKS.

Dated 21 Augst 1893

Rcd. Encl.

G.O., 16 October 1893, No. 2645 46½

Madras Harbour Works

Progress report of the — for quarter ending 30 June 1893 ordered to be forwarded to the Secretary of State and the Government of India.

(To Govt)

— Do — Forwarding

6/3
10/2

XX copy of the progress report of the — for quarter ending 30 June 1893 together with two plans shewing the position and quantity of work done during the quarter

(To S. of S.)

— Do —

Forwarding progress report of the — for Q. E. 30. 6. 93 together with two plans shewing the position and quantity of work done during the